

briidea HPA-01

Briidea RV Propane Gas Detector HPA-01 User Manual

Model: HPA-01

1. INTRODUCTION

The Briidea RV Propane Gas Detector HPA-01 is designed to provide reliable detection of propane gas leaks in recreational vehicles. This device features a digital display for real-time propane concentration monitoring, an adjustable alarm threshold, and an 85dB audible alarm to alert users to potential hazards. This manual provides essential information for the proper installation, operation, and maintenance of your propane gas detector.

2. PRODUCT FEATURES

- **Digital Tube Display:** Shows real-time propane value (%LEL) for immediate concentration assessment.
- **Adjustable Alarm Threshold:** User-settable propane alarm value from 2%LEL to 20%LEL (default 5%LEL).
- **Loud Audible Alarm:** Emits an 85dB 'Di-Di-Di' sound when the alarm threshold is exceeded, audible up to 100ft.
- **Mute Function:** Allows temporary silencing of the alarm after activation.
- **UL Listed Sensor:** Equipped with a Japanese Figaro sensor, certified by ANSI/UL1484, ensuring sensitivity and reliability.
- **Long Service Life:** Designed for a 5-year operational life, with an end-of-life reminder.
- **Power Requirement:** Operates on 12 VDC, 75mA.



1、Digital Tube
Displays: %LEL



2、Long Last Product
Life: 5 years



3、High and Low Temperature
Resistance: -4°F to 150°F



4、Listed to UL 1484 RV

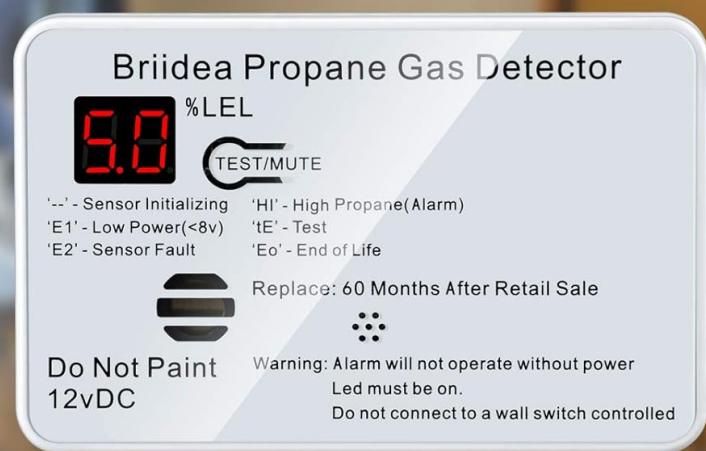


Image: Briidea Propane Gas Detector display showing initialization, error codes (E1, E2, Eo), and replacement reminder.

High Decibel Audible Alarm

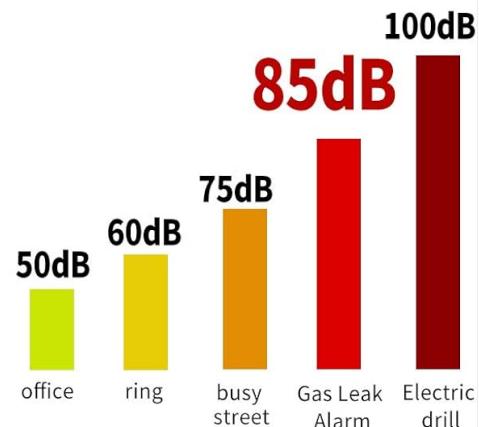
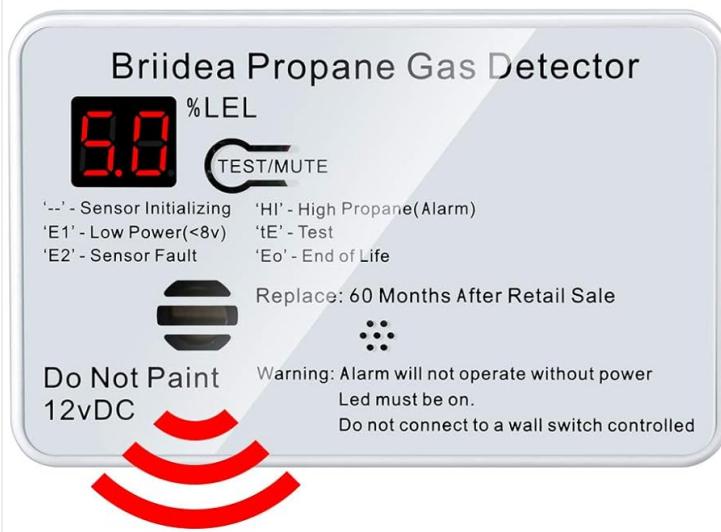


