

AIOMEST AI-9000B

AIOMEST AI-9000B Ammonia NH3 Gas Detector Instruction Manual

Model: AI-9000B

IMPORTANT SAFETY INFORMATION

Read all safety warnings and instructions carefully before using this device. Failure to follow these instructions may result in inaccurate readings, device damage, or personal injury.

- Do not expose the device to extreme temperatures, humidity, or corrosive environments.
- Avoid strong impacts or vibrations.
- Do not attempt to disassemble or modify the device.
- Ensure proper ventilation when measuring ammonia levels, especially in enclosed spaces.
- This device is for informational and monitoring purposes. Always follow local safety regulations and use appropriate personal protective equipment when dealing with hazardous gas concentrations.



Image: Effects of Ammonia Concentration on the Human Body. This chart illustrates the potential health impacts at various NH3 levels.

Ammonia Exposure Risks:

- **5 ppm:** Odor threshold; detectable by some people.
- **20 ppm:** Noticeable irritation to most people; generally harmless.
- **20-30 ppm:** Time-Weighted Average (TWA) safety threshold.
- **100 ppm:** Causes discomfort to most people; harmless.
- **250 ppm:** Irritates nose, throat, and eyes.
- **400 ppm:** Causes eye pain and tearing within 30 minutes.
- **700 ppm:** Maximum tolerable limit; should not remain in this environment.
- **2500 ppm:** Causes severe coughing, irritation of nose and throat; may lead to death within 15 minutes.

PRODUCT OVERVIEW

The AIOMEST AI-9000B is a handheld ammonia (NH₃) gas detector designed for professional and accurate monitoring of ammonia levels, temperature, and humidity. It features an electrochemical sensor for precise and rapid detection, making it suitable for various applications such as poultry farms, livestock facilities, cold storage, chemical plants, mines, and laboratory research.

LARGE LCD DISPLAY



- 1 Current Date
- 2 Current Time
- 3 Battery Power Indicator
- 4 Ammonia Concentration
- 5 Ammonia Gas Unit
- 6 Ammonia Status
- 7 Maximum Value
- 8 Maximum Value Unit
- 9 Temperature
- 10 Humidity



Image: Front and back view of the AIOMEST AI-9000B Ammonia Gas Detector.

Key Features

- Professional and Accurate NH₃ Gas Detection: Equipped with a sensitive electrochemical sensor, detecting ammonia gas from 0-100 PPM with 0.1 PPM resolution and $\pm 5\%$ error.
- Real-Time NH₃, Temperature & Humidity Monitor: Displays current ammonia levels, peak values, temperature, and relative humidity (RH%) simultaneously.
- Portable Design with Data Logging: Weighs 320g, sized for handheld use, with a 900mAh battery for extended outdoor use. Stores up to 180 sets of data (one reading per minute).
- NH₃ Air Alarms: Supports customizable high/low NH₃ concentration alerts with sound, light, and vibration warnings. Includes programmable shutdown.
- Multi-Language Support: Switch between English, Chinese, French, and German interfaces.
- Customizable Screen Brightness: For clear viewing in various lighting conditions.



Image: AIOMEST AI-9000B in an industrial setting, emphasizing its precise electrochemical sensor and key performance specifications.

PACKAGE CONTENTS

- AIOMEST AI-9000B Ammonia Gas Detector
- USB Charging Cable
- User Manual
- Small Screwdriver (for battery installation)

DEVICE LAYOUT AND DISPLAY

Device Components

MULTI-FUNCTION CLIP

Backed by a back clip, carry it worry free, "clip" it according to your heart, and enjoy convenient moments.



Image: The AIOMEST AI-9000B featuring a multi-function clip for portability, shown attached to a belt.

LCD Display Information



Image: Large LCD display of the AIOMEST AI-9000B, detailing each indicator.

1. **Current Date:** Displays the current date.
2. **Current Time:** Displays the current time.
3. **Battery Power Indicator:** Shows the remaining battery level.
4. **Ammonia Concentration:** Displays the real-time NH3 gas level.
5. **Ammonia Gas Unit:** Indicates the unit of measurement (PPM).
6. **Ammonia Status:** Shows the current status (e.g., Normal).
7. **Maximum Value:** Displays the peak ammonia concentration detected.
8. **Maximum Value Unit:** Indicates the unit for the maximum value (PPM).
9. **Temperature:** Displays the ambient temperature.
10. **Humidity:** Displays the relative humidity (RH%).

