



Wireless Interconnected Carbon **Monoxide Alarm**

User's Manual



1 Information on Carbon Monoxide

What is carbon monoxide (CO)

Carbon monoxide is an odourless, tasteless, highly toxic and flammable gas produced by the incomplete combustion of carbon-based fuels. Prolonged exposure to a carbon monoxide-rich environment leads to serious tissue damage or even death.

What are the symptoms of carbon monoxide poisoning?

- Mild exposure (about 100-200 ppm): mild headache, nausea, vomiting, fatigue (often described as "flu-like" symptoms).
- Medium exposure (about 400 ppm): violent throbbing headache, drowsiness, confusion, fast heartbeat.
- Extreme exposure (about 800 ppm): unconsciousness, convulsions, cardiorespiratory failure, death.

Parts per Million (PPM)	Effects on Adults
100	Mild headache, nausea, vomiting, fatigue (often described as "flu-like" symptoms).
200	Dizziness and headache within 2-3 hours.
400	Nausea, frontal headache, drowsiness, confusion and rapid heart rate. Risk to life after over 3 hours of exposure.
800	Severe headaches, convulsions, vital organ failures. Death possible within 2-3 hours.

Where does carbon monoxide come from?

Carbon monoxide is caused by poor or incomplete combustion.

- A furnace, boiler, cooker, pellet stove, fireplace, wood stove, charcoal grill can be sources of carbon monoxide, especially if they are not working properly or if they are located in a poorly ventilated room.
- Vehicle exhaust gases in enclosed spaces (garage) can also become carbon monoxide hazards.
- With the use of paraffin heaters or charcoal grills/bbqs indoors or running a car in a garage, carbon monoxide levels can get so high that it can cause death.

How do I know if carbon monoxide is present?

Poisoning is measured in a range called parts per million (ppm). This CO Alarm monitors the level of carbon monoxide (CO) in the air. If the CO concentration is too high, the detector sounds a loud alarm.

When the alarm sounds, warn all household members, go outside immediately and call 112.

How do I protect myself and my family from carbon monoxide poisoning?

- Install one or more carbon monoxide detectors in your home.

- Have your home's heating system, boiler and other gas, oil or coal appliances checked every year by a competent person or company.
- Make sure that your combustion appliances and engines are well ventilated.
- Have your chimney checked and cleaned every year.
- Use gas appliances as recommended. Never use a gas cooker or oven to heat indoor areas.

What should I do if the carbon monoxide alarm goes off?

When the carbon monoxide concentration reaches a dangerous level, the carbon monoxide detector emits a loud alarm signal (85dB) and the Alarm LED flashes rapidly.

- Inform all household members of the danger.
- Go outside immediately and call 112.
- Do not re-enter the premises until the alarm has been stopped and the source of the leak has been dealt with by an expert.



CAUTION

Unlike a smoke detector, a carbon monoxide alarm does not easily give false alarms. If the CO alarm goes off, take it seriously and assume that there is an excessive concentration of CO somewhere.

2 Important Precautions and Warnings

This manual will help you to use the alarm correctly. Read this manual carefully before using the alarm. Keep this manual for future reference.

Instructions for use



WARNING

- Never ignore an alarm. Failure to respond may result in serious injury or death.
- Do not attempt to open or disassemble the detector. There is a risk of electric shock or malfunction if the detector is tampered with.



CAUTION

- Transport, use and store the detector under the permitted humidity and temperature conditions.
- Prevent liquids from splashing or dripping on the detector. Prevent liquid from entering the detector by ensuring that no objects containing liquid are placed on top of it.
- This CO Alarm is designed to detect only the presence of CO; it cannot detect smoke, gas, heat or flames.
- This device is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the detector by a person responsible for their safety.
- Vapours or gases, e.g. in cleaning liquids, polishes, paints, cooking processes, etc., can affect the detector's reliability in the short or long term.

Installation instructions



WARNING

If you do not install and operate this detector properly, it will not function properly and will not react adequately to carbon monoxide hazards. See Section 5 for proper installation.



