

JB-L90

Portable gas detector

User manual

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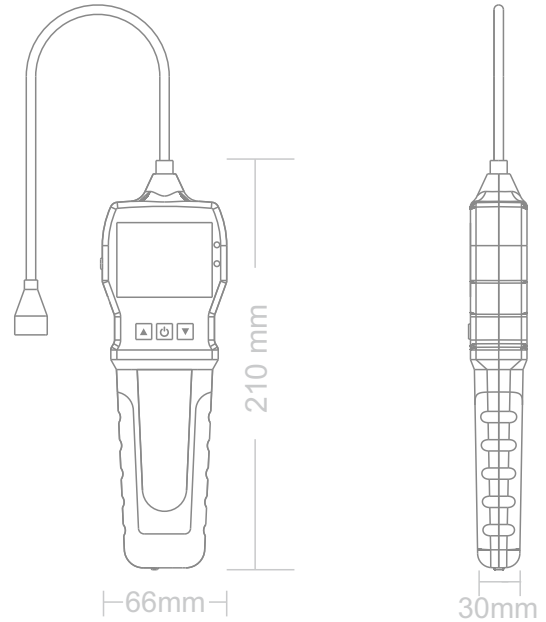
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Please read this manual carefully before using this product and keep it for future reference, any deviation from the manual may endanger the safety, quality and performance of this device.

1.Introduction

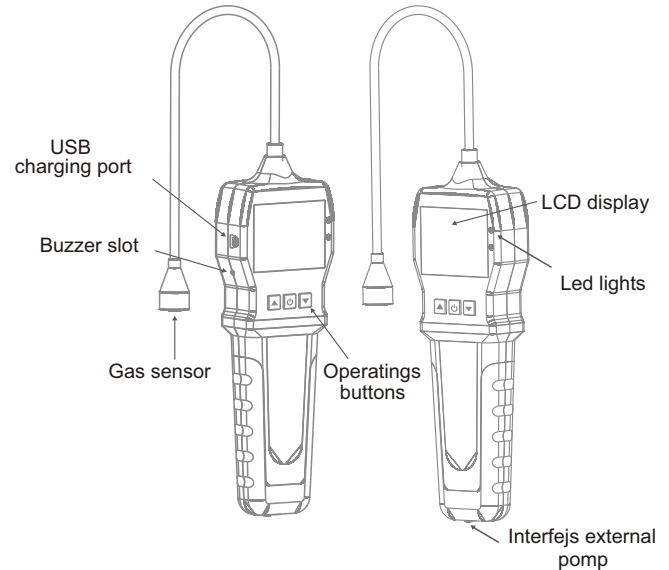
The JB-90 portable gas detector is a new type of gas leak detector that uses LSI technology and meets international standards of intelligent technology. With a high-quality semiconductor sensor installed and built-in microcontroller, it detects gas leakage with high sensitivity and high adaptability. Waterproof, dustproof, explosion-proof and easy to operate with high reliability. The detector is widely used in oil, coal, municipal, chemical engineering, environmental protection, metallurgy, refining, gas transmission and distribution. biochemistry, agriculture, pharmaceutical industries.

Main features:

- ▶ MCU control, low consumption
- ▶ High-resolution STN LCD display
- ▶ Case made of high-strength engineering plastics and anti-slip rubber compound
- ▶ Adjustable detection range (low alarm point, high alarm point)
- ▶ Low battery warning, intrinsically safe design
- ▶ 3 types of alarms: audible (mute mode also available), visual and vibration
- ▶ Factory calibrated detector
- ▶ Zero calibration and data logging

2.Design and functions

2.1 Design



2.2 Structure


Main case, circuit boards, batteries, display, sensors, charger.

3. Technical specifications

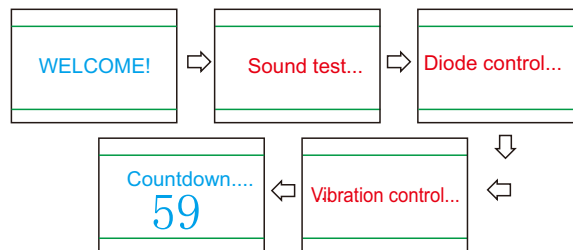
| | | | |
|----------------------|--|------------------|-------------------|
| Range: | 0-10,000ppm (μmol/mol) | Sampling method: | Natural diffusion |
| Alarm points: | Default: low alarm: 500ppm; High alarm: 2000 str./min Support for personalized settings | | |
| Alarm types: | Audible buzzer alarm ; Visual LED light alarm ; Vibration alarm | | |
| Warm-up time: | 60S | Response time: | <30s |
| Protect level: | IP65 | ATEX: | Exib IIB T3 Gb |
| Sensor type: | Sensor FIGARO | Sensor life: | < 2 lata |
| Power supply: | Rechargeable Li-Ion rechargeable battery, DC3.7V 1800mAH | | |
| Working time: | Not less than 8 hours (normal working environment) | | |
| Working environment: | Temperature: -10 ~ 40°C Humidity: ≤95% RH non-condensing | | |
| Storage environment: | Temperature: -20 ~ 50 °C Humidity: ≤85% RH, avoid corrosive gases or substances. | | |
| Weight: | 300g | Charging time: | 6h-8h |
| Dimensions: | 210mm(L)×66mm(W)×30mm(H) | | |
| Equipment: | Detector, carrying case, charger, USB cable, warranty card. | | |

