

Hand-held field conductivity meter for measuring and recording conductivity, salinity and temperature values.

**Operation Manual** 



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### 1.WARRANTY

New devices and equipment sold by AQUALABO are guaranteed against any manufacturing defects for a period of 1 year excluding consumables (unless expressly stipulated by AQUALABO) from:

- The technical receipt of the equipment in the factory by the buyer or reseller,
- Or, failing that,
  - For metropolitan France: From the date of the delivery note,
  - For other destinations: From the date of shipment confirmed by LTA, consignment note, bill of lading.

The AQUALABO company warranty applies exclusively in the event of a malfunction resulting from a design flaw or latent defect. It is strictly limited to the free shipment of replacement parts (excluding consumables) or the repair of the device in our workshops within 10 working days, excluding transport.

The following are specifically excluded from our warranty by express agreement:

- Any economic harm, including staff costs, loss of profits, business disruption, etc.
- Any failure due to improper use of the device (inappropriate mains supply, dropping, attempted conversion, etc.), lack of maintenance by the user or poor storage conditions.
- Any equipment failure due to using parts not supplied by AQUALABO.
- Any failure due to the transport of the device in packaging other than the original one.
- Batteries, aerials and in general any item listed in the price list under "accessories".

Our customers are advised to always ask for our approval before sending us a device to be repaired. No return will be accepted without prior written consent from our after-sales department which will specify the return procedure. In this case, the items will be returned prepaid, in their original packaging, to the following address:

#### AQUALABO - 115 rue Michel Marion - 56850 Caudan - France

We reserve the right to re-ship 'freight collect' any device received without this agreement. Regardless of the means and conditions of transport used to ship the equipment to be repaired under warranty, as stipulated in the original packaging, the related expenses as well as insurance costs, will be borne by the customer.

Any damage related to the return transport of the equipment falls within the scope of the warranty, subject to the specific condition that the customer sends his/her claims within forty-eight hours by registered letter with acknowledgement of receipt, to the carrier, with a duplicate of the letter being sent to AQUALABO.

The warranty card, where appropriate, only applies if the card delivered with the device is returned to AQUALABO duly filled out.

#### **SOFTWARE WARRANTY**

The software is guaranteed by the author or distributor thereof, under the conditions specified in the documentation on said software packages.

AQUALABO does not, under any circumstances, provide any warranty whatsoever regarding software packages.

The following are formally excluded, by express agreement, from our warranty: any economic harm, including staff costs, loss of profits, business disruption, etc.

The customer is informed that AQUALABO may not, under any circumstances, be held liable for any errors or "bugs" that the software may contain.

#### **OWNERSHIP RIGHTS AND TRADE SECRETS**

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AQUALABO grants the user a license to use its software. The software may not be disclosed, used or duplicated for backup purposes without the written permission from AQUALABO. The user must attach a copy of this document to any authorized full or partial reproduction.

### 2.INFORMATION

AQUALABO equipment has been designed, manufactured, tested and inspected in accordance with ISO 9001 procedures.

If the device is not used immediately, it should be stored in a clean, dry place. Observe storage temperatures ((10 - 35°C).

AQUALABO equipment is carefully inspected before packaging. Upon receipt of your device, check the condition of the packaging and if you notice an anomaly, make your reservations known to the carrier **within 48 hours**. Review the packing list next to check that everything is in order. Finally, if you find that something is missing or if the equipment is damaged, contact AQUALABO immediately.

The NEON\_C4E hand-held conductivity meter is fully designed and manufactured by AQUALABO in France.

#### **AQUALABO**

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### 3.SAFETY

#### 3.1 SAFETY INSTRUCTIONS

This manual provides important information about operating the product in total safety. Read it carefully to familiarize yourself with the product before starting it up and using it. This manual should be kept near the product so that you can always find the information you need.

#### 3.2 OPERATING SAFETY

#### 3.2.1 INTENDED USE

Comply with the following to ensure safe operation:

- Store and use the device under the environmental conditions specified in this manual (see Specifications)
- Do not disassemble the device
- Power the unit using the original batteries or those specified in Section 6.1.1
- Comply with the permitted use below



#### **CAUTION:**

If the device is used in a way not specified by Aqualabo (environment, handling, etc.), the device may no longer protect you from harm.

