

GE Series

Gas Alarm Operation Manual

HANWEI ELECTRONICS CO.,LTD

Precautions:

To avoid personal safety injury, Instrument damage and potential dangerous accident; do not install gas alarm before reading this manual.

1. Description

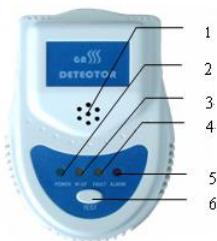
GE series gas alarm is a kind of wall-mounted household gas alarm designed to detect the concentration of combustibile and toxic gases or vapors using high quality air-sensitive component and manufactured with advanced technology. It provides visual and audible signals when the gas concentration reaches the presetting range, and reminds you to take prompt favorable action.

2. Specifications

Model	<input type="checkbox"/> GE401 <input type="checkbox"/> GE601
Operating Power	<input type="checkbox"/> AC220±15%; <input type="checkbox"/> AC110±15%; <input type="checkbox"/> DC24V; <input type="checkbox"/> DC12V ≤3W
Operating Environment	Temperature: 0℃~55℃ Humidity:<95%
Response time	≤30s Resume Automatically
Gas Sampling	Diffuse Naturally
	GE401: Natural gas 10%LEL
	GE601: LPG 10%LEL
Sound level	≥70dB
Dimesion	230gbv lxwxh,mm:123x81x44
Optional function	<input type="checkbox"/> Gas shut off valve <input type="checkbox"/> relay output

Note: the power and the alarming level can be specified

.3. Functions and Indications



NO.	Indication	Function
1		Buzzer
2	POWER	Green show power on
3	W-UP	Yellow show warm up
4	FAULT	Yellow show sensor fault
5	ALARM	Red show alarming
6	TEST	Test alarm Function

4. Installation

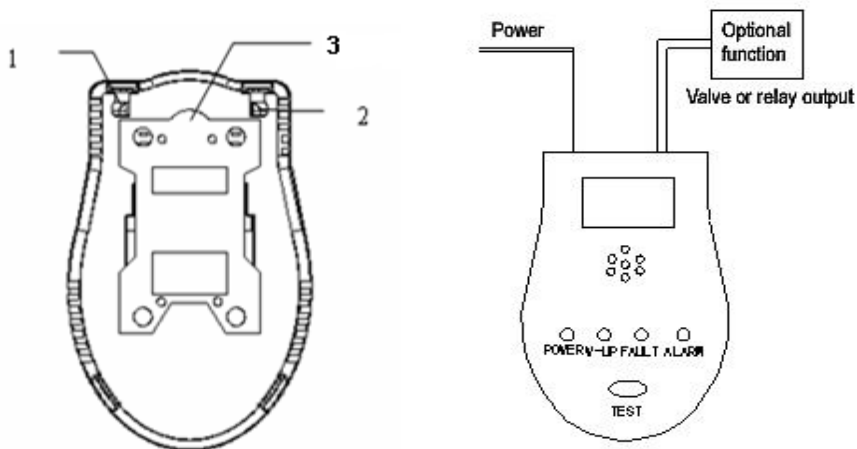
4.1 Fix the appliance on the wall at a horizontal distance as 2~4m from the cooker or gas source;

4.2 The vertical location of the appliance should be decided according to the type of gas sort:

- ◆ LPG: Fix it within 0.3 meters above the ground;
- ◆ Natural Gas: Fix it within 0.3 meters below the Roof
- ◆ Such location should be avoided:
 - Near the windows or passage with strong wind,
 - Water fog and drop or such moist place;
 - Easy polluted or high tem environment near Oven,
 - Covered by other things.

4.3 Choosing a proper installation way per conditions above.

Installation 1: Choose a suitable wall or place per the above 4.1, 4.2 requests. Fix a nail (size ϕ 2) into the wall. Hang the detector on the nail with the hanging hole as the drawing below: (1 is relay or shut off valve, 2 is Power input, 3 location hole)



4.4 Connection drawing of gas leak alarm with functions of gas shut off valve or relay output as above

5. Operational Instructions:

5.1 GE201 GE401 GE601 GE801

5.1.1 Plug in, (If need ventilate fan, electro valve other link equipment, please connect corresponding circuit firstly.), then the green POWER indicator and yellow W-UP indicator will be on. The alarm will preheat for 3 minutes; the alarm without detecting function during this period.3 MIN later, the yellow W-UP indicator turn off and the alarm enter into detecting status.

5.1.2 If the flammable gas in the air reaches the preset alarming concentration, the alarm enter into alarming status, the Alarm red LED light or flash, the buzzer give sound alarming, If the GE gas alarm with output, it would drive the relay or valve shut off gas supply, If the alarm connect the ventilation fan or other relative electronics, it also open automatically, ; At the same time, please cut off gas supply promptly and open the window. Don't try to switch on or off any electric appliance, including mobile phone and such communications tools. Ask professional person to eliminate the gas leaking malfunction quickly

5.1.3 If the yellow fault alarm light is on, it shows there is something wrong with the detector and the detector can't detect gas. Then please contact the distributor.

