

REED

Model C-383

Combustible Gas Detector

Instruction Manual



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Safety

Read through your instruction manual before operation for correct and safe usage.

Warning

This combustible leak detector is not equipped with any anti-explosive designs or measures. Do not use this unit in an environment with flammable gasses present.

Warning

Although this unit will respond to high levels of carbon monoxide, it should not be used as a detector for this gas in normal room or working atmospheres. This units function is to pinpoint leaks as described in the operating instructions.

Caution

Do not use this unit in areas of high concentrations of combustible gas.

Eliminate any organic solvents around the measuring area as the gases and/or vapors from them might interfere with the unit's accuracy.

In order to ensure correct operation and measurement, the unit should be switched on and warmed-up in a non-contaminated atmosphere

Note

Be sure to test the unit (see testing the unit) often to ensure your safety and the proper use of this unit.

Features

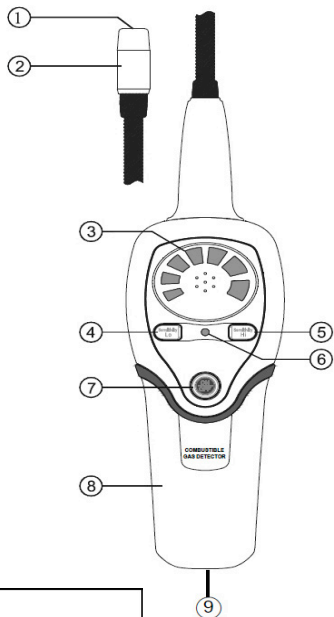
- Heated semiconductor gas sensor
- Gases sensed: gasoline, propane, natural gas or fuel oil
- High-Low sensitivity selector
- Detects leaks as small as 5ppm of gasoline
- Ambient concentration reset function
- Audible and visual leak indications
- Flexible stainless steel probe
- Low battery indication and auto power off

Specifications

Alarm Settings:	Sound buzzer and tricolor LED bar indicator
Sensitivity:	Variable, as low as 5ppm (Gasoline)
Power Supply:	4 x 1.5V AA alkaline batteries
Battery Life:	Approx 40 hours of normal use
Sensor Probe Length:	400mm (15.5")
Dimensions/Weight:	21.7 x 6.6 x 5.6cm / approx 400g
Auto power OFF:	10 minutes of inactive use
Warm-Up Time:	Approx 90 seconds
Operating Temperature & Humidity:	0 to 40°C, <80%RH
Storage Temperature & Humidity:	-10 to 60°C, <70%RH
Altitude:	<2000M (6500')
Includes:	Reference leak source, carrying case and 4 AA alkaline batteries
Optional Accessories:	Replacement Sensor (S-100B)

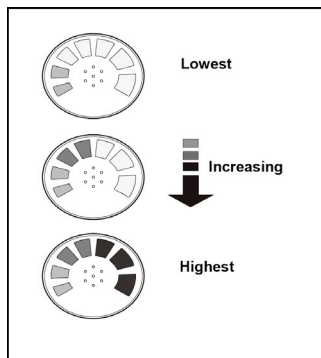
Instrument Description

- 1) Sensor
- 2) Sensor Protector
- 3) LED Leak Indicators
- 4) Low Sensitivity Button
- 5) High Sensitivity Button
- 6) Low Battery Indicator
- 7) Power ON/OFF & Reset Button
- 8) Battery Cover
- 9) Battery Cover Screw



LED Leak Indicator Definition


Ambient Concentration Indication





Operating Instructions


Note: There are some environmental conditions that might cause an inaccurate reading: high pollutant environments, large temperature variations, high wind velocity, environments containing combustible gases, environments containing organic solvents, adhesive vapors, fuel gases or vesicants.

Power-Up & Reset

The  button turns this combustible leak detector instrument ON, OFF and serves as an ambient concentration reset button (see ambient concentration reset for more information).

Press  once to turn on the combustible leak detector. The LED leak indicators will then illuminate. Please take note, you have to wait for 1.5 minutes to heat up the sensor for proper functionality.

Press the  again to reset the ambient concentration for the unit.

Press and hold the  for 5 seconds to turn the unit OFF. If the unit is left inactive for 10 minutes it will automatically turn off.

Testing the Unit

Turn the unit ON and set the sensitivity level to “Hi”. Open the cover to the leak-check bottle and slowly move it closer to sensor tip. If the unit is in working condition the LED leak indicators will light up, from low to high. Repeat this process to confirm that the closeness of the leak-check bottle results in the leak indicators to fluctuate from low to high. If the unit does not perform as stated you must send your unit in for maintenance. For service on this or any other REED product, contact REED Instruments at info@reedinstruments.com.

