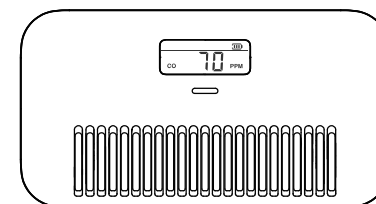


X-SENSE



XC0M-SR

User Manual

Carbon Monoxide Alarm

Replaceable Battery/Voice and Location

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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 standalone CO (carbon monoxide) alarm with an advanced electrochemical sensor for domestic use. It features built-in voice alerts that provide accurate and clear information feedback. 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

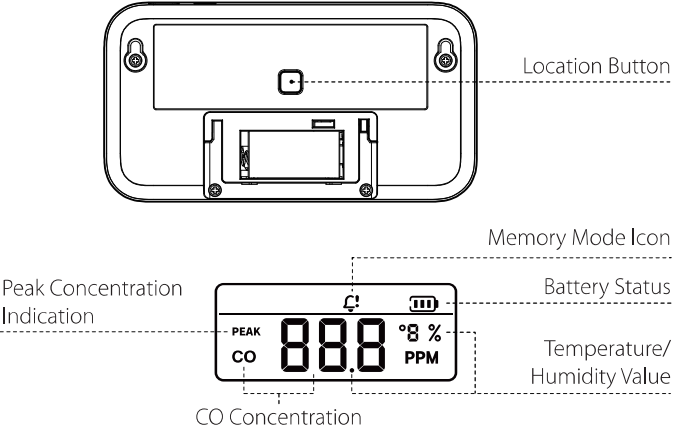
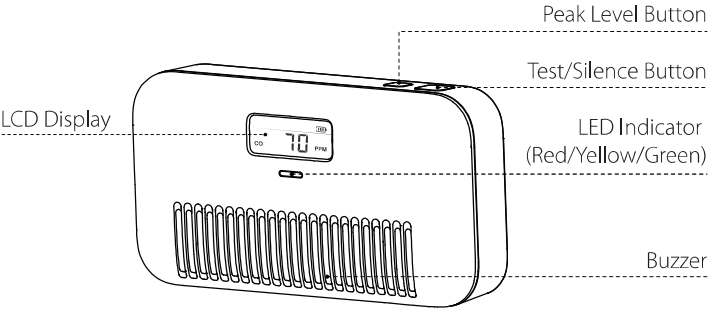
- 1. CAUTION: READ THE INSTRUCTIONS CAREFULLY BEFORE OPERATING OR SERVICING.
- 2. THE INSTALLATION OF THE APPARATUS SHOULD NOT BE USED AS A SUBSTITUTE FOR PROPER INSTALLATION, USE AND MAINTENANCE OF FUEL-BURNING APPLIANCES INCLUDING APPROPRIATE VENTILATION AND EXHAUST SYSTEMS.

- 3. THIS APPARATUS SHOULD BE INSTALLED BY QUALIFIED PERSONNEL.
- 4. IT IS NOT TESTED FOR USE IN A CARAVAN OR BOAT.
- 5. THIS PRODUCT IS INTENDED FOR USE IN ORDINARY INDOOR LOCATIONS OF FAMILY LIVING UNITS. IT IS NOT DESIGNED TO MEASURE COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) COMMERCIAL OR INDUSTRIAL STANDARDS.

CAUTION

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

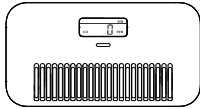
1.1 Product Overview



1.2 Technical Specifications

Power Supply	3 V (≡) CR123A lithium battery × 1 (replaceable)
Battery Life	3 years (test once a week)
Maximum Service Life	10 years
Sensor Type	CO: Electrochemical
CO Alarm Response Time	70 ppm: 60–240 minutes
	150 ppm: 10–50 minutes
	400 ppm: 4–15 minutes
Operating Temperature	40–100°F (4.4–37.8°C)
Operating Relative Humidity	10%–85% RH (non-condensing)
Alarm Noise Level	≥ 85 dB at 10 ft (3 m) @ 3.2 ± 0.3 kHz pulsing alarm
Silence Duration	≤ 9 minutes
Temperature Accuracy	±0.9°F (0.5°C)
Humidity Accuracy	5%

1.3 Package Contents



CO Alarm



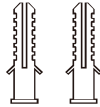
Drill Hole Spacing
Indicator Label



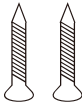
CR123A Battery
(Pre-installed)



User Manual



Anchor Plugs



Screws



Warranty Card



Carbon Monoxide
Safety Stickers

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 [fire department or 911];
 - 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:
 - 1) 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).
 - 2) Negative pressure differential resulting from the use of exhaust fans.
 - 3) Simultaneous operation of several fuel-burning appliances competing for limited internal air.
 - 4) Vent pipe connection vibrating loose from clothes dryers, furnaces, or water heaters.
 - 5) 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 gases near the ground.
4. Car idling in an open or closed attached garage, or near a home.

