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10 Year Carbon Monoxide (CO) Alarm	1139

Description

Carbon Monoxide alarm with 10 year sensor and battery-life. Suitable for wall mounting or free standing on a flat surface.

The instructions contain important information on operation and maintenance of the Carbon Monoxide alarm. Keep this document in a safe place for future reference.

Safety Information

- This CO alarm is designed for indoor use only.
- Do not open or tamper with the alarm as this could cause malfunction.
- Do NOT try to repair the device, it has the risk of electric shock or malfunction if the device is tampered with.

Where to Locate

Ideally, Carbon Monoxide alarms should be installed in every room containing a fuel burning appliance Additionally, alarms may be installed to ensure that adequate warning is given for occupants in other rooms, by locating alarms:

- In remote room in which occupants spend considerable time whilst awake.
- Near every sleeping room or area.
- In each room containing a flueless or open-fueled appliance.
- In a garage as vehicles produce carbon monoxide, any time they are running.

It is recommended that a CO alarm be installed on each level of a multilevel home.

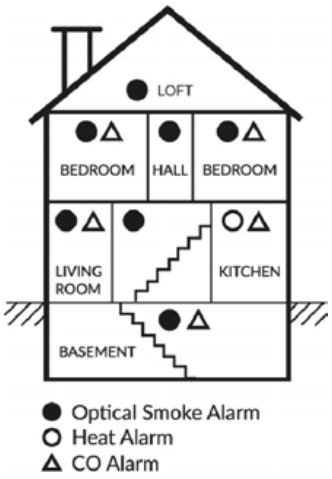


Diagram 1

Important: These alarms are primarily intended for use in single family occupancy private dwellings. In multifamily buildings, each individual living unit should have its own alarms. Do not install in non-residential buildings.

Positioning of Alarms

It should be possible to view all the light indicators on the alarm when in the vicinity of its chosen location.

- CO gas from fueled appliances immediately mixes with the air around it. When mounting an alarm on the wall, locate it at a minimum of 1.8m (6 ft) above the floor level.
- A wall mounted alarm should be at least 150 mm from the ceiling.
- The alarm should be at a horizontal distance of between 1 m and 3 m from the potential source. If there is a partition in a room, the alarm should be located on the same side of the partition as the potential source
- An alarm that is located in sleeping rooms and in rooms remote from the fuel burning appliance should be located relatively close to the breathing zone of the occupants. (The breathing zone should be regarded as the horizontal level in the room where a person's head spends most of the time, i.e. while sat in a chair or laid on a pillow.

Do Not Install CO Alarms in the Following Places

- CO alarms should not be installed within 900mm (3') of the following: the door to a kitchen, the door to a bathroom containing a tub or shower, forced air supply ducts used for heating or cooling, ceiling or whole house ventilating fans, or other high air flow areas.
- In the immediate vicinity of a fuel burning appliance.
- In an enclosed space, such as cupboard or behind a curtain.
- In an area where the temperature may fall below -10°C or rise above 40°C, such as garages and unfinished attics.
- In excessively humid areas such as bathroom.
- Next to a door, a window or an extractor fan.
- In dusty areas. Dust particles may cause nuisance alarm or failure to alarm.
- Near fluorescent lights. Electronic "noise" may cause nuisance alarms.
- Directly above a sink.

Installation

This alarm should be installed as late as possible within the schedule of works, particularly in new build properties, e.g. after decorating and making good works.

Safety Instructions

1. These alarms should be installed by a competent person
2. If the alarm is incorrectly installed or tempered with, this may result in damage to the alarm, a failure in operation

Installation

The alarm is suitable for free standing and wall mounting.

Free standing

1. Power the alarm by removing the yellow battery isolation tab.
2. Place the alarm on a desired flat surface.
3. Test the alarm by pressing the TEST button.

Note: When the alarm powers up for the first time, the green LED indicator flashes every second for a period of one minute to complete product set-up. After this, the alarm goes into normal operation which is indicated by a flashing green LED at regular interval of 40 seconds.

Wall mounting

1. Decide on the position for the alarm in open air and unobstructed from the guidance given in "Where to locate".
2. Fix the screws and wall plugs in the desired location, see diagram 2. Ensure screwheads are approx. 5mm from the wall.

