

## EG Y401

# EG Y401 Natural Gas & Propane Leak Detector with Thermometer - User Manual



## 1. INTRODUCTION

This manual provides essential information for the safe and effective use of your EG Y401 Natural Gas & Propane Leak Detector. This device is designed to continuously monitor and display real-time concentrations of various combustible gases, including methane, propane, butane, coal gas, town gas, LPG, and LNG, alongside ambient room temperature. It features a bright LED display and a loud alarm to alert you to potential gas leaks, enhancing safety in your home or RV.



Figure 1: Front and side view of the EG Y401 Gas Detector.

## 2. SETUP

### 2.1 Unpacking

Carefully remove the gas detector from its packaging. Inspect the device for any signs of damage. If damage is found, do not use the device and contact customer support.

### 2.2 Placement Considerations

Proper placement is crucial for accurate detection and early warning. Consider the following:

- **Natural Gas (Methane):** Natural gas is lighter than air. Install the detector on a wall approximately 12 inches (30 cm) below the ceiling, and at least 5 feet (1.5 meters) away from gas appliances to avoid false alarms during normal operation.
- **LPG (Propane, Butane):** LPG is heavier than air. Install the detector on a wall approximately 12 inches (30 cm) above the floor, and at least 5 feet (1.5 meters) away from gas appliances.
- **General Placement:** Avoid placing the detector in areas with high humidity, direct sunlight, strong air currents (near windows, doors, or vents), or where airborne contaminants like cooking oils can coat and decrease

sensor sensitivity.