CAUTION

- Before installation, read Section 5 on the correct installation location of the CO Alarm.
- Do not expose the detector to direct sunlight or heat sources.
- The detector must be installed by a competent person.

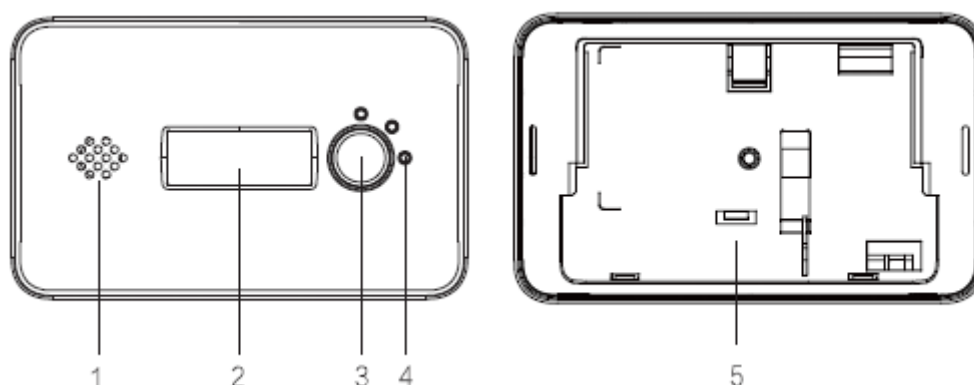
3 Product

3.1 Product information

This Wireless Interconnected Carbon Monoxide Alarm (hereinafter referred to as the Device) responds quickly with high sensitivity, stable performance and low false alarms when there is too much Carbon Monoxide in the air. This Device is able to measure carbon monoxide levels as low as 30 ppm using the high quality sensor. As soon as the ambient carbon monoxide concentration reaches the alarm value, the Device sounds a loud 85dB alarm and the alarm LED flashes rapidly. The LCD display shows the amount of ppm. With a built-in RF module, the device enables you to wirelessly connect up to 24 carbon monoxide alarms, constructing an interlinked network. Once one device triggers an alarm, the alarm signal will be pushed to every alarm in the interconnected network and they will raise the alarm in unison.

This Device is certified in accordance with the latest European standard EN 50291-1:2018 & EN 50291-2:2019 for carbon monoxide detectors.