2 Power-On Instruction

To Activate the Device

Before use, pull out the battery insulating film from the battery compartment to power on the device. After the device is turned on, it will beep once, then the LED indicator will flash through two cycles (red/yellow/green), followed by the voice message, "Hello from X-Sense." If the device has not been assigned a location, it will announce, "Location not set. Press the Location button to select a location," to remind you to set a location.

If the device already has a location set, it will announce "Press the Test/Silence button to test." to prompt you to perform a test. The device will then enter standby mode.

Additional Information: After replacing the battery, the LED indicator will still flash through two cycles (red/yellow/green), paired with one beep.

3 Location Settings

3.1 Powering On Before Setting the Location

Follow the power-on instructions in section “2 Power-On Instruction” to turn on the device.

3.2 Setting the Location

Please follow the steps below to set the device location so that it is accurate to the actual installation location.

1. After the device is powered on and the voice is finished, press the Location button. If the location has not been set, the device will say “Location not set. Press the Location button again to select a location.” If the location has been set, the device will say “**Location** set. Press the Location button again to change the set location.”
2. After step 1, press the Location button again. The device will say “Press the Location button for the next location. Quickly press the Location button twice for the last location. Hold down the Location button to save the location.”
3. After step 2, press the Location button again. The device will say “Entryway.”
4. After entering the location list, **press the location button for the next location. Quickly press the Location button twice for the last location. Hold down the Location button to save the location.**
5. The location list will be repeated. When the device says “No location,” press the location button again, and “Entryway” will be reported again.
6. When the location is saved, the device will say “**Location** saved.”
7. There is a 1-minute timeout limit when the product is in setting mode. If there is no operation within 1 minute, it will automatically exit and return to standby mode, and will say “Unable to set the location. Please try it again.”

Location List

1	Entryway	10	Den
2	Basement	11	Family room
3	Living room	12	Study
4	Dining room	13	Office
5	Kitchen	14	Workshop
6	Hallway	15	Utility room
7	Master bedroom	16	Attic
8	Kid's room	17	No location
9	Guest room		

4 How to Install

4.1 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.

4.2 Improper Location to Install

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 5 feet (1.5 m) from potential smoke or fume sources (e.g. stoves, furnaces, water heaters, space heaters) if possible.
4. In areas where a 5 feet (1.5 m) 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 5 feet (1.5 m) of any cooking appliance.
6. In extremely humid areas. This alarm should be at least 10 feet (3 m) 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 40°F (4.4°C) or hotter than 100°F (37.8°C). 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.

4.3 Specific Location 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 5.9 inches (150 mm) below the ceiling.
2. The CO alarm should have a horizontal distance between 3.3 feet (1 m) and 10 feet (3 m) 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.

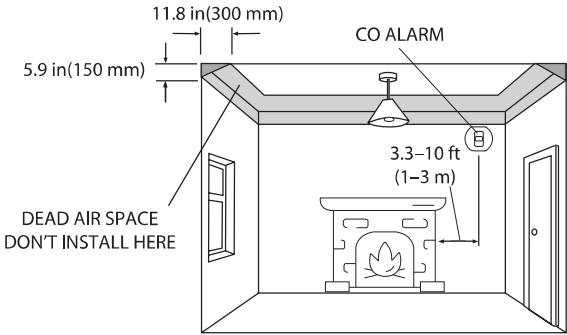


Figure 1: Installation in a room with a fuel-burning appliance

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.

