

JTLB AR8100

JTLB AR8100 Handheld Oxygen Detector User Manual

Model: AR8100 | Brand: JTLB

1. INTRODUCTION

The JTLB AR8100 is a portable, handheld oxygen detector designed for accurate and reliable measurement of oxygen concentration and temperature. Utilizing an electrochemical sensor, it provides quick response times and features a large LCD backlit display for clear readability in various environments. This device is suitable for use in factories, homes, offices, and other public places where oxygen levels need to be monitored.

2. SAFETY INFORMATION

Please read and understand all safety warnings and instructions before operating the AR8100 Oxygen Detector. Incorrect use may lead to inaccurate readings or personal injury.

2.1 Oxygen Concentration Effects

Understanding the impact of varying oxygen levels is crucial for safety:

- **>23.5% Oxygen Enriched:** Increased risk of fire.
- **20.96% Normal:** Standard atmospheric oxygen level.
- **19.5% Minimum:** Lowest safe oxygen level.
- **15~19% Reduced Efficiency:** May cause problems in the head, lungs, and circulatory system.
- **10~12% Shortness of Breath:** Loss of judgment, purple lips.
- **8~10% Syncope, Coma:** Treatment failure, pale face, nausea, vomiting.
- **6~8% Rapid Heartbeat, Respiratory Arrest:** Low blood pressure, mouth breathing, quick cessation of breathing within 8 minutes.
- **4~6% Convulsions, Death:** Respiratory arrest, death within 40 seconds.

Always ensure proper ventilation and take immediate action if oxygen levels fall outside the safe range.

3. PACKAGE CONTENTS

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

- 1 x JTLB AR8100 Oxygen Detector
- 1 x USB Charging Cable
- 1 x User Manual (this document)
- 1 x Lithium Battery (3.7V 1000mAh, may be pre-installed)
- 1 x Storage Case (optional, depending on package variant)



Image: The AR8100 Oxygen Detector, its USB charging cable, a separate lithium battery, and a blue protective carrying case.

4. PRODUCT OVERVIEW

Familiarize yourself with the components of your AR8100 Oxygen Detector.



Image: The AR8100 Oxygen Detector, held in a hand, displaying oxygen concentration and temperature on its backlit screen, with control buttons visible below.

4.1 Display



Image: A close-up view of the AR8100's large LCD screen, clearly showing 'O2' and 'SCAN' indicators, a primary oxygen percentage reading (e.g., 20.7%), and a secondary temperature reading (e.g., 18.4°C), along with a battery level indicator.

The large LCD screen displays the following information:

- **O2 Concentration:** Primary reading in percentage (%).
- **Temperature:** Secondary reading in Celsius (°C) or Fahrenheit (°F).
- **Battery Indicator:** Shows current battery level.
- **Alarm Indicator:** Visual cue for alarm status.
- **SCAN Indicator:** Indicates active scanning.

4.2 Control Buttons and Indicators



Image: A detailed view of the AR8100's control panel, highlighting the red power button, 'MODE' button, up/down arrow buttons, '°C/°F' button, alarm light button, 'Charger Alarm' indicator, and the speaker grille.

- **Power Button (Red):** Press and hold to turn the device ON/OFF.
- **MODE Button:** Used to cycle through different operating modes or settings.
- **Up/Down Arrow Buttons:** Used for navigation or adjusting values in settings.
- **°C/°F Button:** Toggles the temperature unit between Celsius and Fahrenheit.
- **Alarm Light Button:** Activates or deactivates the visual alarm light.
- **Charger Alarm Indicator:** LED light indicating charging status or alarm.
- **Speaker:** Emits audible alarms.

4.3 Oxygen Sensor

Oxygen Detector

Electrochemical sensor
accurate measurement



Image: A top-down perspective of the AR8100 Oxygen Detector, clearly showing the black oxygen sensor module protruding from the top of the device.

The device features an electrochemical oxygen sensor at the top, responsible for detecting oxygen concentration. Keep this area clear of obstructions for accurate readings.