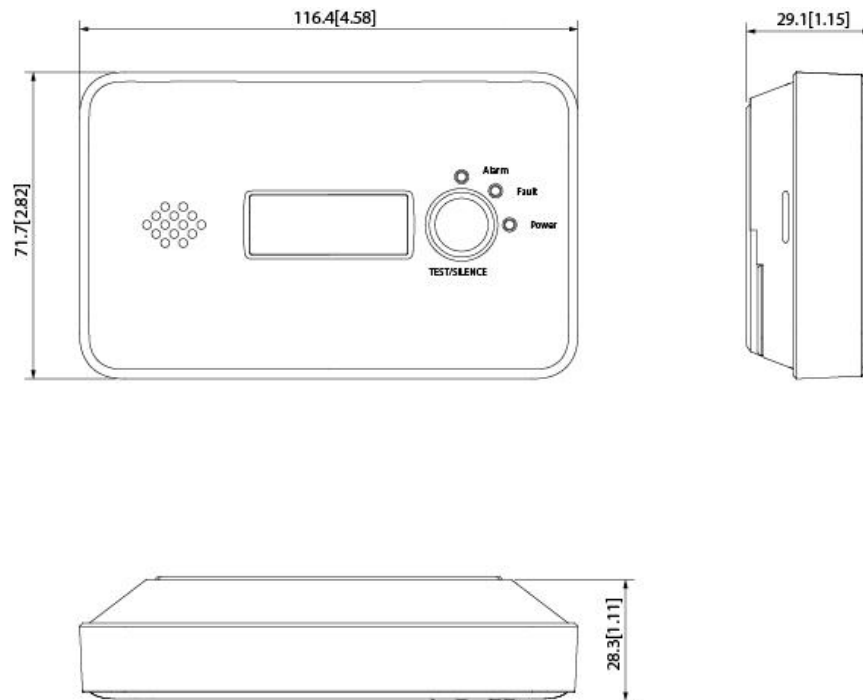
3.2 Product profile



No.	Section	Description
1	Buzzer	Alarm sound: 85dB (A) at 3 meters.
2	LCD display	Displays the current carbon monoxide concentration or peak reading.
3	Test/Silence button	- Check normal operation: Press the Test/Silence button; the detector now beeps 3 times. All LED lights will flash 3 times, and the LCD display will show 8888 for 3 seconds and then peak CO concentration. - Stop the alarm sound: Press the Test/Silence button and the device will temporarily stop the alarm sound (45 seconds).
4	Indicator	- Standby: Power LED flashes once per minute. - Alarm: Alarm LED flashes red. - Fault: Fault LED is flashing yellow.
5	Battery compartment	Built-in battery, not replaceable by user.

3.3 Dimensions

Figure 3-1 Dimensions (mm)



4 Technical Information

Parameter	Introduction
Detection Gas	Carbon monoxide (CO)
Alarm Triggered at the Specific CO Concentration within the Time Periods Listed	• 50 ppm: 60-90 min • 100 ppm: 10-40 min • 300 ppm: < 3 min
Operating Voltage	3 V direct current (DC)
Guard Current	≤ 20 uA
Alarm Current	≤ 20 mA
Operating Temperature	-10 °C to +40 °C (+14 °F to +104 °F)
Relative Humidity	≤ 95% RH (non-condensing)
Operating Frequency	868MHz
Maximum Transmitted Power	15.3dBm
Maximum Number of Interconnected Units	24 pcs
Radio Signal Range	Up to 1000 m (3280.84 ft) in open air
Maximum Transmitted Power	15.29dB
Alarm Method	Visual and audible alarm
Alarm Volume	≥ 85 dB (A) @ 3 m
Muting	Support
Silence Duration	45 sec.
Dimensions	116.4 mm × 71.7 mm × 29.1 mm (4.58" × 2.82" × 1.15")
Installation	Wall mount
LED Light	• Red: Alarm • Yellow: Fault • Green: Standby (1x per minute)
Battery Life	10 years
Certificates	EN 50291-1:2018 & EN 50291-2:2019

5 Interconnection

Prerequisite

- Remove the insulating film from the battery compartment to turn on the device.
- Make sure all carbon monoxide alarms are powered on to ensure a successful interconnection.



WARNING

Make sure that only 2 carbon monoxide alarms are powered on at a time to ensure successful interconnection. Otherwise, the interconnection will fail or device malfunction may occur.

How to interconnect

- Step 1 Press the **Test/Silence** button on the device 1 continuously 4 times (the interval between each press is less than 1 second), this device emits 1 short quick beep and the red LED indicator flashes slowly, indicating the device 1 enters the interconnecting receiving mode.



To ensure that all carbon monoxide alarms enter the same interlinked network, make sure only one carbon monoxide alarm enters interconnecting mode at a time.

- Step 2 Press the **Test/Silence** button on device 2 twice (the interval between each press is less than 1 second), this device emits 1 short quick beep and the red LED indicator starts to flash rapidly (about once every 0.5 second), indicating the device 2 enters the interconnecting transmission mode.

- Step 3 If devices are interconnected successfully, red LED indicator of device 1 flashes continuously, and green LED indicator of device 2 flashes for 3 minutes with buzzer beeps once.



Device 1 will be in interconnecting mode for 3 minutes with red LED indicator flashing once every second. During this period, you can pair several wireless interconnected carbon monoxide alarms one by one. If needed, you can manually press the **Test/Silence** button to help device 1 quit the interconnecting mode, the green LED indicator will go solid for 3 seconds, then device 1 will emit 1 short quick beep, indicating the device has already quit the interconnecting mode and enters normal standby state. Once you press the button on device 1, the device 2 will follow device 1 to quit the interconnecting mode and enter the normal standby state.