5.1.4 Button

Test button: Under normal detection status, press this button, simulate audio and visible alarming.

5.2 GE701

5.2.1. Plug in, (If ventilate fan, electro valve or other equipment is need to be connected, please connect corresponding circuit firstly.), then the green POWER light and yellow W-UP light will be on. The appliance assumes non-operating status for five minutes while the sensor warms up. After warm up, the yellow W-UP light will be off automatically and the appliance enters detecting status.

5.2.2 After the power light shines for 60s, it will flash for 90s. The detector will detect the CO gas in the end of the 90s.

If the gas in the environment rises above the preset alarm level, the red ALARM light will flash, the buzzer gives sound alarming, drive the relay or valve shut off gas supply, and meanwhile, the alarm will activate the relay or the valve output; at the same time, please cut off gas supply promptly and open the window. Don't try to switch on or off any electric appliance, including mobile phone and such communications tools. Ask professional person to eliminate the gas leaking malfunction quickly.

The detector will make detection each 150s.

5.2.3 Once the gas concentration around drop under the preset alarming level, the detector will stop alarming automatically and the ventilating fan will also stop automatically. The detector gets into detecting state again.

5.2.4 If the yellow fault alarm light is on, it shows there is something wrong with the detector and the detector can't detect gas. Then please contact the distributor.

5.2.5 Button:

Test Button: The appliance will simulate alarming by pressing test button under detecting status.

6 Troubleshooting Guide

Problems...	Maybe caused by...	Solutions...
Green POWER light is off	Unit may not be plugged all the way in or receiving power.	Plug in again to assure the unit receive power
	light broken	Contact the distributor or factory for repairing
Can't detect the gas	The preheat is not finished	Wait until the preheat finish
	Circuit fault	Contact the distributor or factory for repairing

7 Notices

7.1 It's possible that the detectors give alarming in the conditions of long time smoking, drinking, or using perfume, gasoline, paint and other volatile organic compound;

7.2 please do not use some non calibrated gas to test the detectors, If the gas

concentration is too high, it will damage the detectors, also is harmful for human's health;

- 7.3 Please do not use or store the detectors in the corrosive gases(such as Cl_2);
- 7.4 Clean the dust or dirt on the alarm frequently to keep air vent freely and the lights clear;
- 7.5 The detector needs to be keeping power on for more than 24 hours after a long time delivery of storage.
- 7.6 Under normal usage, lifetime for Semiconductor sensor is more than 5 years, and more than 3 years for Catalytic sensor.

8 Gas Safety Knowledge

8.1 Sorts of gases

Normal domestic gas: LPG (Propane and Butane);

Coal Gas: Hydrogen and Carbon Monoxide;

Natural Gas: Methane;

All of the normal domestic gases is combustible gas, whose LEL (lowest explode limited) is below 10% of mixture with air.

When the concentration of the leaking gas in air, it will narcotize people's centre nerve, even cause suffocation.

Gas	Basis	LEL volume	Toxicity
LPG	C_4H_{10} 、 C_3H_8	2.0%	suffocation
Natural Gas	CH_4	5%	suffocation
Coal Gas	H_2 、 CO	5%	toxicosis

8.2 Danger of CO

CO volume	Inbreathing time and symptom
50ppm	Maximum for adult
200ppm	After 2~3h, a bit headache
400ppm	Within 2h, headache; after 3h, danger to life.
800ppm	Within 45min, headache; Within 2~3h lead to die

1600ppm	Within 20min headache, Within 1h, lead to die
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8.3 When the gas burning, it need abundant air, such as 1m^3 need about 30m^3 . So the placed with hearth such as kitchen has to be keep ventilate.

8.4 LEL Meaning:

LEL is Lowest Explode Level. That is the lowest concentration of the gas in the air, which will cause exploding when meeting fire.

8.5 Reasons of gas leakage:

- Wrong ignition.
- The fire is put out with winds during the cooking.
- Fire is out during the cooking because of the change of the gas pressure.
- The gas valve is not shut off well.
- Wrong operation to the cooking tools.
- The gas pipe is destroyed.
- Other reasons.

8.6 Solutions of gas leakage:

- Put out the fire.
- Shut off the gas valve.
- Open the windows and doors.
- Check the leakage source.
- Don't try to turn off any electric equipment when alarming continuously. Call the gas company with the outdoor phone.

Please knock at the door instead of pressing the doorbell when find gas leakage in your neighbors' home.

Declaration

To keep continued product improvement, **Hanwei** reserves the right to change design features without prior notice

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