

## ALARM MEMORY FUNCTION

The CO alarm will remember if it has been triggered for a period of 48 hours. The red LED indicator flashes 3 times every 52 seconds during that period.

If the CO alarm has been turned off during this 48-hour period, it will delete this history.

## HOW TO DEACTIVATE THE CO ALARM

Press the test button six times within three seconds, the alarm will chirp once indicating the product has been deactivated. There will be no alarm functions while in this status. You must reactivate the alarm before use.

**Warning:** Deactivating the alarm should only be performed if you need to dispose of the CO alarm or if you need to cease a nuisance alarm which is caused by a failure of the alarm.

## GENERAL MAINTENANCE

To ensure your alarm operates effectively and provides continuous protection, please follow these simple steps:

1. **Monthly Testing:** Verify the alarm and LED lights by pressing the Test button once a month.
2. **Regular Cleaning:** Remove the unit and clean the alarm cover and vents with a soft brush attachment once a month to remove dust and dirt. Avoid using detergents or solvents for cleaning.
3. **Avoid Aerosols:** Keep the alarm away from air fresheners, hair spray, or other aerosols to prevent interference with its operation.
4. **No Painting or Disassembly:** Do not paint the unit as it may block the vents and affect the sensor's performance. Never attempt to disassemble the unit or clean inside, as it will void the warranty.
5. **Ventilation:** When using household cleaning supplies or similar contaminants, ensure proper ventilation in the area.

**Warning:**

- The sensor can give false readings if exposed to certain substances like methane, propane, alcohol-based products, and certain cleaning agents.
- Ensure the alarm has a functioning battery, as it will not monitor CO levels without it.
- Tampering with the alarm is dangerous and can impair its performance.
- The alarm cannot prevent chronic effects of CO exposure and does not protect from specific risks.
- While designed to protect individuals from acute CO exposure, it may not fully safeguard those with specific medical conditions. Consult a medical practitioner if in doubt.

## CARBON MONOXIDE OVERVIEW

Carbon monoxide (CO) is a colorless, odorless, and tasteless gas that can be fatal. When it builds up in the blood, it interferes with oxygen supply, potentially leading to death within minutes.

**COMMON SOURCES:**

CO can come from malfunctioning gas appliances, vehicles in attached garages, blocked chimneys, portable fuel burning heaters, fireplaces, fuel-powered tools, and grills used in enclosed spaces.

**SYMPTOMS OF POISONING:**

Symptoms resemble flu-like signs without fever. Dizziness, fatigue, weakness, headache, nausea, vomiting, sleepiness, and confusion are also indicators.

**HIGH-RISK GROUPS:**

Unborn babies, small children, pregnant women, seniors, and individuals with heart or respiratory issues are at highest risk. Yearly inspections of heating systems, vents, chimneys, and flues by qualified technicians are recommended.

**CO EXPOSURE LEVELS:**

The following symptoms are related to carbon monoxide poisoning and should be discussed with all household members:

- 35 PPM: Maximum allowable concentration for continuous exposure for healthy adults in an 8-hour period.
- 200 PPM: Slight headaches, fatigue, dizziness, and nausea after 2-3 hours.
- 400 PPM: Frontal headaches within 1-2 hours; life-threatening after 3 hours.
- 800 PPM: Dizziness, nausea, and convulsions within 45 minutes. Unconsciousness within 2 hours. Death within 3 hours.
- 1600 PPM: Headache, dizziness, and nausea within 20 minutes. Death within 1 hour.
- 6400 PPM: Headache, dizziness, and nausea within 1-2 minutes.

**Caution:** Exposure to high levels of CO can be fatal or cause permanent damage and disabilities. Disorientation may prevent victims from seeking help or exiting the building. Children and pets may be affected first. Familiarise yourself with the effects of each exposure level.

## WARRANTY INFORMATION

Emerald Alarms Pty Ltd warrants this carbon monoxide alarm to the original purchaser.

Emerald Alarms Pty Ltd warrants this carbon monoxide alarm is free from defects in material and workmanship under normal use and service for a period of 7 years from the date of purchase.

This warranty does not cover damage resulting from accident, misuse or abuse or lack of reasonable care of the product.

In no case shall Emerald Alarms Pty Ltd be liable for any incidental or consequential damages for breach of this or any other warranty express or implied whatsoever. Faulty product can be mailed to the following address with a detailed explanation of problem.

