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X-Sense Electronics Co., Ltd.  
Email: [support@x-sense.com](mailto:support@x-sense.com)

**X-SENSE** |  **Link+ Pro**



**XCO0-MR**

**Carbon Monoxide Alarm (Type B)**

Replaceable Battery

User Manual

F800004000235 V1.0

## English

This user manual contains important information regarding the installation and operation of your carbon monoxide alarm. Please take a few minutes to thoroughly read this manual which should be saved for future reference. If you are installing the carbon monoxide alarm for use by others, you must leave this manual—or a copy of it—with the end user.

## 1 Introduction

This device is a battery-powered Link<sup>+</sup> Pro CO (carbon monoxide) alarm with an advanced electrochemical sensor for domestic use. Please note that this carbon monoxide alarm is designed to detect carbon monoxide gas from any combustion source. This device does not detect smoke, heat, flames or any hazardous gas other than carbon monoxide even though carbon monoxide can be generated by fire. For this reason you must install smoke alarms to provide early warning of fire and to protect you and your family from fire and its related hazards.

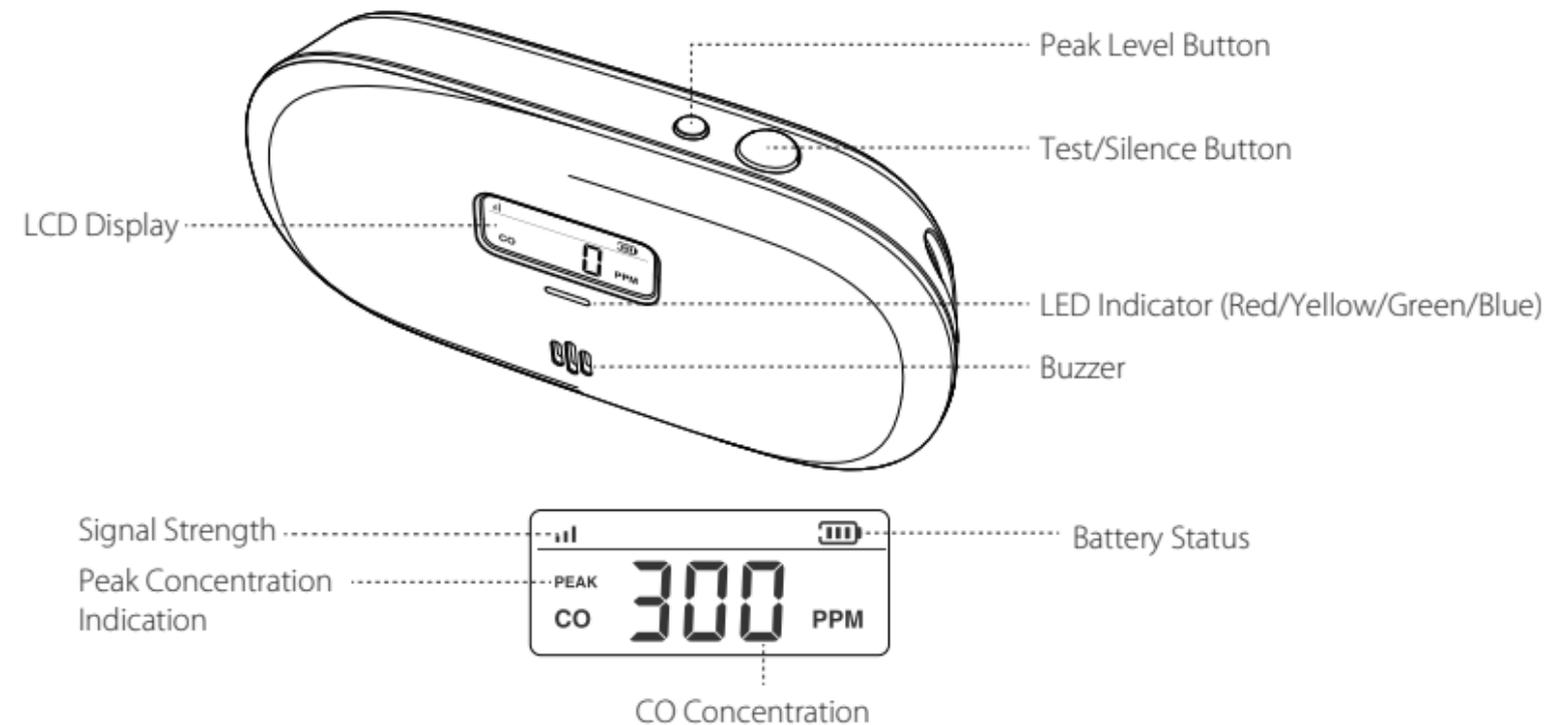
### ⚠ WARNING

1. CAUTION: READ THE INSTRUCTIONS CAREFULLY BEFORE OPERATING OR SERVICING.
2. THE INSTALLATION OF THE APPARATUS SHOULD NOT BE USED AS A SUBSTITUTE FOR PROPER INSTALLATION, USE AND MAINTENANCE OF FUEL-BURNING APPLIANCES INCLUDING APPROPRIATE VENTILATION AND EXHAUST SYSTEMS.
3. THIS APPARATUS SHOULD BE INSTALLED BY QUALIFIED PERSONNEL.
4. IF THE DEVICE IS TAMPERED WITH, THERE MAY BE A RISK OF ELECTRIC SHOCK OR MALFUNCTION.
5. IT IS NOT TESTED FOR USE IN A CARAVAN OR BOAT.
6. THIS PRODUCT IS INTENDED FOR USE IN ORDINARY INDOOR LOCATIONS OF FAMILY LIVING UNITS.

### ⚠ CAUTION

This alarm will only indicate the presence of carbon monoxide gas at the sensor. Carbon monoxide gas may be present in other areas.