#### 3.2.2 UNAUTHORIZED USE

The product should not be start up if:

- It is visibly damaged (e.g. as a result of shipping),
- It has been stored for a long period of time in unsatisfactory conditions.

#### 3.2.3 USER QUALIFICATION

We assume that operating personnel knows how to handle this equipment due to their professional training and experience. In particular, operating personnel must be able to understand and correctly implement the safety labels and instructions pertaining to the product use. Trained staff should be familiar with and follow the instructions in this manual.

#### 3.3 HANDLING HINTS

The NEON hand-held conductivity meter and C4E sensor assemblies are electronic devices. As such, they must be treated with care. Always keep the device protected from conditions that could harm its components. In particular, comply with the following points:

- > During use and storage, the ambient temperature and humidity must be within the range given in the section entitled <a href="SPECIFICATIONS">SPECIFICATIONS</a>.
- ➤ The device must be protected, at all times, from the following influences:
  - -Intensive exposure to light and heat
  - -Vapours that are caustic or have high solvent content.
- All operations on the inside the device must be carried out by AQUALABO or by technicians authorized by AQUALABO.

#### 3.4 PACKAGING

The NEON\_C4E conductivity meter is shipped in packaging designed to protect it during transport. Always keep the original packaging as well as the inner packaging to ensure optimum protection against impacts for any further shipping. The original packaging is also required to ensure appropriate return transport in the event of repair. Please remember that we shall not accept any warranty claims for damage caused by improper transportation.

# 4.NEON\_C4E CONDUCTIVTYMETER OVERVIEW

#### 4.1 CONTENTS OF THE PACKAGE

You have just received your NEON\_C4E conductivity meter.

The package consists of a carry case containing:

- NEON assembly (containing 3 LR6 alkaline batteries, 1.5 volts) and C4E sensor (cable length varies depending on the model ordered),
- A laminated field note;
- One vial of 1413 μS/cm standard solution (14SCS19) and one 12880 μS/cm standard solution (1SC013).

Upon receipt of your device, check the condition of the packaging and if you notice an anomalies, make your reservations known to the carrier **within 48 hours**. If you find that something is missing or if the equipment is damaged, contact AQUALABO immediately.

#### 4.2 GENERAL DESCRIPTION OF THE PRODUCT

The NEON hand-held conductivity meter is combined with the C4E sensor to enable the following variables to be measured and recorded:

- Temperature,
- Conductivity,
- Salinity.

#### 4.3 MAIN FUNCTIONS OF THE NEON PHMETER.

The NEON C4E sensor unit dedicated to Conductivity and Salinity measurements offers the following features:

- Automatic recognition of the C4E sensor;
- Simultaneous display of 3 parameters (Temperature, Conductivity & salinity);
- ZOOM function on a parameter selected by the operator;
- Measurement stability indicator;
- Battery charge status indicator;
- Adjustable backlight intensity, backlight (configurable timing) and automatic screen off (battery life optimization);
- Simple 3-point calibration menu (4, 7 and 9);
- Data logging (30,000 points) in 2 modes: Occasional or automatic with recording frequency configuration;
- Transfer of recordings via WiFi in "csv" format;
- Multi-Language device: French, English, Spanish, and German.