- Step 4 (Optional) Interconnect device 3.

- 1) If device 3 is in the interconnecting receiving mode of device 1 within 3 minutes, then press the **Test/Silence** button twice on device 3 to enter the interconnecting transmission mode. If the interconnecting receiving mode of device 1 surpasses 3 minutes, then press **Test/Silence** button on either of the two previously interconnected devices 4 times to enter the interconnecting receiving mode, then press the **Test/Silence** button twice on device 3 to the join interconnected network.
- 2) If enters the interconnected network successfully, green LED indicator on device 3 flashes continuously until device 1 quit the interconnecting mode, or you can press the

Test/Silence button on device 3 to force it enter the normal standby state immediately. After 3 minutes, all green LED indicators on devices go solid for 3 seconds and devices emit 1 short quick beep. You can press the **Test/Silence** button on device 3 to force it enter the normal standby state immediately.

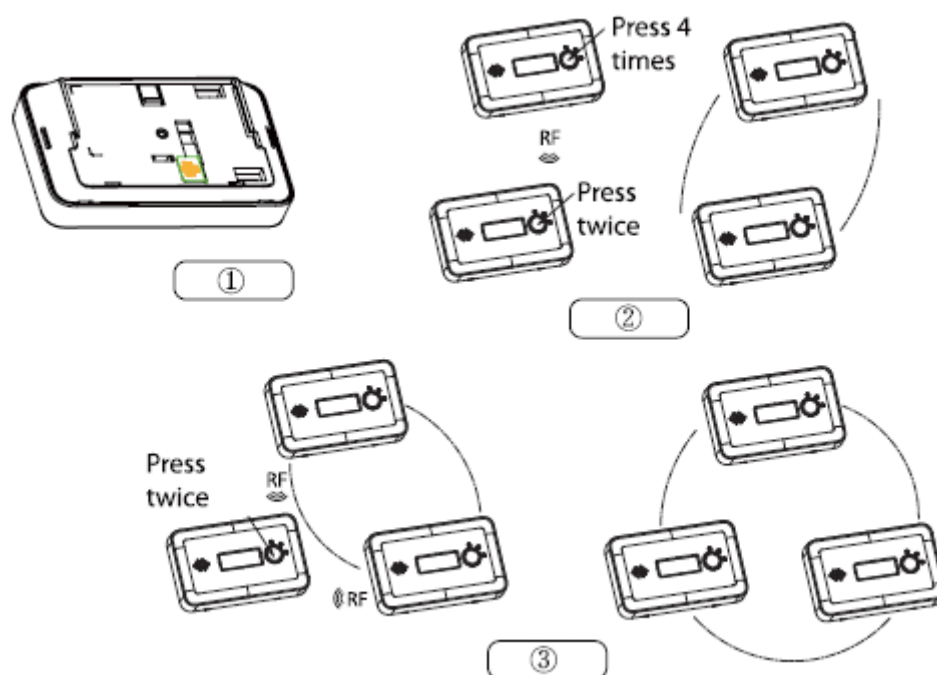
Step 5 If you want to connect more devices, please repeat **Step 4**.



Up to 24 wireless carbon monoxide alarms can be interconnected this way.

Step 6 Refer to “Chapter 6 Operation”, test all wireless interconnected carbon monoxide alarms before installation to ensure they are interconnected well.

Figure 5-1 Interconnect device



How to disconnect

Step 1 Continuously press the **Test/Silence** button 4 times on the device that needs to unpair with other carbon monoxide alarms, and the device emits 1 short quick beep with red LED indicator flashing continuously.

Step 2 Press and hold the **Test/Silence** button until the green LED indicator goes solid, then release the button. If the disconnection finished, the green LED indicators on all carbon monoxide alarms in the interconnected network will go solid for 3 seconds and devices emit 1 short quick beep.