Image: Diagram illustrating the loudness of the 85dB alarm compared to other sounds, emphasizing its audibility during a gas leak.

3. SAFETY INFORMATION

- This device is designed for propane gas detection only.
- Ensure proper installation as described in this manual to maximize effectiveness.
- Do not paint the detector. Painting can obstruct sensor openings and impair functionality.
- The alarm will not operate without power. Ensure the 12VDC power supply is consistently connected.
- Do not connect the detector to a wall switch-controlled circuit, as this may inadvertently disable the alarm.
- The sensor has a service life of 5 years. Replace the unit after 5 years from the date of retail sale for continued safety.

4. PACKAGE CONTENTS

Upon opening the package, verify that all items are present:

- 1 x Briidea Propane Gas Detector (HPA-01)
- 1 x User Guide

- 1 x Screwdriver
- 2 x Screws
- 2 x Terminal Caps
- 2 x Screw Anchors

5. SPECIFICATIONS

| | |
|-------------------------------|--|
| Model Number | HPA-01 |
| Power Input | 12 VDC, 75mA |
| Detection Gas | Propane (LPG) |
| Alarm Volume | ≥ 85dB at 10 feet |
| Alarm Threshold Range | 2%LEL - 20%LEL (Default: 5%LEL) |
| Sensor Type | Japanese Figaro Sensor |
| Sensor Life | 5 years |
| Operating Temperature | -4°F to 150°F (-20°C to 65°C) |
| Operating Humidity | 95% RH (non-condensing) |
| Dimensions (L x W x D) | 4 x 2.6 x 0.8 inches (10.16 x 6.6 x 2.03 cm) |
| Weight | 4.2 ounces (119 grams) |