# **5. SPECIFICATIONS**

#### **5.1 NEON C4E ASSEMBLY DATA**

NEON_C4E data	
Measurement ranges	Conductivity: 0-200.0 µS/cm; 0 –2000 µS/cm; 0.00 –20.00mS/cm; 0.0 –200.0 mS/cm (compensated at 25 °C) Salinity: 5-60 g/kg TDS-KCI: 0-133 000 ppm Temperature: 0.00-50.00 °C
Resolution	Conductivity: from 0.01 to 1 depending on the range Salinity: 0.01 TDS-KCI: 0.01 Temperature: 0.01°C
Accuracy	Conductivity +/- 1% of full scale Above 100 mS/cm use an appropriate buffer solution Temperature: 0.5°C
Measurement principle	Measuring principle with 4 electrodes (2 graphite, 2 platinum)

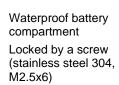
#### 5.2 DESCRIPTION OF NEON HOUSING

NEON housing specifications	
Weight	880 g
Dimensions (H x W x Th)	146 x 88 x 33
Protection rating	IP 67
Operating temperature	-5 à 50°C
Storage temperature	-10°C to 60°C
Screen	Colour LCD
	Backlight
Materials	ABS, UL 94V-0
Power supply	3 AA alkaline batteries
Sensor connection	Direct through spiral cable gland
	Sensors on 3, 7 and 15 m of cable

#### ➤ Description of the front panel:



#### > Description of the rear panel:





#### **5.3 C4E SENSOR DESCRIPTION**

The electrode operates using 4-electrode technology: a constant-voltage alternating current is established between a pair of primary electrodes made of graphite. The secondary electrodes made of platinum regulate the voltage imposed on the primary electrodes in order to take fouling into consideration. The voltage measured between the primary electrodes depends on the resistance of the medium and therefore on conductivity. Low-cost, high-performance technology that requires little maintenance and no consumables.

Temperature: measurements via NTC inserted in a stainless-steel sheath.

The compact, robust sensor is particularly well suited to the following application areas:

- Industrial and municipal wastewater treatment plants,
- · Monitoring natural waterways.
- Fish farming, aquaculture,
- Testing drinking water.

Salinity/Conductivity Measurement	
Measurement principle	4-electrode conductivity sensor (2 graphite,
weasurement principle	2 platinum).
	0-200.0 μS/cm
Conductivity measurement range	0-2000 μS/cm
Conductivity measurement range	0.00-20.00 mS/cm
	0.0-20.00 mS/cm
Resolution	from 0.01 to 1 depending on the range
Accuracy	+/- 1% of full scale
	Above 100 mS/cm use an appropriate buffer solution
Salinity measurement range	5-60 g/kg
TDS-KCI measuring range	0 –133,000 ppm
Response time	< 5 s
Temperature measurement	
Temperature measuring principle	NTC
Operating temperature	0.00°C to + 50.00°C
Resolution	0.01°C
Accuracy	± 0.5 °C
Response time	< 5 s
Sensor	
Storage temperature	0°C to + 60°C
Protection rating	IP 68
Signal interface	Modbus RS-485
Measurement refresh rate	Maximum < 1 second
Sensor power supply	5 to 12 Volts
	Standby: 25 µA
Consumption	RS485 average (1 measurement/second): 6.3 mA
	SDI12 average (1 measurement/second): 9.2 mA
	Current pulse: 500 mA
Mechanical	D: 4 07 1 1 1 1 1 457
Dimensions	Diameter: 27 mm; Length excluding cable: 157mm
Weight	350 g (sensor + cable)
Materials in contact with the medium	PVC, POM-C, STAINLESS STEEL
Maximum pressure	5 bar
Cable / connections	9 shielded conductors, polyurethane sheath.
	Cable gland connection
	Standard lengths 3, 7 and 15 m (other lengths upon
	request)



### 6. GETTING STARTED

#### **6.1 POWER SUPPLY**

#### **6.1.1 Type of batteries permitted**

The measuring unit comes with 3 AA alkaline batteries. The user must never mix different types of batteries. Three AA NiMH batteries, 1.2 V (VARTA type) may be used.

#### **6.1.2 CHANGING THE BATTERIES**

The 3 used alkaline AA batteries must be replaced in a thoroughly clean, dry room so as not to contaminate the inside of the compartment.

The operator will ensure that the batteries are installed according to the battery compartment's polarity signs.

When closing the compartment, the user must:

- replace the battery compartment cover properly,
- firmly tighten the screw to crush the seal between the cover and the battery compartment.