Please disconnect all the wireless interconnected carbon monoxide alarms if you want to use them in another interconnected network.

6 Operation

After the interconnection, installation of the Device or regular maintenance, a test must be carried out to confirm that the Device is operating properly.

During the testing process, the defective Device should be addressed according to "Frequently Asked Questions" and "Maintenance", and then tested again. If it fails to complete the test successfully, please send the Device to the manufacturer for repair.

6.1 For a single carbon monoxide alarm

Test

Press the **Test/Silence** button, all LED indicators will flash 3 times (once per second) with the buzzer beeping 3 times continuously. The LCD display will demonstrate "8888" for 3 seconds and then show peak CO volume.

Silence/Pause the alarm

When the carbon monoxide concentration reaches the predetermined threshold, the red LED indicator flashes with the buzzer beeping once per second. The LCD display demonstrates real-time concentration for 1 hour. Press the **Test/Silence** button on the device to temporarily mute alarm sound and the device will be in the silence mode for 45 seconds.

6.2 For interconnected carbon monoxide alarms

Test

- Press and hold the **Test/Silence** button on any interconnected carbon monoxide alarm until other interconnected carbon monoxide alarms in the network start to beep. The initiating device will beep continuously with the red LED indicator flashing. After receiving a signal, other interconnected devices in the network start beeping with the indicator lights flashing red and green alternately.
- Release the **Test/Silence** button on initiating interconnected device, the initiating device stops flashing and beeping, and other interconnected devices stop testing soon.



Press and hold the **Test/Silence** button on disconnected device, there is no visual and audible alarm.

Silence/Pause the alarm

Once the initiating device triggers an alarm, the initiating device beeps once per second and after several seconds, other interconnected devices beep and flash quickly.

- Press the **Test/Silence** button on the initiating interconnected device.

All interconnected devices are temporarily silenced.

- Press the **Test/Silence** button on any other interconnected device.

All interconnected devices are temporarily silenced except for the initiating one.

7 Device Installation

7.1 Package content

Check the contents of the package against the list below. If the Device is damaged or a part is missing, please contact the supplier.

Table 7-1 Checklist

Name	Number
Carbon monoxide alarm	1
Drilling template	1
Set of screws/plugs	1
User Manual	1

7.2 Installation position

This CO alarm is suitable for use in domestic premises (caravan holiday homes), caravans, motor caravans and boats. The following advice is applicable to all intended applications.

In which room should the Device be installed?

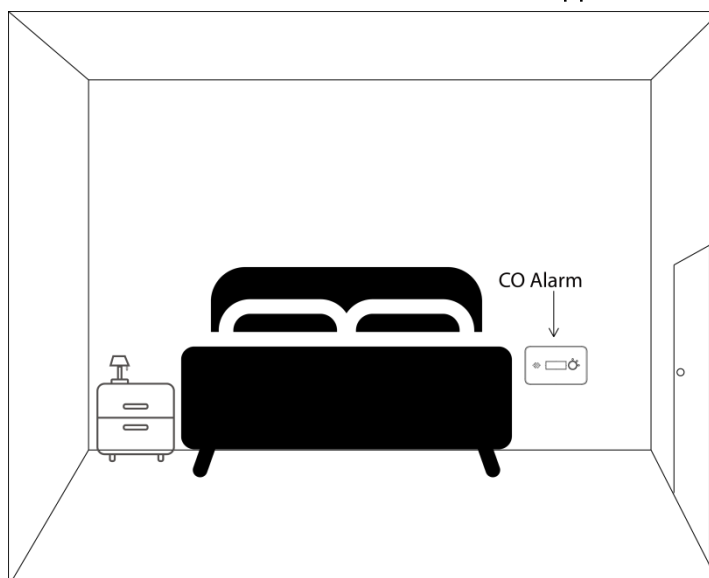
Preferably install a carbon monoxide alarm in every room with a combustion appliance. For added safety, also install devices in living rooms and bedrooms.