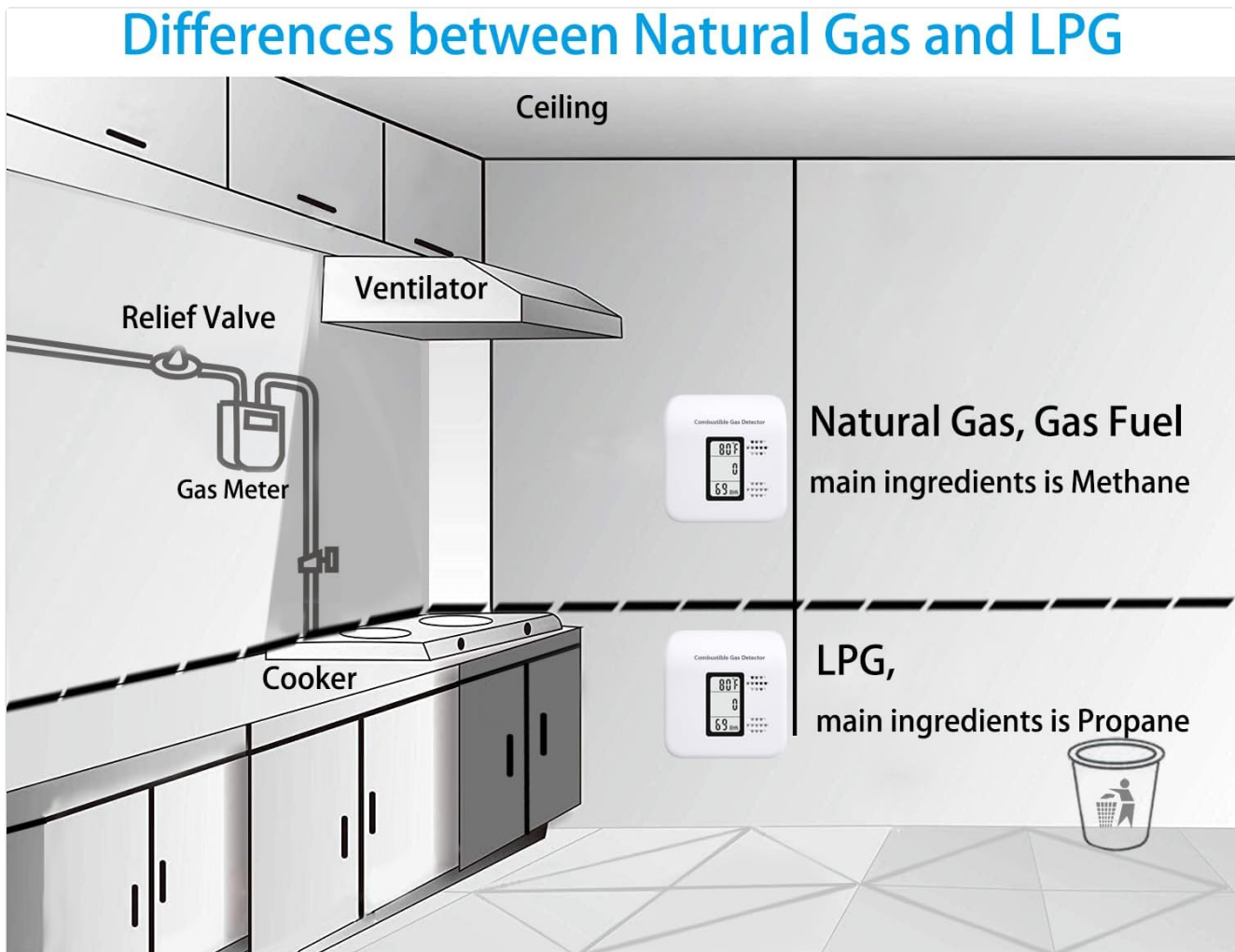


Figure 2: Recommended placement for natural gas and LPG detectors.

## 2.3 Installation

The EG Y401 detector features a plug-and-play design, requiring no drilling or complex installation. Simply plug the device into any standard electrical outlet according to the placement guidelines above. The compact design ensures that the second outlet remains unobstructed for other devices.

# No Waste of Outlets

Leaves 2<sup>nd</sup> outlet uninterrupted for other devices



Figure 3: The detector's design allows for use of the second outlet.

## 3. OPERATING INSTRUCTIONS

### 3.1 Power On

Once plugged into an outlet, the device will automatically power on and begin its self-test sequence. The LED display will illuminate, and the device will enter monitoring mode after a brief warm-up period.

### 3.2 Display Information

The bright LED display continuously shows:

- **Gas Concentration:** Real-time percentage of Lower Explosive Limit (% LEL) for combustible gases.
- **Room Temperature:** Ambient temperature in your environment.