**Emerald Alarms Pty Ltd**  
ABN 50 632 601 453

[www.emeraldalarms.com.au](http://www.emeraldalarms.com.au)

2023.08

## CARBON MONOXIDE (CO) ALARM USER MANUAL

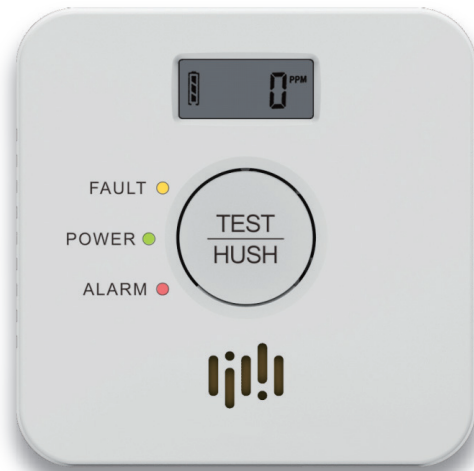
### MODEL NUMBER: EP-CO-RF-07

Thank you for choosing Emerald Alarms.

This leaflet contains important information on the correct installation and operation of your carbon monoxide alarm.

Please read all the information before commencing installation and retain for future reference.

This unit has been designed to meet the latest safety standards demanded in Australia and complies with the requirements of EN50291-1:2018 standard.



DIMENSIONS	93 x93 x 271mm
WEIGHT	109.2g
WARRANTY	7 years
MOUNTING OPTIONS	Ceiling or wall mount
POWER - BATTERY	7 year non-replaceable 3V lithium battery (CR17450)
INTERCONNECT	Built-in wireless radio frequency (RF) technology Connects with up to 40 Emerald RF enabled alarms
WIRELESS DISTANCE	>20m (100m outside)
SENSOR	Electrochemical technology
SOUND PATTERN	ISO 8201
ALARM VOLUME	>85dB(A) @ 3m
HUSH/SILENCE TIME	approx. 8 minutes
NORMAL OPERATING & STORAGE TEMPERATURE	-10° to 40°
NORMAL OPERATING & STORAGE HUMIDITY	15% to 93% relative humidity (non-condensing)
PACK INCLUDES	Alarm, instruction manual, standard screws, and mounting plate

### IMPORTANT

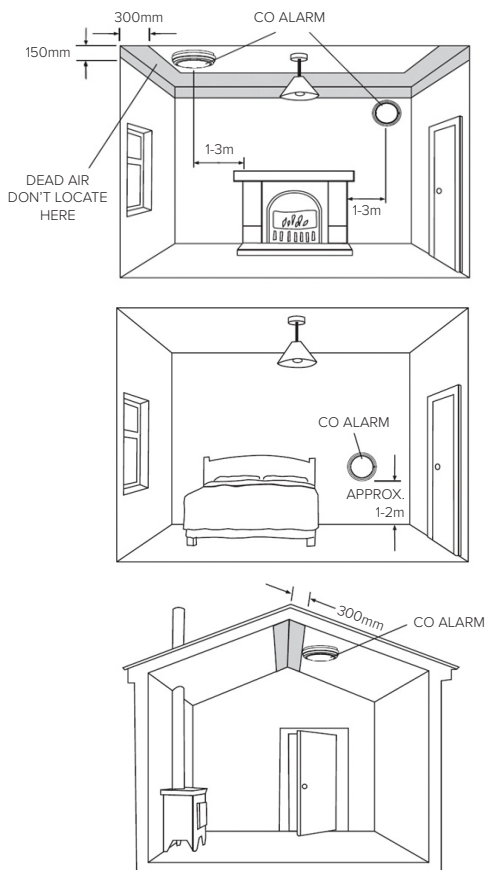
Note: This apparatus is designed to protect individuals from the acute effects of carbon monoxide exposure. It will not fully safeguard individuals with specific medical conditions. If in doubt consult a medical practitioner.

WARNING: The battery in this unit is intended to last it's 7 year service life and cannot be replaced. It will 'chirp' every 50 seconds indicating a fault such as a low battery. Replace carbon monoxide alarm immediately.

## INSTALLATION LOCATIONS

The following suggestions are intended to help you to position and install your alarm.

