



# ICGD-2023 RV PROPANE GAS DETECTOR USER'S MANUAL

## IMPORTANT PLEASE READ CAREFULLY

This manual contains important information. Anyone who installs this unit for use by others must leave this manual with the owner. Do not throw this out.

**IMPORTANT:** Always follow the operation and safety instructions of the gas appliance manufacturer.

Connect only to wiring that cannot be turned off by a wall switch or ground fault protector.

**IMPORTANT:** Failure to follow the installation instructions may void the testing results.

**IMPORTANT:** If you have any problems installing or using this detector, please carefully and thoroughly review the instruction manual. If you require assistance, please contact us through amazon. We will reply your emails in 24 hours from Monday through Saturday.

### FCC Statement

1.This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1)This device may not cause harmful interference.
- (2)This device must accept any interference received, including interference that may cause undesired operation.

2.Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Note:This equipment has been tested and found to comply with the limits for a class B digital device,pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and,if not installed and used in accordance with the instructions,may causeharmful interference to radio communications.However,there is no guarantee that interference will not occur in a particular installation. if this equipment does cause harmful interference to radio or television reception,which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment should be installed and operated with a minimumum distance of 20 cm between the radiator and your body.

## ABOUT GAS DETECTORS

### 1. Special Features of the Gas Detectors

This propane gas detector for use in recreational vehicles. When propane occupies a certain proportion in the air or the ambient temperature is too high. It is the biggest safety hazard for your trailer, truck camper, Van camper or camper, so is your best helper to solve this problem. When the hazardous level of propane gas is 5%LEL or the ambient temperature is higher than 158°F,the detector signal will activate. A reset/ mute circuit can be activated to temporally silence the detector while you ventilate.

### 2. Limitations of Propane Gas Detectors

This unit will not work without power. Examples causing no power are:

- 2.1 Cut lead wires.
- 2.2 Faulty circuit connection.
- 2.3 A blown or missing fuse.
- 2.4 Improper supply (+) or ground (-) connections.

This detector will only indicate the presence of propane gas at the sensor.

This detector may not be heard if the detector loudness meets or exceeds regulatory standards. However, if this detector is in remote locations or behind closed doors the detector may not be heard, persons who are hard of hearing may not hear the detector.

**IMPORTANT:** This detector is not a smoke or fire alarm. It is also not a carbon monoxide alarm.This detector is not suitable for installation in hazardous areas as defined in the National Electrical Code.

## OPERATION AND FUNCTION

### 3. Operation

#### 3.1 Test the Sensor

When you receive the detector and power it on correctly, the nixie tube displays "--" and the buzzer will sound once , which means the sensor is initializing.You only need to wait for 60s to complete the initialization of the sensor. Then you will see that the digital tube will display the %LEL value, which indicates that the sensor can work normally. If you need to test the buzzer again, please refer to 3.1

#### 3.2 Test the Buzzer

After you finish 3.1, the next thing you need to do is to tap the TSET/MUTE button. At this time you will see the digital tube display "TE", and the buzzer will sound once, and then it will return to the normal working state. This shows that the buzzer can work normally. If there is a problem in any of the above two steps, please contact us in time.

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### 3.3 Connect a Propane Gas Detector to Your Phone

What you need to do next is to press the TSET/MUTE button for 5 seconds, and then release it after hearing a "beep". After waiting for the Wi-Fi indicator to start flashing, use your mobile phone to log in to the Shyion App to connect. The specific steps are More details in 8.

**MPORTANT:**If you do not have the Internet connection conditions or do not need to connect to the Internet, please ignore this step.

## 4. Key Function

### 4.1 Tap the TSET/MUTE Button

While the device is running, lightly press the TEST/MUTE button, it will enter the buzzer test state. at this time the digital tube flashes and displays "TE", the buzzer will sound once, and then it will return to normal operation status.

### 4.2 Propane Alarm

When the propane alarm is in the alarm state, the buzzer is alarm and the digital tube flashes and displays "HP", lightly press the TEST/MUTE button, the detector will pause the alarm for 90s, If dangerous gas levels remain after the end of the Mute cycle(about 90 seconds) the alarm will re-activate. Until the detected value is lower than the set value.

### 4.3 High Temperature Alarm

When the high temperature is in the alarm state, the buzzer is alarm and the digital tube flashes and displays "HT", lightly press the TEST/MUTE button, the detector will pause the alarm for 90s. If the detection temperature is still too high after the end of the Mute cycle(about 90 seconds) the alarm will re-activate. Until the detected value is lower than the set value.

