REED

# Model GD-3300

## Combustible Gas Leak Detector


## Instruction Manual

www.reedinstruments.com

# INTRODUCTION

The Combustible Gas Leak Detector has a 16” gooseneck probe to find leaks in hard-to-reach areas. It’s adjustable alarm, one-hand operation with thumb-controlled sensitivity adjustment, and impact-resistant storage case add up to value and convenience.

# FEATURES

Easily operate the Combustible Gas Leak Detector with one hand to detect the presence of combustible gases. Audible and visual indicators help to pinpoint leak sources. Adjustable ssensitivity (“tick rate”) helps to eliminate background gas concentrations in contaminated environments.

- 50 ppm sensitivity
- Adjustable tick rate to locate leaks quickly and easily
- Visual leak detection by LED indicators
- Precision sensor detects even the smallest leaks
- Fast response of less than two seconds to 40% LEL
- Includes earphone jack
- 16” gooseneck

# SAFETY TIPS

Before using this instrument, read all safety information carefully. In this manual the word "**WARNING**" is used to indicate conditions or actions that may pose physical hazards to the user. The word "**CAUTION**" is used to indicate conditions or actions that may damage this instrument.

If you are using your Combustible Gas Leak Detector as a result of a service call, chances are someone has either smelled a combustible gas leak or someone has reason to believe gas may be leaking. While your Combustible Gas Leak Detector is designed to function without producing sparks or otherwise igniting the gases it detects, the environment you are responding to probably has no such safeguards. Most combustible gas leaks are noticed long before concentration levels build up to the point that explosion hazards exist.

## ⚠ WARNING!

***If you feel an explosion hazard exists:***

- ***Arrange for evacuation of people in the area***
- ***Call proper authorities from a safe location***
- ***Shut off gas source, if possible***
- ***Ventilate enclosed areas if possible to do so without risk of ignition***
- ***DO NOT switch on power in area in question***

As a matter of routine, ventilate the area you plan to work in. Ventilation will help ensure the gas does not accumulate in large volume where it can attain its Lower Explosive Limit (LEL).

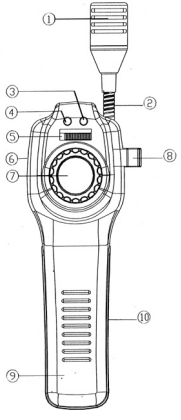
**Lower Explosive Limit (LEL):** The point at which a combustible gas, when mixed with air, has developed the minimum concentration to combust when exposed to a source of ignition. The LEL is usually stated as a percentage of gas in air, as a fuel-air-ratio, or as parts-per-million (PPM).

### International Symbols

CE Conforms to European Union directives

## CONTROLS AND INDICATORS

1. Sensor Tip Guard & Sensor (internal)
2. Gooseneck Probe
3. Alarm Light
4. Ready Light (Power-On)
5. Power ON/OFF Slide Switch
6. Earphone Jack
7. Tick Rate (Sensitivity) Adjustment
8. Probe Clip
9. Handle
10. Battery Cover



# INSTRUCTIONS

Switch on the Combustible Gas Leak Detector by sliding the ON/OFF button and the READY light is glowing. The gas leak detector runs through a one-minute warm-up and self-zeroing sequence when it is first turned on in fresh air. The alarm of the instrument may be very loud without contact with any gas, that is caused the initial preset sensitivity.

## Rate (Sensitivity) Adjustment

Each time the instrument is put into service, you should conduct a quick functional test. Adjust the tick rate to non-alarm level. Then, simply expose the sensor to a known leak, like a cigarette lighter, or pass the probe over a drop of combustible fluid. After the initial warm-up, the instrument can be used to detect combustible gases. When the sensor in the probe tip detects a combustible gas, the tick rate will increase and the instrument sounds a warbling tone while the ALARM light. As the concentration of gas increases, so does the tick rate.

If the situation calls for quiet operation, or if background noise makes it difficult to hear the built-in speaker, you can use an earphone. The jack is at the top of the instrument. Note that listening to the alarm or tick through the earphone is very loud.

If the READY light is off, the batteries are low. They should be replaced immediately. Low batteries will adversely affect the instrument's reliability. See battery replacement procedures.

## Adjusting the Tick Rate (Sensitivity)

The tick rate tells you when the sensor (in the tip of the instrument) is getting close to a gas leak. You can control the tick rate using the rotary wheel in the center of the instrument.

- Move the wheel clockwise to increase the frequency
- Move the wheel counter-clockwise to decrease the frequency

A tick rate of 4 to 8 ticks per second, in fresh air, is typical. As the sensor comes near a combustible gas source, the tick rate increases. In order to isolate the source of a leak, you may need to move the wheel counter clockwise, decreasing the sensitivity, as the sensor moves closer.

## Replacing the Batteries

Replace your 1.5 volt /size R14C(B) alkaline batteries when:

- The green READY light off
- No light or other activity occurs upon turning the instrument on

To replace the batteries:

1. Lay the instrument face-down on a back face.
2. Remove the battery cover. Apply upward pressure to the tab at the bottom of the battery cover while lifting it out.
3. Remove the batteries using a coin or screwdriver, if necessary, to pry them out.
4. Replace all three batteries with new ones.

## Replacing the Sensor

Although the sensor is designed to offer many years of reliable service, it may become inoperable if it is submerged in liquid or otherwise physically damaged.

To replace sensor:

1. Turn the instrument off
2. Remove the upper tip guard by pressing straight up from the alignment notch that separates the two halves of the tip guard.
3. This is a sturdy component, but use caution bending its leads.
4. Pull the sensor straight up from its tip housing.
5. Replace the sensor, pressing it straight in.
6. Reassemble in reverse order.

# SPECIFICATIONS

Sensitivity ..... 50 ppm methane
Sensor Type..... Low power semiconductor
Warm Up Time..... Approx. 5 minutes
Response Time……. Less than 2 seconds
Power Supply. ..... 3”C” cell batteries
Battery Life……. 8 hours of continuous use, typical
Alarms ..... Visible & audible at 10% LEL for Methane. Can be calibrated for other concentrations or gases (up to 40% LEL)
Duty Cycle..... Continuous
Probe Length..... 16"
Warranty ..... 1 year

## Operating Conditions

To ensure accurate readings use it only when ambient air is within this range:

Temperature: 32 to 120°F

Humidity: 10 to 90% RH (non condensing)

# GASES DETECTED

The **SD-3300** detects a wide variety of gases, including some toxic gases, and nuisance vapors. The following lists represents only a portion of the more common gases it will detect.

- o Natural Gas
- o Propane
- o Butane
- o Methane
- o Acetone
- o Alcohol
- o Ammonia
- o Gasoline
- o Jet Fuel
- o Hydrogen Sulfide
- o Industrial Solvents
- o Carbon Monoxide
- o Naphtha
- o Lacquer Thinner
- o Smoke

Notes