

## AOTIQUAL 203

# AOTIQUAL Natural Gas Detector & Combustible Gas Alarm Model 203 User Manual

Model: 203

## 1. INTRODUCTION

This manual provides essential information for the safe and effective use of your AOTIQUAL Natural Gas Detector and Combustible Gas Alarm, Model 203. This device is designed to detect various combustible gases, including natural gas, methane, ethane, propane, artificial gas, liquefied petroleum gas (LPG), and liquefied natural gas (LNG), enhancing safety in your home environment.

## 2. IMPORTANT SAFETY INFORMATION

Please read and understand all instructions before operating the device. Failure to follow these instructions may result in property damage, injury, or death. This device is intended for indoor use only.

- Do not paint the detector. Paint can clog the sensor openings and interfere with the unit's ability to detect gas.
- Do not block the ventilation openings on the detector.
- Do not use cleaning agents or polish on the detector.
- Regularly test the detector as instructed in this manual.
- In case of an alarm, immediately follow the emergency procedures outlined in this manual.

## 3. PRODUCT OVERVIEW

The AOTIQUAL Model 203 gas detector features advanced chip technology for precise detection and a clear digital display for real-time gas concentration readings. It is designed for ease of use and reliable performance.

### Key Features:

- **Comprehensive Gas Detection:** Detects natural gas, methane, ethane, propane, artificial gas, LPG, and LNG.

- **Advanced Chip Technology:** Ensures high precision and reliability.
- **Energy Efficient:** Low power consumption for extended operation.
- **Audible Alarm:** An 85 dB alarm alerts users to hazardous gas presence.
- **Digital Display:** Shows real-time gas concentration.
- **Plug-and-Play Installation:** Simple setup for immediate use.

### Components:

- Gas Detector Unit
- Mounting Screw (if applicable for optional wall mounting)
- User Manual





Figure 3.1: Front view of the AOTIQUAL Natural Gas Detector, displaying the digital readout and indicator lights.

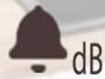
# FOR CONVENIENCE & SAFETY PLUG-IN AC 100-240V



Imported Electrochemical Sensor



Digital Display



>85dB Voice Alarm



Test / Reset Button



Alarm Indicator



Easy to install



Figure 3.2: Key features of the AOTIQUAL Gas Detector, including its sensor, display, and alarm.

## 4. SETUP AND INSTALLATION

The AOTIQUAL Model 203 gas detector is designed for user-friendly plug-and-play installation.

### Installation Steps:

- 1. Choose a Location:** Select an appropriate location for the detector. For natural gas (which rises), install it within 12 inches (30 cm) of the ceiling and at least 5 feet (1.5 meters) away from gas appliances. For LPG/Propane (which sinks), install it within 12 inches (30 cm) of the floor. Ensure it is not obstructed by furniture or curtains.
- 2. Plug In:** Insert the detector directly into a standard AC 100-240V electrical outlet.
- 3. Initial Startup:** Upon plugging in, the detector will undergo an initial startup sequence. The indicator lights will flash alternately for approximately 2-3 minutes as the device calibrates and prepares for operation.
- 4. Ready State:** Once the startup sequence is complete, the green indicator light will illuminate, and the digital

display will show '000', indicating the device is ready for monitoring.

Figure 4.1: The detector plugged into an AC outlet, ready for monitoring.



Figure 4.2: Side view illustrating the compact dimensions and AC plug.

## 5. OPERATING INSTRUCTIONS

Once installed and powered on, the AOTIQUAL gas detector operates continuously to monitor for combustible gases.

## Indicator Lights and Display:

- **Green Light (Normal):** Indicates the device is powered on and operating correctly, with no gas detected.
- **Red Light (Alarm):** Flashes when a gas leak is detected, accompanied by an audible alarm.
- **Yellow Light (Fault):** Indicates a malfunction or fault with the device.
- **Digital Display:** Shows '000' in normal operation. When gas is detected, it displays the real-time gas concentration level.



Figure 5.1: Indicator lights and their meanings.



Figure 5.2: Digital display showing gas concentration.

## 6. TESTING METHOD

It is recommended to test the detector periodically to ensure proper functionality.

### Procedure:

1. Locate the air inlet on the detector.
2. Carefully bring a lighter (without igniting a flame) near the air inlet.
3. Gradually release gas from the lighter towards the air inlet.
4. The alarm will trigger when the gas concentration reaches 8% LEL (Lower Explosive Limit). This indicates the sensor is functioning correctly.
5. The alarm will sound at 85 dB, and the red indicator light will flash.

6. To silence the alarm, press the Test/Silence button. The detector will return to normal monitoring once the gas clears.

## 7. ALERT SYSTEM AND EMERGENCY PROCEDURES

The detector is equipped with an 85 dB alarm to promptly alert you to potential gas leaks.

### When the Alarm Sounds:

1. **Do Not Panic:** Remain calm.
2. **Ventilate:** Immediately open windows and doors to ventilate the area.
3. **Turn Off Gas:** If safe to do so, turn off the main gas supply valve.
4. **Evacuate:** If the alarm persists or the gas odor is strong, evacuate all occupants from the building.
5. **Contact Authorities:** From a safe location, call your gas provider or emergency services.
6. **Do Not:** Do not operate electrical switches, light matches, or use phones inside the building until the gas leak is confirmed to be resolved and the area is declared safe.

