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GOYERRNES GR-5800G

GOYERRNES GR-5800G Ammonia Gas Detector User Manual

Model: GR-5800G

1. INTRODUCTION

The GOYERRNES GR-5800G is a precision-built ammonia gas detector designed for real-time monitoring of ammonia (NH₃) levels, temperature, and humidity. Equipped with an electrochemical sensor, it provides accurate readings from 0-100 ppm with a 0.1 ppm resolution. This device is suitable for a wide range of applications including farms, poultry houses, pig and livestock facilities, storage areas, and laboratories, ensuring awareness of environmental air quality.



Image: The GR-5800G detector shown in different application settings, including a living room, turkey farm, industrial area, and pasture, highlighting its versatility.

2. SAFETY INFORMATION

Please read this manual thoroughly before operating the device to ensure safe and effective use. Improper use may lead to inaccurate readings or damage to the device. Always operate the detector within specified environmental conditions.

Ammonia Hazard Index

Understanding ammonia concentration levels is crucial for safety. Refer to the following guidelines:



HAZARD INDEX OF AMMONIA GAS TO HUMAN BODY



Image: A chart detailing the hazard index of ammonia gas to the human body, ranging from sensory odor threshold (5 ppm) to severe cough and potential death (2500 ppm). The detector is shown mounted on a tripod, demonstrating hands-free operation.

- **5 ppm:** Sensory odor threshold; some people may detect an odor.
- **20 ppm:** Most people experience obvious irritation; considered harmless.
- **20-30 ppm:** Time-weighted safety threshold.
- **100 ppm:** Most people feel uncomfortable; generally harmless.
- **250 ppm:** Stimulates the nose, throat, eyes, and other senses.
- **400 ppm:** Eye pain, tears for 30 minutes.
- **700 ppm:** The limit that the human body can endure; not advisable to stay.
- **2500 ppm:** Severe cough, irritation of the nose, throat, etc.; 15 minutes may cause death.

3. PRODUCT OVERVIEW

The GR-5800G detector features a user-friendly design with a clear LCD display and intuitive controls. Below are the key components and their functions:



Image: Front and back views of the GR-5800G detector with labels pointing to the LCD display, alarm indicator, °C/°F switching button, power ON/OFF button, alarm setting button, increment button, MODE key, decrement button, protective case, sensor, charging port, charging indicator, and screw hole for tripod mounting.

Key Components:

- **LCD Display:** Shows ammonia concentration (ppm), humidity (%), and temperature (°C/°F).
- **Sensor:** Electrochemical sensor for ammonia detection, located at the top of the device.
- **Power ON/OFF Button:** Central button to turn the device on or off.
- **°C/°F Switching Button:** Changes the temperature unit between Celsius and Fahrenheit.
- **Alarm Button:** Used to enter and adjust alarm settings.
- **MODE Key:** Navigates through different modes, such as auto power off settings.
- **Increment/Decrement Buttons:** Used to adjust values in setting modes.
- **Charging Port:** DC 5V input for recharging the internal battery.
- **Charging Indicator:** LED light indicating charging status.
- **Screw Hole:** Located on the back for tripod mounting, enabling hands-free operation.

Image: A detailed view of the high-precision electrochemical sensor, which is crucial for accurate ammonia detection.

4. SETUP

4.1 Unboxing

Carefully open the packaging and remove the GR-5800G detector and its accessories. Ensure all components listed in the package content are present.



Image: The package contents include the GR-5800G detector, a USB charging cable, a user manual, a packaging box, and a protective carrying bag.

4.2 Charging the Device

Before first use, fully charge the device. Connect the provided USB cable to the charging port (DC 5V) on the side of the detector and plug the other end into a suitable USB power source. The charging indicator light will provide feedback on the charging status. A full charge provides up to 30 hours of continuous use.

GOYERRNES-5800G

Digital Gas Detector for Detecting Ammonia (NH₃) Gas Concentration. More features suitable for various scene detection.



°C/°F
Switching



Ammonia
Detection



Sound/Light
Double Alarm



USB
Charged



Automatic
Shutdown



Colorful
Backlight



Humidity &
Temperature



High
Precision



Image: A close-up view of the charging interface (DC 5V) and the charging indicator light on the side of the detector.

4.3 Sensor Preparation

Remove the protective cap from the sensor at the top of the device before operation to allow for proper air circulation and accurate readings.

Video: This video demonstrates the unboxing of the Ammonia Gas Detector, showing how to remove the sensor cap, power on the device, switch between Celsius and Fahrenheit, and set the alarm thresholds. It provides a visual guide for initial setup and basic operation.

5. OPERATION

5.1 Power On/Off

Press and hold the central power button to turn the device on or off. The LCD display will illuminate upon activation, showing current readings.