Measuring



Note: Fast movement of the sensor probe or blowing into the sensor tip will affect the air flow over the sensor and cause the unit to alarm.

Position the tip of the sensor probe within 1/4 inch (6 mm) of the suspected leak source. Slowly move the sensor probe past each possible leakage point.

continued ...

When the unit detects a leak source an audible tone will sound and visual indicators will light on the LED leak indicator display, appearing from left to right; green to orange to red (red being the highest concentration, green the lowest). Increasing levels indicates the proximity of the leak location is getting closer. When the unit signals a leakage, pull the probe away from the leak for a moment and then bring it back slowly to pinpoint the location. If the combustible leak is large setting the sensitivity switch to LOW (see sensitivity adjustment) will make it easier to find the exact site of the leak. Return the sensitivity switch to HIGH before searching for any additional leaks. When you've finished testing for leaks turn the unit OFF and store it in a cool, dry, clean place to protect the sensor and unit from any possible damage.



Ambient Concentration Reset

This combustible leak detector features an ambient concentration reset function that sets the unit sensors to ignore the ambient gas concentrations presented. When turned ON the unit's sensor will set the level of present combustible gas to zero. Only a concentration greater than what is initially registered will cause the unit to alarm. Resetting the unit by pressing the  button during measurement resets the ambient concentration allowing the unit to pinpoint the source of the leak allowing it to register higher concentrations. Resetting the unit with no combustibles present causes any reading above zero to be detected. To do this simply move the unit to a location that has clean and fresh air, such as outdoors and press the  button.

CAUTION

Be aware that this feature will cause the unit to ignore any combustible present when powered ON. If the unit sensor is pointing towards a leak when you turn the unit ON the alarm will not sound

Sensitivity Adjustment

This unit provides two levels of sensitivity. When the unit is switched ON it is set to high sensitivity by default. To change the sensitivity, press the  button. The two left green LED's will then flash indicating low sensitivity has been selected. To switch the unit back to high sensitivity, press the  button. The two right red LED's will then flash indicating that high sensitivity has been selected.

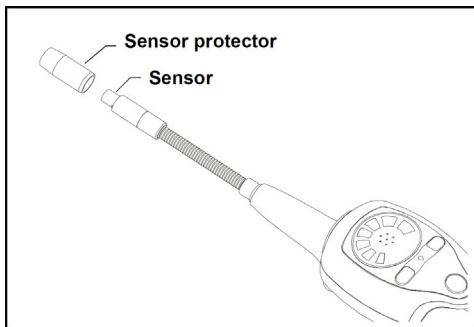
Sensor Replacement

To ensure the accuracy of the unit, the sensor must be replaced periodically. This unit's sensor has a limited operative period and under normal operation it should stay operative for over a year. To prolong the sensor's life-cycle ensure that the sensor's surface is free from water droplets, vapor, oil, grease, dust and any other form of contaminant as well as any exposure to high density coolants (>30000ppm).

WARNING

When replacing the sensor, the old sensor may be very HOT

- 1) Remove the sensor protector cover from the tip of the sensor probe.
- 2) Pull out the old sensor and insert the new sensor into the plug (see below).
- 3) Place the sensor protector over the new sensor.



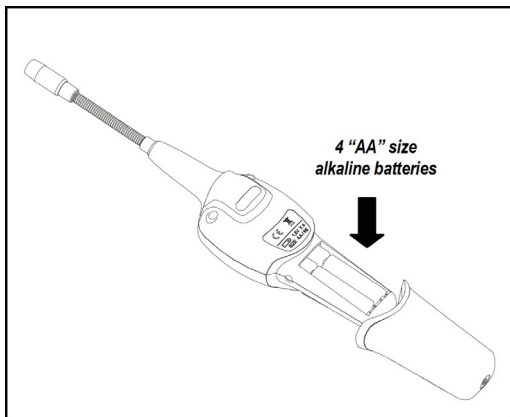
Cleaning

This plastic housing can be cleaned with isopropyl alcohol or standard household detergents. Do not allow any cleaner to enter the unit or to come into contact with the sensor as it may cause damage. Gasoline and any other solvents may damage the plastic and should be avoided.

Battery Replacement

Note: When the battery power is running low, the red LED low battery indicator will illuminate. The batteries should be replaced as quickly as possible.

- 1) Loosen the battery cover screw and remove the battery cover located on the bottom of the instrument as shown below.
- 2) Install 4 “AA” size alkaline batteries.
- 3) Replace battery cover by aligning it with the handle and sliding back onto the unit.
- 4) Tighten the battery cover screw so the battery cover is securely into place.



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