SIZE

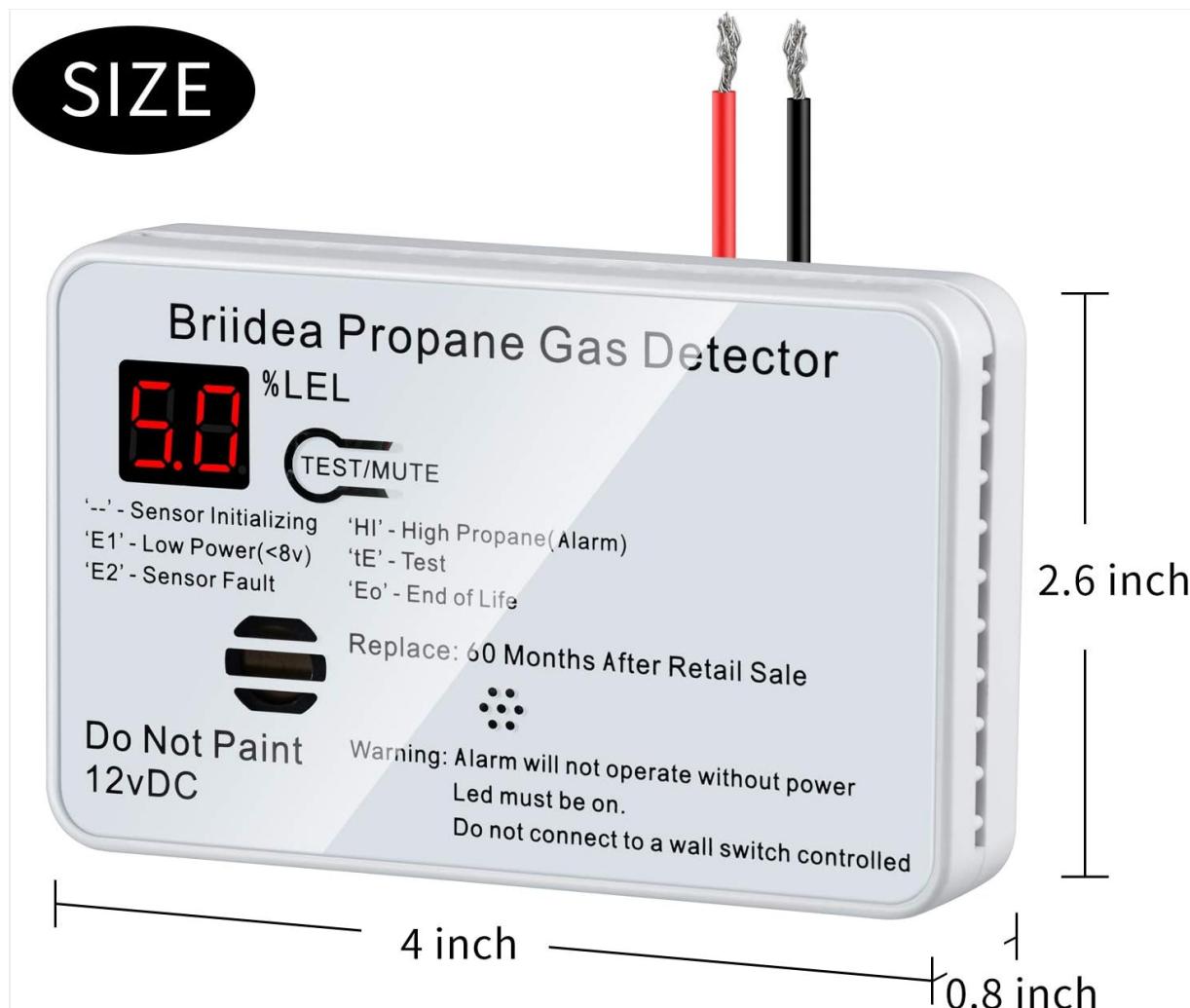


Image: Dimensions of the Briidea Propane Gas Detector: 4 inches wide, 2.6 inches high, 0.8 inches deep.

6. INSTALLATION

6.1 Mounting Location

Propane gas is heavier than air and tends to settle at lower levels. For optimal detection, install the Briidea Propane Gas Detector:

- Between 4 to 20 inches (10 to 50 cm) off the floor.
- Away from direct airflow from vents, windows, or doors.
- Not directly above or next to cooking appliances or heat sources.
- In a central location within the RV's living space where propane might accumulate.