Otherwise, the NEON device may not operate properly or the compartment seal may no longer be watertight. The user shall also regularly inspect the batteries in order to avoid damage to the device from worn batteries.

#### **6.1.3 GETTING STARTED**

Remove the black protective cap on the C4E sensor (holding the sensor head down and unscrewing the cap to the right.

#### **6.2 NEON GENERAL FEATURES**

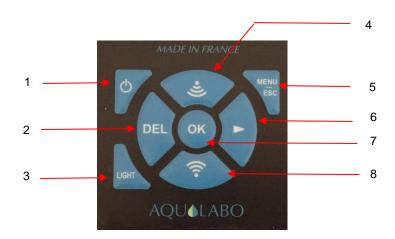
#### 6.2.1 ON/OFF

To turn the NEON oximeter on and off, press the On/Off key for a few seconds.

NOTE: If, however, the device does not start, the user must check its power supply (ensure the batteries correctly fitted in the battery holder).

#### **6.2.2 NAVIGATION KEYPAD**

1	ON/OFF
2	DEL
3	Screen on
4	Up arrow/WIFI 1 enabled
5	MENU & ESCAPE
6	Right arrow
7	OK/Confirm
8	Down Arrow/WIFI 2
	enabled



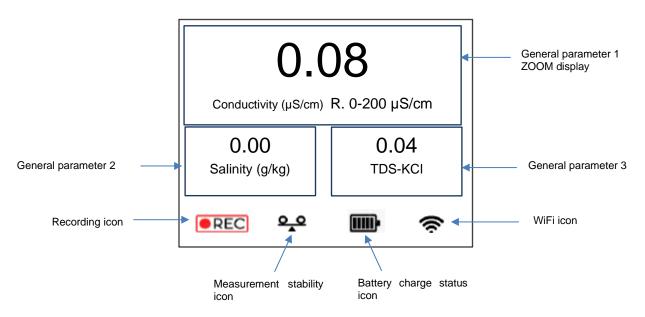
#### 6.3 SETTING

#### 6.3.1 MAIN SCREEN

You can view the following in real time on the main screen:

- variables measured by the C4E sensor and related units: Temperature (°C), conductivity in  $\mu$ S/cm or mS/cm (with an indication of working range), salinity in g/kg and TDS-KCL (ppm). A ZOOM function shows a parameter in larger format.

- A series of icons (at the bottom of the screen) monitor the battery charge status, measurement stability, data recording and activation of WiFi for data transfer to a PC.

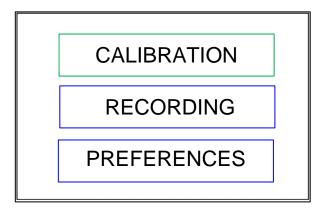


When General parameter 1 changes, there is no measurement stability icon and the measurement fluctuates. When this parameter is stable, the stability icon appears and the measurement flashes.

- o You can scroll through the general parameters in position 1 (ZOOM), 2 or 3 by pressing the Up and Down keys.
- o Hold down the "LIGHT" key and use the UP/DOWN keys to adjust the intensity of the backlight.
- o Select the "OK" key to activate/deactivate recording. Refer to section 6.3.4 Recording Menu for more information.
- o Press the "ESC" key to access the GENERAL MENU.
- To access to the software update simultaneously press the up/down keys (WIFI activation 1 and WIFI activation 2). This feature is reserved for maintenance operations, access is restricted).

#### **6.3.2 GENERAL MENU**

The "GENERAL MENU" screen provides access to calibration, recording as well as preference settings (date/time configuration, NEON hand-held device and sensor information, standby delay configuration, language selection, and settings RESET feature).

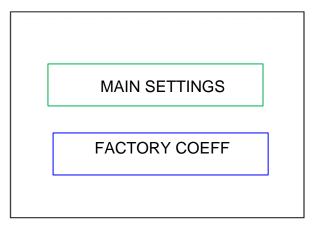


Move the cursor with the up and down arrows to access the desired menu and confirm the selection with the "OK" key. Press the "ESC" key to return to the previous screen.

The menu frame changes to green when the cursor is placed on a menu.