## 1.1 Product Overview



## 1.2 Technical Specifications

Power Supply	3 V (≡) CR123A lithium battery × 1 (replaceable)
Battery Life	5 years (Test once a week)
Maximum Service Life	10 years
Sensor Type	CO: Electrochemical
Safety Standard	EN 50291-1
CO Alarm Response Time	50 ppm: 60–90 minutes
	100 ppm: 10–40 minutes
	300 ppm: < 3 minutes
Operating Temperature	4.4–37.8°C (40–100°F)
Operating Relative Humidity	10%–85% RH (non-condensing)
Storage and Transport	This apparatus should be stored at -10–50°C (14–122°F), 5%–95% RH (non-condensing).
Alarm Noise Level	≥ 85 dB at 3 m (10 ft) @ 3.2 ± 0.3 kHz pulsing alarm
Silence Duration	≤ 9 minutes
Band	869.25–869.3 MHz
Max. RF Power	10 mW
Maximum Interconnectable Units	24 wireless units (only compatible with X-Sense Link <sup>+</sup> Pro and Link <sup>+</sup> wireless alarms).
Maximum Number of Allowed Units	One base station can add up to 50 alarms.
Transmission Range	Over 500 m (1,640 ft) in open air

## 1.3 Package Contents



CO Alarm



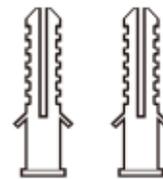
Drill Hole Spacing  
Indicator Label



CR123A Battery  
(Pre-installed)



User Manual



Anchor Plugs



Screws



Warranty Card

## 1.4 CO Concentration and Symptoms

The following symptoms are related to **CARBON MONOXIDE POISONING** and are to be discussed with **ALL** members of the household:

Levels of Exposure	Symptoms
Mild Exposure	Slight headache, nausea, vomiting, fatigue (often described as “flu-like” symptoms).
Medium Exposure	Severe throbbing headache, drowsiness, confusion, fast heart rate.
Extreme Exposure	Unconsciousness, convulsions, cardio-respiratory failure, death.

### **WARNING**

1. THIS APPARATUS IS DESIGNED TO PROTECT INDIVIDUALS FROM THE ACUTE EFFECTS OF CARBON MONOXIDE EXPOSURE. IT WILL NOT FULLY SAFEGUARD INDIVIDUALS WITH SPECIFIC MEDICAL CONDITIONS. IF IN DOUBT, CONSULT A MEDICAL PRACTITIONER.
2. MANY CASES OF REPORTED CARBON MONOXIDE POISONING INDICATE THAT WHILE VICTIMS ARE AWARE THEY ARE NOT WELL, THEY BECOME SO DISORIENTED THEY ARE UNABLE TO SAVE THEMSELVES BY EITHER EXITING THE BUILDING OR CALLING FOR ASSISTANCE. YOUNG CHILDREN AND HOUSEHOLD PETS ARE TYPICALLY THE FIRST AFFECTED.

## 1.5 What to Do When the Alarm Sounds

### **WARNING**

**Actuation of your CO alarm indicates the presence of carbon monoxide (CO) which can KILL YOU.** If alarm signal sounds:

1. Operate Test/Silence Button;
2. Call your emergency services;
3. Immediately move to fresh air—outdoors or by an open door/window. Do a head count to check that all persons are accounted for. Do not reenter the premises nor move away from the open door/window until the emergency services responders have arrived, the premises have been aired out, and your alarm remains in its normal condition;
4. After following steps 1-3, if your alarm reactivates within 24 hours, repeat steps 1-3 and call a qualified appliance technician to investigate

sources of CO from fuel-burning equipment and appliances, and inspect for proper operation of this equipment. If problems are identified during this inspection, have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturers’ instructions, or contact the manufacturers directly, for more information about CO safety and this equipment. Make sure that motor vehicles are not operating in an attached garage or adjacent to the residence.

## 1.6 More Detailed Information on Conditions Which Can Result in Transient CO Situations, Such as:

1. Excessive spillage or reverse venting of fuel-burning appliances caused by:
  - a. Outdoor ambient conditions such as wind direction and/or velocity, including high gusts of wind; heavy air in the vent pipes (cold/humid air with extended periods between cycles).
  - b. Negative pressure differential resulting from the use of exhaust fans.
  - c. Simultaneous operation of several fuel-burning appliances competing for limited internal air.
  - d. Vent pipe connection vibrating loose from clothes dryers, furnaces, or water heaters.
  - e. Obstructions in unconventional vent pipe designs amplify the above situations.
2. Extended operation of unvented fuel-burning devices (range, oven, fireplace, etc.).
3. Temperature inversions which can trap exhaust gasses near the ground.
4. Car idling in an open or closed attached garage, or near a home.

## 2 How to Connect

### 2.1 App Download

#### Download the X-Sense Home Security App



To download the app, search for “**X-Sense Home Security**” in the Apple App Store or Google Play, or simply scan the QR code. Create an account using a valid email address. If you already have an account, make sure it is updated to the latest version.

*NOTE: Make sure your smartphone supports iOS 11 and higher, or Android 8.0 and higher.*

### 2.2 App Features

**Device Test:** Simply tap the “Device Test” button in the app to test whether the device is functioning properly.

**Night Mode:** You can use app to activate the night mode and set a specific time period which the LED light will not illuminate periodically to avoid disturbing your sleep.

**Device Sharing:** You can share the device with your family members and friends. They will receive app push notifications for alarms and have the ability to silence the device, view historical events, etc.

**Push Notifications:** You can choose to receive app push notifications when any change is made to your system. It is highly recommended

that you limit push notifications, as too many notifications can become redundant and load your phone, which can quickly become a nuisance. Furthermore, the more push notifications you allow, the more power your CO alarm will consume, which will reduce battery life.

**Record History:** To access data or check device status, tap the “History” button on the bottom.

**Offline Notifications:** Offline notifications are used to notify you if the alarm disconnects from the base station. Note that this notification may not be sent instantly, as the alarm reports to the cloud service center at set intervals.

**CO Alarm Precaution:** Dangerous CO concentration is detected but has not reached the alarm status. The app will show a “CO Alarm Precaution” message, and an app push notification will be sent to your smartphone. Potentially dangerous CO conditions exist.

