

# Gas Leakage Alarm User's Manual

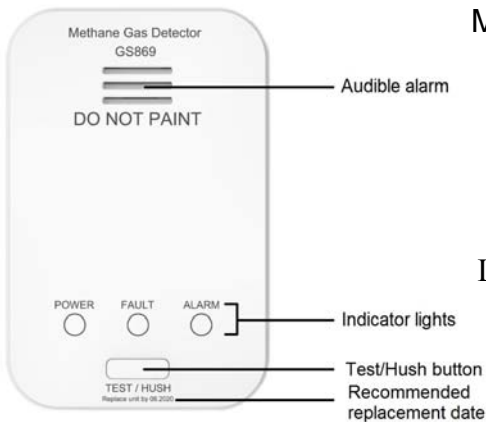


Diagram 1

Model : GS869/GS869A



BS EN50194-1:2009

Licence No.: KM642335



Thank you for purchasing this gas detector, which is intended to detect leakage of natural gas. The detector that must connected to the mains power is intended for installation in domestic premises (including static caravan holiday homes).

**Please take a few minutes to read the user's manual thoroughly and familiarize yourself and your family with its operation. And save it for future reference.**

## Product Specifications:

Power Source	: AC 220-240V / 50-60Hz
Sensor type	: Semiconductor
Detector Gas	: Natural Gas (Methane)
Sensitivity	: 6% LEL (Lower Explosive Limit)
Sound Level	: >85dB at 1 meter
Power Consumption	: <4W
Dimension	: 117.4×77.4×36.3mm
Temperature	: -10℃~40℃
Humidity	: 0~95% RH
Protection level	: IPX2D
Product Life	: 5 Years
Accessory (optional)	: Solenoid valve



## Solenoid valve Specifications (If applicable):

Control type:	Normally open
Actuation voltage:	DC 9V pulse voltage
Temperature:	-10℃~ 60℃
Reset style:	manual reset
Maximum pressure:	50Kpa
Flux:	25m³/h
Connection style:	screw thread

## Status

All statuses of the detector are showed in the summary table.

Summary Table						
Status	Illustration	Green LED	Yellow LED	Red LED	Horn	Solenoid valve
Self-Test	Power on	ON	ON	ON	Chirp once	open
Preheat	About 180 seconds	Light 0.5s/1s	OFF	OFF	OFF	open
Standby	Normal condition	Constant on	OFF	OFF	OFF	open
Test	Press key when Preheat or Standby	Constant on	OFF	Light 0.5s/1s	Synchronized with Red LED	close
<b>ALARM</b>	Gas detected	Constant on	OFF	Light 0.5s/1s	Synchronized with Red LED	close
Silence	Press key when ALARM	Constant on	OFF	Light 0.5s/1s	OFF	close
Sensor Fault	The detector must be replaced	Constant on	Constant on	OFF	chirp once per 30 seconds	open
End of life	The detector must be replaced	Constant on	Constant on	OFF	chirp third times per 30 seconds	open
Power off	The power wire is unplugged	OFF	OFF	OFF	OFF	open

## Emergency actions

If the detector initiates an alarm signal or there is a smell of gas, keep calm and carry out the following actions, not necessarily in this order.

- Extinguish all naked flames, including all smoking material.
- Turn off all gas appliances.
- Do not switch on or off any electrical equipment, including the gas detector.
- Turn off the gas supply at the gas main control.
- Open doors and windows to increase ventilation.
- Do not use a telephone in the building where gas may be present.

If the alarm continues to operate, even after an alarm resetting action, where appropriate, and the cause of the leak is not apparent and/or cannot be corrected, vacate the premises and **IMMEDIATELY NOTIFY** the gas supplier and/or the gas emergency 24h-service in order that the installation may be tested and made safe and any necessary repair carried out.

If the alarm stops or a latching alarm is reset according to the instructions and the reason for the alarm having operated is identified, (for example a gas tap switched on with the burner unlit), after stopping the gas release and ensuring all appliances are turned off, the main gas supply may be reinstated and the solenoid valve must be manual reset.

Even if the apparatus is fitted with a triggering device, for example for closing a solenoid valve on the incoming gas pipe, the same procedure as described above should be followed.

### **The detector should not be installed:**

- directly above cooking appliances.
- in any outside location.
- in an enclosed space (e.g. in a cupboard or behind a curtain ).
- directly above a sink.
- next to a door or window.
- adjacent to an extractor fan.
- in an area where the temperature may drop below  $-10^{\circ}\text{C}$  or exceed  $40^{\circ}\text{C}$ .
- where dirt and dust may block the sensor.
- in a damp or humid location. =

## Positioning of the gas detector

The gas detector should be installed in the room where a gas escape is most likely to occur. This may be the kitchen because of the presence of a gas cooker and other appliances.

