HORIBA LAQUA EC210-K

HORIBA LAQUA EC210-K Handheld Meter Instruction Manual

Model: LAQUA EC210-K

1. Introduction

The HORIBA LAQUA EC210-K is a robust, handheld, waterproof meter designed for precise measurement of conductivity, total dissolved solids (TDS), salinity, and temperature in various field applications. This digital meter provides reliable performance with advanced features such as automatic and manual calibration, adjustable parameters, and extensive data logging capabilities. Its durable construction ensures long-lasting use in challenging environments.

2. Safety Information

Please read this manual thoroughly before operating the LAQUA EC210-K meter to ensure safe and correct usage. Failure to follow instructions may result in damage to the instrument or personal injury.

- Always handle the meter and sensor with care.
- Do not immerse the meter in liquids beyond its specified IP67 rating.
- Keep calibration solutions and samples away from children and pets. Follow safety data sheets for chemical handling.
- Use only specified batteries (AA) and dispose of them properly.
- Do not attempt to disassemble or repair the meter yourself. Refer to qualified service personnel.

3. Package Contents

Verify that all items are present and undamaged upon unpacking. The standard package for the HORIBA LAQUA EC210-K includes:

- LAQUA EC210-K Handheld Meter
- 9383-10D Conductivity Sensor
- Calibration Solutions (various concentrations)
- 2 AA Batteries
- Built-in Electrode Stand

- Foldable Meter Stand
- Durable Carrying Case
- Instruction Manual (this document)

Image 3.1: Contents of the HORIBA LAQUA EC210-K kit, including the meter, sensor, calibration solutions, and accessories, neatly organized within its protective carrying case.

4. Setup

4.1. Battery Installation

1. Locate the battery compartment cover on the back of the meter.

2. Open the cover by turning the latch or unscrewing as indicated.
3. Insert two (2) AA batteries, ensuring correct polarity (+/-).
4. Securely close the battery compartment cover to maintain the waterproof seal.

4.2. Sensor Connection

1. Align the connector of the 9383-10D conductivity sensor with the sensor input port on the top of the meter.
2. Gently push and twist the connector until it is securely fastened. Do not overtighten.

Image 4.1: The HORIBA LAQUA EC210-K handheld meter with its 9383-10D conductivity sensor securely connected, ready for use.

5. Operating Instructions

5.1. Powering On/Off

- To power on: Press and hold the **POWER** button ( ) until the display illuminates.
- To power off: Press and hold the **POWER** button ( ) again until the display turns off.

5.2. Basic Measurement

1. Ensure the sensor is clean and properly connected.
2. Power on the meter.
3. Press the **MODE** button to cycle through measurement parameters (Conductivity, TDS, Salinity, Temperature).
4. Immerse the sensor in the sample solution, ensuring the sensor tip is fully submerged and free of air bubbles.
5. Wait for the reading to stabilize. The meter features auto-stable and auto-hold functions for convenience.
6. Record the measurement displayed on the custom LCD with backlight.

5.3. Display and Button Functions

The meter features a clear LCD with backlight for easy reading in various lighting conditions. Key buttons include:

- **MODE**: Cycles through measurement parameters (Conductivity, TDS, Salinity, Temperature).
- **CAL**: Initiates calibration mode.
- **MEAS**: Returns to measurement mode.
- **DATA**: Accesses data logging and memory functions.
- **SET**: Enters setup menu for parameter adjustments.
- **ENT**: Confirms selections or enters values.
- **UP/DOWN Arrows**: Navigate menus and adjust values.

Image 5.1: Front view of the HORIBA LAQUA EC210-K meter, highlighting its custom LCD display and the arrangement of control buttons for intuitive operation.

6. Calibration

Regular calibration is essential for accurate measurements. The LAQUA EC210-K supports both automatic and manual calibration procedures.

6.1. EC Calibration

- Press the **CAL** button to enter calibration mode.
- Follow the on-screen prompts to select automatic or manual calibration.
- For automatic calibration, immerse the sensor in the appropriate standard solution. The meter will automatically recognize the solution and calibrate.
- For manual calibration, immerse the sensor in a standard solution and use the arrow buttons to adjust the reading to match the known value. Press **ENT** to confirm.
- The meter allows adjustment of reference temperature, temperature coefficient, and cell constant for precise measurements.

6.2. TDS and Salinity Calibration

- The meter provides EC to TDS conversion with four selectable TDS calibration curves.
- Two salinity calibration curves are available for accurate salinity measurements.
- Refer to the **SET** menu for selecting and configuring these curves.

7. Data Management

The LAQUA EC210-K includes features for efficient data handling:

- **Auto Log Data:** Automatically records measurement data at set intervals.
- **Built-in Memory:** Stores up to 500 data points, allowing for comprehensive record-keeping.
- **Auto Stable/Auto Hold:** Ensures stable readings are captured and held on the display.
- **Real-time Measurement:** Provides continuous display of current readings.

To access stored data, press the **DATA** button and navigate using the arrow keys.

8. Maintenance

Proper maintenance extends the life and accuracy of your meter.