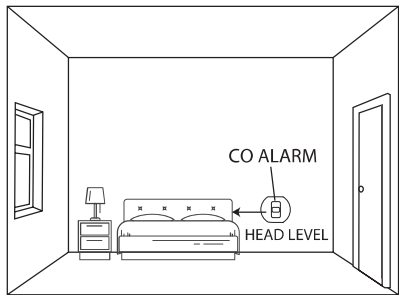


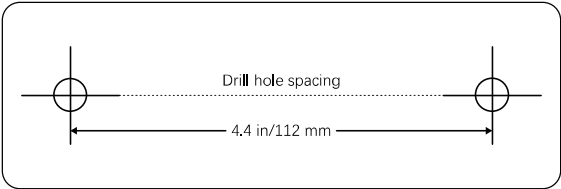
Figure 2: Installation in a bedroom or room without a fuel-burning appliance (installed at head level)

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.

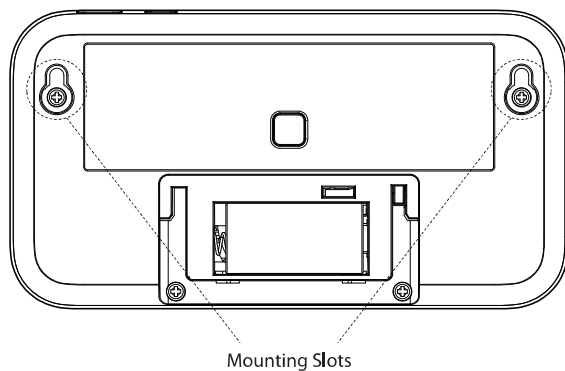
4.4 Installation Instruction

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 1.18 inches (30 mm) deep using a Ø 1/4 inch (6 mm) drill bit. Note that the distance between the center of the two holes is 4.4 inches (112 mm).



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 × 25 mm countersunk screws to screw into the two anchor plugs. Be sure to leave a 1/5 inch (5 mm) 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.

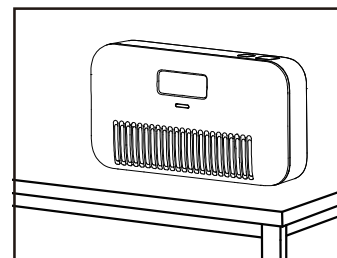


Mounting Slots

6. Test the device by pushing the test button to make sure that the device is functioning properly.

Installation on a Table

The detector's base is designed to stand directly on a flat surface (e.g., a desktop) without additional support.



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

4.5 Alarm Testing

Be sure to test your CO alarms when you turn them on for the first time or the installation is finished. 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.

Type	XC0M-SR
Action	Push the Test/Silence button and the LCD is lit.
Device Response	After entering test mode, the device will announce: "This is only a test. The alarm will sound loudly. You can press the Test/Silence button to cancel the test." It will first perform a carbon monoxide sensor check, announcing "Testing the carbon monoxide sensor." 1. If a malfunction is detected, it will announce "Caution. Carbon monoxide sensor malfunction. Replace the device now." The device will flash yellow 2 times every 60 seconds paired with beeps. LCD displays "E03/E04". 2. If no malfunction is detected, the device will flash red 4 times every 5.8 seconds paired with beeps. Then, it will proceed to check the battery level and product lifespan: a. If any issues are found, it will enter the corresponding mode (see detailed function descriptions). b. If everything is normal, it will announce "The test is finished. Normal working status." 3. Finally, the device will enter standby mode.

NOTES:

1. *This will only test the electronics. If the device fails to deliver an audible test signal, please refer to the "Troubleshooting" section.*

2. *During the test, you can press the Test/Silence button once to exit test mode, and the device will announce "Test Canceled."*

3. *If there is an alarm memory, the device's LED indicator will light up red for 2 seconds after the voice message for the self-test, and the LCD display will show the peak value.*

4.6 Battery Replacement

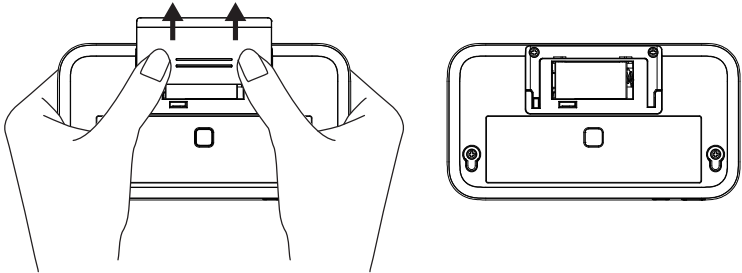
When the LCD displays the "Lb" message, the LED indicator flashes yellow once every 60 seconds and the buzzer chirps (during the first 15 minutes, only the voice message is played, without buzzer sounds). Remove the old battery and replace it with a new one.