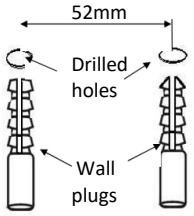


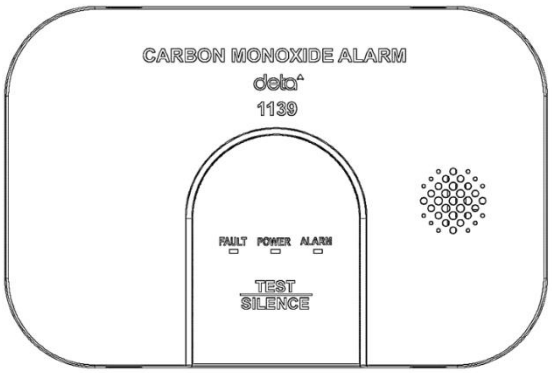
Diagram 2

3. Power the alarm by removing the yellow battery isolation tab.
4. Use the keyholes on the back on the alarm to securely hook it onto the screwheads.
5. Test the alarm by pressing the TEST button.

Warning: The installation of this CO alarm should not be used as a substitute for proper installation, use and maintenance of fuel burning appliances including appropriate ventilation and exhaust systems.

User Information

Alarm Operation



Device indicators

Green LED: The green LED indicates power status of the CO alarm. This power indicator flashes every 40 seconds.

Red LED: When the alarm senses dangerous level of CO gas, it goes into alarm mode and the RED LED flashes 4 times at 2 second intervals.

Yellow LED: Flashing once every 40 seconds approx. accompanied with chirping sound indicates low battery warning. If flashing twice every 40 seconds approximately with two chirps, indicates a fault condition.

LCD Screen: Indicates CO concentration levels and ambient temperature every 40 seconds.

CO concentration display range is 0-999PPM. If the CO concentration is under 20 ppm, the LCD will display "0 PPM". If the CO concentration overruns 999 PPM, the LCD will display "999 PPM".

Temperature display range is from -9°C to 50°C. The temperature display function is disabled when the CO concentration is over 20 PPM.

Alarm Mode

On detecting dangerous levels of CO gas, the device enters into the alarm mode. The CO alarm will sound four beeps in quick succession, followed by a 2 second pause. The RED LED indicator will flash in the same pattern. This pattern repeats as long as a condition of dangerous levels of CO exist.

The alarm will go into the alarm condition under the following circumstances:

Carbon Monoxide Levels (Parts Per Million)	No Alarm Before	Alarm Before
30 ppm	120 mins	
50 ppm	60 mins	90 mins
100 ppm	10 mins	40 mins
300 ppm		3 mins

Note: If the CO alarm goes into the alarm mode, refer to "What to do if the alarm sounds".

Alarm Memory

The CO alarm has a 48 hour alarm memory feature. After an alarm event is over, the device enters stand-by mode. The LCD screen continues to display "AL" symbol and the RED LED indicator flashes once every 40 seconds.

The alarm memory can be manually reset by pressing the TEST/SILENCE button or it will automatically reset after 48 hours.

Test/Silence Button

- Use the Test/Silence button to test the alarm weekly. Please refer to "**Testing the Alarm"**.

Alarm Silence Mode

If the CO alarm enters the alarm mode, the alarm beeping sound can be silenced for 10 minutes by pressing the Test/Silence button. The RED LED indicator will keep on flashing in the alarm mode pattern to indicate that the device is still operating in the alarm mode.

In silence mode, the audible alarm signal will restart after 10 minutes if the concentration of CO surrounding the alarm remains at 50 ppm or greater.

Note: The audible alarm signal cannot be silenced if the CO concentration levels are above 200 ppm.

Warning: Only silence the alarm when you are 100% sure that the source of the carbon monoxide has been dealt with. If there is any question as to the cause of the alarm it should be assumed that the alarm is due to dangerous levels of carbon monoxide and the dwelling should be evacuated.

Low Battery Warning

Yellow LED flashing once every 40 seconds approx. accompanied with chirping sound indicates low battery warning. The LCD screen will display the low battery warning symbol " ".

In the low battery condition, the device is still capable of producing a CO alarm signal for a duration of at least 4 minutes or operate in a low battery state for 30 days.

Note: The alarm is fitted with a 10 year sealed lithium battery which cannot be replaced. Replace the carbon monoxide alarm with a new unit as soon as the low battery warning appears.
Note: This device will not protect against the risk of carbon monoxide poisoning if the battery is drained.

Fault Warning

If the yellow LED is flashing twice every 40 seconds approximately with two chirps, this indicates a fault condition. The LCD screen will display the following indicator to indicate the fault condition.

When the device is in a fault state, on pressing the TEST/SILINCE button, the device will enter into a silenced state for up to 9 hours whilst displaying " " on the LCD screen. The fault indicator LED will keep on flashing in the fault indication pattern.