Mounting Locations for Briidea Propane Gas Detector

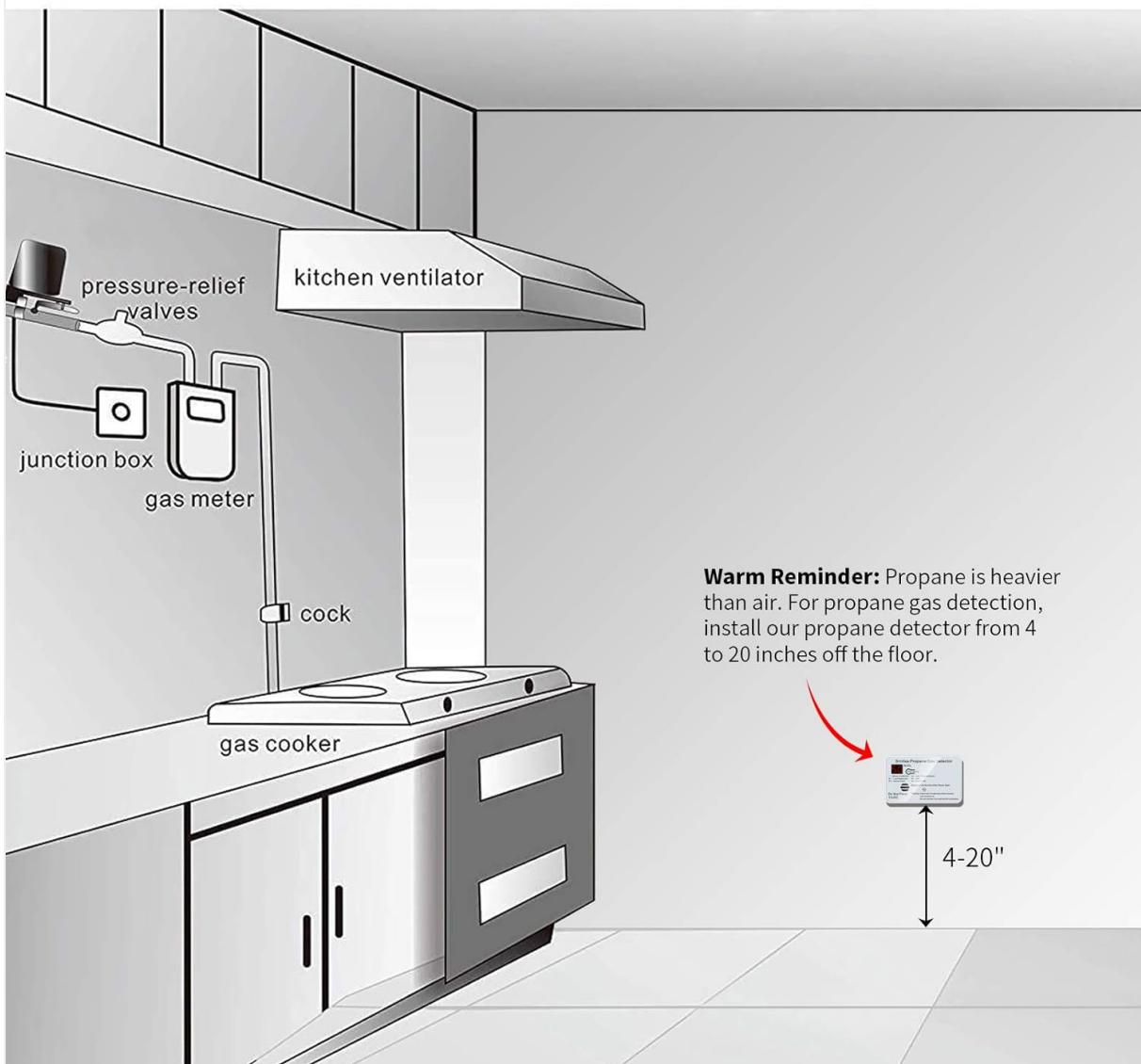


Image: Illustration showing recommended mounting locations for the propane detector in an RV, specifically 4 to 20 inches off the floor, away from gas appliances.



Image: Briidea Propane Gas Detector installed in an RV kitchen, demonstrating a typical mounting position.

6.2 Wiring Instructions

The detector requires a 12 VDC wired connection. Follow these steps for installation:

- 1. Disconnect Power:** Before beginning installation, ensure that all 12VDC power to the RV is disconnected to prevent electrical shock.
- 2. Open the Unit:** Gently pry open the front cover of the detector. It is designed to separate for access to the wiring terminals.
- 3. Connect Wires:** Locate the power wires in your RV. Typically, red is positive (+) and black is negative (-). Connect the detector's red wire to the RV's 12VDC positive (+) supply and the detector's black wire to the RV's 12VDC negative (-) ground. Use the provided terminal caps for secure connections.
- 4. Mount the Detector:** Using the provided screws and anchors, securely mount the detector to the chosen wall location.
- 5. Close the Unit:** Snap the front cover back onto the detector body.
- 6. Restore Power:** Reconnect the 12VDC power to your RV. The detector will begin its initialization sequence.

