HACH 2100QIS01

Hach 2100Q Portable Turbidimeter User Manual
Model: 2100QIS01

1. Introduction

This user manual provides comprehensive instructions for the Hach 2100Q Portable Turbidimeter (LED) 0-1000 FNU. Designed for high-precision turbidity measurement in water quality testing, this instrument offers reliable and accurate results in various field and laboratory settings. This manual covers essential information regarding the turbidimeter's features, proper setup, operational procedures, routine maintenance, and troubleshooting guidelines to ensure optimal performance and longevity of your device.

2. Safety Information

Always observe the following safety precautions when operating or maintaining the Hach 2100Q Turbidimeter:

- Read and understand all instructions before using the instrument.
- Use the instrument only for its intended purpose as a turbidity meter.
- Handle all samples and reagents according to local safety regulations.
- Do not immerse the instrument in water or other liquids unless specified for cleaning.
- Ensure the battery compartment is securely closed to prevent water ingress.
- Avoid dropping or subjecting the instrument to severe impact.
- Only use specified accessories and replacement parts.

3. Product Overview

The Hach 2100Q Portable Turbidimeter is designed for accurate and reliable turbidity measurements. Key features include:

- Easy on-screen assisted calibration and verification.
- Simple data transfer capabilities.
- Accurate for rapidly settling samples.
- Convenient data logging functionality.

- Optical system optimized for precision in the field.

- Measures in FNU (Formazin Nephelometric Units) with an LED light source.

Figure 3.1: Front view of the Hach 2100Q Portable Turbidimeter, showing the display screen and control buttons.

Figure 3.2: The Hach 2100Q Turbidimeter held in hand, demonstrating its portable and ergonomic design.

Figure 3.3: Close-up of the Hach 2100Q Turbidimeter display, showing a measurement reading and calibration status.

Figure 3.4: A user inserting a sample vial into the Hach 2100Q Turbidimeter's sample compartment for measurement.

4. Setup

Follow these steps for initial setup of your Hach 2100Q Turbidimeter:

1. **Unpacking:** Carefully remove the turbidimeter and all accessories from the packaging. Verify that all components listed in the packing list are present and undamaged.

2. **Battery Installation:** Open the battery compartment cover located on the back of the instrument. Insert four AA alkaline batteries, ensuring correct polarity. Close the cover securely.

3. **Initial Power-On:** Press the power button (①) to turn on the instrument. The display will illuminate and show the startup screen.

4. **Language Selection (if prompted):** If this is the first use, the instrument may prompt you to select a language. Use the arrow keys to navigate and the 'OK' button to confirm.

5. **Calibration Preparation:** Before first use or after extended storage, it is recommended to perform a calibration. Refer to Section 5.2 for detailed calibration procedures. Ensure you have the necessary calibration standards ready.

5. Operating Instructions

This section details the operational procedures for the Hach 2100Q Turbidimeter.

5.1 Powering On/Off and Navigation

- **Power On:** Press the power button (①) once.
- **Power Off:** Press and hold the power button (①) until the display turns off.
- **Navigation:** Use the arrow keys (▲ ▼ ◄ ►) to move through menus and options. Press the 'OK' or 'Read' button to confirm selections.

5.2 Calibration Procedure

The 2100Q features easy on-screen assisted calibration. Regular calibration ensures measurement accuracy.

1. Prepare the appropriate FNU calibration standards as per the instrument's prompts.
2. From the main menu, select 'Calibration' or 'Verify Cal'.
3. Follow the on-screen instructions to insert each standard vial into the sample compartment. Ensure the vial is clean and free of air bubbles.
4. Press 'Read' or 'OK' as prompted for each standard.
5. The instrument will confirm successful calibration upon completion.

5.3 Taking a Measurement

1. Ensure the instrument is clean and calibrated.
2. Obtain a representative sample and transfer it to a clean sample cell. Fill the cell to the indicated line.
3. Wipe the sample cell with a lint-free cloth to remove fingerprints or smudges.
4. Insert the sample cell into the instrument's sample compartment, aligning the orientation mark. Close the lid securely.
5. Press the 'Read' button. The instrument will perform the measurement.
6. The turbidity reading in FNU will be displayed on the screen. The 2100Q is accurate for rapidly settling samples.