## 5. Buzzer Alarm Situation

### 5.1 Voltage is Less than 8V

During operation, if it detects that the power is lower than 8V and the digital tube displays"E1", it means is not alarms caused by high propane content or high temperature.The buzzer sounds once every 30 seconds.

### 5.2 Propane Sensor Failure

During operation, if the propane sensor fails and the digital tube displays"E2", it means that the alarm is caused by the propane sensor failure. The buzzer will sound for 30 seconds and will stop beeping after the TEST/MUTE key is pressed lightly, and no propane will be detected until this state is released.

**MPORTANT:** If this happens, first you have to power on the detector again, if it is still not resolved, please contact us in time.

### 5.3 Temperature Sensor failure

During operation, if the temperature sensor fails and the digital tube displays"E3", it means that the alarm is caused by the temperature sensor failure. The buzzer will sound for 30 seconds and will stop beeping after the TEST/MUTE key is pressed lightly, and will not detect propane until this state is released.

**MPORTANT:** If this happens, first you have to power on the detector again, if it is still not resolved, please contact us in time.

### 5.4 Propane Concentration is too High

When the detected propane %LFL value is greater than the 5%LEL, the buzzer will send out a rapid alarm to remind you. You should take measures as soon as possible to reduce the propane concentration. More details in 4.2

### 5.5 High Temperature

When the ambient temperature is detected to be greater than 158 °F , the buzzer will send out a rapid alarm to remind you. You should take steps to lower the surrounding temperature as soon as possible. More details in 4.3

### 5.6 Digital Tube Code Meaning

Code	Description	Annotation
"--"	Sensor initialization process	More detail on 3.1
"HP"	High' propane concentration detected	More detail on 4.2
"HT"	Higher Temperature Detected	More detail on 4.3
"E1"	Battery level is less than 8V	More detail on 5.1
"E2"	Propane sensor failure	More detail on 5.2
"E3"	Temperature sensor failure	More detail on 5.3
"TE"	Test status	More detail on 3.2

## INSTALLATION INSTRUCTIONS

Power supply 12 VDC. Connect the detector to a properly fused circuit.All connections must be in accordance with the National Electrical Code.Refer to 4.1and 4.2 power leads, connect the RED (+) power lead to the fused circuit, connect the black lead to ground (-). Fix the back shell of the detector on the wall, connect the wires correctly, and then close the front cover, Please note the screw distance is 68mm !

### 6. Where To Install Gas Detectors

This detector for installation in recreational vehicles. Install this detector, near sources of a potential gas leak. Some potential sources are a furnace, water heater, stove or oven. If potential sources of a gas leak are in separated areas, we recommends installing a detector in each area.

**MPORTANT:** Propane is heavier than air. For propane gas detection, install this Detector from 4 to 20 inches off the floor.

### 7. Where not to Install this Gas Detector

7.1 Behind furniture, drapes, in closets or areas that will block air flow to the detector.

7.2 With in 12 inches of exterior doors, windows, heating or returns vents, or other drafty areas.

7.3 In or on outside walls.

7.4 To a wall switch controlled power line, ground fault circuit or circuit breaker.

**MPORTANT:** Older homes and RVs may have little or no insulation and therefore are more drafty.

Carefully consider mounting locations.

### 8. Connect the Device to the Mobile Phone

8.1 Use App Store or Google Play to download Shyion App, or scan the QR code below to download.



Google Play



App Store

8.2 Please scan the QR code below to watch the video, and refer to the video for installation and connection



Installation video



Connect video

## MAINTAIN DEVICE

### 9. How to take care of your detector

To keep your detector in good working order, you must

9.1 Test the detector weekly(See "3.2")

9.2.1 Regularly observe the display status of the digital tube (See "5.6")

9.3 Vacuum the dust off the detector cover weekly,(more frequently in dusty locations),using the soft brush attachment of your vacuum.

9.4 Clean the detector cover weekly. Hand wash using a damp cloth, or paper towel. Dry with a soft cloth.

9.5 Do not spray cleaning agents or waxes directly onto the front panel. This action may damage the sensor, cause an alarm or cause a malfunction.

### 10. TROUBLE SHOOTING GUIDE

PROBLEM	SOLUTION
Digital Tube OFF	1. Faulty Wire Connection 2. Reverse Polarity 3. Bad or Missing Fuse 4. Dead Battery
No Sound In Test	Please Contact Us
No Gas But Alarm	Contaminated Sensor. Press the Test/mute Switch and Wait 90 seconds