Make sure you can always hear the Device when it sounds the alarm.

Where in the room should the Device be installed?

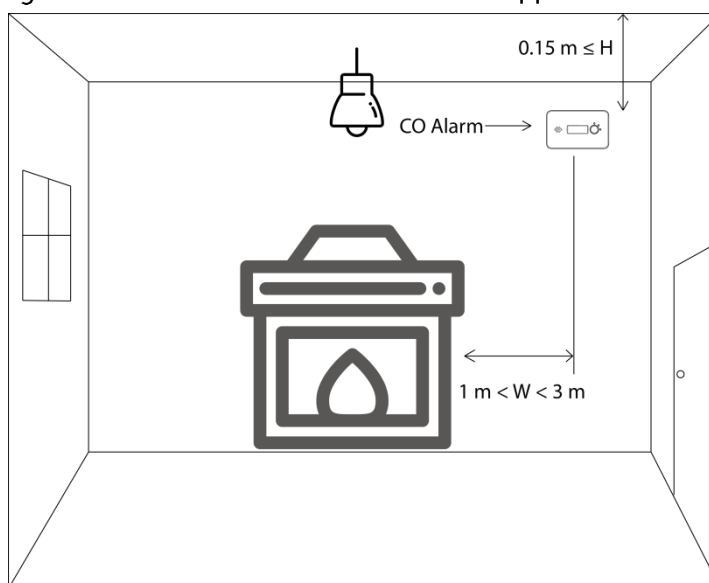
- Install in a bedroom **without a combustion device**.
 - Install the alarm at the occupants' breathing height.
 - Never install the alarm on or near the floor. Carbon monoxide mixes with air and will therefore rarely travel to the floor.

Figure 7-1 Installation in a bedroom without a fuel appliance



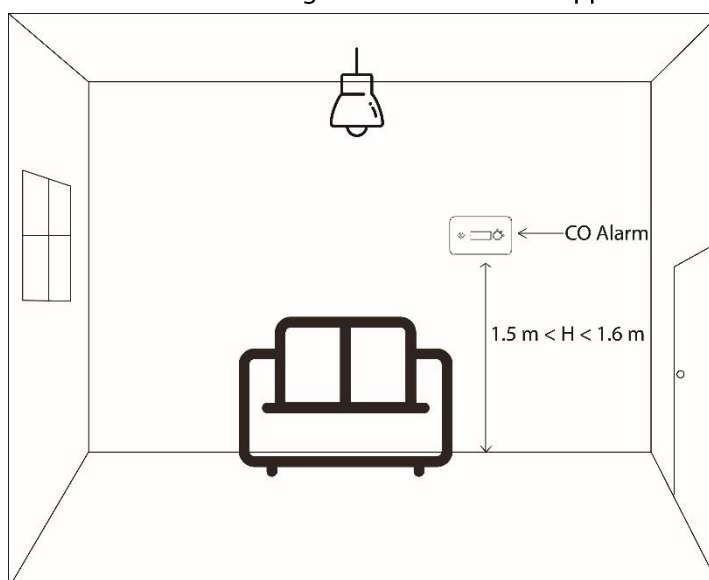
- Install in a living room **with a combustion device** (stove, boiler, fireplace, gas fire).
 - Install the alarm above the combustion device. Carbon monoxide rises to the surface due to the hot gases from the combustion device.
 - Install the alarm at least 15 cm from the ceiling.

Figure 7-2 Installation in a room with a fuel appliance



- Install in a living room **without a combustion device**.
 - Install the alarm on a wall about 1.5 meters to 1.6 meters above the floor.
 - Never install the alarm on or near the floor. Carbon monoxide mixes with air and will rarely travel to the floor.

