WESHLGD KH168

WESHLGD 5-in-1 Carbon Monoxide and Natural Gas Leak Detector (Model KH168) Instruction Manual

1. Introduction

Thank you for choosing the WESHLGD 5-in-1 Carbon Monoxide and Natural Gas Leak Detector. This device is designed to enhance your home safety by continuously monitoring for dangerous levels of carbon monoxide (CO) and combustible natural gas. Additionally, it provides real-time readings for temperature and humidity, and features adjustable voice alerts and display brightness. Its compact, plug-in design with a 9V battery backup ensures continuous protection even during power outages.

Please read this manual thoroughly before installation and use to ensure proper operation and to understand all safety precautions.

2. Important Safety Information

WARNING: This device detects carbon monoxide and combustible gases. It is not designed to detect smoke, fire, or other hazardous gases. It is not a substitute for a smoke detector.

- Always follow all local and national codes for installation.
- Do not paint the detector. Paint can clog the sensor openings and interfere with the unit's ability to detect CO or gas.
- Do not block the air inlet or outlet vents on the detector.
- Test the detector weekly using the self-test button.
- Never ignore an alarm. Investigate the source of the alarm immediately.

2.1 Optimal Placement

Proper placement is crucial for effective detection:

- **For Carbon Monoxide (CO):** CO is slightly lighter than air and mixes readily. Place the detector at least 5 feet (1.5 meters) from the floor, ideally at eye level, or on a wall outlet.
- **For Natural Gas:** Natural gas (methane) is lighter than air and rises. Install the detector in a high location, such as on a wall outlet near the ceiling, or at least 12 inches (30 cm) below the ceiling.
- **For Propane (LPG):** Propane is heavier than air and sinks. Install the detector in a low location, such as on a wall outlet near the floor, or at least 12 inches (30 cm) above the floor.
- **General Placement:** Avoid placing the detector in direct sunlight, near ventilation openings, behind curtains, or in

areas with high humidity (e.g., bathrooms) or extreme temperatures.

3. Product Features

The WESHLGD 5-in-1 detector integrates multiple safety and environmental monitoring functions:

- **Carbon Monoxide (CO) Detection:** Utilizes high-precision electrochemical sensors to detect CO levels in parts per million (PPM).
- **Combustible Gas Detection:** Employs catalytic combustion sensors for natural gas (methane) and propane (LPG) leak detection, measured in %LEL (Lower Explosive Limit).
- **Temperature Display:** Shows ambient temperature in Fahrenheit (°F).
- **Humidity Display:** Shows ambient relative humidity (RH%).
- **Voice Alarm & Brightness Control:** Features a clear voice alarm and a display with 3 adjustable brightness levels.
- **9V Battery Backup:** Ensures continuous operation during power outages (9V battery not included).
- **Real-time LCD Display:** Large, color LCD screen provides clear, real-time readings of all monitored parameters.



Figure 3.1: Front view of the detector with its display and control buttons.



Figure 3.2: Overview of the detector's 5-in-1 capabilities.

4. Installation and Setup

4.1 Battery Installation (Optional but Recommended)

The detector operates primarily via AC power, but a 9V battery provides backup during power outages.

1. Locate the battery compartment on the side of the detector.
2. Open the battery compartment cover.
3. Insert a new 9V alkaline battery, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely.



Figure 4.1: Side view of the detector showing the battery compartment and AC plug.



Figure 4.2: Illustration of the 9V battery backup feature.

4.2 Powering On

1. Plug the detector directly into a standard AC 110-220V wall outlet.
2. Upon plugging in, the detector will initiate a preheat countdown, typically 180 seconds. During this time, the display will show a countdown, and the unit will not be fully operational for detection.
3. Once the countdown is complete, the detector will enter normal monitoring mode, displaying current temperature, humidity, and 0 PPM/0%LEL for CO and gas respectively (assuming no detection).



Figure 4.3: The detector's plug-and-play design.

5. Operation

5.1 Display Information

The LCD screen continuously displays the following:

- **CO Level:** In PPM (Parts Per Million).
- **Gas Level:** In %LEL (Lower Explosive Limit).
- **Temperature:** In °F.
- **Humidity:** In RH%.

5.2 Adjusting Sound and Brightness

The detector features three adjustable levels for both voice alarm volume and display brightness:

- **Brightness Button:** Press to cycle through Low, Medium, and High brightness settings.
- **Volume Button:** Press to cycle through Low (60dB), Medium (70dB), and High (80dB) volume settings for the voice alarm.



Figure 5.1: Brightness and Volume Control.

5.3 Self-Test Function

It is recommended to perform a self-test weekly to ensure the detector is functioning correctly.

- Press the **SELF-TEST** button.
- The detector will emit a loud alarm sound, flash its alarm light, and announce "Attention, please! Gas leaking!" or a similar message.
- The display will show simulated CO and gas levels during the test.
- The test will conclude automatically. If the test fails, refer to the Troubleshooting section.

5.4 Alarm Thresholds

The detector is designed to alarm when CO or gas concentrations reach dangerous levels:

- **CO Alarm:** Activates when CO concentration reaches >150 PPM.

- **Gas Alarm:** Activates when gas concentration reaches >5% LEL.

When an alarm is triggered, the unit will emit a loud audible alarm, flash the red alarm light, and provide a voice alert. Immediately follow emergency procedures if an alarm sounds.

6. Maintenance

Regular maintenance ensures the longevity and reliability of your detector.

- **Weekly Testing:** Press the SELF-TEST button once a week to confirm proper operation.
- **Battery Replacement:** Replace the 9V backup battery annually, or immediately if the low battery indicator appears.
- **Cleaning:** Gently wipe the exterior of the detector with a soft, damp cloth. Do not use cleaning sprays, solvents, or abrasive cleaners, as these can damage the sensors or casing. Do not spray water directly into the unit.
- **Avoid Obstructions:** Ensure that the air inlet and outlet vents are free from dust, debris, or any obstructions.

7. Troubleshooting

If your detector is not functioning as expected, refer to the following common issues and solutions:

Problem	Possible Cause	Solution
Detector does not power on.	No AC power; 9V battery depleted or not installed.	Ensure the unit is securely plugged into a live outlet. Check and replace the 9V battery if necessary.
Alarm sounds continuously.	High levels of CO or combustible gas detected.	**Evacuate immediately and call emergency services.** Do not re-enter until the area is deemed safe by professionals.
Fault indicator light is on.	Internal malfunction or sensor error.	Perform a self-test. If the fault persists, contact customer support for assistance.
Inaccurate temperature/humidity readings.	Placement near heat sources, vents, or in direct sunlight.	Relocate the detector to an area with stable ambient conditions.
Voice alarm is too loud/quiet.	Volume setting is not preferred.	Press the VOLUME button to adjust to the desired level (Low, Medium, High).

8. Specifications

Feature	Detail
Model Number	KH168
Power Source	AC Plug-in (110-220V) with 9V Battery Backup (battery not included)
Product Dimensions	2.68"D x 2.48"W x 5.12"H
Item Weight	3.84 ounces
Alarm Type	Voice Alarm
Material	ABS

Feature	Detail
CO Detection Range	0-2000 PPM
Gas Detection Range	0-10% LEL
Temperature Range	1℉-176℉ (±4℉)
Humidity Range	0-99% RH

9. Warranty and Support

For warranty information or technical support, please refer to the product packaging or contact WESHLGD customer service directly. Keep your purchase receipt as proof of purchase.

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

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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