After replacing the 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 Display"** 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. CONSTANT EXPOSURE TO HIGH OR LOW TEMPERATURES OR HIGH HUMIDITY MAY REDUCE BATTERY LIFE.
8. Use only batteries specified in marking. Use of a different battery may have a detrimental effect on alarm operation.
9. Test the alarm for correct operation using the test facility, whenever the battery is replaced.

5 Function Introduction

5.1 Test/Silence Button

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

Short press the test button, and the LCD will turn on, followed by the voice message "This is only a test. The alarm will sound loudly. You can press the Test/Silence button to cancel the test," indicating that the alarm has entered the test mode. Please refer to the "Alarm Testing" 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.

5.2 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:

**70 ppm for 60–240 minutes,
150 ppm for 10–50 minutes,
400 ppm for 4–15 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.

Alarm Mode

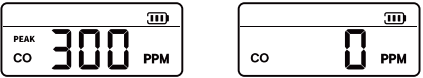
When the device detects CO and the CO concentration (ppm) reaches a certain level for a period of time, it will trigger an alarm, sounding 4 beeps every 5.8 seconds, and the LED will flash red, accompanied by the voice message “Warning. Carbon monoxide detected in **Location**. Move to fresh air.” The LCD will light up and display the real-time CO concentration. When the carbon monoxide concentration drops below the alarm threshold, the alarm sound will stop, and the device will play the voice message “Danger cleared.” It will then automatically return to standby mode.

NOTE: During the first 30 minutes of an alarm (including the 30th minute), the device beeps 4 times every 5.8 seconds, and the LED will flash red; after 30 minutes, the LED and LCD backlight remain unchanged, but the buzzer interval will be extended to 60 seconds.

5.3 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.

5.4 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, while the LCD displays the peak value (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.*
3. *When the memory mode is active, an exclamation mark icon  will also appear on the LCD along with standby, peak value, low battery, and end-of-life displays.*

5.5 Silence Mode

If there is a false alarm, you can temporarily silence it by pressing the test/silence button on the device. The device will say "Carbon monoxide alarm 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 70 ppm after 6 minutes, the device will be triggered again; if not, the device will automatically exit the silence mode after 9 minutes.

 **WARNING: 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.

5.6 Low-Battery Mode

The LED indicator flashes yellow once every 60 seconds. For the first 15 minutes, the device will give a verbal warning "Caution. Low battery. Replace the battery now." every 60 seconds. After 15 minutes, the device will stop the voice alert and beep once every 60 seconds. If you press the test button when there is low battery, the low-battery beep will temporarily stop for 10 hours, but the LED indicator will continue to flash yellow as a reminder.

5.7 Fault Mode

When the device malfunctions, the LED indicator will flash yellow 2 times every 60 seconds. For the first 15 minutes, the device will give a verbal warning "Caution. Carbon monoxide sensor malfunction. Replace the device now." After 15 minutes, the device will stop the voice alert and beep 2 times every 60 seconds. The malfunction mode cannot be silenced.

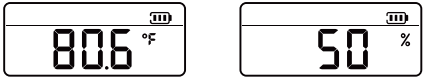
5.8 End-of-Life Mode

When the device reaches its end of life, the LED indicator will flash yellow 3 times every 60 seconds. For the first 15 minutes, the device will give a verbal warning "Caution. The alarm has reached the end of its lifetime. Replace the device now." After 15 minutes, the device will stop

the voice alert and beep 3 times every 60 seconds. This end-of-life signal can be temporarily silenced for 22 hours by pressing the test button. 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.

5.9 Temperature/Humidity Monitoring

When the CO concentration is below 30 ppm, the LCD screen will sequentially display the “CO concentration,” “temperature,” and “humidity” data, with each data item scrolling every 10 seconds.
When the CO concentration reaches or exceeds 30 ppm, the LCD screen will stop scrolling and display only the current “CO concentration.”



NOTE: In standby mode, double-press the Peak Level button to switch the temperature unit.

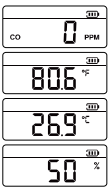
6 Daily Maintenance

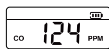
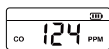
- To keep your alarm in good working order, you should adhere to the following steps.
- 1. Test the alarm once a week by pressing the test/silence button.
 - 2. Vacuum the alarm cover once every three months to remove any accumulated dust.
 - 3. Never use detergents or solvents to clean the alarm. Chemicals 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.

