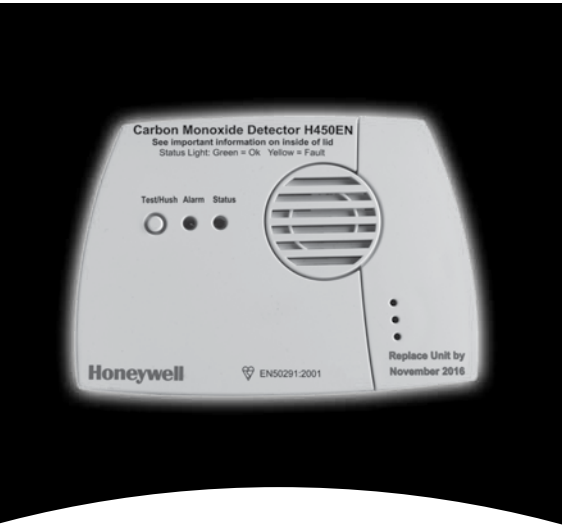
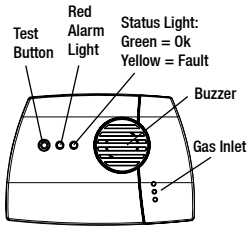


Carbon Monoxide Alarm
User Manual I56-3495-100
EN 50291:2001

INTRODUCTION

Thank you for purchasing this alarm which is designed to detect the presence of Carbon Monoxide. This manual contains information on the installation and operation of the Carbon Monoxide alarm.



The status light flashes green at approximately 1 minute intervals to indicate that the unit is operating correctly. This will change to a yellow flash synchronised with chirp if a fault arises. The red alarm light will flash continuously and the buzzer will sound if Carbon Monoxide is present.

The unit is suitable for use in areas where cooking and heating appliances burn fuels such as wood, charcoal, coal, coke, oil, petrol, gas, etc.

WHAT IS CARBON MONOXIDE

Carbon Monoxide (CO) is a highly poisonous gas which is released when fuels are burnt. It is invisible, has no smell and is therefore very difficult to detect with the human senses. The first warning symptoms that CO is present in the air are usually headaches and nausea. Under normal operating conditions, in a room where fuel-burning appliances are well maintained and correctly ventilated, the amount of Carbon Monoxide released into the room by the appliances is not dangerous. A dangerous quantity of Carbon Monoxide can occur if one or more of the following conditions exists:

1. An appliance is faulty or is badly maintained.
2. A flue is partially or totally blocked.
3. A room is not adequately ventilated.

CAREFULLY READ AND UNDERSTAND THE CONTENTS OF THIS INSTRUCTION MANUAL BEFORE USING THE ALARM. RETAIN THE MANUAL IN A SAFE PLACE FOR FUTURE REFERENCE.
PAY PARTICULAR ATTENTION TO THE SAFETY WARNINGS. PASS THE MANUAL ONTO ANY SUBSEQUENT USERS OF THE ALARM.

WARNING

THIS CARBON MONOXIDE ALARM MAY NOT PROTECT PEOPLE WHO ARE AT SPECIAL RISK FROM CARBON MONOXIDE EXPOSURE BY REASON OF AGE, PREGNANCY OR MEDICAL CONDITION. IF IN DOUBT, CONSULT YOUR MEDICAL PRACTITIONER.

This Carbon Monoxide Alarm is NOT:

- A substitute for either a smoke alarm or a combustible gas detector.
- To be seen as a substitute for the proper servicing of fuel-burning appliances or the sweeping of chimneys
- To be used on an intermittent basis, or as a portable detector for the spillage of combustion products from fuel-burning appliances or chimneys.

CAUTION

This Carbon Monoxide alarm is designed for indoor use only. Do not expose to rain or moisture. Do not knock or drop the unit. Do not open or tamper with the unit as this could cause malfunction.

The alarm will not protect against the risk of Carbon Monoxide poisoning when the battery has drained.

