

Combustible Gas Detector Instruction manual



Standard:Q/GMY 027-2017
Version : GM8800B-EN-00

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A. Introduction

This product one-hand-operated can detect the leaked gas indoors with its slim goose neck sensor, and alarm if gas leaks. It is widely used in environmental monitoring, petrochemical industry, sewage treatment, agricultural research, medical and other detection fields.

B. Functions

- ▶ High sensitivity; Quick response.
- ▶ Indicating the leakage via alarming bulb.
- ▶ High sensitivity sensor able to detect slight gas leakage.
- ▶ Monophony earphone socket.
- ▶ 16-inch long goose neck.
- ▶ Quick find the resource of leakage.
- ▶ Probe reset/ Detectability control

C. Safety instruction

For your safety, please read this manual before operation.

- ⚠: This operation may induce physical hazard to users. Please be careful.
- ⊘: This operation may cause damage to the instrument. Please be careful.
- ⚠ Warning!

If there is explode accident happening:

- ▶ Cut off all the potential gas resource.
- ▶ Keep the rescuing area ventilated and no potential combustible gas existing.
- ▶ Switch off all the power connection.
- ▶ Evacuate all the people in the area.
- ▶ Report to the authorities immediately.

In daily work, please keep the work environment ventilated, for good ventilation can ensure that combustible gas will not accumulate.

D. Warnings and Precautions

Improper operation or improper environment for usage

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may cause inaccurate measurement.

- ⚠: The environments with high or low oxygen concentration may cause inaccurate measurement.
- ⊘: Other impurities such as gas or water vapor may affect the normal measurement of combustible gas sensor.
- ⊘: The sensor aperture must be kept clean, or impurities may cause inaccurate measurements.
- ⚠: When replacing battery, be careful not to install batteries backwards, otherwise it may cause the danger of electric leakage and accidents.
- ⚠: If the instrument breaks down, please turn to professional staff of our company for help, other people should not change components and wiring.
- ⚠: Do not disassemble the instrument in hazardous environments.
- ⚠: Do not disassemble the battery in explosive environments.
- ⚠: This product complies with the following procedures and calibration:
JJG693-2004, GB3836.1-2010
GB3836.4-2010, GB4208

E. International safety knowledge

- ⚠ This operation must refer to instruction. Please be careful.
- CE Complying with eu standard
Explosion-proof sign: Ex ib IIB T3 Gb

F. Name of parts (Figure 1)

- ① Probe cap and built-in sensor.
- ② Goose neck
- ③ Power indication (after startup)
- ④ Alarm indication
- ⑤ Beep sound rate adjustment
- ⑥ Open/shut down key.
- ⑦ Earphone socket
- ⑧ Countersink
- ⑨ Battery door

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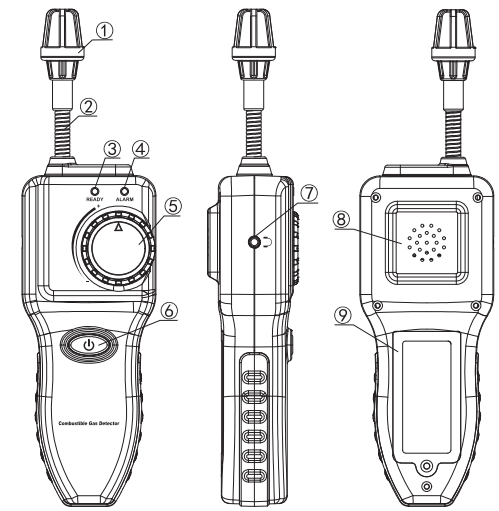


Figure 1

G. Operation manual

1. Operation instruction:

Open the unit in clean environment with switching to on position, when the battery is full the green LED will be on and the unit is to be warmed up for 1 minute and reset to zero automatically. Persistent sound of ticking alarm lies in that the sensitivity of rotary dial adjusted beforehand is not down to the lowest level.

