

Jiawu DO9100

Jiawu DO9100 Portable Dissolved Oxygen Meter User Manual

Model: DO9100 | Brand: Jiawu

1. INTRODUCTION

The Jiawu DO9100 is a portable dissolved oxygen meter designed for precise measurement of oxygen concentration (mg/L) and saturation (%). It is suitable for various applications including freshwater and marine aquaculture, swimming pools, and beverage production plants. This manual provides detailed instructions for the proper setup, operation, and maintenance of your device.

2. PACKAGE CONTENTS

Please check the package contents upon unboxing:

- 1 x DO9100 Host Unit (Battery not included)
- 1 x Dissolved Oxygen Electrode
- 6 x Dissolved Oxygen Membrane Groups
- 1 x User Manual (This document)

3. PRODUCT FEATURES

- **Measurement Range:** Dissolved Oxygen (DO) Concentration: 0.0-40.0 mg/L; DO Saturation: 0.0-300.0%; Temperature: 0.0-40.0 °C (32.0-104.0 °F)
- **High Resolution:** 0.1 mg/L for DO Concentration, 0.10% for DO Saturation, 0.1 °C / 0.1 °F for Temperature.
- **Accuracy:** $\pm 1.5\%$ F.S for DO Concentration and Saturation, ± 0.5 °C for Temperature.
- **Calibration:** Supports one-point or two-point automatic calibration (zero point or air calibration).
- **Automatic Temperature Compensation:** 0-40 °C.
- **Data Hold Function:** Lock the current measurement value.
- **Automatic Shut-off:** Approximately 15 minutes of inactivity.

- **Low Battery Warning.**

4. SETUP

1. **Battery Installation:** The device requires 3 x 1.5V LR44 batteries (not included). Open the battery compartment and insert the batteries, ensuring correct polarity.
2. **Electrode Preparation:** When the product leaves the factory, the membrane group contains electrolyte and is ready for immediate use.
3. **Connect Electrode:** Connect the dissolved oxygen electrode to the main unit securely.
4. **Power On:** Press the power button to turn on the device. The screen will display temperature and mg/L readings.



Image 1: Jiawu DO9100 Portable Dissolved Oxygen Meter with electrode connected. The main unit features a digital display and control buttons, while the electrode is attached via a cable.

5. OPERATING INSTRUCTIONS

1. **Power On:** Press the power button. The display will show the current temperature and dissolved oxygen concentration in mg/L.
2. **Change Measurement Unit (mg/L or %):** Briefly press the **MODE** button to switch between mg/L

(concentration) and % (saturation) display modes.

3. **Hold Function:** Briefly press the **HOLD** button to lock the current measurement value on the screen. Press again to release.
4. **Change Temperature Unit (°C or °F):** Long press the **TEMP** button to switch the temperature display between Celsius (°C) and Fahrenheit (°F).
5. **Measurement:** Immerse the electrode into the sample solution. Allow sufficient time for the reading to stabilize before recording.

6. CALIBRATION

Regular calibration ensures the accuracy of your DO9100 meter. The device supports one-point or two-point automatic calibration.

6.1. Air Calibration (100.0% Saturation)

1. Ensure the electrode is clean and dry, exposed to ambient air.
2. Long press the **CAL** button.
3. The display will show "100.0%".
4. Wait for the display to stop flashing, indicating successful calibration.

6.2. Zero-Point Calibration (0.0% Saturation)

1. Immerse the electrode into an anaerobic (oxygen-free) water solution.
2. Long press the **CAL** button.
3. The display will show "0.0%".
4. Wait for the display to stop flashing, indicating successful calibration.

7. SPECIFICATIONS

Parameter	Value
Model	DO9100
Material	ABS
Battery	3 x 1.5V LR44 (not included)
DO Concentration Range	0.0-40.0 mg/L
DO Saturation Range	0.0-300.0 %
Temperature Range	0.0-40.0 °C (32.0-104.0 °F)
DO Concentration Resolution	0.1 mg/L
DO Saturation Resolution	0.10 %
Temperature Resolution	0.1 °C / 0.1 °F
DO Concentration Accuracy	± 1.5 % F.S
DO Saturation Accuracy	± 1.5 % F.S
Temperature Accuracy	± 0.5 °C

Response Time	≤ 45s (at 20 °C)
Temperature Compensation	Automatic (0-40 °C)
Automatic Shut-off	Approx. 15 minutes
Operating Environment	0.1-40.0 °C, RH max 90%

8. MAINTENANCE

- **Electrode Care:** Always keep the electrode clean. Rinse it with distilled water after each use.
- **Membrane Replacement:** Replace the dissolved oxygen membrane group periodically or if readings become unstable.
- **Storage:** Store the meter and electrode in a cool, dry place when not in use. Ensure the electrode is properly capped or stored in its solution.
- **Battery Replacement:** Replace batteries when the low battery warning appears to ensure accurate readings.

9. TROUBLESHOOTING

If you encounter issues with your DO9100 meter, please refer to the following common solutions:

- **Inaccurate Readings:** Ensure the electrode is clean and properly calibrated. Check if the membrane group needs replacement.
- **No Display/Power Issues:** Check battery installation and ensure batteries are not depleted. Replace if necessary.
- **Unstable Readings:** Ensure the electrode is fully immersed and there are no air bubbles. Recalibrate the device.

For further assistance, please contact customer support.

10. WARRANTY AND SUPPORT

This product comes with a standard manufacturer's warranty. Please refer to the warranty card included in your package for specific terms and conditions. For technical support, replacement parts, or warranty claims, please contact your retailer or the manufacturer directly.

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