### 2.3 Preparations

#### Before connecting devices, make sure that:

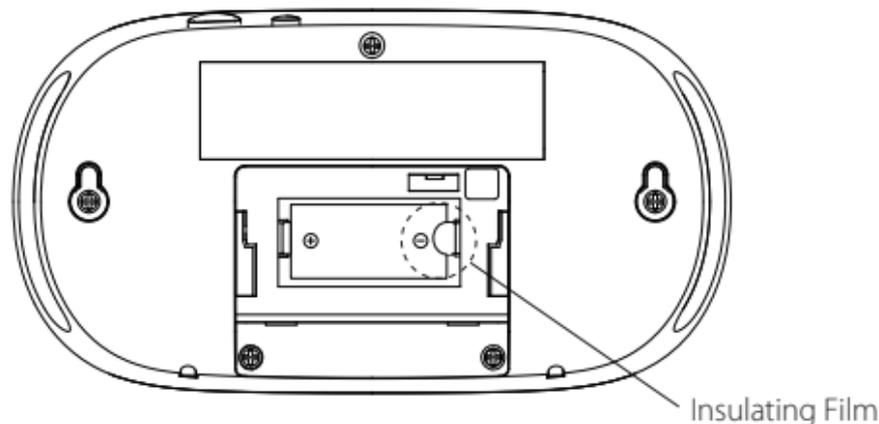
1. You know your Wi-Fi network name and password.
2. You are connecting your device using a 2.4 GHz Wi-Fi network (incompatible with a 5 GHz Wi-Fi network).
3. Make sure the Bluetooth on your phone is turned on.

*NOTE: When the device is configured via Wi-Fi, make sure your mobile phone and devices are as close to the router as possible, which can speed up device configuration.*

## 2.4 Power-On Instruction

### To Activate the Device

Before use, pull out the insulating film from the battery compartment to power on the device. After the device is turned on, the buzzer will beep once, the LCD backlight will light up, and the LED indicator will flash through 2 cycles (red/yellow/green/blue). The device will then enter standby mode.



## 2.5 Network Setup Steps

### Connect the Link+ Pro Carbon Monoxide Alarm to the Base Station

The Link+ Pro carbon monoxide alarm can be connected to the base station through the wireless network. When the alarm is connected to the base station, you can receive push notifications wherever you are to stay informed of the device status, and to silence an alarm from your smartphone.

**NOTE:** Before adding devices to the system, make sure the base station has been successfully added to the app.

1. Tap “⊕”, select “Carbon Monoxide Alarms”, and then select “Link+ Pro CO Alarms (working with SBS50 Base Station)” in the product list. Then select “XCOC-MR”.
2. Follow the prompts on the page by pressing the Test/Silence Button twice on the carbon monoxide alarm. The device will beep once and the LED will flash blue rapidly, indicating that the device is waiting to connect to the Wi-Fi.
3. Tap “Next” to add the device. You will hear “Ready to add the device”.
4. After successfully connected, the device will beep once and the “Device added” page will appear. Then you can find the carbon monoxide alarm in the device list.
5. If you want to add multiple devices to the system, please repeat the above steps.

**NOTE:** If you fail to add the carbon monoxide alarm to the network within 60 seconds, it will automatically exit the network configuration. To re-enter the network configuration, you need to repeat the above steps.

### Interconnect the Alarms Without Adding to the Base Station

If you don't want to add the carbon monoxide alarms to the base station, you can connect the carbon monoxide alarms using RF technology to create an interconnected alarm system. However, you will no longer be able to receive push notifications on your phone from the X-Sense Home Security app.

**NOTE:** The XCOC-MR carbon monoxide alarm can be connected to the X-Sense Link+ Pro and Link+ alarms using wireless interconnection without being connected to the base station.

### How to Set Up and Interconnect Wireless Alarms

All X-Sense wireless interlinked alarms contain a built-in RF module that enables you to wirelessly connect 2 or more interlinked alarms and create an interlinked network. When one unit is triggered, all interconnected alarms will sound. The X-Sense wireless interconnected alarms contain wireless interlinked smoke alarms, wireless interlinked carbon monoxide alarms, and wireless interlinked smoke and carbon



## 2.6 How to Disconnect

Quickly press the Test Button 4 times, and the device will emit a beep and the LED will flash blue slowly. Then, press and hold the Test Button, and the device will emit another beep and the LED will flash blue once quickly. At this point, the device will exit the network and become a standalone device. Afterward, reconnect to the same or a new network.

## 3 How to Install

### 3.1 Where to Install

Ideally, a carbon monoxide alarm should be installed in every room containing a fuel-burning appliance, and one in every bedroom.

However, if the number of carbon monoxide alarms available is limited, the following guidelines should be considered when choosing the best places to install an alarm(s):

1. If there is a fuel-burning appliance in a bedroom, a CO monitor should be installed.
2. Install an alarm in rooms containing a flueless or open-flued appliance.
3. Install an alarm where residents spend most of their time.
4. In a studio apartment, a CO alarm should be placed as far away from the cooking appliances as possible, but close to where the person sleeps.
5. If the appliance is in a room not normally used (such as a boiler room), the CO alarm should be placed just outside of this room so that the alarm can be heard more easily.

### 3.2 Improper Locations for Installation

Improper location can affect the sensitive electronic components in this alarm. To avoid causing damage to the unit, to provide optimum performance and to prevent unnecessary nuisance alarms, **do not locate CO alarms** in the following areas:

1. In garages or in any extremely dusty, dirty or greasy areas.
2. Where there is the possibility of smoke or fumes under normal operating circumstances.

3. In poorly ventilated kitchens, garages and furnace rooms. Keep the CO alarms at least 1.5 m (5 feet) from potential smoke or fume sources (e.g. stoves, furnaces, water heaters, space heaters) if possible.
4. In areas where a 1.5 m (5 feet) distance from a potential smoke or fume source is not possible. In modular, mobile or smaller houses, it is recommended the CO alarm be placed as far from any potential smoke or fume sources.
5. Within 1.5 m (5 feet) of any cooking appliance.
6. In extremely humid areas. This alarm should be at least 3 m (10 feet) from a bath or shower, sauna, humidifier, vaporizer, dishwasher, laundry room, utility room or other source of high humidity.
7. In areas where the temperature is colder than 4.4°C (40°F) or hotter than 37.8°C (100°F). For example, non-air-conditioned crawl spaces, unfinished attics, uninsulated or poorly insulated ceilings, porches and garages.
8. Where the air is turbulent, such as near ceiling fans, heat vents, air conditioner vents, fresh air return vents, or open windows. Excessive air flow may prevent any CO from reaching the sensors.
9. In direct sunlight.

