

SMART SENSOR AS8806

SMART SENSOR AS8806 Nitrogen Dioxide (NO2) Gas Detector User Manual

Model: AS8806

1. INTRODUCTION

The SMART SENSOR AS8806 is a portable nitrogen dioxide (NO2) gas detector designed for accurate and reliable measurement of NO2 gas concentration. This device displays the gas concentration on an LCD screen and features user-configurable upper and lower alarm limits. When the detected gas concentration exceeds these preset alarm values, the device provides warnings through a combination of beep sounds, flashing lights, and vibration, ensuring user safety.

This manual provides detailed instructions on the setup, operation, maintenance, and troubleshooting of your AS8806 detector. Please read this manual thoroughly before using the device to ensure proper and safe operation.

2. KEY FEATURES

- **Gas Detection:** Specifically designed for Nitrogen Dioxide (NO2) gas.
- **Measurement Range:** 0 to 20 ppm.
- **Resolution:** 0.1 ppm for precise readings.
- **Alarm Modes:** Features audible (beep), visual (flash), and tactile (vibration) alarms.
- **Configurable Alarms:** User-settable upper and lower alarm limits.
- **Backlight Display:** Equipped with a backlight for clear visibility in various lighting conditions.
- **Automatic Shutdown:** Automatically powers off after 10 minutes of no operation to conserve battery.
- **Portable Design:** Lightweight and compact for easy carrying and pocket storage.
- **Rechargeable Battery:** Powered by a 3.7V rechargeable lithium battery.
- **Fast Reaction:** Electrochemical independent sensor provides quick and accurate measurements.

3. PRODUCT OVERVIEW

Familiarize yourself with the components of your AS8806 detector.



Figure 1: Overview of the AS8806 detector highlighting its main features and display elements.



Figure 2: Product Structure 1, showing the soft keys, sensor, warning light, and battery charging port.



Figure 3: Product Structure 2, detailing the large screen display and the portable clip.

The device features intuitive soft keys for navigation, a clear LCD screen for concentration display, and a robust

sensor for detection. A portable clip is included for convenient attachment.

4. SETUP

1. **Unpacking:** Carefully remove the AS8806 detector and all accessories from the packaging. Verify that all items listed in the package contents are present.
2. **Initial Charging:** Before first use, fully charge the device. Connect the microUSB cable to the charging port (03 in Figure 2) and plug it into a compatible USB power source. The charging indicator will show the charging status. Charging typically takes 4-6 hours.
3. **Power On:** Press and hold the power button (usually marked with a power symbol) for a few seconds until the LCD screen illuminates.
4. **Self-Test:** The device will perform a brief self-test upon startup. Wait for the self-test to complete and the main measurement interface to appear.

5. OPERATING INSTRUCTIONS

1. **Power On/Off:** Press and hold the power button to turn the device on or off.
2. **Measurement:** Once powered on, the device will automatically begin detecting NO₂ gas and display the concentration in parts per million (ppm) on the LCD screen (04 in Figure 3).
3. **Backlight:** The backlight function ensures readability in low-light conditions. Refer to the device's specific button layout for backlight activation, usually a short press of a designated button.
4. **Automatic Shutdown:** The device is equipped with an automatic shutdown feature. If no operation is performed for 10 minutes, the device will power off to save battery life.

6. ALARM SETTINGS

The AS8806 features customizable alarm thresholds and multiple alarm indications.

アラームモード

ビープ音/フラッシュ/バイブレーション



- 高デシベル（80デシベル）
- 音と点滅で警報
- アラーム値は設定可能



検知したガスが設定した警報値に達すると、フラッシュとビープ音で自動的にお知らせします。

Figure 4: Alarm modes and settings interface.

1. **Setting Alarm Limits:** The device allows users to set both upper and lower alarm thresholds. Consult the device's menu navigation (typically using the arrow buttons) to access the alarm setting options.
2. **Alarm Indications:** When the detected NO₂ concentration exceeds the set limits, the device will activate the following alarms:
 - **Audible Alarm:** A high-decibel (80dB) beep sound will be emitted.
 - **Visual Alarm:** The warning light (02 in Figure 2) will flash.
 - **Tactile Alarm:** The device will vibrate.
3. **Alarm Reset:** Alarms typically cease when the gas concentration returns to a safe level or can be manually acknowledged by pressing a button (refer to specific device instructions for details).

7. BATTERY INFORMATION

The AS8806 is powered by a durable rechargeable battery.