Note: The silence feature is a temporary measure to silence the fault warning. Replace the faulty device as soon as possible.

End of life indication

The device will give visual and audible warning when it reaches end of life (10 years). The device chirps 3 times every 40 second approx., combined with a flashing yellow LED and LCD screen displaying the message 'END'. The alarm must be replaced immediately.

When the device is in a End of life state, on pressing the TEST/SILINCE button, the device will enter into a silenced state for up to 9 hours whilst displaying " " on the LCD screen. The fault indicator LED will keep on flashing in the End of life indicator pattern.

Note: The silence feature is a temporary measure to silence the End of life warning. Replace the faulty device as soon as possible.

What to do if the alarm sounds

If the CO gas is detected, the alarm will emit a series of four beeps followed by a short pause.

1. Alert small children in the home and quickly follow the family escape plan.
2. Keep calm and open all doors and windows to increase the rate of ventilation.
3. Turn off any fuel burning appliances where possible and stop using them.
4. Evacuate the property leaving doors and windows open.
5. Leave immediately and don't waste time getting dressed or picking up valuables.
6. Once outside, go to your selected meeting place and make sure everyone is there.
7. Get medical help for anyone suffering the effects of CO poisoning.
8. Telephone the appropriate appliance servicing and/or maintenance agency or, when necessary, the relevant fuel supplier on their emergency number or the national Gas Emergency Service Provider, if appropriate, so that the source of carbon monoxide emissions can be identified and corrected. Unless the reason for the alarm is obviously spurious, do not use the fuel burning appliances again, until they have been checked and cleared for use by a competent person according to national regulations

Note: When an alarm sounds, it may be difficult to determine what triggered the alarm, particularly if CO alarms are interlinked with smoke/heat alarms. Therefore, evacuate the property first, then determine the cause and take appropriate action.

Note: The CO alarm will return to normal operating mode once the CO gas condition is cleared.

Warning: This device alarms only on the detection of carbon Monoxide gas. If ignored, the presence of Carbon Monoxide can be fatal.

DANGER: If the alarm sounds, and it is not being tested, it means the unit is sensing Carbon Monoxide gas, **THE SOUND OF THE ALARM REQUIRES YOUR IMMEDIATE ATTENTION AND ACTION**

Plan of Escape

It is recommended that a plan of escape is developed and practiced. A floor plan indicating doors and windows should be made and, if possible, that two routes of escape are established.

User Maintenance

Testing the Alarm

Test the alarm to ensure proper operation. Test alarm by pressing and holding the test button until it sounds. The alarm will sound 4 short beeps at 2 seconds pause, and then repeat until the button is released.

The alarm must only be tested by pressing the Test/Silence button. If no alarm sounds, the unit has a defective battery or other failure. Refer to "Trouble Shooting" section for a solution.

Caution: Due to the loudness (85 decibels) of the alarm, always stand an arms-length always from the unit when testing. Erratic or low sound coming from your alarm may indicate a defective alarm.

Note: WEEKLY TESTING IS REQUIRED

Maintenance

Cleaning

The alarm should be cleaned on a monthly basis as a minimum. To do this:

- Use a vacuum cleaner with the soft brush to vacuum all sides and covers of alarm to remove dust, dirt, and debris. Be sure all the vents are free of debris.
- Use a damp cloth to clean the alarm cover.

Battery Information

The battery is sealed in and is not replaceable. It should last 10 years; the life of the alarm. Yellow LED flashing once every 40 seconds approx. accompanied with chirping sound indicates low battery warning. At this point the alarm should be replaced. Extended periods in alarm mode can significantly reduce the life of the battery

Note: Constant exposure to high or low humidity or temperatures may reduce battery life.

Important Safety Information

- The alarm must not be exposed to dripping or splashing water.
- The alarms are designed to give audible warning of a dangerous levels of Carbon Monoxide. The alarms do not detect any other gas.
- Commonly occurring materials, vapours or gases, e.g. in cleaning fluids, polishes, paints, cooking operations may cause nuisance alarms. Major interferents are acetylene, ethyl alcohol, hydrogen cyanide, hydrogen sulfide, mercaptan, nitrogen and sulfur dioxide.
- Test alarm weekly to ensure proper operation by pressing the test button. Do not use any other test method.
- Do not paint the alarms.
- Check the alarms on reoccupation of the premises after a vacation
- The alarm may not alert every household member every time. The alarm horn is loud in order to alert individuals to a potential danger. However, there may be some circumstances where a household member may not hear the alarm (e.g. excessive outdoor or indoor noise, sound sleepers, drug or alcohol usage, the hard of hearing). If you suspect that this alarm may not alert a household member, install and maintain specialty alarms.
- The alarms have limitations. This alarm is not fool proof and is not warranted to protect lives from exposure to Carbon Monoxide. The alarms are not a substitute for insurance. Occupants should insure their lives and property. It is possible for the alarm to fail at any time. For this reason, you must test the alarm weekly and replace the unit after 10 years.