Figure 7-3 Installation in a living room without a fuel appliance



Do not install a CO alarm here

- Dusty, dirty, greasy or damp areas.
- In poorly ventilated kitchens, garages, boiler rooms, confined spaces (e.g. in a cupboard or behind a curtain) where carbon monoxide or fumes circulate under normal working conditions.
- Near stoves, cookers and other hot and easily contaminated places.
- Against or near the floor.
- Directly above the source of heat and steam.
- In direct sunlight.
- Near obstructed areas (e.g. by furniture).
- Next to a door or window, exhaust fan, air vent or other similar ventilation openings.
- In rooms where the temperature may drop below -10 °C or rise above 55 °C.

7.3 First use

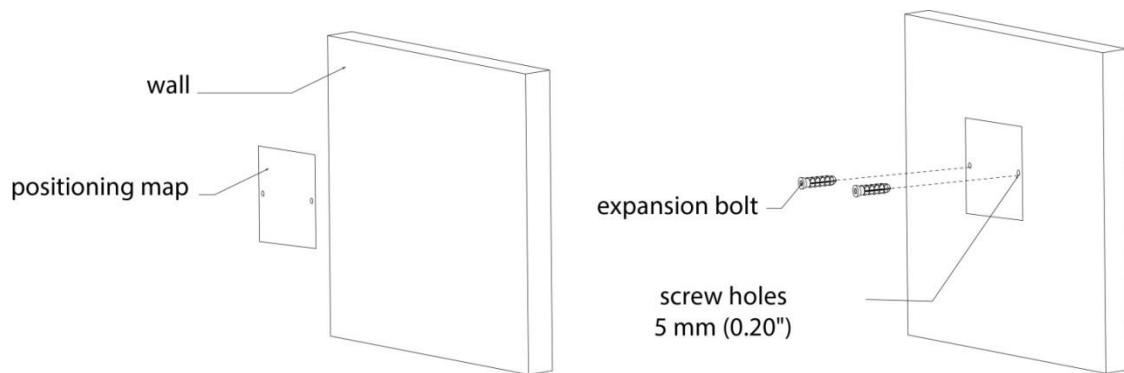
Carefully remove the plastic tab from the battery.

Step 1: Select a suitable location for placing the drilling template.

Step 2: Mount the device with screws or a magnetic mounting kit (not included).

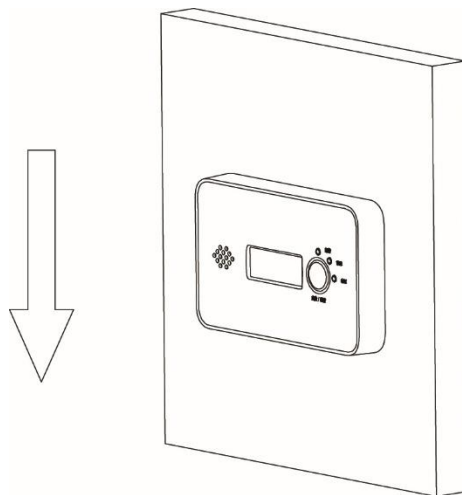
- Screws
 - 1) Drill screw holes (5 mm) according to the drilling template on the mounting surface and then insert the dowels into the holes.

Figure 7-4 Installation (1)



- 2) Attach the device to the mounting surface.

Figure 7-5 Figure 7-5 Installation (2)



Step 3: After installation, test the device by pressing the **Test/Silence** button. Check that the LED lights, buzzer and LCD display are working properly as described in chapter 3.2.

8 Device Status

LCD display	LED status	Alarm sound	Unit status	Solutions
Lights up 3 seconds (8888)	All LED lights flash 3 times	The buzzer beeps 3 times	Self-test	No
-	The Power LED blinks green once per minute	No	The detector switches on and works normally	No
Carbon monoxide concentration in ppm	The Alarm LED flashes red once per second	The buzzer beeps once per second	A carbon monoxide leak has been discovered	Inform all household members, go outside immediately and call 112
	No	No	Peak volume measured	The alarm will record the highest reading of CO that is has detected. Reset Peak volume by pressing the Test/Silence button once. LCD screen with peak volume will clear the record after pressing and holding the button
Lb	The Fault LED flashes yellow and Power LED blinks green once a minute	Buzzer beeps once per minute	Battery low	Replace the detector immediately
Err	The Fault LED flashes yellow 2 times per minute	The buzzer beeps 2 times per minute	Failure	See chapter 10 Frequently Asked Questions
End	The Fault LED flashes yellow 3 times a minute	The buzzer beeps 3 times per minute	End of life	The maximum service life has been reached. Replace the device immediately

PEAK VOLUME MEASUREMENT

This detector displays on the LCD the amount of carbon monoxide measured in the past. This peak volume is displayed in ppm and remains on the LCD until the peak reading is reset.