バッテリー稼働時間

3.7V 充電式リチウム電池



■長時間稼働

■充電時間4～6時間

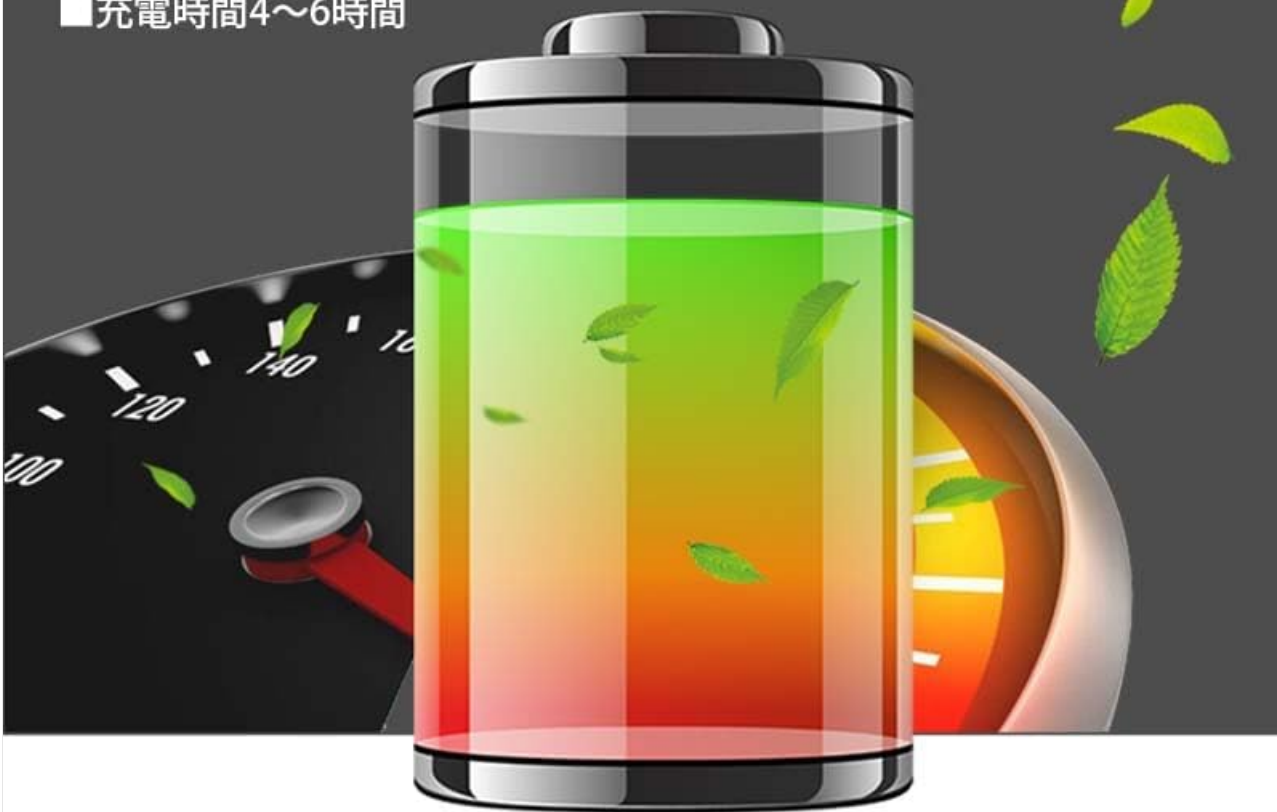


Figure 5: Battery operation and charging details.

- **Battery Type:** 3.7V rechargeable lithium battery.
- **Operating Time:** Approximately 60 hours without alarm activation. Actual operating time may vary depending on usage conditions and alarm frequency.
- **Charging Time:** A full charge typically takes 4-6 hours.
- **Charging Interface:** MicroUSB.
- **Battery Indicator:** The LCD screen displays a battery level indicator. Recharge the device when the battery level is low.

8. MAINTENANCE

- **Cleaning:** Wipe the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a cool, dry place (0-40°C) away from direct sunlight and extreme temperatures.
- **Calibration:** Regular calibration is essential for maintaining the accuracy of the gas detector. The device comes with a calibration certificate. Follow recommended calibration schedules or consult a qualified technician for calibration services.

- **Sensor Care:** Avoid exposing the sensor to harsh chemicals or physical impact, as this can affect its performance.

9. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device does not power on.	Low battery or no charge.	Charge the device fully using the microUSB cable.
Inaccurate readings.	Sensor contamination or needs calibration.	Ensure the sensor area is clean. Perform calibration or contact support for service.
Alarm constantly active.	High NO2 concentration in the environment or incorrect alarm settings.	Move to a well-ventilated area. Check and adjust alarm thresholds if necessary.
Backlight not working.	Backlight feature not activated or device malfunction.	Activate backlight via button press. If issue persists, contact support.

10. SPECIFICATIONS

Parameter	Value
Model	AS8806
Gas Detected	Nitrogen Dioxide (NO2)
Measurement Range	0 - 20 ppm
Resolution	0.1 ppm
Operating Temperature	-10°C to 50°C
Operating Humidity	15% to 95% RH (Standard)
Storage Temperature	0°C to 40°C
Battery	3.7V Rechargeable Lithium Battery
Operating Time	Approx. 60 hours (without alarm activation)
Charging Time	4-6 hours
Charging Interface	MicroUSB
Automatic Shutdown	After 10 minutes of no operation
Dimensions (D x W x H)	6.6 x 5.2 x 9.6 cm
Weight	0.15 kg (148g)

11. APPLICATION FIELDS

The SMART SENSOR AS8806 Nitrogen Dioxide Detector is suitable for a wide range of applications where NO2

monitoring is critical:

応用分野 | APPLICATION FIELD



船舶輸送



製薬産業



原油採掘



冶金産業



污水处理



化学工場

Figure 6: Examples of application fields for the NO₂ detector.

- Shipping and Transportation
- Pharmaceutical Industry
- Crude Oil Extraction
- Metallurgical Industry
- Wastewater Treatment Facilities
- Chemical Plants
- Industrial Safety Monitoring
- Environmental Monitoring

12. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the documentation included with your purchase or contact your retailer. Keep your proof of purchase for warranty claims.

For further assistance, please visit the official SMART SENSOR website or contact their customer service department.

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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