AOPUTTRIVER AP-9000B

AOPUTTRIVER AP-9000B Ammonia Gas Detector User Manual

Model: AP-9000B | Brand: AOPUTTRIVER

1. INTRODUCTION

The AOPUTTRIVER AP-9000B is a high-precision ammonia gas detector designed for continuous quantitative analysis of ammonia (NH3) concentration. It features an imported electrochemical principle ammonia gas sensor, offering fast response speed, high accuracy, good stability, and excellent repeatability. This device is equipped with a large LCD display, sound and light dual alarms, and is USB rechargeable, making it suitable for various industrial and agricultural applications.

2. PRODUCT FEATURES

- **High-precision Ammonia Detection:** Measures ammonia concentration from 0 to 100 PPM with a resolution of 0.1 PPM and an accuracy of +/- 2%.
- **Ambient Temperature Measurement:** Monitors ambient temperature from -10°C to 50°C.
- **Sound & Light Dual Alarms:** Features customizable alarm thresholds. When the preset ammonia level is reached, a red light indicator and an audible beep sound simultaneously alert the user.
- **USB Rechargeable:** Equipped with a built-in rechargeable lithium battery and includes a USB charging cable for continuous operation and reduced long-term costs.
- **Data Logging:** Stores up to 180 sets of historical data, recording ammonia concentration readings every minute for environmental condition monitoring.
- **Color LCD Display:** Provides clear and easy-to-read information.

Figure 2.1: Overview of the AP-9000B Ammonia Gas Detector's key features.

3. WHAT'S IN THE BOX

Upon opening the package, please verify that all the following items are included:

- 1 x Packing box

- 1 x Instruction manual

- 1 x Charging cable

- 1 x AOPUTTRIVER AP-9000B Ammonia Tester

- 1 x Storage Bag

Figure 3.1: Contents of the AP-9000B package.

4. SETUP

4.1 Battery Installation

Before initial use, ensure the battery is correctly installed. If the battery is not pre-installed or needs replacement, follow these steps:

1. Use a small screwdriver to unscrew the battery cover on the back of the device.
2. Connect the battery to the interface inside the compartment.
3. Tighten the battery cover securely.

Figure 4.1: Battery installation steps.

4.2 Charging the Device

The AP-9000B is equipped with a rechargeable lithium battery. To charge the device:

1. Locate the USB charging port on the device.

2. Connect the provided USB charging cable to the device and a suitable USB power source (e.g., computer, USB wall adapter).

3. The battery indicator on the display will show the charging status. Charge until the battery icon indicates a full charge.

When the battery sign on the display flashes, it is charging until it is fully charged.

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

1. Use the small screwdriver to unscrew the battery cover

2. Connect together with the battery

3. Tighten the battery cover

Figure 4.2: Charging the AP-9000B via USB.

5. OPERATING INSTRUCTIONS

5.1 Power On/Off

- **To Power On:** Press and hold the **OK** button until the device powers on and the display illuminates.

- **To Power Off:** From the main display, press and hold the **OK** button. The device will prompt for confirmation to power off. Press **OK** again to confirm.

5.2 Display Information

The color LCD display provides real-time information:

- **Date and Time:** Shown at the top of the screen.

- **Battery Level:** Indicator at the top right.

- **NH3 Concentration:** Large digits display the current ammonia level in PPM.

- **Current Status:** Indicates 'Normal' or 'Alarm' status.

- **Maximum Value:** Displays the peak ammonia concentration detected.
- **Temperature:** Current ambient temperature in °C or °F.
- **Humidity:** Current relative humidity (RH%).

Figure 5.1: Main display interface of the AP-9000B.

5.3 Menu Navigation and Settings

The device features a menu for various settings and data review:

- **ENT/▼ Key:** Long press to enter the setting function. Short press in the setting state to activate the downward function or navigate through options.
- **ESC/▲ Key:** Short press to activate the upward function or navigate through options.
- **OK Key:** Press to confirm selections or enter sub-menus.

The settings interface includes options for:

- Display Settings (SET DISP)
- Alarm Settings (SET ALARM) - Adjust high and low alarm thresholds.

- Scheduled Shutdown (TIM SHUT)

- Alarm Mode (ALA MODE) - Select Light, Vibration, or Sound.

- System Time (SYS TIME)

- Historical Data (HIS DATA) - Review stored readings.

Video 5.2: Demonstration of the AP-9000B's button functions and menu navigation for settings and data review.