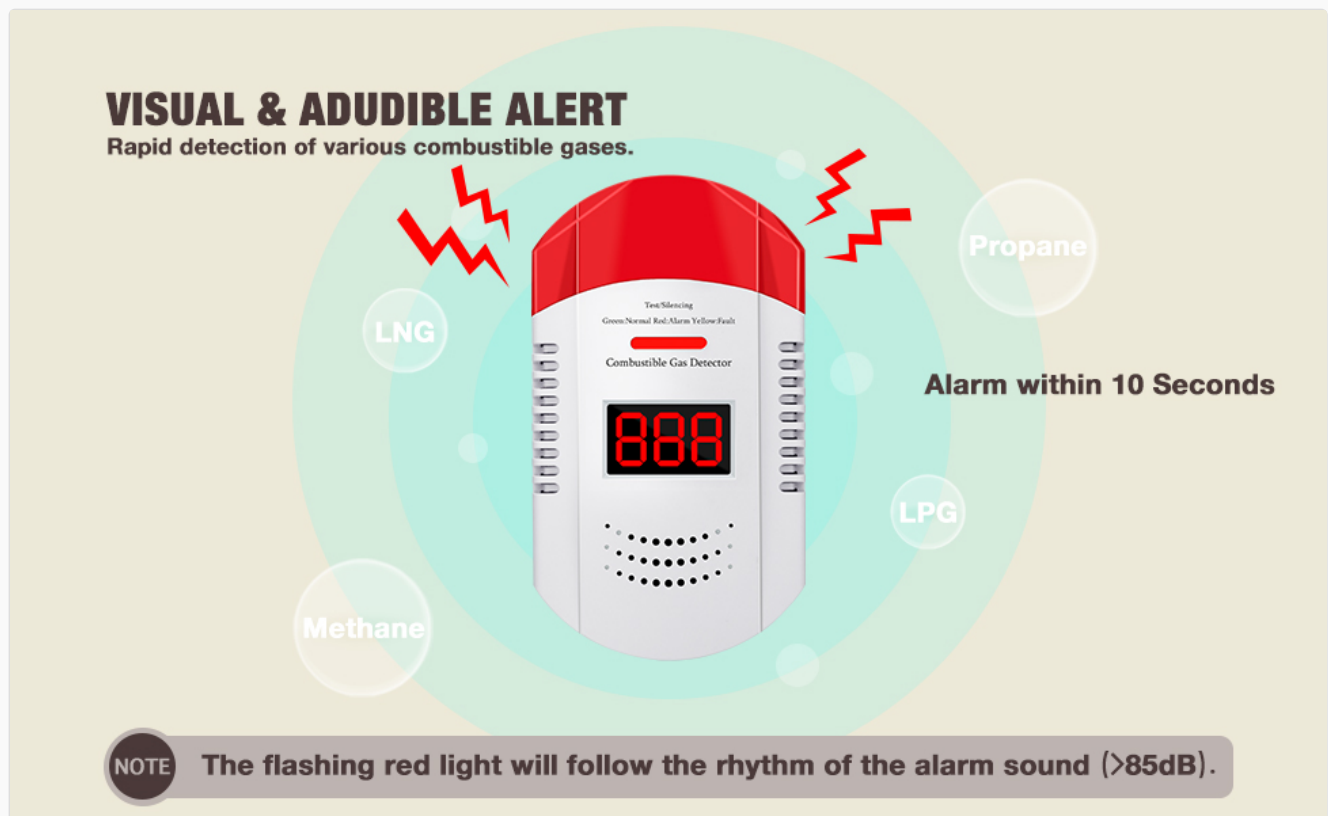


Figure 7.1: Visual and audible alert system for various combustible gases.

## 8. MAINTENANCE

Proper maintenance ensures the longevity and accuracy of your gas detector.

- **Regular Cleaning:** Gently wipe the exterior of the detector with a soft, dry cloth. Do not use water, solvents, or abrasive cleaners.
- **Avoid Obstructions:** Ensure that the ventilation openings are free from dust, debris, or any obstructions.

- **Periodic Testing:** Perform the testing method described in Section 6 at least once a month to confirm the sensor and alarm are functioning.

## 9. TROUBLESHOOTING

If you encounter issues with your AOTIQUAL gas detector, refer to the following common problems and solutions.

Problem	Possible Cause	Solution
Detector does not power on (no lights)	No power to the outlet; device unplugged.	Check the power outlet with another device. Ensure the detector is securely plugged in.
Yellow 'Fault' light is on	Internal malfunction or sensor error.	Unplug the device for 30 seconds and plug it back in. If the fault persists, contact customer support.
Alarm sounds frequently without gas presence	False alarm due to strong odors (e.g., cleaning products, aerosols) or sensor contamination.	Ventilate the area. Ensure the detector is not near sources of strong fumes. Clean the detector as per maintenance instructions.
Alarm does not sound during test	Insufficient gas applied during test; sensor malfunction.	Re-attempt the test carefully, ensuring gas is released directly into the air inlet. If still no alarm, the sensor may be faulty. Contact customer support.

## 10. SPECIFICATIONS

Specification	Detail
Brand	AOTIQUAL
Model Number	203
Style	Combustible Gas (Natural Gas)
Power Source	AC Plug-in (100-240V)
Color	White
Product Dimensions	2.8"D x 1.2"W x 1.6"H (approx. 7.1cm D x 3.0cm W x 4.1cm H)
Alarm Volume	85 dB
Operating Humidity	10%-95%
Material	ABS
Item Weight	4.3 ounces (approx. 122 grams)
Batteries Required	No

Specification	Detail
Detection Gases	Natural gas, Methane, Ethane, Propane, Artificial gas, LPG, LNG
Alarm Threshold	8% LEL

## 11. WARRANTY AND SUPPORT

AOTIQUAL is committed to providing reliable home security products. For any questions, technical assistance, or warranty inquiries regarding your Model 203 gas detector, please contact AOTIQUAL customer support through the retailer where the product was purchased or refer to the contact information provided with your product packaging.