

## SMART SENSOR AS8904

# SMART SENSOR AS8904 Handheld CO2 Gas Detector User Manual

## INTRODUCTION

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This manual provides detailed instructions for the safe and effective use of the SMART SENSOR AS8904 Handheld Carbon Dioxide (CO<sub>2</sub>) Gas Detector. Please read this manual thoroughly before operating the device and retain it for future reference. This device is designed for accurate measurement of CO<sub>2</sub> gas concentrations in the range of 350 to 9999 ppm.

## PRODUCT OVERVIEW

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### Key Features

- High sensitive electrochemical sensor for CO<sub>2</sub> measurement (350~9999ppm, 1ppm resolution).
- Adjustable high/low alarm function with sound, light, and vibration alerts.
- Digital LCD display with backlight for clear readings in various lighting conditions.
- Compact size and unique clip design for portability.
- Built-in rechargeable 3.7V Li-ion battery providing approximately 9 hours of continuous operation.
- Compliant with JJG693, JJG695, JJG915, and GB3836 series anti-explosion standards.

### Device Components



**Image 1: Front View of AS8904 Detector.** This image shows the front of the CO2 detector, highlighting its main components: high sensitive sensor inside, battery power indicator, high density LCD screen, down button, up button, sound alarm, light alarm, power on/off button, and confirm button. The screen displays "PPM 38".



**Image 2: Back View of AS8904 Detector.** This image displays the back of the CO2 detector, featuring a unique clip design, factory series number, simple parameters indicator, and the battery charging port. The parameters indicate "Carbon Dioxide Detector, Detection of gas: 350-9999PPM, Resolution: 1PPM, Battery: 3.7V Lithium-ion, DC 5V".



Charging port

**Image 3: Charging Port.** A close-up view of the charging port located at the bottom of the device, protected by a plastic cover.



**Compact size and unique clip design, easy to carry around**

**Image 4: Portability.** This image illustrates the compact size of the AS8904 detector, easily fitting into a pocket, highlighting its portability for on-the-go use.

## PACKAGE CONTENTS

### Standard package



**Image 5: Standard Package Contents.** This image shows all items included in the product package: the CO2 gas monitor, user manual, charging adaptor, USB cable, hand carry case, calibration certificate, CNEX certificate, and gift paper box.

- 1 x SMART SENSOR AS8904 Carbon Dioxide Gas Monitor
- 1 x User Manual
- 1 x Charging Adaptor
- 1 x USB Cable
- 1 x Hand Carry Case
- 1 x Calibration Certificate
- 1 x CNEX Certificate
- 1 x Gift Paper Box

## Unboxing and Initial Inspection

Your browser does not support the video tag.

**Video 1: AS8904 Packaging Overview.** This video demonstrates the unboxing and contents of the SMART SENSOR AS8904 package, showing the device, certificates, and accessories neatly arranged in the blue carry case.

Upon receiving your AS8904 detector, carefully open the packaging and verify that all listed components are present and undamaged. If any items are missing or damaged, please contact customer support immediately.

## SETUP

## Charging the Device

1. Locate the charging port at the bottom of the device (refer to Image 3).
2. Connect the provided USB cable to the charging port and the charging adaptor.
3. Plug the adaptor into a standard power outlet.
4. The battery power indicator on the LCD screen (refer to Image 1) will show charging status. A full charge typically takes approximately 9 hours for continuous operation.
5. Ensure the device is fully charged before initial use for optimal performance.