### 3.3 Specific Locations of Installation

#### Installing a CO alarm in a room with a fuel-burning appliance (see Figure 1):

1. If it is mounted on a wall, it should be installed at a height greater than the height of any door or window, but should still be at least 150 mm (5.9 inches) below the ceiling.
2. The CO alarm should have a horizontal distance between 1 m (3.3 feet) and 3 m (10 feet) from any potential CO source.
3. If there is a partition in the room, the CO alarm should be installed on the same side of the partition as the potential CO source.

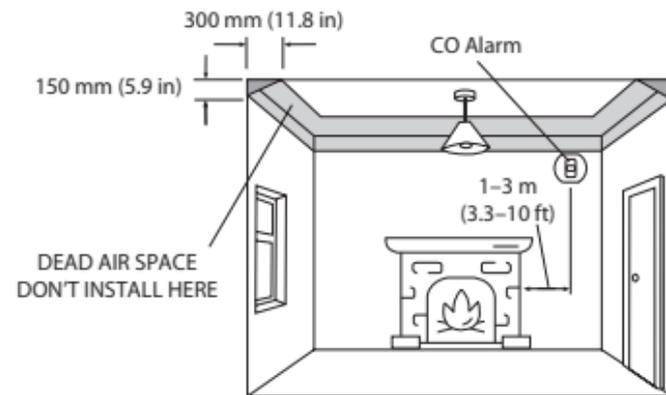


Figure 1: Installation in a room with a fuel-burning appliance

**Installing the CO alarm in a bedroom or room without a fuel-burning appliance (see Figure 2):**

1. Mount the CO alarm relatively close to the breathing zone of the occupant.
2. Install the alarm such that the LED indicator is viewable when the occupant is near the alarm.

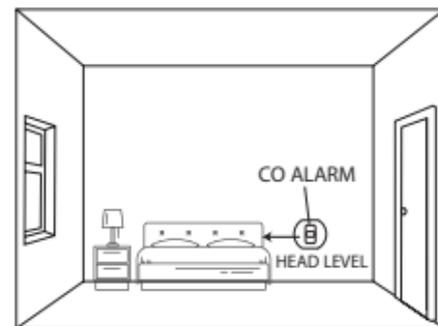


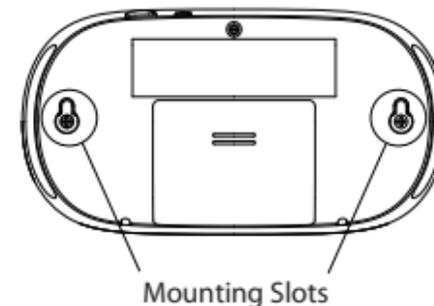
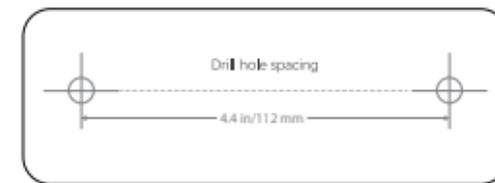
Figure 2: Installation in a bedroom or room without a fuel-burning appliance (installed at head level)

*NOTE: Due to the product's unique design and unfixed installation, it is not recommended to install it on a ceiling, as it is prone to falling off and causing injuries to people.*

### 3.4 Installation Instructions

#### Wall Mounting

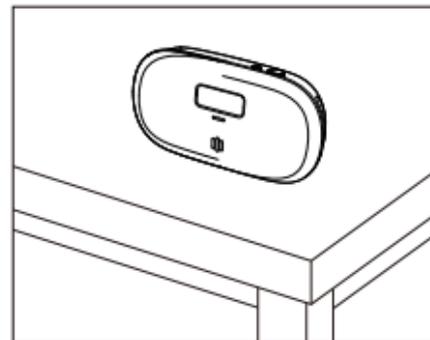
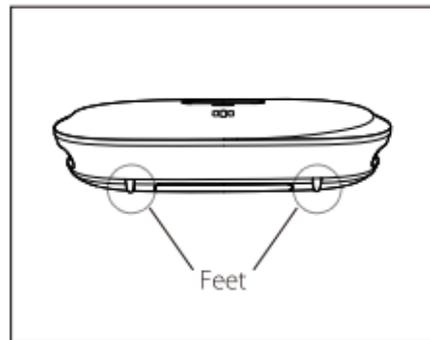
1. Choose a suitable installation location by referring to the "How to Install" section.
2. Remove the indication sticker from the packaging and refer to the hole locations on the sticker. Draw two screw holes according to the size and layout of the mounting holes on the back of the product. Drill the screw holes 30 mm (1.18 inches) deep using a  $\varnothing 6$  mm (1/4 inch) drill bit. Note that the distance between the centers of the two holes is 112 mm (4.4 inches).



3. Insert the anchor plug into the screw hole and hammer it in until the head of the anchor plug is flush with the wall.
4. Use the two provided screws or 3.5 x 25 mm countersunk screws to screw into the two anchor plugs. Be sure to leave a 5 mm (1/5 inch) gap between the head of the anchor plugs and the screws, which will allow for easy device mounting.
5. Mount and lock the device onto the wall by aligning the two mounting slots on the back of the device with the screws on the wall.
6. Test the device by pushing the Test Button to make sure that the device is functioning properly.

### Place on flat surfaces

The base of the detector has two feet built into the design that allow it to stand freely on a flat surface.



*NOTE: When placing on a shelf, please adhere to the recommended placement as described in "How to Install".*

### 3.5 Alarm Testing After Installation

Be sure to test your CO alarms when you turn them on for the first time. In addition to the weekly test you should perform, it is also recommended to test the alarm after returning from a long trip or vacation.