#### **6.3.3 CALIBRATION MENU**

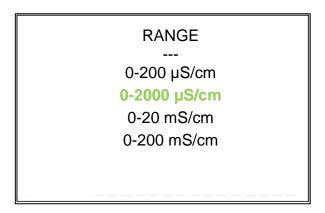
The calibration menu is used to calibrate the sensor connected to the NEON hand-held device (MAIN SETTINGS menu), for the Conductivity parameter and to restore the factory calibration coefficients (FACTORY COEFF menu).



Move the cursor with the up and down arrows to access the desired menu and confirm the selection with the "OK" key. Press the "ESC" key to return to the previous screen.

#### **6.3.3.1 CONDUCTIVITY MAIN PARAMETER**

You can calibrate the conductivity parameter via this menu. Calibration can be performed on 4 ranges [0-200  $\mu$ S/cm, 0-2000  $\mu$ S/cm, 0-20 mS/cm and 0-200 mS/cm). Each range can be calibrated independently of each other.



Select the range to be calibrated beforehand by moving the cursor to the relevant line (displayed in white).

A full calibration process is carried out in 2 steps:

Step 1 (offset): The sensor is placed in the open air and sets the value 0µS/cm;

Step 2 (slope): The sensor is immersed in a buffer solution whose value matches the calibrated range.

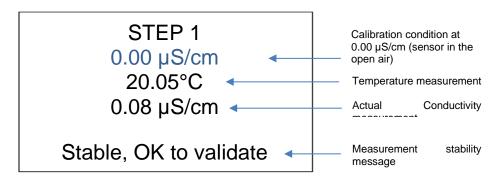
The following table provides examples of standard solutions in relation to the measurement range:

Measurement range	Concentration of standard solutions
0.0-200.0 µS/cm	84.0 μS/cm
0-2.000 μS/cm	1.413 µS/cm
0.00 - 20.00 mS/cm	12.880 μS/cm
0.0- 200.0 mS/cm	111.8 mS/cm or
	53.00 mS/cm in the case of
	measurements in seawater

#### ♦ Calibration of the 0-200 μS/cm range: Step 1:

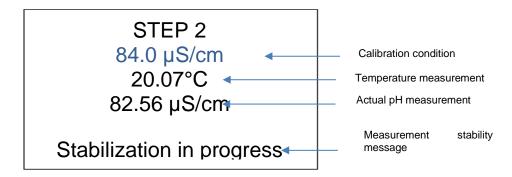
Place the clean and dry C4E sensor (see Section 8.1 on cleaning the C4E sensor) in the open air and wait for the signal to stabilize at 0  $\mu$ S/cm.

When the measurement has stabilised at 0 µS/cm, confirm the calibration step using the OK key.



#### ♥ Calibration of the 0-200 μS/cm range: Step 2 with a buffer solution.

Immerse the sensor in a buffer solution at 84  $\mu$ S/cm and wait for the measurement to stabilize.



Confirm the second calibration step using the OK key.

#### Calibration results:

After validating the calibration step, a screen appears with the calibration results.

#### CALIB. RESULTS

Step 1: 0.00 μS/cm Coeff #1: -0.05 μS/cm Step 2: 84.0 μS/cm Coeff #2: -2.35%

OK to validate - ESC abort

The acceptance tolerances for the calibration steps are:

+/- 10  $\mu$ S/cm for the offset step,

+/- 30% for slope.

If tolerances are exceeded, it is advisable to check the cleanliness of the measurement electrodes (measuring component for conductivity). Please refer to Section <u>8. C4E SENSOR MAINTENANCE</u> for more information.

To validate the calibration and complete this procedure, press the OK key.

If the calibration is rejected, press the Escape (ESC) key.

#### \$ Calibration of the 0-2000 μS/cm range:

To calibrate the 0-2000  $\mu$ S/cm range, repeat the previous steps (Step 1 Offset with the sensor in the open air and Step 2 (Slope with the 1413  $\mu$ S/cm buffer solution).

