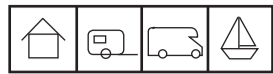


1. Welcome

Thank you for purchasing this Carbon Monoxide (CO) alarm.



The symbols above mean that the alarm is suitable for use in domestic premises (including static caravan holiday homes), caravans, motor caravans and boats.

This manual contains important safety information about the installation and operation of the alarm. Read the manual carefully and keep it in a safe place for future reference.

Warnings

Installation of a 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.

This CO alarm 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.

Long exposure to low levels (>10 ppm) of CO may cause chronic effects. If in doubt consult a medical practitioner.

1

2. Description



XC70

XC100

XC100D

Honeywell offers three versions of its battery powered CO alarms, with different user interfaces and lifetime:

The basic model **XC70** uses indicator lights to visually signal the state of the unit and comes with 7 years life and warranty

XC100 and **XC100D** both show big alarm messages in the case of an alarm, and both come with 10 years life and warranty.

XC100D has an LCD screen to provide more information about rising CO levels and recorded CO peak levels.

In addition, all versions have an audible alarm and a **TEST/HUSH** button.

All Honeywell X-Series alarms can be wirelessly interconnected using an optional plug-in module. This means that if one X-Series CO or Fire Alarm triggers an alarm, all interconnected units will give an audible alarm as well. This is especially useful, when living in a large or multi-story dwelling. Some wireless module information is included in this manual for completeness.

2

3. About Carbon Monoxide (CO)

Carbon Monoxide (CO) is an invisible, odourless gas which is highly toxic. It is produced by the incomplete burning of fuels such as wood, charcoal, coal, heating oil, paraffin, petrol, natural gas, propane, butane etc. and by cigarette smoke. A dangerous level of CO can occur if an appliance is faulty or badly maintained, if a flue is blocked or if a room is inadequately ventilated.

The poisoning effect of breathing in CO depends on the concentration (described in parts per million, ppm) and how long you are exposed for.

Concentration	Signs and Symptoms
~ 100 ppm	Slight headache, flushing of skin (indefinite exposure)
200 – 300 ppm	Headache (5 – 6 hour exposure)
400 – 600 ppm	Severe headache, weakness, dizziness, nausea, vomiting (4 – 5 hour exposure)
1100 – 1500 ppm	Increased pulse and breathing rate, syncope (fainting), coma, intermittent seizures (4 – 5 hour exposure)
5000 – 10000 ppm	Weak pulse, depressed respiration / respiratory failure, death (1 – 2 minutes exposure)

Source: Health Protection Agency Compendium of Chemical Hazards, Carbon Monoxide, Version 3, 2011

3

The CO alarm will activate if it has detected a certain concentration for a given time, as described below:

50 ppm: Alarm between 60 and 90 minutes

100 ppm: Alarm between 10 and 40 minutes

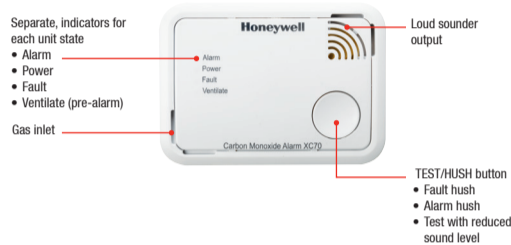
300 ppm: Alarm within 3 minutes

The CO alarm is set in accordance with the relevant European standard to provide alarms that are determined by the concentration and how long it has been present. This ensures that the alarm activates when dangerous levels of CO have built up over time and immediate action is required, and avoids false alarms from temporary low levels of CO (e.g. from cigarette smoke).

4

4. CO Alarm Operation

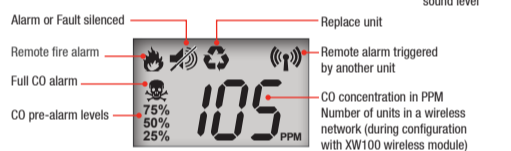
XC70



XC100 / XC100D



Display (XC100D only)



5

All alarms have four status indicator lights, an audible alarm and a **TEST/HUSH** button.

The green **POWER** light indicates that the unit is activated and working normally.

The red **ALARM** light indicates that a dangerous CO condition has been detected.

The blue **VENTILATE** light gives an early indication of a dangerous CO condition.

The yellow **FAULT** light indicates that the unit is not working properly.

The **TEST/HUSH** button is used to test the unit, or to mute an alarm or fault signal.

Normal operation

The green **POWER** light will flash once per minute, to indicate that your alarm is working. The screen of the XC100D will be blank.

Alarm

If a dangerous CO condition is detected the red **ALARM** light/message will flash and the audible alarm will sound continuously. **XC100D** will display the current CO level and a skull symbol.

If the unit is in **ALARM** and the gas clears, the unit will go into Alarm Memory mode. Press the **TEST/HUSH** button to return to normal operation.

