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› CHICIRIS ZD-2A Handheld Digital Turbidity Meter: User Manual

CHICIRIS ZD-2A

CHICIRIS ZD-2A Handheld Digital Turbidity Meter: User Manual

Model: ZD-2A

1. INTRODUCTION

The CHICIRIS ZD-2A Handheld Digital Turbidity Meter is a portable instrument designed for accurate measurement of turbidity in various water samples. It utilizes a 90° scattered light principle to provide reliable results for applications such as swimming pools, laboratories, water treatment plants, and environmental monitoring. This manual provides essential information for the proper setup, operation, maintenance, and troubleshooting of your device.

WIDELY APPLIED



WATER QUALITY DETECTION



LIQUOR MAKING INDUSTRY



ENVIRONMENTAL PROTECTION



SCIENTIFIC RESEARCH



PHARMACEUTICAL INDUSTRY



SEWAGE DISPOSAL

Figure 1.1: Wide range of applications for the ZD-2A Turbidity Meter.

Key Features:

- **Easy to Use:** Designed for straightforward operation with accurate measurement results.
- **LED Display:** Backlit LED display for clear data readability in various lighting conditions.
- **Durable Construction:** Made from ABS material for stable performance and longevity.
- **Portable Design:** Lightweight and compact for easy transport and field use.
- **Automatic Shutdown:** Features an automatic power-off function to conserve battery life.

2. SAFETY INFORMATION

Please read and understand all safety instructions before operating the device to prevent injury or damage. Keep this manual for future reference.

- Do not immerse the device in water or other liquids.

- Use only the specified power adapter and batteries.
- Avoid dropping the device or subjecting it to strong impacts.
- Do not attempt to open or repair the device yourself. Refer to qualified personnel for service.
- Keep the sample bottles and optical components clean to ensure accurate readings.
- Dispose of batteries and electronic components according to local regulations.

3. PACKAGE CONTENTS

Carefully unpack the box and verify that all items listed below are present and undamaged. If any items are missing or damaged, contact your supplier immediately.

- 1 x CHICIRIS ZD-2A Turbidimeter
- 1 x Power Adapter (US plug 100-240V 50/60Hz/0.1A/DC5V)
- 3 x Sample Bottles
- 1 x Tube (for sample transfer)
- 1 x Storage Box
- 1 x User Manual

Note: 5 x AA dry batteries are required but not included in the package.



Figure 3.1: Turbidimeter and included accessories.

4. PRODUCT OVERVIEW

The ZD-2A Turbidity Meter features a compact design with an intuitive interface for ease of use. Familiarize yourself with the main components:

- **LED Display:** Shows measurement readings, menu options, and status indicators.
- **Key Panel:** Contains buttons for power, menu navigation, measurement, and data storage.
- **Sample Compartment:** Area where the sample bottle is placed for measurement.
- **Integrated Blackout Cover:** A sliding cover that ensures ambient light does not interfere with measurements.
- **Power Input:** Port for connecting the AC adapter.
- **Battery Compartment:** Located on the underside for AA battery installation.

INTEGRATED BLACKOUT COVER

Sliding cover design, easy to operate



Figure 4.1: Digital display of the portable turbidimeter.

DIGITAL DISPLAY PORTABLE TURBIDIMETER

SIMPLE OPERATION · GOOD STABILITY · HIGH-PRECISION



Figure 4.2: Integrated blackout cover design.

DETAIL DISPLAY

LED display screen

Clear display, with backlight, so that you can easily read data during the day and night



Both AC and DC

Plug power available
It can also be battery powered



Key panel

Simple operation and complete functions



Figure 4.3: Detail display of the turbidimeter components.

5. SETUP

5.1 Power Supply

The ZD-2A Turbidity Meter can be powered by either AA batteries or the provided AC adapter.

1. **Battery Installation:** Open the battery compartment on the underside of the device. Insert 5 x AA dry batteries, ensuring correct polarity. Close the compartment securely.
2. **AC Adapter Connection:** Connect the provided AC adapter to the power input port on the device and plug it into a suitable power outlet (100-240V AC). The device supports dual AC/DC power.