The acceptance tolerances, for this measurement range, are:  $\pm -30 \,\mu$  for offset and  $\pm -30\%$  for slope.

#### ♦ Calibration of the 0-20 mS/cm range:

To calibrate the 0-20 mS/cm range, repeat the previous steps (Step 1 Offset with the sensor in the open air and Step 2 (Slope with the 12880  $\mu$ S/cm buffer solution).

The acceptance tolerances, for this measurement range, are:  $\pm$ 1000  $\mu$ S/cm for offset and  $\pm$ 7. 30% for slope.

#### State Calibration of the 0-200 mS/cm range:

To calibrate the 0-200 mS/cm range, repeat the previous steps (Step 1 Offset with the sensor in the open air and Step 2 (Slope with the 111.8 mS/cm or 53 m cm buffer solution or 53 mS/cm in the case of an application in seawater).

The acceptance tolerances, for this measurement range, are: +/- 100 mS/cm for offset and +/- 30% for slope.

#### **6.3.3.2 FACTORY COEFFICIENTS**

In the event of mishandling during calibration or to check sensor operation, factory calibration coefficients can be used to restore the sensor to its original coefficients.

**FACTORY COEFF** 

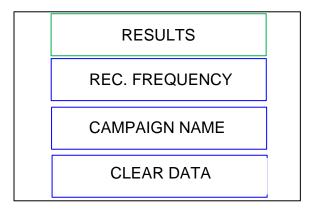
\_\_\_

OK key to confirm

To validate the setting the factory coefficients in the sensor, confirm with the OK key then press Escape (ESC) to return to the previous screen.

#### 6.3.4 RECORDING MENU

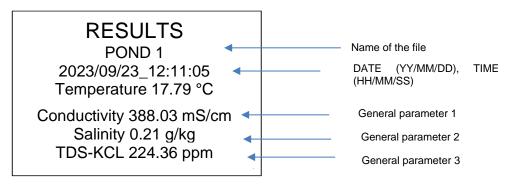
This menu allows you to view the data stored in the NEON hand-held device, set the recording frequency, set the file names, and delete recorded data.



To select an option, use the up/down arrows and confirm with the OK key.

#### **6.3.4.1 RESULTS**

This menu enables you to view the data stored in the NEON hand-held device.



To scroll through the recordings, use the down (previous recording) and up (next recording) keys. To return to the previous menu select the Escape (ESC) key.

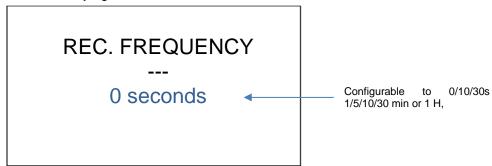
The data transfer via WiFi is enabled from the RECORDINGS menu.

#### **6.3.4.2 RECORDING FREQUENCY**

This menu helps you to set a recording frequency for the Auto Recording mode.

The NEON hand-held device can record 30,000 pieces of data in 2 modes:

- Mode 1: **Instant recording**. In this case, the user can trigger a single recording by pressing the OK key. The measurement frequency is then set to 0 seconds,
- Mode 2: **Automatic recording** (with manual start). In this case, the start of the measurement campaign is activated using the OK key and the NEON device will follow the frequency set in this menu. To stop recording Press the OK key again.



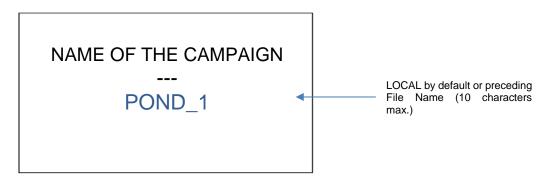
By default, the value is 0 seconds (blue writing), a ONE-OFF recording mode that is triggered by pressing the OK key on the main screen. When recording is enabled on the main screen, the recording icon appears.

The frequency can be changes to white). Press the OK key to confirm the chosen frequency (writing turns green).

To return to the previous menu select the Escape (ESC) key.

#### 6.3.4.3 CAMPAIGN NAME

The data logging file name can contain up to 10 characters (letters, numbers, a space and the \_ character can be selected).

