



USER MANUAL

Oxygen Detector

LMON-A100

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1. Safety Measures

Considerations & Precautions:

1) Sampling frequency:

The sampling frequency of the monitor is 1.5 seconds. This means that the monitor is providing you with updated readings every 1-2 seconds. Please note that, in order to provide constantly-updated, real-time readings, it contains a continuously running mini fan which gives off a very slight buzzing sound.

- 2) Upon turning off the monitor, you will see a brief "Power Off" appear on the screen. This is normal. This is not an error message.
- 3) This air monitor should be used indoors and kept dry at all times. It is strongly recommended to store it in a cool, dry place.
- 4) Do not expose to sunlight or use in an extremely polluted, dusty, or smoky environment for prolonged periods, as doing so may damage the sensors over time.
- 5) Do not cover the air intake areas during use to avoid inaccurate measurements.
- 6) Do not use chemicals or solvents to clean the product, as residual fumes will skew air quality readings.
- 7) Do not put water or other liquids on or near the product to avoid electrical damage.
- 8) Do not allow unauthorized modification or repair of this product.
- 9) Do not take apart or disassemble this monitor. Doing so may damage the product.

Attention:

While this product can reduce your risk of harm by increasing your awareness of air quality, it can in no way guarantee your health or safety. Please instead take a comprehensive approach to living healthy and do not depend on this monitor alone to improve your health or save your life.

2. Introduction

Oxygen Detector LMON-A100 monitors oxygen concentration from 0 to 30.0% Volume with temperature and humidity measurement. It is with real-time sensing capability, that ensures tracking of oxygen levels in enclosed or sensitive environments. Incorporated with electrochemical sensor technology, enhancing detection across varying environmental conditions. Equipped with ergonomic housing and lightweight structure, supporting comfortable handling during extended fieldwork. Our Detector is ideal for laboratory safety checks, storage area assessments, agricultural monitoring, and confined space air quality inspections.

3. Features

- Multi-Element LCD Display
- USB Charging Support
- High-Visibility
- Visible safety level bar
- Handheld portable structure
- Sound Alarm

4. Specifications

Model No.	LMON-A100
Material	ABS
Color	Black and Orange
O₂ Measuring Range	0 to 30.0 % Vol
Measuring elements	Oxygen (O ₂), Temperature, Humidity
Detection Method (O₂)	Electrochemistry
Sampling Time	1.5 seconds
Atmospheric Pressure	12.5 to 15.4 PSI
Temperature Range	-10°C to 50°C (14°F to 122°F)
Storage Temperature	-10°C to 60°C (14°F to 140°F)
Humidity Range	20% to 85% Relative Humidity
Battery	1500 mAh Rechargeable Lithium Battery
Charging Method	5V DC Power via USB port
Dimension	161 × 77 × 33 mm
Weight	265 g

5. Applications

Oxygen Detector LMON-A100 is ideal for monitoring oxygen levels and environmental conditions in laboratories, industrial plants, mining operations, and confined spaces.

6. Instrument Introduction

This instrument is an advanced Oxygen Detector that provides real-time monitoring of Oxygen (O₂), Temperature, Humidity, and Time on its digital LCD display.

This oxygen detector has the following outstanding features:

- 1) **Accurate measurement:** Using high-sensitivity sensors, it can accurately detect oxygen concentration and provide you with reliable data.
- 2) **Real-time monitoring:** Continuously display the oxygen content in real time, allowing you to constantly understand the oxygen status of the surrounding environment.
- 3) **Sound Alarm:** When the oxygen concentration is below the safe range, a sound alarm will be issued to remind you to take corresponding safety measures.
- 4) **Portable:** Compact design, convenient to carry, can be tested anytime and anywhere, suitable for various occasions.
- 5) **Easy to operate:** A simple and intuitive interface that can be easily used by even non-professionals.

Note: Oxygen detectors are not only safety devices, but also guardians of your health. It can help you prevent the risk of hypoxia, ensure work safety, and allow you to breathe fresh and healthy air in any environment.

Instrument Structure:



Figure-1

7. Operations

7.1 Turn On/Off Monitor

Long-press the **Power** button for 3 seconds to turn on / off the monitor.

Note: If you can't turn on the monitor, please plug it in and charge it for a while first.

Oxygen Range (%Vol)

Oxygen Detection Range: 0-30.0%Vol

Green Color (Good): >18.0%Vol

Yellow Color (Slight): 18.1-10.0%Vol

Red Color (Serious): 10.1-0%Vol



Figure-2

7.2 History Record

- 1) Single-press the **Power** Button to enter the **History Record** interface.
- 2) Single-press **Up/Down** Button to switch to view the Graphs that show the data record of O₂ / Temperature.

Note: Display the maximum value for each detection item.



Figure-3

7.3 Setting

- 1) After entering the setting interface, the background colour of the first parameter is blue.
- 2) Single-press **Power** Button, the parameter content will pop up.
- 3) Single-press **Up / Down** Button to select the option.
- 4) Single-press the **Power** Button again to confirm the setting.
- 5) Single-press the **Down** Button to enter the next parameter setting.

You can set the following parameters:

Temp Unit: °C, °F

Alarm HTL: 12.0%Vol, 14.0%Vol, 16.0%Vol, 18.0%Vol

Log interval: 05sec, 10sec, 30sec, 60sec, 05min, 10min, 30min

TEMP Bias: +5, +4, +3, +2, +1, 0, -1, -2, -3, -4, -5

Black Time: Never, 15min, 30min, 02hour, 05hour

Language: English

Brightness: 100%, 75%, 50%, 25%, Auto

Buzzer Set: Off, On



Figure-4

Note: **TEMP** Bias (Temperature Numerical Compensation Settings) is used to compensate for errors in the measurement process.

7.4 Charging

When the low battery icon is displayed, the device needs to be charged. Insert the included or another compatible micro USB charging cable into the device. Attach the other end to a USB DC charger (such as a smartphone charger) that outputs DC 5V at $\geq 1000\text{mA}$. Fully charge for at least 2-3 hours before use. Avoid charging with a USB computer port that only outputs 500mA.

7.5 Parameter

	Measurement Range	Measurement Method	Resolution	Measurement Accuracy
O₂	0 - 30% Vol	Electrochemistry	0.1%Vol	±3% F.S.
Temperature	-10°C to 50°C (14°F – 122°F)	Semiconductor	1°C (1.8°F)	±1°C (±1.8°F)
Humidity	20% - 85%	Semiconductor	1%	±4%

7.6 Operation Recommendations

1) Strange Readings

- Turn the device off for some time and then turn it back on again (effectively allowing the monitor to reset). After continuous use for extended periods, the device may simply need to be reset.
- Open a window or bring the device outdoors to allow the sensor to exhaust any accumulated fumes and to allow the readings to adjust back down to more normal levels.

2) When not in use, turn it off

For the most consistently accurate readings and longest product life, it is recommended to turn the monitor off while it is not in use. This will preserve the battery, sensor, and fan.

3) Open a window

Often, the quickest and most practical way to get readings back into the desired range is to simply open a window to ventilate more clean outdoor air into your home. This obviously does not apply if you are located in a Wildfire area or any other area with compromised outdoor air quality.

4) Cooking Impacts Air Quality

Cooking often releases increased amounts of unhealthy pollutants into the air, including but not limited to CO₂, PM_{2.5} and 10, and VOCs. Furthermore, how and what you cook determines the types of pollutants that will be released into the air.