5.4 Data Logging and Transfer

- **Data Logging:** The instrument features convenient data logging. After a measurement, you may be prompted to save the reading. Follow the on-screen prompts to store data.
- **Data Transfer:** For simple data transfer, connect the turbidimeter to a computer using the appropriate USB cable (sold separately). Use Hach's software (if applicable, refer to Hach's website for software details) to download logged data.

6. Maintenance

Proper maintenance ensures the longevity and accuracy of your Hach 2100Q Turbidimeter.

- **Cleaning the Instrument:** Wipe the exterior of the instrument with a damp, lint-free cloth. Do not use abrasive cleaners or solvents. Ensure the sample compartment is clean and dry.
- **Sample Cell Care:** Always clean sample cells thoroughly before and after use. Use a non-abrasive detergent and rinse with deionized water. Dry with a lint-free cloth. Scratched or dirty cells can affect readings.
- **Storage:** Store the turbidimeter in a clean, dry environment at room temperature. If storing for extended periods, remove the batteries to prevent leakage.

- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display. Dispose of old batteries according to local regulations.

7. Troubleshooting

This section provides solutions to common issues you may encounter with your Hach 2100Q Turbidimeter.

Problem	Possible Cause	Solution
Instrument does not power on.	Dead or incorrectly installed batteries.	Check battery polarity; replace batteries.
Inaccurate or inconsistent readings.	Dirty sample cell; air bubbles in sample; instrument needs calibration; scratched sample cell.	Clean sample cell thoroughly; degas sample; perform calibration; replace damaged sample cell.
Display shows "Error" message.	Measurement outside range; internal fault.	Ensure sample is within 0-1000 FNU range. If error persists, contact Hach support.
Confusion between FNU and NTU.	Misunderstanding of measurement units.	The Hach 2100QIS01 model measures exclusively in FNU (Formazin Nephelometric Units) using an LED light source. It does not measure in NTU (Nephelometric Turbidity Units). Ensure your application requires FNU measurements.

8. Specifications

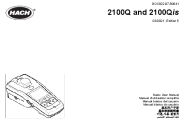Technical specifications for the Hach 2100Q Portable Turbidimeter (Model 2100QIS01):

Parameter	Value
Model Number	2100QIS01
Measurement Range	0 - 1000 FNU
Light Source	LED
Measurement Units	FNU
Package Dimensions	14 x 7.5 x 7 inches
Item Weight	4.6 Pounds
Manufacturer	HACH
Date First Available	December 16, 2014

9. Warranty and Support

For information regarding the product warranty, please refer to the warranty card included with your purchase or visit the official Hach website. Hach provides comprehensive customer support for its products.

If you require technical assistance, have questions about operation, or need to order replacement parts, please contact Hach customer service directly. You can find contact information and additional resources on the HACH Store on Amazon or the official Hach website.

Related Documents - 2100QIS01

	Hach 2100Q and 2100Qis Portable Turbidimeters User Manual This user manual provides comprehensive instructions for operating and maintaining the Hach 2100Q and 2100Qis portable turbidimeters. Learn about specifications, installation, user interface, advanced operation, and troubleshooting.
	Hach Model 2100N Laboratory Turbidimeter Instruction Manual This instruction manual provides comprehensive guidance for the Hach Model 2100N Laboratory Turbidimeter, covering its operation, specifications, measurement procedures, calibration, maintenance, and troubleshooting for accurate turbidity analysis in laboratory environments.
	HACH TL2360 Basic User Manual - Turbidity Measurement Guide User manual for the HACH TL2360 laboratory turbidimeter. Learn about installation, operation, calibration, and maintenance for accurate water turbidity measurements.
	HACH SL1000 Portable Parallel Analyzer: Basic User Manual Get started with the HACH SL1000 Portable Parallel Analyzer. This basic user manual covers essential information on specifications, installation, operation, maintenance, and troubleshooting for accurate water quality analysis.

[HACH CL17sc Analyzer User Manual - Chlorine Concentration Measurement](#)
User manual for the HACH CL17sc analyzer, detailing specifications, installation, operation, maintenance, and troubleshooting for measuring total chlorine concentration in water. Connects to SC Controller.

[Hach sension6 Portable Dissolved Oxygen Meter Instruction Manual](#)
Comprehensive instruction manual for the Hach sension6 Portable Dissolved Oxygen Meter, covering setup, operation, calibration, maintenance, and troubleshooting for accurate dissolved oxygen measurements in aqueous solutions.