Natural Gas is lighter than air, so the gas will tend to rise and fill all the volume above the level of the escape. The gas detector should be installed above the level of a possible gas escape and near the ceiling (about 0.3m from the ceiling), in a place where air movement are not impeded by furniture and furnishings. However apparatus with latching alarms should be positioned such that user is able to access the **TEST/HUSH** button, and it is important that the alarm signal can be easily heard in case of gas leakage.

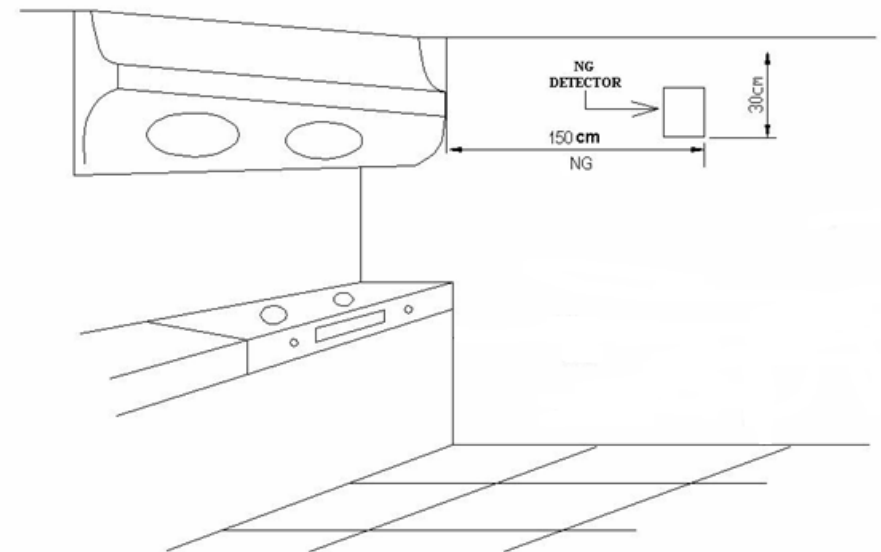


Diagram 2

### General maintenance:

To keep your Gas Alarm in good working order, please follow these simple steps:

1: Verify the unit's sound, LED light and the solenoid valve operation by pushing the **TEST/HUSH** button once a week. Monthly checking if equipment can work well by pushing a little gas from a cigar lighter near the ventilation slots. If the unit is working normally, the unit will induce alarm.

**Caution: Testing the detector with an uncontrolled source of gas (for example a cigarette lighter) may give a misleading result and could damage the detector. If induce a fault, please shut down and then reboot the device.**

2: Remove the unit from the wall and clean the alarm cover and vents with a soft brush attachment once a month to remove dust and dirt.

3: Never use detergents or other solvents to clean the unit.

4: Avoid spraying air fresheners, hair spray, or other aerosols near the GAS Alarm.

5: Do not paint the unit. Paint will seal the vents and interfere with the sensor's ability to detect the gas. Never attempt to disassemble the unit or clean inside. This action will void your warranty.

6: As soon as possible, place the gas alarm back in its proper location to assure continuous protection from methane.

7: When household cleaning supplies or similar contaminants are used, the area should be ventilated.

If the alarm fails to operate, please send back to the address of manufacturer shown on the back label of the detector.

**Warning:** Do not try to fix the detector yourself - this will void you warranty!

**Never attempt to repair the detector by yourself in order to prevent possible hazards of electric shock or malfunction of gas alarm.**

The service life of the gas alarm expires after approximately 5 years of operation. Then, it should be replaced.

**Warning:** The following substances can affect the sensor and may cause false or permanent damage:

Silicone vapors, hydrogen sulfide, Sulfur oxides, Chlorine gas, Hydrogen

chloride, alkaline metals, water, alcohol based products, propane, isobutene, isopropanol, ethylene, benzene, toluene, ethyl acetate, paints, thinner, solvents, adhesives, hair sprays, after shaves, perfumes and some cleaning agents etc.

**Warning:** If water freezes on the sensing surface, the sensing material would crack, altering characteristics.

**Warning:** The detector cannot properly operate in a zero or low oxygen content atmosphere. It requires the presence of around 21%(ambient) oxygen in their operating environment in order to function properly.

### Limited warranty

Purchase each new Gas Alarm device to be free from defects in material and workmanship under normal use and service for a period of 1 year from the date of purchase. Send the GAS Alarm with proof of purchase, postage and return postage prepaid, to local distributor. This warranty does not cover damage resulting from accident, misuse or abuse or lack of reasonable care of the product. The liability of the company arising from the sale of this Gas Alarm shall not in any case exceed the cost of replacement of GAS Alarm and in no case shall the company be liable for consequential loss or damages resulting from the failure of the Gas Alarm.