## OPERATION

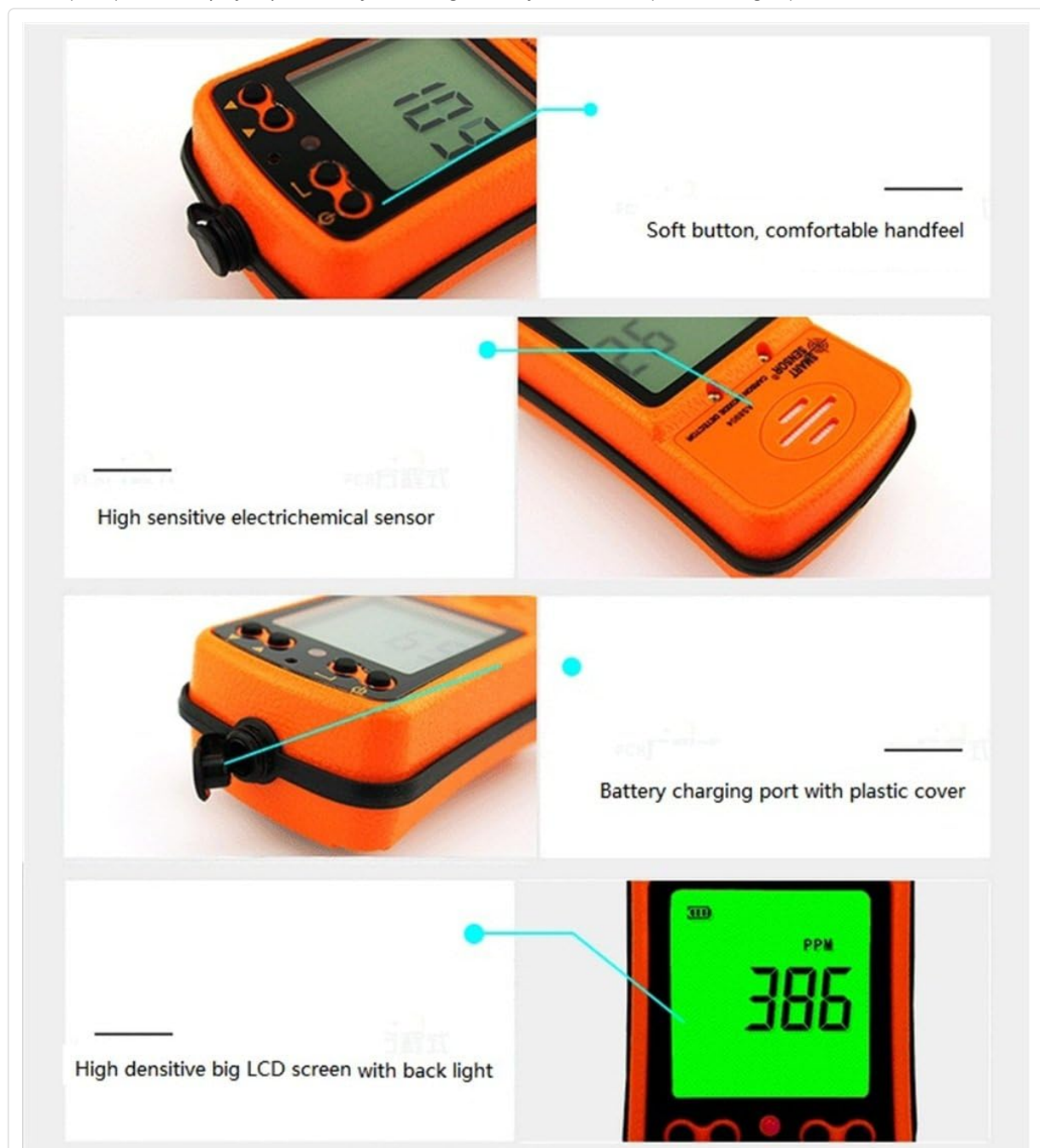
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### Powering On/Off

- To power on: Press and hold the Power On/Off button (refer to Image 1) until the LCD screen illuminates.
- To power off: Press and hold the Power On/Off button until the screen turns off.

### Reading CO2 Levels

Once powered on, the device will automatically begin measuring CO2 concentration. The current CO2 level in parts per million (PPM) will be displayed prominently on the high-density LCD screen (refer to Image 1).



**Image 6: LCD Display.** A close-up of the device's LCD screen showing a CO2 reading of "386 PPM" with the battery indicator and backlight active.

## Alarm Settings

The AS8904 features adjustable high and low alarm thresholds. When the CO2 concentration reaches or exceeds these preset values, the device will activate sound, light, and vibration alarms. Factory preset values are 50ppm for low alarm and 4000ppm for high alarm.

1. To adjust alarm values, navigate through the menu using the Up and Down buttons (refer to Image 1).
2. Use the Confirm button to select and save changes.
3. Refer to the full user manual (included in the package) for detailed instructions on navigating the menu and customizing alarm settings.

## MAINTENANCE

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### Cleaning

- Wipe the device exterior with a soft, damp cloth.
- Do not use abrasive cleaners or solvents.
- Ensure the sensor area is kept clear of dust and debris.

### Calibration

The device comes with a calibration certificate. Regular calibration is crucial for maintaining accuracy. Refer to the detailed user manual or contact customer support for information on calibration procedures and recommended intervals.

### Battery Care

- Recharge the device when the battery indicator shows low power.
- Avoid fully discharging the battery frequently to prolong its lifespan.
- If storing the device for an extended period, charge it to approximately 50% and recharge every few months.

## TROUBLESHOOTING

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### Common Issues and Solutions

- **Device not powering on:**
  - Ensure the battery is charged. Connect to the charger and try again.
  - Verify the power button is pressed and held correctly.
- **Inaccurate readings:**
  - Check for obstructions around the sensor.
  - Consider if calibration is required.
  - Ensure the device is operating within specified temperature and humidity ranges.
- **Alarms not functioning:**
  - Check alarm settings to ensure thresholds are correctly configured.
  - Verify alarm volume and vibration settings.

For issues not covered here, please refer to the comprehensive user manual or contact SMART SENSOR customer support.

## SPECIFICATIONS

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Specification	Detail
Brand	SMART SENSOR
Model	AS8904
Gas Type	Carbon Dioxide (CO2)
Measurement Range	350~9999 ppm
Resolution	1 ppm
Working Principle	Electrochemical sensor
Alarm Type	Sound, Light, Vibration (adjustable values)
Alarm Sound Level	Up to 80dB
Operating Temperature	-10~50°C (14~122°F)
Operating Humidity	15~95% RH (standard)
Power Source	Built-in 3.7V Li-battery
Continuous Operation	Approx. 9 hours (with full charge)
Protection Level	IP65
Product Net Weight	200g
Dimensions	120.2 x 64.5 x 38.3 mm

## WARRANTY AND SUPPORT

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The SMART SENSOR AS8904 Handheld CO2 Gas Detector 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, service, or warranty claims, please contact SMART SENSOR customer service through their official website or the contact information provided in your product documentation.

You can visit the official [SMART SENSOR Store](#) for more information and support resources.