Carbon Monoxide (CO) Overview

Carbon monoxide (CO) is an extremely poisonous, colorless, odourless and tasteless gas released by the incomplete combustion of fossil fuels such as natural gas, bottle gas, petrol, diesel, oil, paraffin, wood, coal coke and biofuels. When inhaled, it causes chemical asphyxiation, when CO mixes with the blood and reduces the oxygen carried around the body, particularly to the brain. The following symptoms are typical to CO poisoning and should be discussed with all members of the household.

Mild Exposure - Slight headache, nausea, fatigue (flu like symptoms).
Medium Exposure - Severe throbbing headache, drowsiness and vomiting.
Extreme Exposure - Unconsciousness, cardiorespiratory failure, death.

Although feeling unwell, victims of CO poisoning can become so disorientated that they can no longer decide what to do next, including being unable to exit the building or call for assistance. Very young children often show symptoms earlier than adults.
Note: The CO alarm may not prevent the chronic effects of carbon monoxide exposure, and it will not fully safeguard individuals with specific medical conditions. If in doubt, consult a medical practitioner.

Typical causes of carbon monoxide in the home are

- Incorrect Installation of Equipment t; always use a registered Gas Safe Installation Engineer.
- Faulty Equipment; cracked blocked flues or cracked heat exchangers
- Insufficient Ventilation for Complete Combustion. Where appliances take air for combustion from the room such as open wood and coal fires, portable gas or paraffin heaters or space-heating boilers, the room MUST have adequate ventilation to allow sufficient air for complete combustion. DO NOT block up room vents specifically provided for this purpose.
- Appliances Competing for Air Supply Where there is more than one appliance taking air from a room ensure that there is an adequate supply. Consult your Gas Safe Engineer
- Air tightness of the Property. This can happen if there is a lack of unobstructed ventilation in the presence of double glazing.
- Holiday Accommodation. Take particular care when using holiday accommodation at home or abroad. Make sure you understand the type of appliances you are using and take note of the fuel being used. The 1139 Carbon Monoxide alarm is particularly suitable for this. Always take the handbook with you and read these instructions.

Troubleshooting

Problem	Remedy	Problem	Remedy
Alarm does not sound when tested. Note: push test button for at least five seconds while testing!	1. Ensure that the battery is properly connected 2. Clean alarm 3. If the problem still exists, replace the alarm	The alarm chirps twice every 40 seconds approx. at the same time as yellow LED flashes twice and goes into fault mode	1. Clean alarm. Refer to "Maintenance" 2. If the problem still exists, replace the alarm
The alarm chirps once every 40 second approx. at the same time as the yellow LED flashes once	The battery has come to its end of life. Replace the alarm.	The alarm sounds different from it is used to. It starts and stops.	1. Clean alarm 2. If the problem still exists, replace the alarm

Product Specification

Sensor Type	Electrochemical	CO Alarm Button – dual function	• Push to Test • Temporarily silence low battery warning
Sensor Life	10 year		
Battery Life	10 year	Low Battery warning silence	9 hours
Apparatus	Type B	Dimensions	120 x 88 x 37mm
Installation Location	Wall, Flat Surface	Sound Pattern	ISO8201 (BI 0.1s -pause 0.1s -BI 0.1s-pause 0.1s-BI 0.1s-pause 0.1s-BI 0.1s-pause 0.1s with RED LED flash, then repeat)
Battery Specification	2 x 1.5V Lithium batteries		
Alarm Volume	> 85dB(A) at 3 meter		
Alarm Sensitivity (alarm conditions)	30PPM - No alarm signal before 120 minutes 50PPM - Between 60 to 90 minutes 100PPM - Between 10 to 40 minutes 300PPM - Less than 3 minutes	Operating Conditions	- 10 to +45℃, 25 to 95%RH
		Storage Conditions	-20 to +50℃, 10 to 95% RH
		Compliance	BS EN 50291-1:2018 & EN 50291-1:2018
Product Disposal	This alarm come under the Waste Electrical & Electronic Equipment Regulations and must be disposed of in accordance to these Regulations.		

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