

[Manuals.plus](#) /

› [AOTIQUAL](#) /

› AOTIQUAL Handheld Natural Gas Detector (Model BT-RT40A) User Manual

## AOTIQUAL BT-RT40A

# AOTIQUAL Handheld Natural Gas Detector (Model BT-RT40A) User Manual

Your guide to safe and effective gas leak detection.

## 1. INTRODUCTION

The AOTIQUAL Handheld Natural Gas Detector (Model BT-RT40A) is a portable device designed to detect the presence of combustible gases such as methane, propane, and butane. It provides audible and visual alarms to alert users to potential gas leaks, enhancing safety in various environments including homes, industrial settings, and outdoor areas. This manual provides essential information for the proper setup, operation, and maintenance of your gas detector.



# 10+Gases

Prevent flammable gases such as methane, propane, biogas, gasoline, LPG, LNG, etc

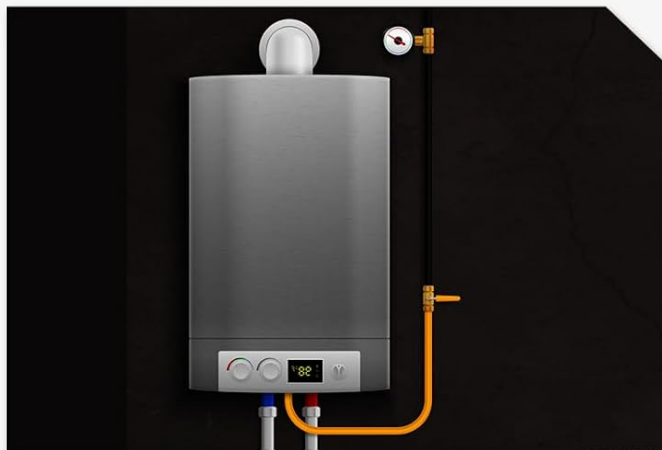


Figure 1: AOTIQUAL Handheld Natural Gas Detector.

## 2. SAFETY INFORMATION

Please read all safety instructions carefully before using the device. Failure to follow these instructions may result in inaccurate readings, property damage, or personal injury.

- This device is intended for detecting combustible gases (methane, propane, butane, etc.). It is not designed to detect carbon monoxide or other non-combustible gases.
- The detector is a tool for identifying potential gas leaks. It is not a substitute for professional gas leak inspections or proper ventilation.
- In case of a suspected gas leak, immediately evacuate the area, turn off the gas supply if safe to do so, and contact emergency services or a qualified technician.
- Do not expose the device to extreme temperatures, humidity, or corrosive environments.
- Keep the device out of reach of children.

### 3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x Gas Leak Detector
- 2 x 1.5V AAA Batteries
- 1 x User Manual

### 4. PRODUCT OVERVIEW

Familiarize yourself with the components of your gas detector:



Figure 2: Labeled components of the Gas Detector.

1. **Combustible Gas Sensor:** Detects gas concentrations.

2. **Sensitivity Key (Hi/Lo):** Adjusts detection sensitivity.
3. **ON/OFF Button:** Powers the device on or off.
4. **Display:** Shows status, sensitivity mode, and gas concentration levels.
5. **Battery Cover:** Protects the battery compartment.

## 5. SETUP

---

### 5.1 Battery Installation

The detector requires two (2) AAA batteries for operation. These are included in your package.

1. Unscrew the battery cover located at the bottom of the device (refer to Figure 2).
2. Insert two AAA batteries, ensuring correct polarity (+/-).
3. Replace the battery cover and screw it securely.

## 6. OPERATION

---

### 6.1 Power On/Off

- To power on, press and hold the **ON/OFF** button until the display illuminates.
- The device will enter a 30-second preheating phase. During this time, the display may show a red background and a fluctuating graph. Wait until the display turns green and shows 'Lo' or 'Hi' before use.
- To power off, press and hold the **ON/OFF** button again.

### 6.2 Sensitivity Adjustment

The detector features two sensitivity modes: High (Hi) and Low (Lo).

- Press the **Hi** button for high sensitivity detection, suitable for detecting small leaks or in open areas.
- Press the **Lo** button for low sensitivity detection, useful for pinpointing larger leaks or in confined spaces.

# Multiple Functions

## Meeting different needs



Low  
Battery  
Indication



Automatic  
Shut-down



High  
Sensitivity  
Mode



Low  
Sensitivity  
Mode



Figure 3: Multiple functions including sensitivity modes.

# Handheld Portable Natural Gas Detector



Figure 4: High and Low sensitivity display modes.

## 6.3 Gas Leak Detection

1. After preheating, hold the detector with the sensor end near the area where a gas leak is suspected.
2. Slowly move the detector along pipes, connections, or appliances.
3. If gas is detected, the device will emit an audible alarm, the display will turn red, and an analog bar will indicate the gas concentration level. The alarm intensity increases with higher gas concentration.

# Audible and visual alarm concentration indication

When flammable gas leakage is detected, the instrument will emit a "di di" sound, and the screen concentration prompt analog bar display.



Figure 5: Detector indicating gas presence near a stove burner.

## 6.4 Automatic Shut-down

The device features an intelligent power-saving function. If no operation is performed for approximately 4 minutes, the detector will automatically shut down to conserve battery life.