	Test a Single Alarm	Test All Interconnected Alarms
<b>Action</b>	1. Press the Test/Silence Button. 2. Tap the "Device Test" button in its "Device Settings" page in the app.	Hold down the Test/Silence Button.

Device Response		
	<ol style="list-style-type: none"><li>1. When the LCD lights up, the device runs a sensor self-check. If a fault is detected, the LED will flash yellow twice every 60 seconds accompanied by two beeps, and the LCD will display "E03/E04". If no fault is detected, the LED will flash red 4 times continuously with beeps, repeating for 2 cycles.</li><li>2. During this period, the LCD sequentially displays "---", "PAS", then the backlight turns off. The LCD returns to standby mode indicating normal working status.</li><li>3. If there is an error during the self-test, the LCD will display corresponding patterns according to the current device status, such as low battery and end of life, displaying "Lb" and "End" respectively.</li><li>4. When the test mode is finished and the device is functional, it will beep once with the LED flashing green once.</li></ol>	<ol style="list-style-type: none"><li>1. The initially triggered device will beep continuously with the LED flashing red.</li><li>2. Other interconnected alarms in the network will receive the test signal after 5 seconds, then they will beep continuously with the LED flashing red and green successively. Release the Test/Silence Button and all the units will stop testing.</li><li>3. The testing of the units should be completed within 2 minutes.</li><li>4. After testing, the units will automatically enter standby mode.</li></ol>

**NOTES:**

1. After the device connects to the base station and completes the test, the user's mobile app will receive a notification of test result, such as "Normal Working Status", "Device Malfunction", "Low Battery", or "End-of-Life", along with related push notifications.
2. If the device has previously triggered an alarm, it will store an alarm memory. After the LED flashes green at the end of the self-test, the LED will stay on red for 2 seconds, and the LCD screen will display the peak CO alarm value.

**NOTE:** The test function accurately tests the alarm's CO-sensing circuit without the need to test CO. If your CO alarm fails to emit an audible test signal, refer to the "Troubleshooting" section at the end of this manual immediately.

### 3.6 Battery Replacement

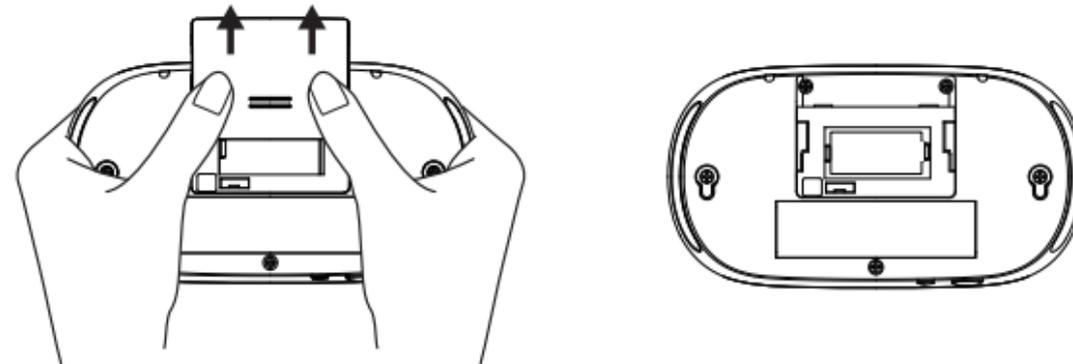
When the LCD displays the "Lb" message, the LED indicator flashes yellow once every 60 seconds and the buzzer beeps, remove the old battery and replace it with a new battery.

After replacing the new battery in the device and ensuring that it is powered on successfully, the device will operate normally. For indications of battery replacement, refer to the "Audio-Visual Indicators" section.

**NOTE:** Rechargeable batteries are not allowed, as others may negatively impact operation.

**Follow the process below to open the battery compartment cover:**

Hold the alarm with both hands and put your thumbs on both ends of the battery compartment cover. Then, push the cover upwards with some force to remove it.



**⚠ WARNING**

1. KEEP NEW OR OLD USED BATTERIES OUT OF REACH OF CHILDREN.
2. In the event of a battery leaking, do not allow the liquid to come into contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice immediately.
3. NEVER charge a battery unless it is a rechargeable battery.
4. Do not mix alkaline, standard (carbon-zinc) or rechargeable (Ni-Cd; Ni-MH) batteries.
5. Different types of batteries or new and used old batteries are not to be mixed. Do not mix batteries of different manufacturers, capacities, or sizes.
6. Batteries must be inserted with the correct polarity. Replacement of a battery with an incorrect type can defeat the safeguard. There will be a risk of fire or explosion if a battery is replaced by an incorrect type.

7. Test the alarm for correct operation using the test facility, whenever the battery is replaced.

## 4 Functions' Overview

### 4.1 The Test/Silence Button

The Test/Silence Button is used to test the unit's electronics and to silence the unit during an alarm.

Shortly press the Test Button and you will hear a short beep, indicating that the alarm has entered the test mode. A test push notification will be sent to your smartphone by the app. Please refer to the "**Alarm Testing After Installation**" section for further information. The alarm goes back to the standby mode after testing.

*NOTE: After a test has begun, the alarm will sound and the LED indicator will flash red. This does not indicate that CO is present. If you press the Test Button during an alarm state, the unit will enter the silence mode.*

### 4.2 CO Alarm Levels and Alarm Mode

#### CO Alarm Levels

This X-Sense carbon monoxide alarm is programmed to sound an alarm at the following CO concentrations within the periods listed:

**50 ppm for 60–90 minutes,**

**100 ppm for 10–40 minutes,**

**300 ppm for < 3 minutes.**

When CO is detected and the alarm sounds, the CO concentration will be displayed on the LCD and a blue backlight will be lit. The LED indicator will flash red and the alarm will issue 4 short beeps, repeating the cycle every 5.8 seconds. An alarm push notification will be sent to your smartphone by the app.

#### Alarm Mode

When the device detects CO and the CO ppm reaches a certain level for a period of time, it will trigger an alarm, sounding 4 beeps every 5.8 seconds, and the LED will flash red. The LCD will light up and display the real-time CO concentration, which updates every 30 seconds.