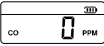
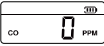
 **WARNING: DO NOT TAMPER WITH THE APPARATUS, AS THERE IS A RISK OF ELECTRIC SHOCK OR MALFUNCTION.**

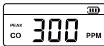
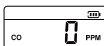
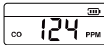
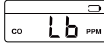
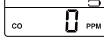
7 Audio-Visual Display

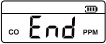
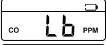
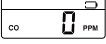
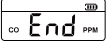
Mode	LCD Display	LED Indicator	Buzzer	Voice Guide		Remarks
Powering On	--- (Backlight on)	Runs through 2 cycles (red/yellow/green) in sequence.	1 beep.	“Hello from X-Sense.”		Remove the battery insulating film from the battery compartment to turn on the device. When the LED stops flashing, the voice guide will give instructions.
				First-time use.	“Location not set. Press the Location button to select a location.”	
				The battery is replaced.	“Press the Test/Silence button to test.”	

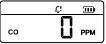
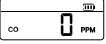
Setting Location	/	Flashes red once every 3 seconds. None.	None.	Location not set.	"Location not set. Press the Location button again to select a location."	Press down the Location button. After the voice guide has ended, the LED will flash red every 3 seconds to indicate that the device is currently in the location setting mode, and the LED will continue to flash until it returns to standby mode.
				Location set	" Location set. Press the Location button again to change the set location."	
Standby Mode	 (No backlight)	Flashes green once every 60 seconds.	None.	None.		When the CO concentration is below 30 ppm, the LCD screen will sequentially display the "CO concentration," "temperature," and "humidity" data, with each data item scrolling every 10 seconds. Double-press the Peak Level button to switch the temperature unit.

			None.	None.		When the CO concentration reaches or exceeds 30 ppm, the LCD screen will stop scrolling and display only the current "CO concentration."
Alarm Mode	 (Backlight on) displays actual values.	A CO concentration ranging from 70 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.	"Warning. Carbon monoxide detected in Location . Move to fresh air."		Dangerous CO concentration is detected, and has reached the alarm status. Please refer to "What to Do When the Alarm Sounds".
	 (No backlight) displays actual values.	A CO concentration level ranging from 70 to 999 ppm has been detected, but for less than the required detection period.	None.	None.		Dangerous CO concentration is detected, but has not reached the alarm status. Potential dangerous CO conditions exist. Please locate the CO source immediately.

	 (No backlight)	None.	None.	"Danger cleared."	Alarm cancellation: when the CO concentration level drops below the alarm threshold, the alarm signal will stop.
Test Mode	 (Backlight on)	Flashes red 4 times every 5.8 seconds, repeated for one cycle.	4 quick beeps every 5.8 seconds, repeated for one cycle.	"This is only a test. The alarm will sound loudly. You can press the Test/Silence button to cancel the test."	Press the test/silence button on the device.
				"Testing the carbon monoxide sensor."	
				"The test is finished."	
				"Normal working status."	Normal functioning.
				"Caution. Low battery. Replace the battery now."	Low battery.
				"Caution. Carbon monoxide sensor malfunction. Replace the device now."	Carbon monoxide sensor malfunction.
				"Caution. The alarm has reached the end of its lifetime. Replace the device now."	End of life.

Peak Level Check	Peak level:  Clear to zero:  (Backlight on)	None.	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.	"Carbon monoxide alarm silenced."	CO silence mode: After 9 minutes, the unit will exit silence mode.
	  (No backlight)	Flashes yellow once every 60 seconds.	None.	"Temporarily silenced."	Silence mode during low battery: After 10 hours, the unit will exit silence mode.

	 (No backlight)	Flashes yellow 3 times every 60 seconds.	None.	"Temporarily silenced"	Silence mode during the end of life: After 22 hours, the unit will exit silence mode.
Low Battery	  (No backlight)	The LED indicator flashes yellow once every 60 seconds.	1 quick beep every 60 seconds.	"Caution. Low battery. Replace the battery now."	Replace the battery immediately.
Fault	  (No backlight)	Flashes yellow 2 times every 60 seconds.	2 beeps every 60 seconds.	"Caution. Carbon monoxide sensor malfunction. Replace the device now."	If the "E03/E04" message is still displayed, the unit has malfunctioned and must be replaced immediately.
End of Life	 (No backlight)	Flashes yellow 3 times every 60 seconds.	3 quick beeps every 60 seconds.	"Caution. The alarm has reached the end of its lifetime. Replace the device now."	Replace the unit immediately.