5. SETUP

5.1 Battery Installation (if not pre-installed)



Image: The rear view of the AR8100 Oxygen Detector with its battery compartment cover removed, revealing the slot for the lithium-ion battery and a label with product specifications.

1. Locate the battery compartment on the back of the device.
2. Slide the battery cover downwards to open it.
3. Insert the provided 3.7V 1000mAh lithium battery, ensuring correct polarity.
4. Replace the battery cover, sliding it upwards until it clicks into place.

5.2 Charging the Battery

The AR8100 features a built-in rechargeable lithium battery. Before first use, fully charge the device.

1. Connect the small end of the USB charging cable to the DC 5V port on the side of the detector.
2. Connect the larger end of the USB cable to a standard USB power adapter (not included) or a computer USB port.
3. The 'Charger Alarm' LED indicator will illuminate during charging.
4. Charging is complete when the indicator light changes color or turns off (refer to specific device behavior).

5.3 Powering On/Off

- **To Power On:** Press and hold the red Power button for approximately 2-3 seconds until the display illuminates.
- **To Power Off:** Press and hold the red Power button for approximately 2-3 seconds until the display turns off.

6. OPERATING INSTRUCTIONS

6.1 Basic Oxygen Measurement

1. Ensure the device is powered on.
2. Allow a brief warm-up period (a few seconds) for the sensor to stabilize.
3. Position the oxygen sensor (at the top of the device) in the environment where you wish to measure oxygen concentration.
4. The current oxygen percentage (%) and temperature (°C/°F) will be displayed on the LCD screen. The 'SCAN' indicator will be active.

6.2 Switching Temperature Units

To toggle between Celsius (°C) and Fahrenheit (°F) for temperature display:

- Press the '°C/°F' button once. The temperature unit on the display will change accordingly.

6.3 Alarm Settings

The AR8100 features adjustable audio and light alarms. Specific steps for setting alarm thresholds may vary. Generally:

1. Press the 'MODE' button repeatedly until you enter the alarm setting interface.
2. Use the Up/Down arrow buttons to adjust the desired high and low oxygen concentration alarm thresholds.
3. Press the 'MODE' button again to confirm and exit the setting.
4. The alarm light button can be used to enable or disable the visual alarm indicator.
5. The alarm volume can also be adjusted through the settings menu (refer to specific on-screen prompts).

When the detected oxygen concentration falls outside the set thresholds, the device will trigger both audible and visual alarms.

7. MAINTENANCE

7.1 Cleaning

- Wipe the device casing with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- Keep the sensor area clean and free from dust or debris. Do not attempt to clean the sensor directly with liquids or sharp objects.

7.2 Battery Care

- Recharge the battery when the low battery indicator appears on the display.
- For long-term storage, charge the battery to approximately 50% and store the device in a cool, dry place.

- Avoid fully discharging the battery frequently, as this can reduce its lifespan.

8. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low or depleted battery.	Charge the device using the USB cable.
Inaccurate readings.	Sensor obstructed or dirty. Device not calibrated (if applicable).	Ensure sensor is clear. Refer to advanced settings for calibration if available.
Alarm constantly active.	Oxygen level outside set thresholds. Alarm thresholds set too narrowly.	Check ambient oxygen levels. Adjust alarm thresholds in settings.
Display is dim or unreadable.	Backlight off or low battery.	Ensure backlight is enabled (if applicable). Charge the device.

9. SPECIFICATIONS

Parameter	Value
Model	AR8100
Measurement Principle	Electrochemical
Measuring Range	0~30% Oxygen
Resolution	0.1%
Working Temperature	-10 to 50°C (14 to 122°F)
Battery	3.7V 1000mAh Lithium Battery (built-in)
Working Time	> 90 hours
Alarm	Audio and Light
Support Language	English

10. WARRANTY AND SUPPORT

JTLB products are manufactured to high-quality standards. For warranty information, technical support, or service inquiries, please refer to the contact information provided with your purchase or visit the official JTLB website. Keep your purchase receipt as proof of purchase for warranty claims.

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