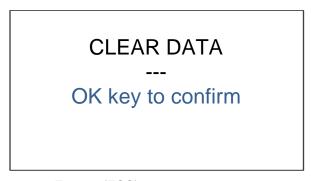


Use the up/down arrows to scroll through the characters (white writing) and the OK key to confirm your choice (green writing).

Available characters: 0 to 9, alphabet (A to Z), space and \_. Then press escape (ESC) to confirm the name and exit the menu.

#### **6.3.4.4 ERASING DATA**

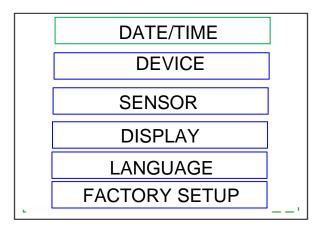
To clear all data stored in the NEON hand-held device press the OK key. The writing changes to green and the message "Data erased" appears.



To return to the previous screen press Escape (ESC).

#### **6.3.5 PREFERENCES MENU**

The PREFERENCES menu allows you to configure the date and time of the NEON hardware (useful for the timestamp of the stored data), to view information on the software/electronic versions of the NEON hand-held device and associated sensor, to set the standby mode timeout and then to completely turn off the screen, choose the language and return to the initial hardware configuration.



#### **6.3.5.1 DATE AND TIME**

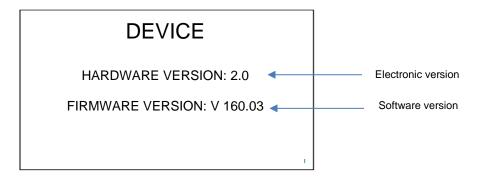
The date format is unique and cannot be changed: YYYY/MM/DD.



To change the date and time place the cursor on the desired line and use the Up/Down arrows to change the numbers from 0 to 9. The writing then changes to white. Confirm your setting with the OK key (the writing changes to green). To return to the previous screen, press the Escape (ESC) key.

#### **6.3.5.2 DEVICE**

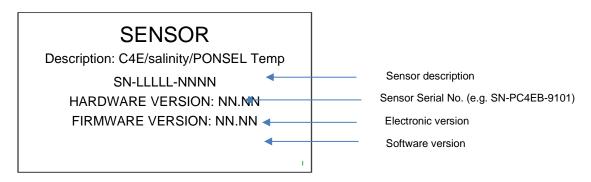
In this section you can find information about the software version and the circuit board version. This may be requested in the event of a call to our Hotline.



To return to the previous screen, press the Escape (ESC) key.

#### **6.3.5.3 SENSOR**

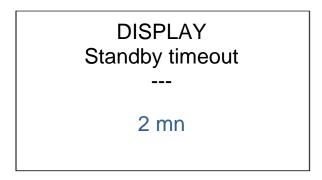
This window shows information about the sensor connected to the NEON housing: its description, serial number, PCB version and software version.



To return to the previous screen press Escape (ESC).

#### **6.3.5.4 DISPLAY**

The screen configuration menu can be used to set the timeout period to send the screen into standby mode if the keyboard is not used.



By default, the standby time-out is 2 minutes but can be set to the following: 2, 5, 15 or 30 minutes.

To scroll through the time-outs select the Up/Down keys (writing turns white) and confirm using the OK key (writing turns green).

To exit this menu then press the Escape (ESC) key.

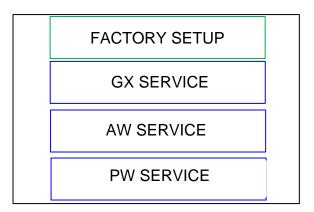
#### **6.3.5.5 LANGUAGE**

The NEON hand-held device offers 4 languages: English, French, Spanish and German.



To select the language, use the Up/Down arrows (writing changes to white) and confirm using the OK key. To return to the previous screen press the Escape (ESC) key.

#### **6.3.5.6 FACTORY CONFIGURATION**



#### > FACTORY SETUP

You can erase the device settings with this menu to restore the factory configuration.