2. Beep rate (sensitivity) adjustment:

Before operate this product, a quick functional test must be performed. Adjust the ticking rate to a non-alarm level and the instrument will detect flammable gas after warm-up. When the probe is exposed to a known gas

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source such as unburned lighter gas (butane) or flowing flammable gas, the "ticking" sound begins to intensify when the sensor at the top of the probe detects flammable gas and the instrument will set off alarm, with warning light (red light) flashing. Continuous ticking will arise due to gas concentration if the operation environment needs to be quiet, or the environment is noisy, you can use the headset. (Insert the headset into the headphone jack on the upper left side of the instrument). Please be noted that the alarm and beep may sound very loudly. If the ready led or the battery is too low please replace the battery immediately. Low battery may impact the safety reliability of the product.

The beep sounds quicker and quicker if the sensor is approaching the gas resource closer and closer. And you may use the dial at the center of the product to control the beep rate.

Rotate the knob anticlockwise to slow down the beep sound rate.

In clean environment, the typical rate is set within range 4-8 times per second, when the sensor is approaching the gas resource, it sounds quicker, to isolate the gas resource, rotate the knob anticlockwise slight.

3. Replacing battery (Note: Please replace batteries in safe environments):

If the instrument have following status, Please replace the 1.5V AA alkaline batteries:

- ▶ The yellow READY LED is out
 - ▶ No other LED is on as turning on the unit.
- Follow the steps below to replace the battery:

- 1) Put the unit back upside
- 2) Take off the protective cover of the unit to open the battery door.
- 3) Take out the battery

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- 4) Insert 3 fresh batteries.
- 5) Please do not install batteries backwards.

4. Replacing sensor:

The sensor of the unit can provide reliable service for years, it must be replaced only if the sensor is immersed into liquid or Long-term storage at high temperature and acid environment.

- 1) Turn off the unit.
- 2) Take out the sensor cap.
- 3) Take out the old sensor.
- 4) Replace them with new sensor and cap.
- 5) Restart the instrument and carry out 'operation check' step.

H. Others

1. Gas detecting:

The instrument is an advanced detection apparatus that can be used to test leakage of a variety of flammable gases.

2. Combustible gas:

The following list only shows partial gases can be detectable.

Natural gas	Propanol	CO	Spraying fuel
Propane	Ethanol	Sulfurated hydrogen	Industrial solvent
Butane	Ammonia	Smoke	Paint
Methane	Steam	Gasoline	Naphtha

3. Keep-up and maintenance:

1) Keep-up:

- ▶ Keep-up and replacement of battery:
Take out the battery from the unit which will not be operated for a long time less the leakage of battery damage and erode the battery contact metal.
- ▶ Case cleaning:
Use only the fresh water to clean the case of the case

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of the product, forbidden to use any erosive liquid such as alcohol etc.

- ▶ Make sure the sensor is clean and use a soft brush to clean sensor aperture.
 - ▶ Never impact it or operate and store it in humid environment.
- Do not store the product in the environment below:
- a. Humid or dusty environment.
 - b. High density of salt or sulfur.
 - c. Environment full of the other chemical gas.
 - d. High temperature or humidity, or environment in direct sunlight.

2) Maintenance:

Please refer to the guaranty card offered. We hold no responsibility for the product due to the following reason: Unauthorized disassembly of the product, improper transportation after purchasing and wrong storage, damage due to abuse, failure to provide purchasing proof or unauthorized amendment on the purchasing invoice/guaranty card.

I. Technical parameters

Sensitivity	50ppm Methane
Sensor Type	Low Power Semiconductor
Warm-up Time	60 seconds(25°C, 60% Rhenvironment)
Response Time	2 seconds
Operation Cycle	Continual Operation
Sensor Size	16 Inches
Battery Life	Continual Use For 8 Hours(A slight change base on working state)
Alarm Limit	Lel 10% Of Methane ^[1]
Low battery indication	4±0.2V

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Operating environment temperature:	0~50°C ^[2]
Power	4*1.5V AA Alkaline battery
Working current	About 150mA
Product size	68*46*177mm
Weight	230.4g (Without battery)

[1]. LEL stands of low limit for explosion, the lowest content of a combustible gas in air that results in explosion, can be referred to as %LEL.

[2]. For precise reading the product can only be operated in the local environment as following.
temperature : 0~50°C(32~120°F)
Relative Humidity: 10~90% RH(non-condensing)

⚠ Specific Declarations:

- ▶ Old battery dealing must be complied with the local law and regulations.
- ▶ Our company shall hold no any responsibility resulting from using.
output from this product as an direct or indirect evidence.
- ▶ We reserves the right to modify product design and specification without notice.



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