If the device is connected to the base station, the app will display a "CO Alarm Triggered" notification, and a push notification will be sent to your smartphone. The CO concentration will be shown in both the in-app message and the push notification. You can also view the CO concentration in the history section of the app.

When the carbon monoxide concentration drops below the alarm threshold, the alarm sound will stop. Then, it will automatically enter standby mode. When the alarm ends, an app push notification will be sent to your smartphone.

If the device is operating in interconnected customizable network mode, when a smoke alarm within the network is triggered, the device's LED will alternately flash red and green 3 times. When a carbon monoxide alarm within the network is triggered, the device's LED will flash red 4 times consecutively, followed by the LED flashing green once.

### 4.3 Peak Concentration Memory and Reset

The peak CO concentration feature is helpful in identifying if there have been any dangerous CO readings since a peak CO concentration reset.

Press the Peak Level Button once and the device will perform a brief test. The LCD backlight will turn on and display the maximum value recorded since the last peak data reset. The "Peak" indicator will appear on the left side of the LCD. The peak data will be shown for 5 seconds. If no further action is taken within those 5 seconds, the device will automatically return to standby mode.

In the example, 300 ppm was the maximum CO concentration recorded since the unit was last reset.



**Peak CO Concentration Reset:** During the 5 seconds when the LCD displays the peak CO concentration, press and hold the Peak Level Button for 3 seconds, the device will beep, the LED will flash green, and the peak CO concentration will be reset with LCD displaying “0”.

**NOTES:**

1. *If the carbon monoxide concentration is lower than 30 ppm, it will not be recorded in the peak CO concentration.*
2. *To show the peak value, you need to press the Peak Level Button briefly (less than 3 seconds). If you press it for a long time (3 seconds or more), the peak display will not be triggered.*

## 4.4 Memory Mode

If the device has triggered a carbon monoxide alarm, but the CO concentration has decreased and the device has automatically reset the alarm, the device will retain an alarm memory. There will be two different states depending on whether the event occurred within the last 24 hours or more than 24 hours ago.

**Within 24 hours:** The LED will flash red once every 5 seconds, but no alarm sound will be emitted.

**After 24 hours:** The device will no longer actively issue any alerts. However, if the Test/Silence Button is briefly pressed, after the self-test is completed, the LED will stay on red for 2 seconds (this effect will not occur if the self-test is done within 24 hours).

When the device has an alarm memory, the user should inspect the area where the alarm is located to identify and resolve any potential safety hazards that may have triggered the alarm, in order to prevent similar dangers from happening again. If the hazard has been resolved, or it is confirmed that the previous alarm was a false alarm, the user can press the test/silence Button on the device 3 times in succession to clear the alarm memory. Once cleared successfully, the device’s LED will stay on red for 1 second, indicating that the alarm memory has been cleared.

**NOTES:**

1. *After the device is turned off, it will automatically clear the alarm memory.*
2. *The device only stores the most recent alarm memory; any new alarm memory will overwrite the previous record.*

## 4.5 Silence Mode

If there is a false alarm, you can temporarily silence it by pressing the Test/Silence Button on the device or in the app. You will receive an instant notification from the app telling you that the device has been temporarily silenced. The LED will flash red 4 times every 5.8 seconds to remind you that the alarm has been silenced. The alarm will automatically exit silence mode after 9 minutes.

During silence mode, if the carbon monoxide concentration remains greater than 50 ppm after 6 minutes, the device will be triggered again; if not, the device will automatically exit the silence mode after 9 minutes. If the CO concentration exceeds 300 ppm, the silence function cannot be enabled.

In the alarm mode, pressing the Test/Silence Button on the initially triggered device will silence all devices in the network (including the base station). Pressing the Test Button on a passively triggered device or the button on the base station will only silence all passively triggered devices (including the base station); initially triggered devices will continue to sound and flash.

If the device is connected to the app, during the alarm mode, you can tap the “Silence” button in the app to stop the beeping sound. The LED will continue to flash red 4 times every 5.8 seconds. Alternatively, you can tap the “Locate” button in the app to silence the base station and all passively triggered devices, leaving only the initially triggered devices sounding and flashing, helping users locate the CO source through the alarm sound.

### **WARNING**

1. Any remote silencing function can only be used within the line of sight of the CO alarm.
2. If there is any doubt about the cause of the alarm, it should be assumed that the alarm was triggered by dangerous levels of carbon monoxide, and the residence should be evacuated.

## 4.6 Low-Battery Mode

If the battery is low, the unit will beep once, and the LED indicator will flash yellow once every 60 seconds to indicate that the battery needs replacement. A low battery notification will be sent to your smartphone by the app.

If you press the Test Button when the battery is low, the beep will temporarily stop for 10 hours, but the LED flashes yellow once every 60

seconds; if you press the Test Button again, the unit will enter the test mode and then exit silence mode during low battery.

#### 4.7 Fault Mode

When the device sensor fails (including sensor open circuit and short circuit), the LED will flash yellow twice every 60 seconds, accompanied by two alarm sounds.

The fault code E04 indicates a short circuit, while E03 indicates an open circuit.

#### 4.8 End-of-Life Mode

Once the maximum lifetime (10 years) is reached, the alarm will emit 3 beeps and the LED indicator will flash yellow 3 times every 60 seconds. This end-of-life signal can be silenced temporarily for 22 hours by pressing the Test Button. During the silence period, the LED will flash yellow 3 times every 60 seconds.

The end-of-life silence feature can only be used for a total of 30 days. After 30 days, the end-of-life signal cannot be silenced. During this end-of-life hush period, your alarm continues monitoring CO and providing protection as usual.

## 5 Daily Maintenance

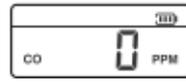
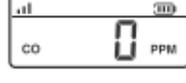
**To keep your alarm in good working order, you should adhere to the following steps:**

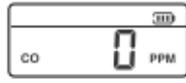
1. Test the alarm once a week by pressing the Test/Silence Button.
2. Vacuum the alarm cover once every three months to remove any accumulated dust.
3. Never use detergents or solvents to clean the alarm. Chemicals can permanently damage or temporarily contaminate the sensor.
4. Avoid spraying air fresheners, hair spray, paint or other aerosols near the alarm.
5. Do not paint the unit. Paint may clog the openings to the sensing chamber and prevent the unit from operating properly.