FACTORY SETUP
--OK key to confirm

Press the OK key to confirm the reset action.

This action will reset the factory configuration for: Backlight intensity level, standby time-out (2 min), measurement campaign name (LOCAL) and English language.

To exit this screen press Escape (ESC).

> GX SERVICE: For AQUALABO service

> AW SERVICE: For AQUALABO service

> PW SERVICE: For AQUALABO service

### 7. UNLOADING DATA

#### 7.1 ACTIVATION AND CONNECTION

To activate the connection to NEON's on-board web page and retrieve the stored data, enter the overview menu for data stored on the NEON hand-held device: GENERAL MENU>> RECORDING>> RESULTS.

Then simultaneously press the keyboard with the WiFi icons (keys 4 and 8) in the picture in section <u>6.2.2 Navigation</u> keyboard. Activation may take longer than 5 seconds.

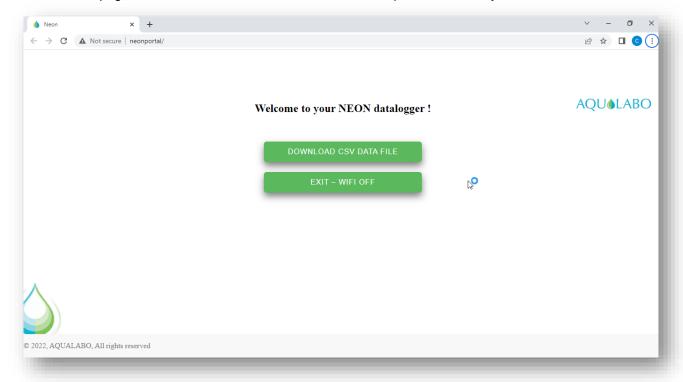
The WiFi activation icon ( pippears at the bottom of the results overview window.

RESULTS
POND 1
2022/08/23\_12:11:05
2023/09/23\_12:11:05
Temperature 17.79 °C
Conductivity 388.03 mS/cm

Select "**NeonPortal**" on the device that will receive the data files, in the menu listing the available WiFi equipment. The home web page to retrieve the data in CSV format will then open automatically.

#### 7.2 HOME SCREEN

The home web page to retrieve the data in CSV format will then open automatically.



The process may not be automatic, depending on the internet browser installed on your connection equipment. In this case, type the address <a href="http://192.168.4.1/">http://192.168.4.1/</a> in your browser.

To activate the data download, click on the "DOWNLOAD CSV" tab.

The record file contains:

- the data measured by the sensor (pH, ORP, & temperature),
- the temperature and humidity inside the NEON hand-held device.

#### 7.3 LOGOUT

To disconnect the NEON device from the computer, click "EXIT" tab. The WiFi icon at the bottom of the "results" menu disappears.

### 8. C4E SENSOR MAINTENANCE

The maintenance schedule specifies minimum intervals for regular maintenance tasks. Perform more frequent maintenance tasks for applications that cause electrode fouling.

- The sensor must always be clean, especially in the area around the measuring electrodes (graphite and platinum).
- If the sensor is withdrawn from service, it must be rinsed before being stored with its protective cap.

#### 8.1 CLEANING

Rinse the sensor and slot housing the electrodes thoroughly with clean water.

To clean the electrodes (graphite and platinum), insert an abrasive strip (type P1200) into the slot housing the measuring electrodes to lightly sand them under running water.

#### **8.2 STORAGE**

If the sensor is withdrawn from service, it must be rinsed before storage, and the protective cap must be placed on the sensor head.

### 9. ACCESSORIES AND CONSUMABLES

Spare parts/consumables	
ME-BOU-S-00013	C4E sensor protective cap
14SCS19	1413 μS/cm - 125 ml conductivity solution
1SC013	12880 μS/cm - 125 ml conductivity solution
1SE044	84 μS/cm - 125 ml conductivity solution
11SC035	111800 µS/cm (25°C) - 125 ml conductivity solution
1SC043	53000 μS/cm (25°C) - 500 ml conductivity solution