8.1. Cleaning the Meter and Sensor

- Meter: Wipe the meter body with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Sensor: Rinse the sensor thoroughly with distilled or deionized water after each use. For stubborn deposits, refer to the sensor-specific cleaning instructions provided with the 9383-10D sensor.

8.2. Sensor Storage

Store the sensor according to its specific instructions, typically in a storage solution or with a protective cap to prevent drying out.

8.3. Battery Replacement

Replace batteries when the low battery indicator appears on the display. Refer to Section 4.1 for battery installation instructions.

8.4. Durability

The LAQUA EC210-K features an IP67 waterproof and dustproof rating, and a shock and scratch-resistant non-slip housing. While designed for rugged use, avoid unnecessary drops or impacts.

9. Troubleshooting

If you encounter issues with your LAQUA EC210-K meter, consult the following table for common problems and solutions.

Problem	Possible Cause	Solution
Meter does not power on	Dead or incorrectly installed batteries	Replace batteries, ensuring correct polarity.

Problem	Possible Cause	Solution
Inaccurate readings	Sensor dirty or damaged; Meter out of calibration	Clean the sensor; Perform calibration (Section 6).
No reading displayed	Sensor not connected properly; Sensor damaged	Check sensor connection; Replace sensor if damaged.
Display is dim or flickering	Low battery power	Replace batteries.

If the problem persists after attempting these solutions, please contact HORIBA customer support.

10. Specifications

Parameter	Specification
Model Name	LAQUA EC210-K
Measurement Parameters	Conductivity, Resistivity, Salinity, Total Dissolved Solids (TDS), Temperature
Waterproof/Dustproof Rating	IP67
Power Source	2 AA Batteries
Battery Life	Over 500 hours
Display Type	Custom LCD with Backlight
Memory	Up to 500 data points
Outer Material	Polycarbonate (PC)
Included Components	Meter and Sensor (9383-10D)
Upper Temperature Rating	130 Degrees Celsius
Item Length	7 Inches

11. Warranty and Support

11.1. Warranty Information

The HORIBA LAQUA EC210-K meter comes with a**3-year warranty** from the date of purchase, covering defects in materials and workmanship. This warranty does not cover damage caused by misuse, accident, unauthorized repair, or normal wear and tear. Please retain your proof of purchase for warranty claims.

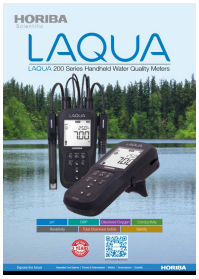
11.2. Customer Support

For technical assistance, troubleshooting, or warranty service, please contact HORIBA Instruments Incorporated customer support. You can find more information and contact details by visiting the official

HORIBA store or website.

Visit the HORIBA Store on Amazon.

Related Documents - LAQUA EC210-K

	HORIBA LAQUA 200 Series Handheld Water Quality Meters: Features, Specifications, and Accessories Discover the HORIBA LAQUA 200 Series of handheld water quality meters. This brochure details features like IP67 waterproofing, large LCD displays, and robust construction, alongside specifications for pH, ORP, Conductivity, Dissolved Oxygen, TDS, Salinity, and Resistivity meters, including models PH210, PH220, EC210, EC220, DO210, DO220, PC210, PC220, PD210, and PD220. Explore available accessories and solutions.
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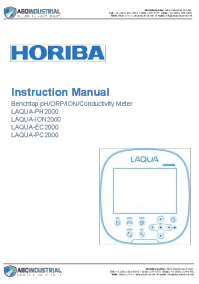
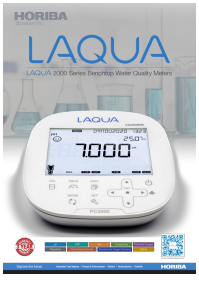
	HORIBA LAQUA 2000 Series Benchtop Meter Instruction Manual Comprehensive instruction manual for the HORIBA LAQUA 2000 Series Benchtop pH/ORP/ION/Conductivity Meters (LAQUA-PH2000, LAQUA-ION2000, LAQUA-EC2000, LAQUA-PC2000). Covers operation, calibration, setup, maintenance, and troubleshooting.
	HORIBA LAQUA 2000 Series Benchtop Water Quality Meters: Features, Specifications & Accessories Discover the comprehensive range of HORIBA LAQUA 2000 Series benchtop water quality meters, including PH2000, EC2000, ION2000, DO2000, PC2000, and PD2000 models. This brochure details their advanced features, precise specifications, and available accessories for accurate water analysis in laboratory and field applications.
	HORIBA LAQUA Electrodes and Accessories Catalog A comprehensive catalog detailing HORIBA's LAQUA series of electrodes and accessories for water quality analysis, including pH, ORP, DO, Conductivity, and Ion-Selective Electrodes, as well as the WQ-300 Series Smart Digital Sensors and related solutions.

[HORIBA LAQUA-TB220 Portable Turbidity Meter Instruction Manual]

This instruction manual provides detailed information on the HORIBA LAQUA-TB220 portable turbidity meter, covering its features, operation, calibration, maintenance, and safety precautions.