## 6.5 Operational Videos

### Testing with a Propane Tank

Your browser does not support the video tag.

Video 1: Demonstration of the gas detector being used to check for leaks around a propane tank connection. The detector emits an audible alarm and shows a visual indication when gas is detected.

### Testing with a Gas Stove

Your browser does not support the video tag.

Video 2: Demonstration of the gas detector being used to check for leaks near a gas stove burner. The detector responds with an alarm and

## 7. MAINTENANCE

### 7.1 Cleaning

Wipe the exterior of the detector with a soft, dry cloth. Do not use abrasive cleaners or solvents, as these can damage the device or sensor.

### 7.2 Battery Replacement

When the low battery indicator appears on the display, replace both AAA batteries promptly to ensure accurate operation.

### 7.3 Storage

Store the detector in a cool, dry place away from direct sunlight and extreme temperatures. If storing for an extended period, remove the batteries to prevent leakage.

## 8. TROUBLESHOOTING

| Problem                                | Possible Cause                                                                                            | Solution                                                                                                      |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Detector does not turn on.             | Dead or incorrectly installed batteries.                                                                  | Check battery polarity or replace with new AAA batteries.                                                     |
| No alarm when gas is suspected.        | Device not preheated; incorrect sensitivity mode; sensor obstruction.                                     | Ensure 30-second preheating is complete. Switch to 'Hi' sensitivity. Ensure sensor is clean and unobstructed. |
| False alarms or inconsistent readings. | Presence of other volatile organic compounds (VOCs) like alcohol, paint fumes, or strong cleaning agents. | Ensure the testing area is free from other fumes. Move to a fresh air environment and re-test.                |

## 9. SPECIFICATIONS

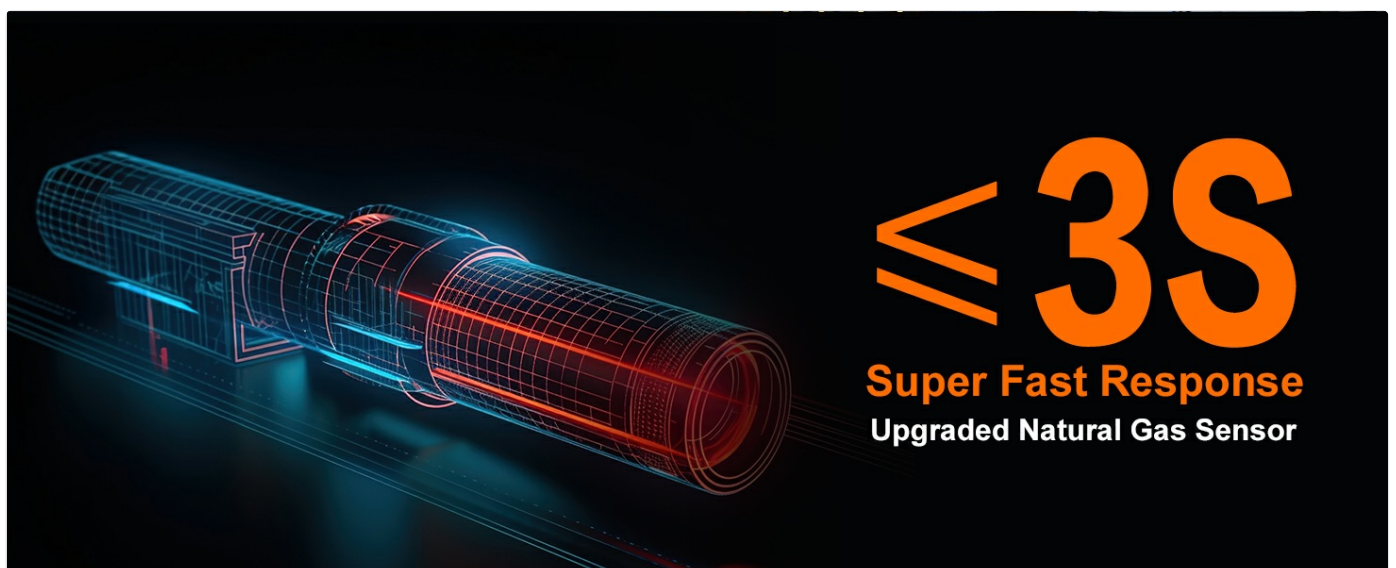


Figure 6: Key specifications of the gas detector.

- **Brand:** AOTIQUAL

- **Model:** BT-RT40A
- **Power Source:** 2 x AAA Batteries (included)
- **Detection Range:** 50-1000 PPM
- **Sensitivity:**  $\pm 50$  PPM
- **Preheating Time:** Approximately 30 seconds
- **Response Time:** Less than 3 seconds
- **Alarm Indication:** Audible and Visible (LED, LCD bar display)
- **Operating Humidity:** 10% to 95% RH
- **Product Dimensions:** 7.5"D x 1.6"W x 1.6"H
- **Item Weight:** 3.2 ounces
- **Material:** ABS
- **Automatic Shut-down:** After 4 minutes of inactivity

## 10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact the manufacturer directly. Refer to the product packaging or the official AOTIQUAL website for contact details.

© 2025 AOTIQUAL. All rights reserved.

### 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

Anonymous

#### Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

#### 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**