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If your unit is in ALARM, keep calm, and carry out the following actions in the order given:

- Open all doors and windows to increase the rate of ventilation
- Stop using all fuel-burning appliances and turn them off where possible
- If the alarm continues, then evacuate the premises. Leave the doors and windows open, and only re-enter the building when the alarm has stopped
- Get medical help for anyone suffering the effects of Carbon Monoxide poisoning, such as headache or nausea, and advise that Carbon Monoxide inhalation is suspected
- Telephone the gas or other fuel supplier on their emergency number, so that the source of carbon monoxide emissions can be identified and corrected
- 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: There may be another source of carbon monoxide emission apart from fuel-burning appliances, for example a large amount of tobacco smoke, town gas or emission from a smouldering fire.

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Status	Lights and Sound					Display (XC100D)	Meaning
	Alarm (Red)	Power (Green)	Fault (Yellow)	Ventilate (Blue)	Sound		
NORMAL OPERATION	Off	On	Off	Off	Off	Blank	Normal operation No gas present
	1 flash once every minute						
ALARM	On	On	Off	Off	On	105 ppm Current CO concentration	Dangerous CO condition detected
	Continuously 4 chirps and flashes After 60 minutes, pattern is repeated once every 30 seconds						
REMOTE CO or FIRE ALARM***	Off	On	Off	Off	On	Skull symbol	Dangerous CO condition detected by another interconnected CO alarm
	CO ALARM: Continuously 4 chirps					Skull symbol	Fire detected by an interconnected fire alarm
	Fire ALARM: Continuously 3 chirps						
ALARM MEMORY	On	On	Off	Off	On	CO	Dangerous CO condition detected whilst user was absent. Currently, no dangerous CO level present
	1 chirp and flash once every minute						
PRE-ALARM**	Off	On	Off	On	On	75% 50% 25% Current CO concentration and percentage of full alarm level	A dangerous CO condition is building up. A full CO alarm will be triggered later, if the CO level does not decrease
	1 (2, or 3) chirps and flashes once every 30 seconds, increasing the longer CO is present						
FAULT	Off	On	On	Off	On	EO1	The unit has reached its end of life and must be replaced
	1 chirp and flash once every minute						
FAULT***	Off	On	On	Off	On	Skull symbol	The wireless module is not working correctly. Refer to the wireless module manual for further details
	3 chirps and flashes once every minute						

*unless muted by pressing the TEST/HUSH button

**only if activated during first time switch on

***only applicable when a wireless interconnection plug-in module is installed

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Acts for and on behalf of Life Safety Distribution AG,
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4. CO Alarm Operation continued

Ventilate - Pre-Alarm

Dangerous CO levels may be caused by faulty appliances, which start to produce more and more CO over time. Pre-alarms will give an early warning of such situations even if the alarm levels are not being reached. If these occur frequently it is recommended to call a technician for further investigations. The pre-alarm will start giving indications once 25% of the alarm level (time and concentration) has been reached. For example, if 50 ppm CO is present, the pre-alarm will start after 15-23 minutes instead of 60-90 minutes for a full alarm.

By default, this function is deactivated as it is not required to protect you from dangerous levels of CO. The installation section gives details of how to activate it. The pre-alarm is intended to help the knowledgeable end-user to get an early indication of malfunctioning appliances.

If the Pre-Alarm function is activated, and CO is detected, the blue ventilate light will flash with a short chirp 1, 2 or 3 times every 30 seconds when 25%, 50% or 75% of the alarm level respectively has been reached. **XC100D** will also indicate the percentage of the alarm level and current CO concentration. The audible alarm can be silenced by pressing the **TEST/HUSH** button (**XC100D** will show the muted symbol).

Operating and Installation Instructions



X-Series Battery CO Alarms XC70 XC100 XC100D

Fault – end of unit life

If the unit is in **FAULT** the **YELLOW** light will flash every minute with a short chirp. The CO alarm must not be used any more, and should be replaced. (The only exception is a wireless module fault, which is signalled with a triple chirp. In this case, refer to the wireless module manual for further details). The chirps can be silenced for 24 hours by pressing the **TEST/HUSH** button. The 24 hour period can be restarted by pressing the **TEST/HUSH** button twice (**XC100D** will show the muted symbol).

Note: The fault signal is caused by a low battery, an electronics failure or the end of the CO sensor life. The end-of-life signal comes from an inbuilt timer, and is given 10 years (XC100, XC100D models) or 7 years (XC70 model) after activation.

A replace by date is also printed on the side of the unit to facilitate an advance replacement before the end-of-life signal is given. This date includes a 6 months shelf life, i.e. this is the latest date the unit should be replaced. An end-of-life signal may be given earlier.

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