

OPERATION / CALIBRATION GUIDE

AQUACOLOR CHLORINE COLORIMETER



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General information

In no event will the manufacturer be liable for direct, indirect, special, incidental or consequential damages resulting from any defect or mission in this manual.

The manufacturer reserves the right to make changes in this manual and the products it describes at any time, without notice or obligation.

NOTICE

The manufacturer is not responsible for any damages due to misapplication or misuse of this product including, without limitation, direct, incidental and consequential damages, and disclaims such damages to the full extent permitted under applicable law. The user is solely responsible to identify critical application risks and install appropriate mechanisms to protect processes during a possible equipment malfunction.

Please read this entire manual before unpacking, setting up or operating this equipment. Pay attention to all danger and caution statements.

Failure to do so could result in serious injury to the operator or damage to the equipment.

Make sure that the protection provided by this equipment is not impaired. Do not use or install this equipment in any manner other than specified in this manual.

1.0 Specifications

Measurement method	Colorimetric Standard Methods (SMEWW-22a edicao). Metodo 4500-CL-G
Reading units	Mg/L - ABS
Detector	Silicon Photocell
Measuring Range	0,00 a 5,00 mg/L 0,00 a 10,00 mg/L
Resolution	0.01 mg/L
Absorbance range	0.000 to 3.000 A
Display	LCD 2 lines / 16 characters
Data Logger	Up to 2000 data
Power Supply	4 AA batteries or power supply cable
Indicator	Low battery indicator / battery exchange
Serial Output	USB
Enclosure rating	IP-67, waterproof
Storage Conditions	0 to 40°C (instrument only)
Size	114 x 198 x 83

2.0 Installation

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2.1 Install the battery

1. With an Philips screw driver, remove the battery cover.
2. Install 4 AA alkaline or 4 AA nickel metal hydride (NiMH) batteries. Make sure that the batteries are installed in the correct orientation.
3. Replace the battery cover. (for optimal seal we recommend using torque screw driver with 4N.m)



1.

3.0 User interface and navigation

2. 3.1 User interface

DISPLAY: Displays readings, diagnostics and operational data.	MENU: selects options to configure the instrument, selects analysis and moves the cursor to the right.
SAVE: Store Selections and data, saves the result to be USB transferred and selects the parameters.	ESC: Powers off the unit, aborts operations, returns to the previous screen.
ON/Off-Read: switches the instrument on, confirms options, sample reading, move the cursor to the left.	▲: scroll through menus, enter numbers and letters
▼: scroll through menus, enter numbers and letters	

4.0 Operation

3. 4.1 Startup

Push the ON/OFF key to turn the meter on or off.

If the meter does not turn on, make sure that the batteries, or that the AC power supply is properly connected to an electrical outlet.

The display will show, instrument version, data log and time/date.

Note: The Auto-Shutoff option can also be used to turn off the meter.

4.

5. 4.2 Run a Test

1. Prepare the blank (distilled water)
2. Insert the blank sample cell into the cell holder.
3. Make sure to align the sample cell mark with the arrow in the instrument housing so that the results are more repeatable and precise.
4. Close the Lid
5. Press "READ" the instrument will take a Reading.

6. Press and hold "SAVE" (display will inform that blank is being saved)
7. Rinse the sample cell and cap with the sample three times before the sample cell is filled.
8. Add reagents as specified by the method
9. Insert the sample into the cell holder
10. Make sure to align the sample cell mark with the arrow in the instrument housing so that the results are more repeatable and precise
11. Push "READ"
12. The display shows the results in concentration units or absorbance
13. Remove the prepared sample from the cell holder
14. Immediately empty and rinse the sample cell.

6. 4.3 Full Calibration

1. Press and Hold "MENU"
2. Using "▼▲" Go to "CALIBRATION"
3. Press "READ" to enter calibration

First Step will be to calibrate the blank

4. Prepare the blank (distilled water)
5. Insert the blank sample cell into the cell holder.
6. Make sure to align the sample cell mark with the arrow in the instrument housing so that the results are more repeatable and precise.
7. Close the Lid
8. Press "READ" the instrument will take a Reading.
9. Press and hold "SAVE" (display will inform that blank is being saved)
10. After the blank is done, press "▼"

Calibrate the second point of the curve (2 mg/L)

11. Insert the prepared standard sample cell into the cell holder.

12. Make sure to align the sample cell mark with the arrow in the instrument housing so that the results are more repeatable and precise.
13. Close the Lid
14. Press "READ" the instrument will take a Reading.
15. Using "▼▲" change the value to the standard concentration used (2 mg/L).
16. Press and hold "SAVE" (display will inform that blank is being saved)

Press "ESC" to return to the previous menu and "ESC" one more time to return to the measurement screen.

5.0 USB Connection

1. Install the Driver for the USB connection from the website below:

3. Using the Hyperterminal, Give a name and choose an Icon for your connection
4. Choose an Com port for the connection (Com2 or Com3).
5. The serial interface should be configured as follows:

Parâmeter	Value
Speed	19200 bits/sec
Data bits	8
Parity	none
Stop Bits	1
Flow Control	None

6. To transmit the Data go to the Service / Datalog / Log Transfer

Note: Some variables will appear in the data collected:

"M": Marked

"D": Point where the data has already being transmitted

"E": Clock not adjusted in last transmission

6.0 Menu Structure