4. Operating Instructions

4.1 ON/OFF Button

Press the button , and then release it to turn the detector on. Press the same button to turn it off in each case. Each time the device is turned on, it goes through a self-monitoring process

4.2 Autotest

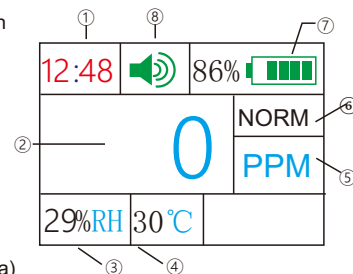


After the self-check, the device enters the detection interface

4.3 Interface

[4.3.1 Overview]

1. Time
2. Gas concentration
3. Humidity
4. Temperature
5. Units
6. Gas status (NORM-normal, LA-low alarm, HA-high alarm, RA-range alarm)
7. Battery level
8. Sound mode (can be muted by pressing and then releasing and vice versa)



[4.3.2 Parameters]

In the detection interface, you can press  to see all the parameters.

| | |
|------------------|--------------|
| Date: 2018.06.25 | |
| Time: 15:45 | |
| LA : 500ppm | ADV: 0278 |
| HA : 2000ppm | Volt : 0.22V |
| RA : 1000ppm | BL : 5MIN |
| BAT : 3.96V 86% | |


[4.3.3 Types of alarms]


- * **Low alarm:** red LED + "LA" on detection interface +slow beeps + vibration;
- * **High alarm:** red LED + "HA" on detection interface +quick beep + vibration;
- * **Range alarm:** red LED + "RA" on the detection interface + quick beep + vibration;

4.4 Menu functions

[4.4.1 Overview]

Press  or , to select a specific function, and then click to enter.

| | MENU | |
|---|-------------|--------------------|
|  | 1.Gas Zero | → Zero calibration |
| | 2.Gas Calib | → Gas calibration |
| | 3.LA Set | → Set low alarm |
| | 4.HA Set | → Set high alarm |
| | 5.Unit Set | → Change units |

| | MENU | |
|---|-------------|--|
|  | 6.Set Time | → Set time (year, month, day, hour, minutes) |
| | 7.Default | → Restore factory settings |
| | 8.AL Record | → Check/delete alarm records |
| | 9.ESC | → Exit the menu, return to the detection interface |
| | 10.Turn off | → Turn off the detector |

Warning!

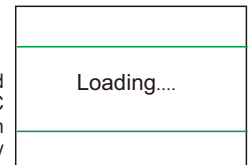
Gas calibration information: Gas calibration has already been completed in factory, a personal change may affect its normal use. If for any particular application you need to use this function, contact your dealer first to obtain the password.

Information about default settings: In case of incorrect operation or gas calibration error may need to be restored factory settings. Contact your dealer first to obtain a password, if needed.

When you see a low battery warning or when the detector cannot turn on because the battery voltage is too low, charge the detector in a timely manner

4.5 Charging

First, make sure the detector is turned off, then connect the charger to a 220V AC power source: the detector will turn on automatically, the screen will display "Charging". When the screen displays "Full!", it means that charging is complete.



ATTENTION!!

The detector cannot be turned on when it is off and charging.

Do not charge the detector at the site where the leak is detected to avoid fire or explosion caused by sparks introduced during connection and disconnection of the charger.

Do not charge the detector when it is on, as this may affect the speed of charging.

5. Warning

5.1 Prevent the detector from falling from high places or being subjected to strong vibrations.

5.2 Do not use the sensor tip to directly touch other objects or block the sensor tip.

5.3 When there is an interference gas of high concentration, the detector may not function normally.

5.4 The detector will detect gas concentration only from the detection. For example, when you are in the function menu, it will not detect.

5.5 The detector should not be stored or used in places, where corrosive gases (such as CL₂) are present or in other rigorous conditions (including excessively high and low temperatures, high humidity, electromagnetic fields and strong sunlight).

5.6 After long-term use, if on the surface of the detector there is dust, clean it gently with a clean, soft cloth instead of caustic solvents or hard stuff.

5.7 For any operations or defects not provided for in this manual, please contact your dealer.

6. Problem solving

| Possible fault: | Causes: | Solution: |
|--------------------------------|--------------------------------|-----------------------------------|
| Unable to turn on the detector | Battery voltage too low | Charge on time |
| Did not indicate 0 | Sensor starts up | Zero calibration required |
| Inaccurate indication | Not calibrated for long time | Gas calibration required |
| | Sensor error | Contact the seller |
| Inaccurate time | The battery has run out | Charge first, then reset the time |
| | Drift in oscillator parameters | Reset time |
| RA alarm in clean air | Sensor error | Contact the seller |