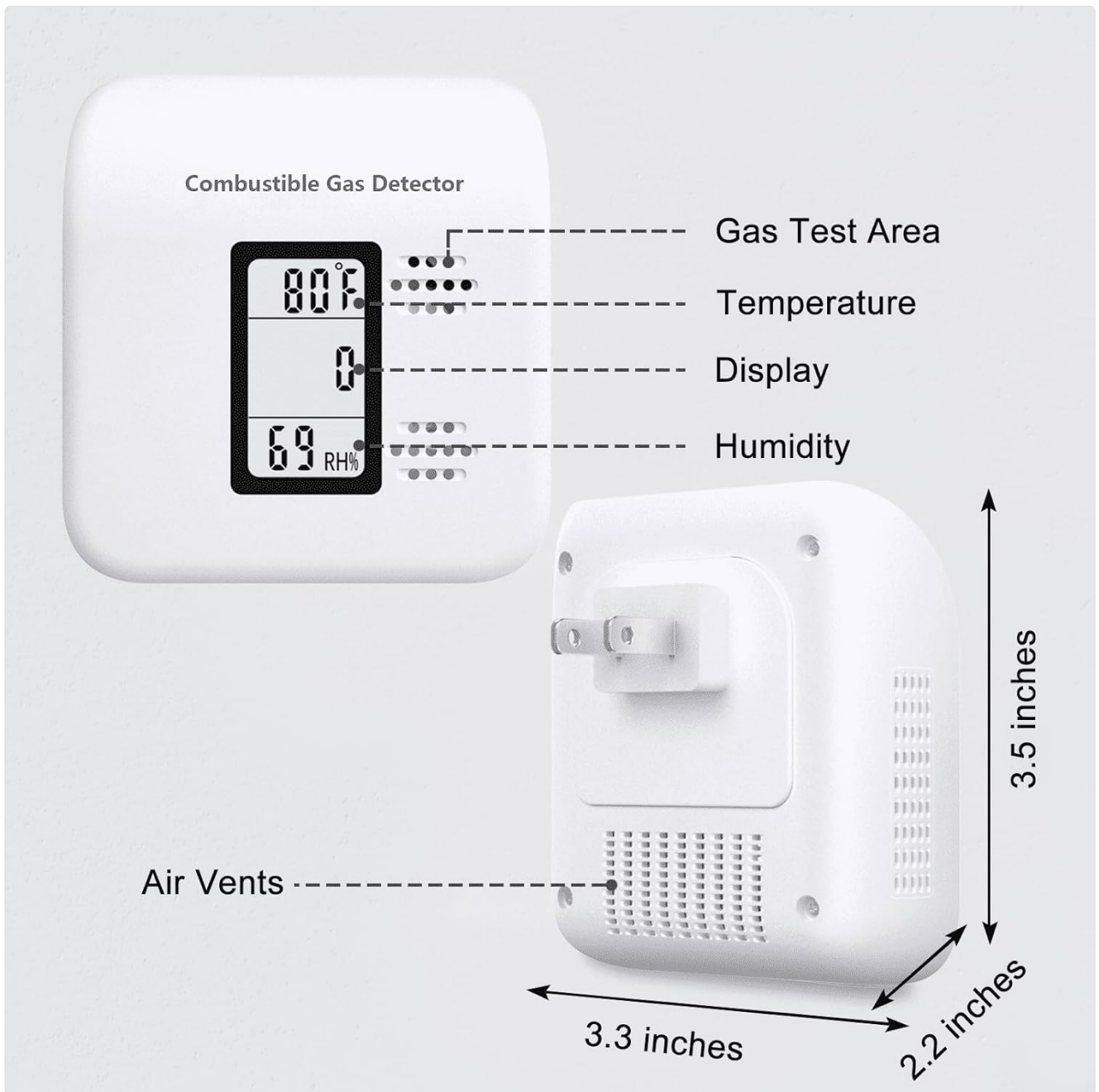


Figure 4: Labeled components and display information.

### 3.3 Alarm Function

The detector is designed to trigger an audible alarm at 5% LEL, which is well below the 100% LEL threshold for combustion. This provides critical time to react to a potential gas leak. The built-in siren emits a powerful 85dB alarm.

### 3.4 Gas Detection

The device utilizes a high-quality semiconductor gas sensor for detecting various combustible gases. It provides 24/7 monitoring with a rapid response time of 0.5-2 seconds.



# Multi Gas Detection



Figure 5: The detector monitors multiple combustible gases.

## 4. MAINTENANCE

### 4.1 Regular Testing

It is recommended to test your alarm every couple of weeks. You can do this by exposing it to unlit butane from a cigarette lighter or a propane source. The alarm should sound, indicating proper function.

### 4.2 Cleaning

Keep the detector clean and free from dust. Avoid using harsh chemicals or abrasive cleaners. Gently wipe the exterior with a soft, dry cloth. Ensure air vents are not obstructed.

### 4.3 Sensor Life and Replacement

The semiconductor gas sensor has an estimated service life of 5 to 8 years. However, it is recommended to replace the unit every 5 years due to potential degradation from airborne contaminants like food oil fumes and dust, which can decrease sensor sensitivity over time. The detector will display an "E" on the screen when it reaches its sixth

year of use, serving as a reminder for replacement.

## 5. TROUBLESHOOTING

### 5.1 Alarm Sounds

If the alarm sounds, indicating a gas leak:

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.
4. **Evacuate:** Leave the premises immediately.
5. **Contact Authorities:** From a safe location, call your gas provider or emergency services. Do not re-enter the building until it has been declared safe by professionals.

### 5.2 False Alarms

The detector is highly sensitive. Certain substances like hand sanitizer, disinfectant sprays, or even strong odors can sometimes trigger a temporary alarm. If you suspect a false alarm, ventilate the area and observe the display. If the gas concentration reading quickly returns to zero, it may have been a false alarm. If the reading persists or increases, treat it as a genuine leak.

### 5.3 Detector Malfunction

If the detector displays a number other than "0" when no gas is present, or if the yellow "Fault" light illuminates, the sensor may be malfunctioning. In such cases, the device may need replacement. Contact customer support for assistance.

## 6. SPECIFICATIONS

Feature	Specification
Brand	EG
Model Number	Y401
Power Source	Plug-in (AC)
Alarm Type	Audible (85dB)
Sensor Type	Semiconductor Gas Sensor
Detected Gases	Methane, Propane, Butane, Coal Gas, Town Gas, LPG, LNG
Alarm Trigger Level	5% LEL (Lower Explosive Limit)
Operating Humidity	Up to 93%
Upper Temperature Rating	55°C (131°F)
Item Weight	5.3 ounces
Product Dimensions	5.9 x 2.7 x 1 inches

## 7. WARRANTY AND SUPPORT

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This product comes with a 2-year warranty. An extended year of warranty may be available upon emailing the company. EG is committed to customer satisfaction and will address any issues with your purchase. For technical questions or support, a Midwest-based chemist is on staff to provide assistance. Please refer to the product packaging or purchase documentation for specific contact information.