5.2 Initial Calibration

For accurate measurements, the device requires calibration. The ZD-2A supports 5 calibration points. Refer to the detailed calibration procedure in the full manual for precise steps. Generally, this involves using standard turbidity

solutions and following the on-screen prompts via the 'Menu' and 'Enter' buttons.

6. OPERATING INSTRUCTIONS

6.1 Preparing a Sample

1. Ensure the sample bottle is clean and dry.
2. Fill the sample bottle with the water sample to be tested, avoiding air bubbles.
3. Wipe the exterior of the sample bottle with a lint-free cloth to remove any fingerprints or smudges.

6.2 Taking a Measurement

1. Press the power button to turn on the device.
2. Open the integrated blackout cover and carefully insert the prepared sample bottle into the sample compartment.
3. Close the blackout cover completely.
4. Navigate to the 'Measure' option using the 'Menu' and 'Switch' buttons, then press 'Enter' to initiate the measurement.
5. The turbidity reading will be displayed on the LED screen in NTU (Nephelometric Turbidity Units).
6. To save the reading, press the 'Store' button. Use the 'Query' button to review stored data.
7. After measurement, open the cover, remove the sample bottle, and clean the compartment if necessary.

7. MAINTENANCE

7.1 Cleaning

- **Device Exterior:** Wipe the exterior of the turbidimeter with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Sample Compartment:** Use a soft, lint-free cloth to gently clean the inside of the sample compartment, especially the optical surfaces, to ensure accurate readings.
- **Sample Bottles:** Wash sample bottles thoroughly with distilled water after each use and allow them to air dry.

7.2 Storage

When not in use, store the turbidimeter in its storage box in a cool, dry place, away from direct sunlight and extreme temperatures. If storing for an extended period, remove the AA batteries to prevent leakage.

8. TROUBLESHOOTING

If you encounter issues with your ZD-2A Turbidity Meter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on	Low or dead batteries; AC adapter not connected; Power button malfunction	Replace batteries; Ensure AC adapter is securely connected; Contact support if issue persists.
Inaccurate or inconsistent readings	Dirty sample bottle; Air bubbles in sample; Sample compartment dirty; Device out of calibration	Clean sample bottle; Remove air bubbles; Clean sample compartment; Perform calibration.

Problem	Possible Cause	Solution
Display is dim or unreadable	Low battery power; Display settings	Replace batteries; Check menu for display brightness settings.

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

9. SPECIFICATIONS

The following are the technical specifications for the CHICIRIS ZD-2A Handheld Digital Turbidity Meter:

SCATTERING LIGHT TURBIDIMETER



Range: 0-200NTU



Accuracy: 0.1NTU



90°scattered light



Figure 9.1: Key measurement specifications.

Parameter	Value
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Parameter	Value
Item Type	Turbidimeter
Model Number	ZD-2A (CHICIRISg4s79vg62b7954)
Material	ABS
Product Size	Approx. 21 x 7.5 cm / 8.3 x 3 in
Measuring Principle	90° Scattered light
Minimum Indication	0.1 NTU
Measuring Range	0-200 NTU
Calibration Points	5
Indication Error	±6%(±2%F.S)
Repeatability	≤0.5%
Zero Drift	±0.5%F.S
Power Supply	DC 1.5V 5 x AA dry batteries (not included)
Adapter Voltage	US plug 100-240V 50/60Hz/0.1A/DC5V
Power Modes	AC and DC dual purpose
Automatic Shutdown	Yes
Weight	Approx. 1210g / 42.7oz



Product Size: Approx. 21 x 7.5 cm / 8.3 x 3 in

Figure 9.2: Product dimensions.

10. WARRANTY AND SUPPORT

For specific warranty details, please refer to the documentation provided at the time of purchase or contact your retailer. Keep your proof of purchase for any warranty claims.

For technical support, troubleshooting assistance beyond this manual, or inquiries about replacement parts, please contact the manufacturer, CHICIRIS, or your authorized seller. Contact information can typically be found on the product packaging or the seller's website.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question