Note: If replacing an existing detector, ensure the new wiring matches the polarity of the previous installation. If you are unsure about wiring, consult a qualified electrician.

7. OPERATION

7.1 Power-Up and Initialization

Upon initial power-up, the digital display will show '---' indicating sensor initialization. This process typically takes a few minutes. Once initialized, the display will show '0.0' or the current detected propane concentration in %LEL.

7.2 Real-time Display

The digital display continuously shows the real-time propane concentration in %LEL (Lower Explosive Limit). A reading of '0.0' indicates no detectable propane gas.

7.3 Alarm Activation

If the detected propane concentration exceeds the set alarm value, the detector will:

- Display 'HI' on the digital screen.
- Emit a loud 'Di-Di-Di' audible alarm (85dB).

In case of an alarm, immediately take action to ventilate the RV and identify the source of the leak. Refer to the Safety Information section for further guidance.

7.4 Mute Function

After an alarm is triggered, you can press the 'TEST/MUTE' button to temporarily silence the audible alarm. The display will continue to show 'HI' until the propane concentration drops below the alarm threshold.

RV Propane Gas Alarm

When the propane value detected is higher than the alarm value you set, the propane gas alarm will sound you to take action to reduce the propane concentration in the RV (alarm volume > 85dB)



Image: Briidea RV Propane Gas Alarm display showing real-time LEL values, alarm setting range (2%-20% LEL), and mute function.

8. SETTING THE ALARM VALUE

The Briidea Propane Gas Detector allows you to adjust the propane alarm threshold between 2%LEL and 20%LEL. The default setting is 5%LEL.

1. Ensure the detector is powered on and in normal operating mode (displaying %LEL).
2. Press and hold the 'TEST/MUTE' button for approximately 5 seconds until the display shows the current alarm setting.
3. While the alarm setting is displayed, short press the 'TEST/MUTE' button repeatedly to cycle through the available alarm values (2%LEL, 3%LEL, ..., 20%LEL).
4. Stop pressing the button when your desired alarm value is displayed. The detector will automatically save the new setting after a few seconds and return to displaying the real-time %LEL.

9. MAINTENANCE

9.1 Regular Testing

It is recommended to test the detector regularly (e.g., monthly) by briefly exposing it to a small amount of propane gas (e.g., from an unlit propane lighter held briefly near the sensor). The alarm should activate. If it does not, refer to the Troubleshooting section.

9.2 Cleaning

Clean the exterior of the detector periodically with a soft, damp cloth. Do not use harsh chemicals, abrasive cleaners, or spray directly onto the unit. Ensure no dust or debris obstructs the sensor openings.

9.3 Sensor End of Life

The Japanese Figaro sensor has a service life of 5 years. After this period, the detector will display 'Eo' (End of Life) to remind you that the product needs to be replaced. For continued safety, replace the unit promptly when 'Eo' is displayed.

10. TROUBLESHOOTING

Refer to the following table for common issues and their solutions:

| Display Code / Symptom | Meaning | Action |
|------------------------|----------------------|--|
| '__' | Sensor Initializing | Wait for a few minutes. The display should switch to '0.0' or current %LEL. If it persists, check power connection. |
| 'HI' | High Propane (Alarm) | Indicates propane concentration is above the set alarm threshold. Ventilate the area immediately and investigate the source of the leak. Press 'TEST/MUTE' to silence the alarm temporarily. |
| 'E1' | Low Power (<8V) | The 12VDC power supply to the detector is insufficient. Check RV battery voltage and wiring connections. |
| 'E2' | Sensor Fault | Indicates a malfunction with the internal sensor. The unit may need replacement. Contact customer support. |
| 'Eo' | End of Life | The sensor has reached its 5-year operational limit. Replace the detector immediately for continued safety. |
| No Display / No Power | No power supply | Check 12VDC power connections to the RV and the detector. Ensure the RV's battery is charged. |

11. CUSTOMER SUPPORT

For technical assistance, warranty inquiries, or replacement parts, please contact Briidea customer support. Refer to the contact information provided with your purchase or visit the official Briidea website.