6. APPLICATIONS

The AOPUTTRIVER AP-9000B Ammonia Gas Detector is versatile and can be used in a wide range of environments where ammonia monitoring is critical. Its applications include:

- Metallurgy

- Power Plants

- Farms (Poultry, Pig, Livestock)

- Mines

- Chemical Plants

- Scientific Research Facilities

- Healthcare and Pharmaceutical Industries

- Environmental Protection Monitoring

Wide Appliacations

Suitable for breeding Farms, Fish farms, Power plants, Mines, Metallurgy and other places

Figure 6.1: Diverse applications of the AP-9000B Ammonia Gas Detector.

7. SAFETY INFORMATION: HAZARDS OF AMMONIA

Ammonia (NH3) is a hazardous gas. Understanding its concentration levels and associated risks is crucial for safety. The AP-9000B helps monitor these levels to prevent exposure to dangerous concentrations.

Ammonia Concentration Hazards

Concentration (PPM)	Potential Hazard
5 ppm	Sensory odor threshold; some individuals may detect it.
20 ppm	Significant irritation in most people, generally not harmful with short exposure.
20-30 ppm	Time-weighted safety thresholds for occupational exposure.
100 ppm	Discomfort for most people, not harmful with limited exposure.
250 ppm	Irritation of nose, throat, eyes, and other senses.

Concentration (PPM)	Potential Hazard
400 ppm	Eye pain, tearing for 30 minutes.
700 ppm	Limit of human tolerance; prolonged exposure should be avoided.
2500 ppm	Intense coughing, irritation of nose, throat, etc.; may lead to death in 15 minutes.
5000 ppm	Causes spasmodic dyspnea, asphyxiation, and rapid death.

What's in the Box?

1 x Packing box
1 x Instruction manual
1 x Charging cable
1 x 9000B Ammonia Tester
1 x Storage Bag

Figure 7.1: Ammonia concentration hazard levels.

8. MAINTENANCE

To ensure the longevity and accuracy of your AOPUTTRIVER AP-9000B Ammonia Gas Detector, follow these maintenance guidelines:

- **Regular Cleaning:** Wipe the device exterior with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Sensor Care:** Avoid exposing the sensor area to dust, dirt, or liquids, which can affect its performance.
- **Battery Management:** Recharge the battery when the low battery indicator appears. Avoid fully discharging the battery frequently to prolong its lifespan. If replacing the battery, refer to Section 4.1.
- **Storage:** When not in use for extended periods, store the device in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Calibration:** For professional applications requiring high accuracy, periodic calibration by qualified personnel may be necessary. Refer to the full technical manual for calibration procedures if applicable.

9. TROUBLESHOOTING

If you encounter issues with your AP-9000B, refer to the following common troubleshooting steps:

- **Device Not Powering On:** Ensure the battery is charged. Connect the device to a USB charger and try again. Check if the battery is correctly installed (refer to Section 4.1).
- **Inaccurate Readings:** Ensure the sensor area is clean and unobstructed. Avoid using the device in environments with extreme temperature or humidity fluctuations outside its operating range. Allow the device to stabilize in the environment for a few minutes before taking readings.
- **Alarm Not Functioning:** Check the alarm settings in the menu (SET ALARM, ALA MODE) to ensure they are configured correctly and the volume/vibration is enabled.

- **Display Issues:** If the display is dim or flickering, ensure the battery is charged. If the issue persists, contact customer support.
- **Buttons Unresponsive:** Try restarting the device. If buttons remain unresponsive, contact customer support.

For persistent issues not covered here, please contact AOPUTTRIVER customer support.

10. SPECIFICATIONS

Feature	Specification
Brand	AOPUTTRIVER
Model Number	AP-9000B
Ammonia Measuring Range	0 ~ 100 PPM
Resolution	0.1 PPM
Accuracy	+/- 2%
Measurement Ambient Temperature Range	-10 ~ 50 °C
Operating Humidity	0-95% RH
Alarm Type	Sound & Light Dual Alarm
Power Source	USB Rechargeable Lithium Battery
Data Storage	Up to 180 sets of data (1-minute interval)
Item Weight	3.2 ounces (approx. 90.7 grams)
Package Dimensions	8 x 6 x 3 inches

11. WARRANTY AND SUPPORT

Specific warranty information and detailed customer support contacts are not available in the provided product data. Please refer to the warranty card included with your product or visit the official AOPUTTRIVER website for the most up-to-date warranty terms and customer service contact information.