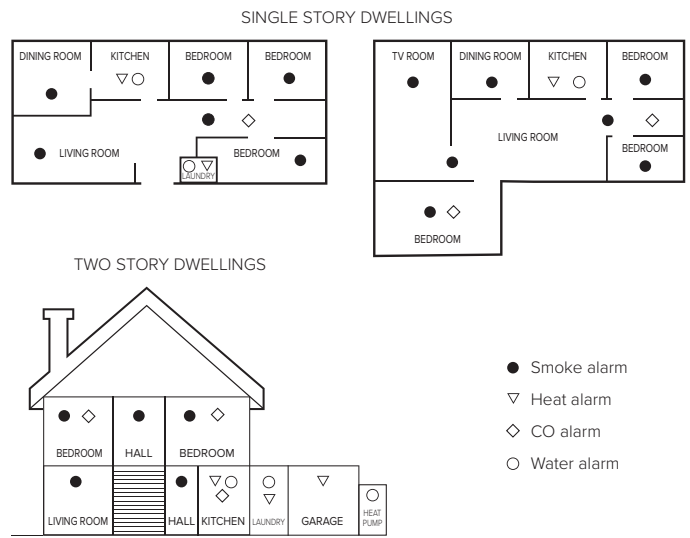
1. Place out of the reach of children. Under no circumstance should children be allowed to handle the alarm.
2. Install in a bedroom or hallway located close to the sleeping area. Take special care to verify the alarm can be heard in sleeping areas.
3. It is recommended that an alarm be installed on each level of a multilevel home, near each bedroom and kitchen area.
4. Locate at least 5 feet away from all fuel burning appliances.
5. Placing at eye level allows for optimum monitoring of the red, green and yellow indicator lights.
6. Do not install in dead air spaces such as peaks of vaulted ceilings or gabled roofs. (where fumes do not collect)
7. Do not install in turbulent air from ceiling fans.
8. Do not place near fresh air vents or close to doors and windows that open to the outside.
9. Keep the alarm away from excessively dusty, dirty, or greasy areas such as garages and furnace rooms. Dust, grease and household chemicals can affect the sensor.
10. Keep out of damp and humid areas such as the bathroom. Avoid spraying aerosols near the alarm.
11. Do not install in areas where the temperature is below 0° or higher than 40°.
12. Do not place behind curtains or furniture. Carbon monoxide must be able to reach the sensor for the unit to accurately detect carbon monoxide.



### OPTIMAL ALARM PLACEMENT

For the highest level of protection, we strongly recommend installing multiple combination alarms in your home. Each alarm serves a specific purpose and adheres to certain rules and regulations. To ensure proper installation, we advise following the state-based regulations and installation requirements.

The following graphs illustrate some best practices for alarm placement:



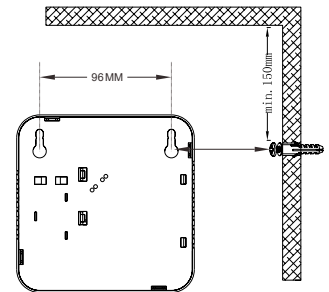
**Note:** These graphs are for illustrative purposes only and may not cover all potential scenarios. It is essential to assess your home's layout and potential risks to determine the most effective alarm placement.

## INSTALLATION

When selecting the installation locations for your alarm, ensure that it can be heard clearly from all sleeping areas. If you have only one CO alarm in your home, place it near bedrooms rather than in the basement. For proper installation, mount the alarm on either the ceiling or wall.

### Mounting Step:

1. Drill 5 mm holes in the wall and insert the plastic plug.
2. Insert the screw until it protrudes about 5 mm from the wall.
3. Position the unit over the screw.



## ACTIVATION

Press and hold the "Test" button for about 4 seconds until you hear two beeps or see the red LED light up. Then, release the button within 2 seconds, and you'll see all three LEDs flash one at a time, indicating that the alarm is now active.

## OPERATION AND TESTING

CO alarms are an important safety device in the home. It is important to check them regularly to ensure they are operating correctly.

### PREHEATING MODE

Upon powering on the product, it will enter the preheating state for approximately 5 minutes. During this time, the red LED light will flash once every 4 seconds, indicating the preheating process.

### REGULAR MODE

Once the preheating is complete, the green LED light will flash once within 50 seconds, indicating that the alarm is operating normally. The LCD displays real-time information on both the current carbon monoxide concentration and the battery level.

## ALARM MODE

When the CO alarm detects the presence of carbon monoxide gas and its concentration surpasses the alarm threshold, and the duration reaches the set time, the alarm will activate. In this state, the red LED will flash once every 0.86 seconds, accompanied by a pulse-type alarm sound that repeats four times consecutively. The alarm will continue until the carbon monoxide gas dissipates or is no longer detected. The LCD displays range between 0ppm-999ppm. If the concentration exceeds 999 parts per million (ppm), the LCD displays "H co" to indicate a high concentration level.

## FAILURE MODE

In the event of signal abnormality, the yellow LED of the alarm will flash twice every 50 seconds, and the horn will emit two audible chirps. The LCD displays "Err" to indicate the issue.

## NO DISTURB MODE

When the alarm device enters low battery, Err, or end-of-life mode, you have the option to temporarily silence the warning tone. To silence the warning tone, simply press and hold the test button for 3 seconds. Doing so will deactivate the alarm sound for approximately 14 hours, allowing you to rest without unnecessary interruptions.

**Important:** The warning tone will automatically resume after the 14-hour silence period to ensure continuous safety alerts. It is crucial to address the underlying issue promptly, such as replacing the battery or taking necessary action based on the specific mode indicated (low battery, Err, or end-of-life), to maintain the alarm's effectiveness.