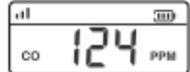
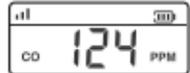
**⚠ WARNING:** DO NOT TAMPER WITH THE APPARATUS, AS THERE IS A RISK OF ELECTRIC SHOCK OR MALFUNCTION.

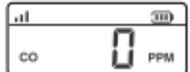
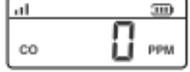
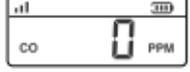
## 6 Audio-Visual Indicators

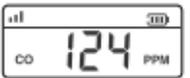
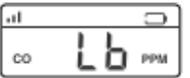
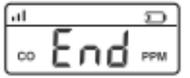
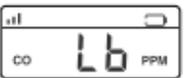
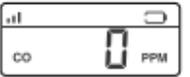
While detecting CO, the LCD will display different indicators to inform you of the alarm status, as shown below:

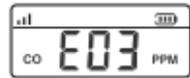
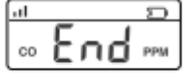
Mode		LCD Display	LED Indicator	Audible Alarm	Remarks
Powering On		 (Backlight on)	Runs through 2 cycles (red/yellow/green/blue) in sequence.	1 quick beep.	Make sure the battery insulating film is removed and the device is turned on.
Standby Mode		 (No backlight)	Flashes green once every 60 seconds.	None.	None.
Pairing Mode (Connect to Base Station)	Pairing Period	 (Backlight on)	Flashes blue rapidly.	1 quick beep.	Pairing transmission status.
	Successfully Connected	 (No backlight)	Stops flashing blue.	1 quick beep.	The device is successfully connected to the base station.

Pairing Mode (Devices Interconnecting)	 (Backlight on)	Flashes blue slowly.	1 quick beep.	Pairing status
	 (Backlight on)	Flashes blue rapidly.	1 quick beep.	Pairing transmission status.

Alarm Mode	 (Backlight on) Displays actual values.	A CO concentration ranging from 50 to 999 ppm has been present for a certain time period. And the LED indicator flashes red 4 times every 5.8 seconds.	4 quick beeps repeating every 5.8 seconds.	Dangerous CO concentration is detected, and has reached the alarm status. Please refer to <b>“What to Do When the Alarm Sounds”</b> .
	 (No backlight) Displays actual values.	A CO concentration level ranging from 50 to 999 ppm has been detected, but for less than the required detection period.	None.	Dangerous CO concentration is detected, but has not reached the alarm status. Potential dangerous CO conditions exist. Please locate the CO source immediately.

Test Mode	Test a single unit	 (Backlight on)	Flashes red once first, then 2 sets of 4 red flashes.	The buzzer beeps once first, then 2 sets of 4 quick beeps.	The LED flashes red and the buzzer beeps simultaneously.
	Test all interconnected units	 (Backlight on)	Flashes red once every second.	Continuous short beeps.	Initially triggered alarm. Hold down the Test/Silence Button on one unit in the network.
		 (Backlight on)	Flashes alternately red and green once every second.		
Peak Level Check	Peak Level:  Clear to zero:  (Backlight on)	None.	None.	LCD backlight remains lit for 5 seconds; if the Peak Level Button is pressed and held for more than 3 seconds during the 5-second display, the device emits a beep, the LED flashes green once, and the existing recorded data is reset to zero. The peak CO level recorded since the previous reset.	

Silence Mode	 (Backlight on) Displays actual values.	Flashes red 4 times every 5.8 seconds.	None.	CO silence mode: After 9 minutes, the unit will exit silence mode.
	  (No backlight)	Flashes yellow once every 60 seconds.	None.	Silence mode during low battery: After 10 hours, the unit will exit silence mode.
	 (No backlight)	Flashes yellow 3 times every 60 seconds.	None.	Silence mode at the end of the cycle: After 22 hours, the unit will exit silence mode.
Low Battery	  (No backlight)	Flashes yellow once every 60 seconds.	1 quick beep every 60 seconds.	The battery must be replaced immediately.

Fault Mode	  (No backlight)	Flashes yellow twice every 60 seconds.	2 beeps every 60 seconds.	If the "E03/E04" message is still displayed, the unit has malfunctioned and must be replaced immediately.	
	End-of-Life Mode	 (No backlight)	Flashes yellow 3 times every 60 seconds.	3 quick beeps every 60 seconds.	Replace the unit immediately.
Memory Mode	Within 24 hours	 (No backlight)	Flashes red once every 5 seconds.	None.	The device has triggered an alarm within 24 hours.
	After 24 hours	 (No backlight)	Stays on red for 2 seconds.	None.	This function can only be activated via a self-test mode if the device detected an alarm event at least 24 hours earlier.

## 7 Troubleshooting

Serial Number	Problem	Possible Causes	Solution
1	The device cannot be powered on and the LCD shows nothing.	The device isn't powering on properly.	Open the battery compartment and remove the battery insulating film; if the battery ran out, please replace it.
2	After the test is completed, instead of displaying "PAS", it shows "Lb", "E03/E04", or "End".	Self-test abnormal.	Look at what's shown on the LCD to figure out why there's a problem. It might be because the battery is low, there's an error, or the device has reached its end of life.
3	There is no response when the Test/Silence Button or Peak Level Button is pressed.	The button is not pressed properly.	Make sure the button is pressed firmly. When the button is pressed properly, you will hear beeps or the LCD backlight will turn on.
		The Peak Level Button was held down for an extended period; it only works when pressed briefly.	Press the Peak Level Button briefly, do not hold it down.
4	After the device detects CO, pressing the Peak Level Button again still shows a concentration of "0".	When the CO concentration is below 30 ppm, it will not be recorded in the historical peak data.	None.

