

# OPERATING INSTRUCTIONS GAS LEAK DETECTOR



- MODEL: 7201  
 MODEL: 7291

It is the latest handheld gas leak detector. It features the following functions :

- ◆ Detects methane and propane gas.
- ◆ Quick to pinpoint gas leaks.
- ◆ Automatically calibrate when power is on.
- ◆ Auto power off to save battery life.
- ◆ 60 seconds warm up time.
- ◆ Response time less than 10 seconds.
- ◆ 5-level LED leak alarm.
- ◆ Over 440mm long flexible probe.
- ◆ Built in earphone jack.
- ◆ Mute function.

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## SPECIFICATIONS

### General Specification

Sensor: Semiconductor  
Response time: < 10 seconds  
Warm up time: < 60 seconds  
Operation temp. Range: -5°C ~45°C  
Power off : 10 minutes from power on  
Power supply : 4pcs AA batteries (alkaline one suggested) or 9V adaptor.  
Battery life: 14 hours (Continuous working)  
Minimum BAT. voltage: 4.8V  
Probe length: 447 mm  
Size: 175 x 70 x 38 mm (HxWxT)  
Indicator: Intermittent beep(Acoustic) / LED (Visual)

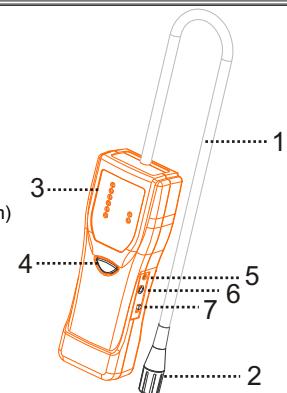
### Specification Difference Table

	7201	7291
<b>Range</b>		
<b>Methane</b>	120 to 1920 ppm	
<b>Propane</b>	40 to 640 ppm	40 to 640 ppm
<b>Sensitivity</b>	40ppm (Propane) 120ppm (Methane)	40ppm (Propane & Methane)
<b>Advantage</b>	Filter included for high discrimination	Fast response & High Methane sensitivity

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## INTRODUCTION

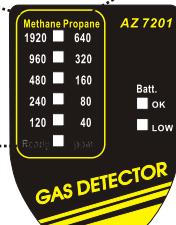
1. Flexible probe
2. Sensor cap
3. Indicator LED
4. ON/OFF key
5. Earphone jack (Dia.:3.5 mm)
6. Adaptor jack (Dia.: outer:4mm/inner:1.3mm)
7. Mute slide switch



## INDICATOR

! Please note that the left methane value on 7201 doesn't equal to the right side propane value. So, make sure the gas you measure then read the value from the correct side.

1. Methane 5 level LED
2. Propane 5 level LED
3. Sensor ready LED
4. Power on & Bat. OK LED
5. Bat. Low LED



(Example:7201)

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## MEASUREMENT OPERATION

### 1. Power ON/OFF

Press ON/OFF key more than 0.2 second to turn on the meter. While the meter is on and electrical power is enough, the BAT. OK LED will stay on. To ensure the accuracy, users must perform the warm-up in the clean air.

The meter will be automatically switched off in 10 minutes. Or you could press ON/OFF key again to turn off.

### 2. Warm-up status

While the meter is power on but Ready LED doesn't light on, the sensor warm-up is in process. It takes around 60 seconds and Ready LED is on when it is ready to measure.

During this phase, a special compensating circuit automatically allows to limit the effect of environmental change.

**Even you turn off the meter for a short time and turn on again, it is always needed to wait for 60 seconds warm-up time.**

### **3. Mute function**

The meter beeps every second to assure the meter is in normal working status. The beeps frequency will speed up while the detected gas concentration becomes higher.

While earphone is plugged on, users will hear the beeps only through the earphone.

To mute the beeper, just slide the mute switch ON.

### **4. Leakage check**

To check the pipe leakage, follow the steps below. Hold the sensor toward the pipe, slide slowly the sensor along the pipe; repeat the procedure from the other side of the pipe. When the sensor is close to a leakage, the LED will light on corresponding levels and beep frequency increases.

It takes at least 2 min. to wait for sensor recovery after removing the sensor out of a leak point.

### **BATTERY REPLACEMENT**

While the LOW battery LED is on, it is suggested to always change fresh batteries to ensure the accuracy. Open the battery compartment from the meter rear side and replace with 4 new AA alkaline batteries.

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### **TROUBLESHOOTING**

#### **◆ Meter does not turn on**

- Make sure you press "ON/OFF" key for more than 200 mS.
- Check the batteries are in place, good contact & correct polarity.
- Replace with new batteries and try again.

#### **◆ Ready LED isn't on after 60 seconds warm up**

Check if the sensor is in good contact. If LED is still off, please return the meter to the dealer for repair.

### **MAINTENANCE**

#### **Situations must be avoided**

- If silicone vapor is absorbed onto sensor surface, the sensor will be coated. So, avoid exposure to where silicone adhesives, hair grooming materials, silicone rubber/putty may exist.
- High-density exposure to corrosive materials such as H<sub>2</sub>S, Sox, Cl<sub>2</sub>, HCl, etc. may cause corrosion or breakage of the lead wires or heater material.
- Sensor drift may occur when the sensor is contaminated by alkaline metals, especially salt water spray.

4) Sensor drift may occur when it is soaked or splashed with water.

5) If water freezes on the sensing surface, the sensor would crack and alter characteristics.

6) This meter requires to operate under around 21% ambient oxygen environment in order to function properly. This meter cannot work well in zero or low oxygen atmosphere.

#### **Situations to be avoided whenever possible**

- Light condensation under indoor usage should not be a problem for sensor. However, if water condenses on the sensor surface for a while, the sensor characteristics may still drift.
- Sensor performance may be also affected if exposed to a high density gas for a long time, regardless of the power condition.
- When meter is turned off for a long time, the sensor may show a drift in resistance according to the storage environment. So, the meter should be stored in a sealed bag with clean air.

**Note!!** The longer the meter off time, the longer warm-up time required to stabilize the sensor before usage. Turn on the meter often to ensure the accumulative warm up time is long enough.

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- Regardless of power condition, when the sensor is exposed in extreme conditions such as very high humidity, extreme temp. or high contamination levels for a long period of time, sensor performance will be adversely affected.

### **WARRANTY**

The meter is warranted to be free from defects in material and workmanship for one year. The warranty covers normal operation and does not cover battery, misuse, abuse, alteration, neglect, improper maintenance, or damage resulting from leaking batteries. Proof of purchase is required for warranty repairs. Warranty is void if the meter has been opened.

### **RETURN AUTHORIZATION**

Authorization must be obtained from the supplier before returning items for any reason. When requiring a RA (Return Authorization), please include data regarding the defective reason, the meters are to be returned along with good packing to prevent any damage in shipment and insured against possible damage or loss.