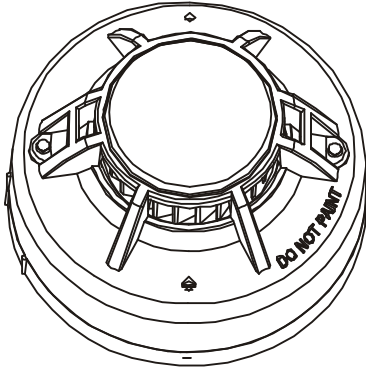




# HD105 Gas Detector

## With Relay Output

**User's Guide Ver5.2**



It is intended to detect leakage of natural gas (methane gas), town gas, and bottled gas (propane gas). The unit is designed for DC wire-in applications. The gas alarm can be mounted high (for methane gas) or low (for propane (LPG) gas). It is equipped with a sturdy metal mounting bracket for quick, easy, and secure installation.

### 2. FEATURES

- Detect all sorts of combustible gases, natural gas (methane), bottled gas (propane), LPG (Liquefied petroleum Gas), LNG (Liquefied natural gas), coal gas, including town gas.
- Easy to install, mounting bracket included.
- Loud 75dB alarm and LED warning light.
- High quality durable sensor.
- Self diagnostic function by MCU intelligent software.
- Excellent reliability & High stability.
- Ideal for all kitchens.

### 3. TECHNICAL SPECIFICATIONS

Unit Dimensions:	103mm (D) x 55 mm (H)
Color:	Ceiling White
Weight:	155g
Operating Temperature:	-10°C to +50°C
Ambient Humidity:	≤95% RH
Alarm Horn:	75dB at 3m (10 feet)
Operating Voltage:	DC9-28V
Power Consumption:	<2W (Standby), <5W (Alarm)
Value of Detection Threshold (Lower Explosive Limit):	Natural Gas: 5000ppm (10% LEL)
Method of Alarm:	Flashing Red LED with 75dB alarm
Warm Up Time:	approximately 120 seconds
Alarm Output:	Relay Output (Normal Open 2A@DC24V)

### 4. INSTALLATION INSTRUCTIONS

The Gas Alarm is intended to detect leakage of natural gas, town gas and bottled gas. It is intended for installation in the home, small commercial properties, and recreational vehicles.

- Installation shall only be undertaken by technicians holding a certificate issued by an authorized distributor.
- For detecting natural gas (lighter than air), the alarm should be installed within 30 centimeters below the ceiling and the maximum distance away from the furnace or gas appliances is 8 meters.
- For detecting LPG (heavier than air), the alarm should be installed within 30 centimeters above the floor and the maximum distance away from the furnace or gas appliances is 4 meters.
- The alarm should not be located close to any obstacles preventing natural air circulation. It should also not be located in a draft or close to a cooker (cooking smells and other fumes can have a bad influence on gas detection).
- The detector can be connected with Security alarm panel as Figure1. Relay output signal can be changed from Normal Close(NC) to Normal Open(NO) by Jump JP1 on the PCB board.
- The detector can be connected with conventional alarm panel as Figure 2 or Figure3.

*For your convenience,  
write down the following information.  
If you call Us for Service, these are the first questions you  
will be asked.*

Gas Alarm Model Number (located on back of alarm):
Gas Alarm Assembly Number (Located on back of alarm):
Date of Purchase:
Where Purchased:

**ATTENTION:** Please take a few minutes to thoroughly read this manual, which should be saved for future reference and passed on to any subsequent owner.

**IMPORTANT! READ ALL INSTRUCTIONS BEFORE INSTALLATION AND KEEP THIS MANUAL NEAR THE ALARM FOR FUTURE REFERENCE.**

#### CONTENTS OF THIS MANUAL

- 1 – DESCRIPTION
- 2 – FEATURES
- 3 -- TECHNICAL SPECIFICATION
- 4 -- INSTALLATION INSTRUCTIONS
- 5 -- OPERATION AND TESTING
- 6 -- GAS SAFETY GUIDE
- 7 -- HOME SAFETY GUIDE
- 8 -- SERVICE AND WARRANTY

#### 1. DESCRIPTION

The gas alarm is designed for single station use. Small and compact, the design and color makes it ideal for use in the home, small commercial properties, and recreational vehicles.