5.2 Temperature Unit Conversion

Press the '°C/°F' button to toggle the temperature display between Celsius and Fahrenheit.

5.3 Setting Alarm Thresholds

The device features two alarm thresholds (AL1 and AL2) for ammonia concentration. When the detected ammonia level exceeds these thresholds, the device will alert you with light and sound.

- Press the 'ALARM' button to enter the alarm setting state. The display will show "AL1".
- Use the increment (up arrow) and decrement (down arrow) buttons to adjust the value for AL1. A short press adjusts by 0.1 ppm, a long press adjusts by 1 ppm.
- Press the 'ALARM' button again to switch to "AL2" setting mode.
- Adjust the value for AL2 using the increment and decrement buttons.
- Press the 'ALARM' button a third time to save the settings and exit.

USER-FRIENDLY DUAL ALARM

Reaching the alarm value will be alerted by beeping and lighting.



Image: A visual representation of the dual alarm system, showing the device emitting a 'BEEP' sound and a red light when an alarm threshold is reached, indicating a user-friendly alert mechanism.

5.4 Auto Power Off (APO) Function

The device includes an auto power off function to conserve battery life.

- Press the 'MODE' button to cycle through settings. The display will show "APO ON" or "APO OFF".
- Use the increment/decrement buttons to enable ("APO ON") or disable ("APO OFF") the auto power off function.
- Press the 'MODE' button again to save the setting and exit.

5.5 Taking Measurements

Once powered on, the device will automatically begin detecting ammonia, temperature, and humidity. Ensure the sensor is exposed to the air in the area you wish to monitor. For stable, continuous monitoring, utilize the tripod screw hole on the back of the device to mount it on a tripod.

HIGH ACCURATE AMMONIA GAS DETECTOR

Range from 0-100ppm in high accuracy of +/-2% reading and 0.1ppm resolution.



Image: The GR-5800G detector displaying 0.0 ppm ammonia, 55% humidity, and 19.2°C temperature. Key specifications like measuring range (0-100 ppm), resolution (0.1 ppm), accuracy ($\pm 2\%$), and 1600mAh rechargeable battery are highlighted.

6. MAINTENANCE

6.1 Cleaning

To maintain optimal performance, regularly clean the exterior of the device with a soft, dry cloth. Do not use abrasive cleaners or solvents, as these can damage the casing or internal components. Keep the sensor area free from dust and debris.

6.2 Sensor Care

The electrochemical sensor has an extended lifespan of over two years under normal operating conditions. Avoid exposing the sensor to extreme temperatures, high humidity, or corrosive gases for prolonged periods, as this can reduce its accuracy and lifespan. Do not attempt to clean the sensor directly with liquids or sharp objects.

7. TROUBLESHOOTING

If you encounter issues with your GR-5800G detector, please refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on.	Low battery or no charge.	Charge the device using the provided USB cable. Ensure the charging indicator lights up.
Inaccurate or inconsistent readings.	Sensor obstructed, dirty, or exposed to extreme conditions. Device not calibrated.	Ensure the sensor cap is removed and the sensor is clean. Operate in stable environmental conditions. If issues persist, contact customer support for potential calibration needs.
Alarm not sounding or light not flashing.	Alarm thresholds set too high or alarm function disabled.	Check and adjust AL1 and AL2 settings. Ensure the ammonia concentration exceeds the set thresholds.
Display is blank or frozen.	Software glitch or low battery.	Try restarting the device. If it doesn't respond, charge the battery. If the problem continues, contact support.

If you experience any issues not covered here, please contact GOYERRNES customer support for assistance.

8. SPECIFICATIONS

Below are the technical specifications for the GOYERRNES GR-5800G Ammonia Gas Detector:

Feature	Detail
Brand	GOYERRNES
Model Number	GR-5800G
Style	Ammonia Gas Meter
Power Source	Battery Powered
Sensor Type	Electrochemical
Ammonia Range	0-100 ppm
Resolution	0.1 ppm
Accuracy	±2%
Alarm Function	Two Alarm Function (light and sound)
Operating Humidity	Up to 95%
Item Weight	0.55 Kilograms (1.21 pounds)
Product Dimensions	7.4 x 1.3 x 3.1 inches
Usage	Inside; Professional
Included Components	User Manual, USB Cable
Battery	1600mAh rechargeable battery (up to 30 hours continuous use)

9. WARRANTY AND SUPPORT

GOYERRNES is committed to providing high-quality products. For warranty information, technical support, or any inquiries regarding your GR-5800G Ammonia Gas Detector, please refer to the contact details provided in the packaging or visit the official GOYERRNES website. Please retain your proof of purchase for warranty claims.