5	The LCD no longer displays numerical values, instead showing "Lb", while the LED flashes yellow once every 60 seconds paired with a single alarm sound.	When the battery voltage is below the threshold, the product enters low battery warning mode.	Replace the battery.
6	The device cannot be silenced when it is alarming.	When the CO concentration exceeds 300 ppm, the device cannot be silenced.	None.
7	The LCD no longer displays numerical values, instead showing "E03" or "E04", while the LED flashes yellow twice every 60 seconds paired with two alarm sounds.	The device malfunctions, displaying "E04" for short circuit and "E03" for open circuit.	Replace the device.
8	The LCD no longer displays numerical values, instead showing "End", while the LED flashes yellow 3 times every 60 seconds paired with 3 alarm sounds.	The device has reached its end of life.	Replace the device.

9	In the presence of a CO environment, the device is not triggered.	The CO concentration is not high, or the duration of exposure is insufficient to trigger an alarm.	Ensure there is a sufficient CO concentration and maintain exposure for an adequate duration.
		The device is in a fault state.	Check if the corresponding error code appears on the LCD. If so, the device needs to be replaced.
10	The device shows a reading of "0" on the LCD in the presence of a CO environment.	The LCD does not display the specific data when the CO concentration is below 30 ppm.	None.
11	The app prompts an operation failure.	The battery ran out.	Replace the battery.
		The base station is not within the network coverage of the router.	The distance between the base station and the router should be within 50 m (164 ft), Please ensure that the base station is always within the network coverage of the router.
		The communication between the alarm and base station is not stable or they are too far apart.	Reduce the obstacles between the alarm and base station. The maximum distance between them in an open environment is 500 m (1,640 ft).
		The network connection of the router and the mobile phone is abnormal.	Make sure the network connection of the router and the mobile phone is working normally.

12	The app shows that the base station is offline.	The base station's Wi-Fi connection is disconnected.	Make sure that the router network connected to the base station is working normally.
		The base station is powered off.	Check that the base station is properly connected to the power supply.
13	The app shows the carbon monoxide alarm is offline.	The battery ran out.	Replace with a new battery.
		The communication between the carbon monoxide alarm and the base station is obstructed or the distance is too far.	Reduce obstacles between the carbon monoxide alarm and the base station, including metal doors and thick walls. The maximum allowable distance between carbon monoxide alarm and the base station in an open environment is 500 m (1,640 ft).
14	The LCD shows the concentration value, but the app neither pushes notifications nor shows the concentration value.	The CO concentration is below 100 ppm and has not yet reached the alarm threshold duration.	To prevent frequent pre-alarm notifications from disturbing customers and to save battery power, the device will not send pre-alarm notifications or display concentration values in the app when CO concentration is below 100 ppm. However, if the CO concentration remains below 100 ppm but reaches the alarm duration threshold, the carbon monoxide alarm will still be triggered and send normal alarm notifications.

## 8 Limitations of CO Alarm

1. CO alarms may not wake up all individuals. If children or others do not readily awaken to the sound of the CO alarm, or if there are infants or family members with mobility limitations, make sure that someone assists them in the event of an emergency.
2. This CO alarm will not sense carbon monoxide that does not reach the sensor. It will only detect CO that reaches the sensor. CO may be present in other areas. Doors or other obstructions may affect the rate at which CO reaches the CO alarm. For this reason, if bedroom doors are usually closed at night, it is recommended that you install a CO alarm in each bedroom and in the hallway between them.
3. CO alarms may not sense CO on another floor of the house. For example, a CO alarm on the second floor, near the bedrooms, may not sense CO in the basement. For this reason, one CO alarm may not give an adequate warning. Complete coverage is recommended by placing CO alarms on each floor of the house.
4. CO alarms may not be heard. The alarm buzzer noise level is over 85 dB at a distance of 3 m (10 feet). However, if the CO alarm is installed outside the bedroom, it may not awaken a sound sleeper or one who has recently used drugs or has been drinking alcohol. This is especially true if the door is closed or only partially open. Even persons who are awake may not hear the alarm horn if the sound is blocked by distance or closed doors. Noise from traffic, stereos, radios, televisions, air conditioners, or other appliances may even prevent alert persons from hearing the alarm horn. This CO alarm is not intended for people who are hearing impaired.
5. CO alarms are not a substitute for a smoke alarm. Although fire is a source of carbon monoxide, this CO alarm does not sense smoke or fire. This CO alarm senses CO that may be escaping unnoticed from malfunctioning furnaces, appliances, or other possible sources of incomplete combustion. The installation of a smoke alarm is required for an early warning of fire.
6. CO alarms are not a substitute for life insurance. Though these CO alarms warn against increasing CO levels, we do not warrant or imply in any way that they will protect lives from CO poisoning. Homeowners and renters must still insure their lives.
7. CO alarms have a limited life. Although the CO alarm and all of its parts have passed many stringent tests and are designed to be as reliable as possible, any of these parts could fail at any time. Therefore, you are strongly recommended to test your CO alarm weekly.
8. CO alarms are not foolproof. Like all other electronic devices, CO alarms have limitations. They can only detect CO that reaches their sensors. They may not give early warning of rising CO levels if the CO is coming from a remote part of the house, or is at some distance from the CO alarm.

## 9 Statement

### CAUTION: RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE

Before using this device, please read this guide which contains important operating instructions for safe usage, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards. User's instructions should accompany the device when transferred to other users.

### Simple EU Declaration of Conformity

X-Sense Electronics Co., Ltd. declares that the radio equipment type is in compliance with the essential requirements and other relevant provisions of RED Directive 2014/53/EU and the ROHS Directive 2011/65/EU and the WEEE Directive 2012/19/EU; the full text of the EU declaration of conformity is available at the following internet address: [www.x-sense.com](http://www.x-sense.com)

### Environmental Protection

The crossed-out wheeled-bin symbol on your product, literature, or packaging reminds you that all electrical and electronic products, batteries, or accumulators must be taken to designated collection locations at the end of their working life. Do not dispose of these products as unsorted municipal waste. Dispose of them according to the laws and rules in your area.



## 10 Manufacturer and Service Information

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