**CAUTION**

If the LCD screen is on for a longer period of time, it will affect the battery life. Please check the LCD screen of your detector regularly.

**CAUTION**

A peak reading on the LCD screen indicates that carbon monoxide has been measured in the past. Ventilate where possible and call a professional or installer immediately to have your appliances checked.



It is possible and common for the peak volume to stay at 0 ppm, which merely indicates that the alarm did not detect any CO in the past.

9 Maintenance

To keep your device in good working condition, please follow these requirements.

- Simulate alarm test: Test the device once a week.
Under normal working conditions, press the **Test/Silence** button to ensure that the Device can work normally. If there is a malfunction, please repair it in time.
- Clean the device at least once a year by cleaning the housing. Use a soft cloth or the soft brush of a Hoover for this purpose. Avoid applying cleaning agents to the device to avoid possible contamination of the sensor.
- Do not paint the device. Paint will seal the vents and interfere with the sensor's ability to work normally.
- When the battery voltage is lower than a certain threshold, the Fault indicator flashes yellow and the buzzer beeps once every minute until the battery is depleted. Replace the device immediately or contact technical support for advice.
- If installing in a caravan or boat there may be other substances present that could affect the reliability of the CO alarm. Avoid using the following in close proximity to the alarm: oils, cleaning fluids, polishes, paint and greases.



When the detector stops working properly, please contact your local dealer or retailer for help.

10 Frequently Asked Questions

Problem	Analysis	Solutions
The green Power LED does not blink once per minute	The battery is not inserted	Pull out plastic seal or tab
	The LED bulb is broken	Contact the supplier for advice
Press the Test/Silence button; there is no alarm	Circuit breaker	Contact the supplier
No response to detected carbon monoxide	Circuit breaker	Contact the supplier
The device continuously emits a sharp, high-pitched sound	There is a large amount of volatile substances such as alcohol, perfume, petrol or paint present	Move the device to clean air (outside) and let it "operate" for 2 hours to allow the gases to escape from the device
	Circuit breaker	Contact the supplier

11 Discard



Waste electrical products must not be disposed of with other household waste. Please dispose of the electrical appliance in an environmentally-friendly manner and in strict accordance with local regulations on the disposal or recycling of electrical appliances.



WARNING

Do not burn or throw into fire.

12 Warranty and Contact

If you need after-sales service, please contact your local dealer or retailer.

Western EU Importer: Dahua Europe B.V.

Address: Houtsingel 19, 2719EA Zoetermeer, The Netherlands

Email address for service purposes: support@wisualarm.com

CEE & Nordic Importer: Dahua Technology Poland Sp. z o.o.

Address: ul. Salsy 2, 02-823 Warszawa

Email address for service purposes: support@wisualarm.com

UK Importer: Dahua Technology UK Ltd.

Address: 3rd Floor, Quantum House, 60 Norden Road, Maidenhead, SL6 4AY

Email address for service purposes: support@wisualarm.com

Germany Importer: Dahua Technology GmbH

Address: Niederkasseler Lohweg 185, 40547 Düsseldorf

Email address for service purpose: support@wisualarm.com

13 Documents

The full text of the EU declarations of conformity and EU declarations of performance is available at the following internet address: <https://www.wisualarm.com/en/ServiceSupport/DownloadCenter>

For more information, please scan the QR code below or visit <https://www.wisualarm.com/en/Products/ALL>.