Siterwell shall have no liability for any personal injury or property damage, or any special incidental, contingent or consequential damage of any kind resulting from a gas leak. Your gas alarm is not a substitute for property, disability, life or other insurance of any kind.

The detector is a sealed unit and cannot be repaired. If the unit is tampered with it will invalidate the guarantee. If the unit is faulty please return it to you original supplier with your proof of purchase.

This alarm is only suitable for private dwellings only and not intended for commercial or industrial dwellings.

### End of life



Replace it after 5 years of operation is recommended. When the unit has come to the end of its life, this product should not be disposed of with normal household waste. Please recycle where waste electrical facilities exist. Check with your Local Authority or retailer for recycling advice.

## Installation

*This gas detector must be installed by a competent person.*

**The gas installation and shut-off device (where used) must comply with the appropriate national regulations.**

Electricity must be turned off before beginning installation to prevent electrical shock or equipment damage.

Connect the output signal wire with the solenoid valve. (If applicable, please refer to next section)

Having established the mounting location ensures that there is no electrical wiring or pipe work in the area next to the mounting surface.

Mark the proper location on the wall according to the two holes of the bracket of alarm. (Refer to diagram 3)

Drill two  $\phi 5.0\text{mm}$  holes in the wall, then insert the plastic plugs into the holes. Attach the bracket to the plastic plugs and fix tightly the screws into the plastic plugs. Fit the alarm on the bracket and pull it down until matching well on the bracket.

Insert the power plug into the socket after installation, the power light will be on. the gas detector will be in self- detection for about 3 minutes. During this period, green LED is flashing. When it stops, the green LED is constant on, and the detector is ready for use.

*Additionally, any changes to the gas installation, e.g., fitting of an automatic gas shut-off valve, must be carried out by a person qualified to the national regulations for gas installations.*

### Note for installation of solenoid valve:

**To prevent the possibility of death, serious injury or property damage, close the electricity and gas supply pipeline before installation.**

Removing impurities like metal powder and rust from the pipeline.

Ensure the solenoid valve is horizontal, i.e., the input and output port of solenoid valve must keep on the horizontal level.

The solenoid valve can't mount reversely, while there is a mark for gas flow direction on the valve. (Refer to diagram 4)

External leakage tests must be carried out after installation.

Have any problem caused by solenoid valve, please call our agent.

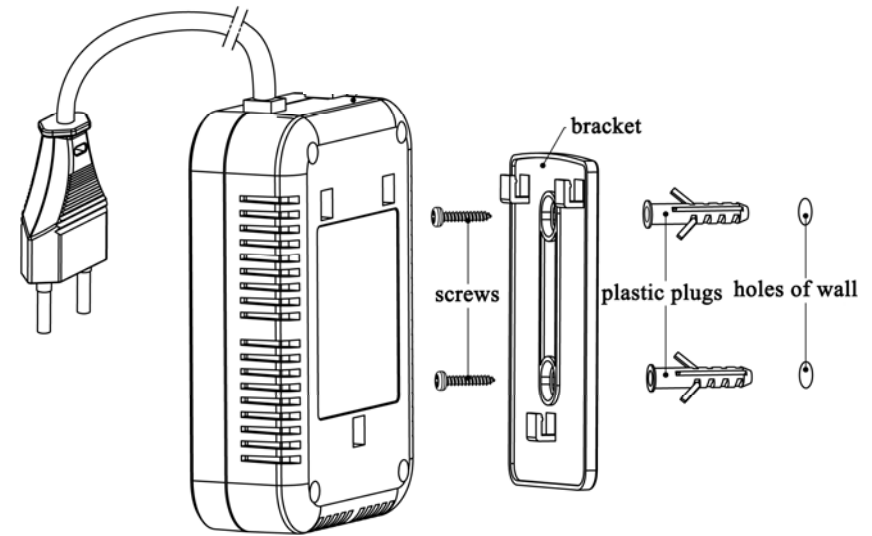


Diagram 3

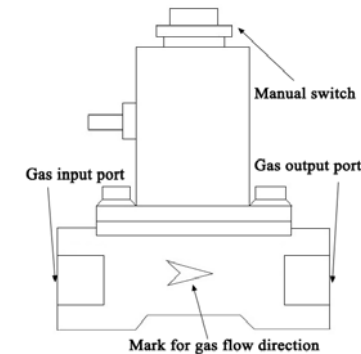


Diagram 4

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