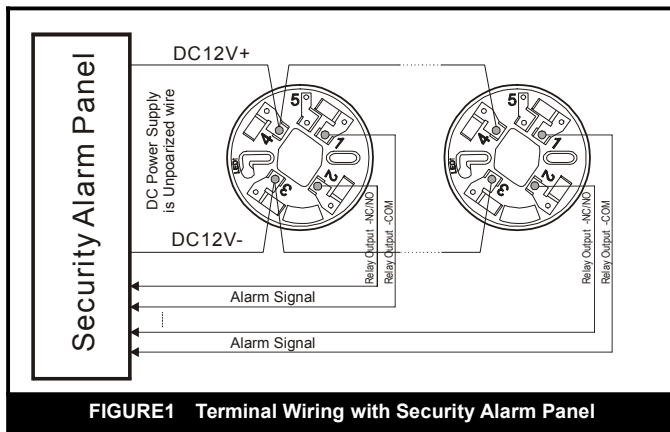


FIGURE1 Terminal Wiring with Security Alarm Panel

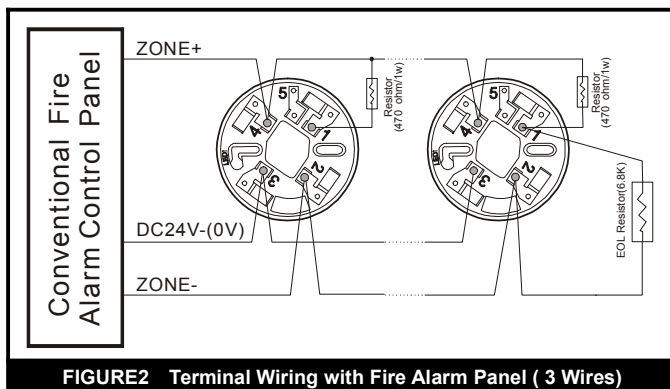


FIGURE2 Terminal Wiring with Fire Alarm Panel ( 3 Wires)

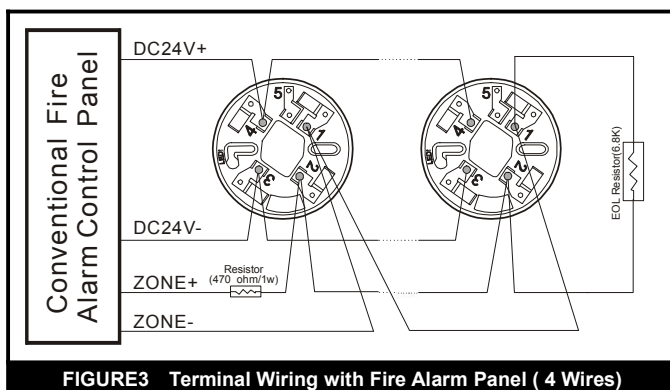


FIGURE3 Terminal Wiring with Fire Alarm Panel ( 4 Wires)

## 5. OPERATION AND TESTING

Check and test the gas alarm after installation. It should be tested weekly and check after re-occupation following a holiday.

- Power on: After turn on the power, the LED is on, and then the unit would take 120 seconds to warm up. In the warm up time, the Yellow LED would flashes until end of the warm up period.
- Check that LED indication LED is on to ensure the power supply is turn on.
- Check that the LED flashes every 5 seconds to ensure the unit is in operating mode.
- Test: In the normal status, Press and hold the test button and the unit should sound and the all LED light.
- Silence: In the alarm status, press Test button, the unit enter the silence status, the sound silenced and the red LED flashes quickly, about 4 minutes late, the unit exit the silence status.
- Reset: In the alarm status, press the Test button down and hold above 5 seconds, the unit would restore to normal status.
- Alarm: While detecting the gas leaking, the Red Alarm LED would turn on and the buzzer sound, and relay contacts

would be activated and output signals.

## 6. GAS SAFETY GUIDE

- If you hear the gas alarm sound or suspect that there is a gas leakage. You should open all windows and doors to allow the gas to disperse.

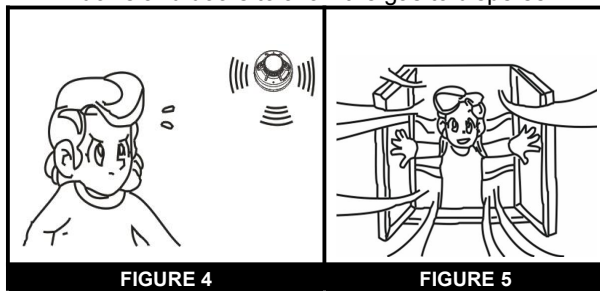


FIGURE 4

FIGURE 5

- Don't switch on lighting, press door bell, exhausting fan or any kind of electrical appliance to avoid explosion.

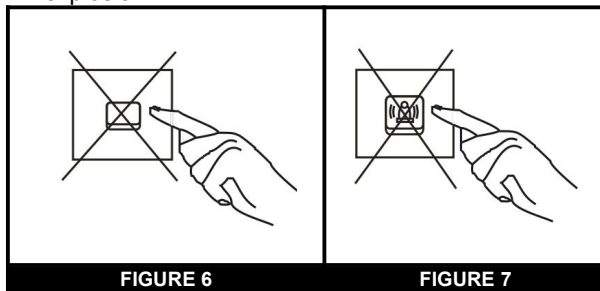


FIGURE 6

FIGURE 7

- Check all the gas appliances. Extinguish any naked flames and turn off the gas control off the gas supply.
- Call the Fire department immediately outside your home or premises/ apartment.

## 7. HOME SAFETY GUIDE

- If you are on holiday, turn off appliances switches & the gas control valve.
  - Do not place the bed near gas pipes or gas meter.
  - Do not change the location of gas pipes by yourself.
- In order to ensure your home safety, please employ registered installers for regular safety inspection of all gas installation & appliances.

### Attention:

Keep these things, such as paints, chemicals, alcohol away to make a false alarm.

## 8. Service and Warranty.

- Install and adjust according to this guide book.
- Check the detector once a week; please keep contact with the service provider immediately if you get some problems.
- Do not tear down or sling the detector randomly.
- Do not use chemicals to clean the detector directly, or wash with water.
- The detector is designed with automatic detection, if the gas sensor or unit in error, do not disassemble the unit yourself, but get advice from professional company or service provider.
- The manufacturer guarantees to take the responsibility for free repair and exchange for one year from the date of purchase if there is quality problem, and only charge for capital cost beyond one year.