Memory Mode	Within 24 hours	 (No backlight)	Flashes red once every 5 seconds.	None.	None.	When the CO concentration is lower than the alarm threshold, the device will automatically exist the alarm mode.
	After 24 hours		Stays on red for 2 seconds.	None.	None.	Displays the peak level concentration. The memory mode is triggered via the self- test function. If there is no alarm memory, or if the alarm memory is within 24 hours, performing a self-test will not trigger any light indication.
	Clear the alarm memory	 (No backlight)	Stays on red for one second.	None.	None.	When there is an alarm memory, press the Test/Silence button 3 times consecutively to clear the memory.

8 Troubleshooting

Problem	Solution
The device cannot be powered on and the LCD shows nothing.	Cause: The device isn't powering on properly. Solution: Open the battery compartment and remove the battery insulating film; if the batteries ran out, please replace them.
After the test is completed, instead of displaying "PAS", it shows "Lb", "E03/E04", or "End".	Cause: Self-test abnormal. Solution: 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.
There is no response when the test/silence button or Peak Level button is pressed.	Cause 1: The button is not pressed properly. Solution: Make sure the button is pressed firmly. When the button is pressed properly, you will hear beeps or the LCD backlight will turn on. Cause 2: The Peak Level button was held down for an extended period; it only works when pressed briefly. Solution: Press the Peak Level button briefly, do not hold it down.
After the device detects CO, pressing the Peak Level button again still shows a concentration of "0".	Cause: When the CO concentration is below 30 ppm, it will not be recorded in the historical peak data. Solution: None.
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.	Cause: When the battery voltage is below the threshold, the product enters low battery warning mode. Solution: Replace the battery.

When the battery is low, pressing the test/silence button cannot silence it.	Cause: When the battery is too low, it cannot be silenced. Solution: None.
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.	Cause: The device malfunctions, displaying "E04" for short circuit and "E03" for open circuit. Solution: Replace the device.
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.	Cause: The device has reached its end of life. Solution: Replace the device.
In the presence of a CO environment, the device is not triggered.	Cause 1: The CO concentration is not high, or the duration of exposure is insufficient to trigger an alarm. Solution: Ensure there is a sufficient CO concentration and maintain exposure for an adequate duration. Cause 2: The device is in a "fault" state. Solution: Check if the corresponding error code appears on the LCD. If so, the device needs to be replaced.
The device shows a reading of "0" on the LCD in the presence of a CO environment.	Cause: The LCD displays 0 ppm when the CO concentration is below 30 ppm. Solution: None.

The screen will no longer display temperature and humidity data.	Cause: When the CO concentration exceeds 30 ppm, the screen displays only the CO concentration and no longer scrolls through temperature and humidity data. Solution: When the CO concentration drops below 30 ppm, observe again — the data scrolls at 10-second intervals.
An alarm once occurred, but no alarm memory was generated, and the LED did not flash red periodically.	Cause 1: An alarm memory can only be generated when the alarm is cleared automatically after the ambient CO concentration decreases. Solution: None. Cause 2: After 24 hours, the device's LED will no longer flash red periodically. Solution: During the device self-test, if an alarm memory is detected, the LED will stay on red for 2 seconds after the test is completed.

9 Limitations of CO Alarm

- 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.
- 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.
- 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.
- CO alarms may not be heard. The alarm buzzer noise level is over 85 dB at a distance of 3 m (10 ft). 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.

- 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.
- 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.
- 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.
- 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.

10 Statement

Environmental Protection

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with Local Authority or retailer for recycling advice.



ISED Statement

English:

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Radiation Exposure Statement

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

French:

Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux CNR exempts de licence d'Innovation, Sciences et Développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes :

- (1) Cet appareil ne doit pas causer d'interférences.
- (2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux radiations du Canada dans un environnement non contrôlé.
Cet équipement doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et votre corps.

FCC Statement

- 1. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
- (1) This device may not cause harmful interference.

- (2) This device must accept any interference received, including interference that may cause undesired operation.
- 2. Note: This equipment has been tested and found to comply with the limits for a Class B digital device. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.
- 3. Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.
- 4. The distance between user and products should be no less than 20 cm.

11 Manufacturer and Service Information

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