SETUP

Battery Installation

To protect the rechargeable battery during shipping, the battery cable is disconnected. Please follow these steps to connect it before using the device for the first time:

1. Use the small screwdriver to unscrew the battery cover on the back of the device.
2. Connect the battery line interface securely.
3. Tighten the battery cover back into place.

NOTE: You need connect together with the battery line interface before you start touse this Ammonia Gas Detector!



Image: Step-by-step instructions for battery cable connection.

Charging the Device

Connect the device to a USB power source using the provided USB charging cable. The battery icon on the display will flash while charging and will remain solid when the battery is fully charged.

OPERATING INSTRUCTIONS

Power On/Off

Press and hold the **OK/ENT** button to turn the device on or off.

Ammonia Gas Detection

The device automatically begins detecting ammonia gas upon power-on. The current NH₃ concentration will be displayed in PPM on the main screen.

Temperature and Humidity Monitoring

The current ambient temperature and relative humidity (RH%) are displayed simultaneously with the ammonia levels on the LCD screen.

Data Logging

The AI-9000B features data logging capabilities, storing up to 180 sets of data. It records one data point per minute automatically, with each entry timestamped for easy anomaly tracking. Access logged data through the device's menu.

2024 / 12 / 09	11:15:32	000.6 PPM
SET DISP	12/10 09:58	000.6 PPM
SET ALARM	12/10 09:59	000.5 PPM
TIM SHUT	12/10 09:59	000.7 PPM
ALA MODE	12/10 10:00	
SYS TIME		
HIS DATA		

DATA LOGGING

-  **Smart Recording**
Record one data point per minute automatically, with each entry timestamped for easy anomaly tracking.
-  **High-Capacity Storage**
Stores up to 180 data entries to meet your monitoring needs

Image: Data logging interface showing options for recording and reviewing historical data.

Alarm Settings

The device supports customizable high and low NH₃ concentration alerts. When ammonia levels exceed or fall below the set thresholds, the device will activate a triple alert system: sound, light, and vibration warnings. Adjust alarm thresholds via the menu.

Adjustable Alarm Thresholds & Triple Alert System

Customizable High / Low Alarm Thresholds



Image: The AIOMEST AI-9000B demonstrating its alarm system in a farm environment.

Language Settings

The device supports multiple languages including English, Chinese, French, and German. Navigate to the system settings menu to select your preferred language.

Screen Brightness

Adjust screen brightness through the device's menu settings for optimal viewing in various lighting conditions, from bright sunlight to dim warehouses.

Auto Shutdown

The programmable shutdown feature allows you to set an automatic power-off time to conserve battery life. This is particularly useful for extended monitoring periods without constant supervision.

MAINTENANCE

Cleaning

Wipe the device exterior with a soft, dry cloth. Do not use abrasive cleaners, solvents, or immerse the device in water.

Storage

Store the device in a cool, dry place away from direct sunlight, extreme temperatures, and high humidity. Remove the battery if storing for extended periods.

Sensor Care

The electrochemical sensor is a precision component. Avoid exposing it to harsh chemicals, dust, or physical impact. For sustained accuracy, periodic calibration may be required. Consult AIOMEST customer support for calibration services.

SPECIFICATIONS

Feature	Specification
Brand	AIOMEST
Model	AI-9000B
Detection Gas	Ammonia (NH3)
Detection Range	0-100 PPM
Resolution	0.1 PPM
Accuracy	≤±5%
Response Time	<120 seconds
Recovery Time	<240 seconds
Sensor Type	Electrochemical
Battery	900mAh Rechargeable
Data Logging	Up to 180 sets (1 data point per minute)
Alarms	Sound, Light, Vibration (customizable high/low thresholds)
Display	Large LCD with adjustable brightness
Dimensions	7.48 x 3.74 x 1.69 inches
Weight	320g
Supported Languages	English, Chinese, French, German

WARRANTY AND SUPPORT

Warranty Information

This AIOMEST AI-9000B device comes with a 365-day quality warranty from the date of purchase. Please retain your proof of purchase for any warranty claims. The warranty covers manufacturing defects and malfunctions under normal use. It does not cover damage caused by misuse, accidents, unauthorized modifications, or improper maintenance.

Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact AIOMEST customer support. You can typically find contact information on the official AIOMEST website or through the retailer where you purchased the product.