## TESTING YOUR CO ALARM

It is recommended that you test your CO alarm once a month to ensure proper operation. Simply test by pressing and holding the test button on the cover. This action will trigger the alarm to sound, indicating that the electronic circuitry, alarm, and battery are in good working condition. If no alarm sounds, it could mean that the unit has defective batteries or other failures.

## LOW BATTERY POWER

The CO alarm is equipped with a low battery detection feature to ensure continued functionality. When the battery voltage drops below the designated threshold, the alarm will activate its low battery mode. In this mode, the yellow LED will flash once every 50 seconds, and the horn will emit an audible chirp once. The LCD displays blank battery symbol to indicate the low battery power.

**Important:** When you observe the low battery alert, it is crucial to replace the battery promptly to maintain the alarm's effectiveness and reliability. Neglecting to do so may compromise the alarm's ability to alert you effectively in case of a real-life emergency.

## ALARM SILENCE (HUSH FEATURE)

When the alarm is in the active alarming state, you have the option to activate the silent mode for a duration of 8 minutes. Only use the alarm silence function after making sure that the source of heat buildup is identified, and the area is safe. This feature is only meant to be used when a safe condition is confirmed.

To do this, simply press the test button while the alarm is sounding. Once the silent mode is activated, the red LED will blink every 8 seconds. This blinking serves as a visual indicator that the alarm is in the silent state.

The alarm will automatically return to its regular mode after the 8 minute silent period. Silent mode is designed to provide a temporary respite from the audible alarm, but it is essential to address the cause of the alarm activation promptly to ensure your safety and the proper functioning of the device.

## END-OF-LIFE ALERT

After the alarm reaches its end-of-life stage, it will provide an alert. During this time, the LCD displays "End", and the yellow LED of the alarm will flash three times every 50 seconds, accompanied by an audible chirp from the horn.

**Important:** Failure to replace the alarm afterward may result in insufficient power to alert you in a real-life emergency. Your CO alarm relies on a fully operational battery to function effectively.

## WIRELESS INTERCONNECTING FUNCTION

For the best results we advise you first choose the central alarm and then connect other alarms to your central alarm.

### SETTING UP WIRELESS CONNECTION:

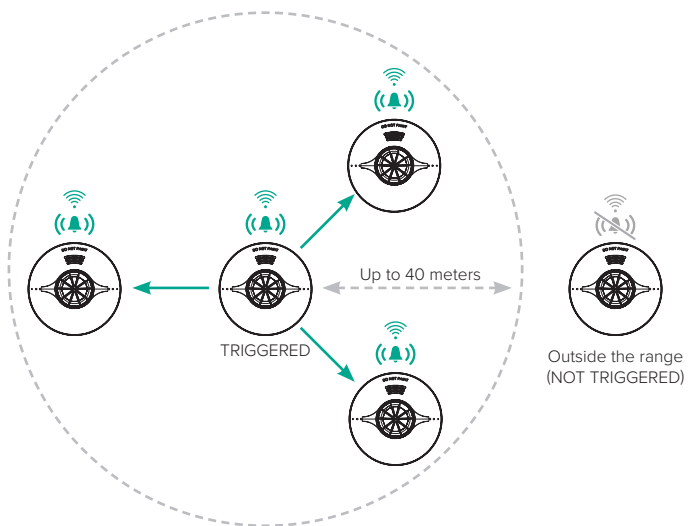
1. Ensure all the alarms are activated.
2. Choose one alarm to be the central connection point for others.
3. On the central alarm, press the TEST button three times within two seconds. The red LED will flash quickly, indicating it's in 'pairing mode' for 90 seconds. To exit the pairing mode press the button once.
4. While the central alarm is in pairing mode, press the TEST button three times within two seconds on the other alarms. They will interface with the central alarm. Pairing is successful when you hear a beep and see one light flash.
5. Repeat steps 3 and 4 for other alarms.

### DEACTIVATING WIRELESS CONNECTION:

1. Press the TEST button on any alarm three times within 2 seconds. The red LED will flash quickly.
2. Press and hold the TEST button again until the red LED goes out (first time) and then release the button immediately. The red LED will flash slowly.
3. Press the test button again, and the alarm will beep 3 times, confirming the wireless connection has been successfully cleared.

### Important:

1. Alarms must be activated for wireless connectivity.
2. One alarm can connect to a maximum of 40 other alarms wirelessly.
3. Our alarms cannot communicate with other manufacturers' alarms.
4. In a network of interconnected alarms within a 40-meter range, any detected emergency triggers all connected alarms simultaneously. The alarm need to be wirelessly connected for all connected alarms to trigger.



Alarm mode within a 40 meter range of the triggered alarm