IMPORTANT

- Carbon Monoxide is produced by the incomplete combustion of fuels such as wood, charcoal, coal, heating oil, paraffin, petrol, natural gas, propane, butane etc.
- Ideally, it is recommended that a Carbon Monoxide alarm should be installed in or near to every room that has a fuel burning appliance such as any gas fires, central heating boiler, room heaters, water heaters, cookers, grills, etc.
- This alarm should only be installed by a competent person.
- Ensure that the audible alarm can be heard by all those who are intended to hear it.
- This product should not be used if any fault signals are given.
- Seek medical help if it is suspected that a member of the household is suffering from Carbon Monoxide poisoning.
- If further details are required which do not appear in this manual, contact Honeywell.

This pack contains: *One unit*
One fixing kit
One instruction manual

EFFECTS OF CARBON MONOXIDE POISONING

Carbon Monoxide binds to the haemoglobin in the blood and reduces the amount of oxygen being circulated in the body.

200ppm	Slight headaches, tiredness, dizziness, nausea after 2-3 hours.
400ppm	Frontal headache within 1-2 hours, life threatening after 3 hours.
800ppm	Dizziness, nausea and convulsions within 45 minutes. Unconsciousness with 2 hours. Death within 2-3 hours.
1600ppm	Headache, dizziness and nausea within 20 minutes. Death within 1 hour.
6400ppm	Headache, dizziness and nausea within 1-2 minutes. Death within 10-15 minutes.

POSITIONING THE ALARM

1. Units located in the same room as a fuel-burning appliance

- If the unit is located on the wall it should be located at a height greater than the height of any door or window but at least 150mm from the ceiling. If the unit is mounted on the ceiling it should be at least 300mm from any wall.
- The unit should be at a distance of between 1m and 3m from the potential source.
- If there is a partition in a room, the unit should be located on the same side of the partition as the potential source.
- In rooms with sloped ceilings, the unit should be located at the high side of the room.

2. Units located in sleeping rooms and in rooms remote from a fuel burning appliance

- Units should be located relatively close to the breathing area of the occupants.

WHERE NOT TO PUT THE ALARM

Do not place the unit in the following areas:

- Outside the building.
- In or below a cupboard.
- In a damp or highly humid area e.g. a bathroom.
- Directly above a sink or cooker.
- Next to a door or window or anywhere that would be affected draughts, eg, extractor fan or air vent.
- Where the air flow to the unit would be obstructed by curtains or furniture.
- Where dirt or dust could collect and block the sensor, and stop it working.
- In an area where the temperature could drop below -10˚C or rise to above 40˚C.
- Where it could be easily knocked, damaged, or where it could be inadvertently removed.
- Do not paint the unit or allow the CO gas inlets to become blocked by dirt, grease or other substances.

IN WHICH ROOM TO PUT THE ALARM

Ideally, an alarm should be fitted in every room that contains a fuel-burning appliance. However, if there is more than one appliance and the number of units is limited, the following points should be taken into consideration when deciding on the best location:

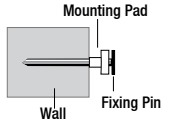
- If there is an appliance in a room where people sleep, a unit should be placed in that room.
- A unit should be located in a room containing a flueless or open-flued appliance.
- If there is an appliance in a room which people use a lot, such as a sitting room, a unit should be placed in that room.
- In a bedsit, the unit should be placed as far away from the cooking appliance as possible but near to where the person sleeps.
- If the appliance is in a room not normally used, such as a boiler room, the unit should be placed just outside the room so that the alarm will be heard more easily.

INSTALLING THE ALARM

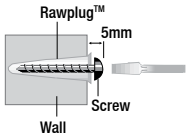
The unit can either be free-standing or wall mounted, using the fixings provided.

WALL MOUNTING INSTALLATION

Find a position to install the unit (see “where to put the alarm” and “where not to put the alarm”).



Option 1 Special Mounting Pad with Fixing Pin (supplied)
Place the fixing pin through the mounting pad. Using a hammer, gently knock the fixing pin into the wall ensuring that the mounting pad is not hammered too firmly into the wall.



Option 2 Screw and wall plug (NOT supplied)
If the wall is too hard to use the fixing pin, use a No. 4 round head screw and Rawplug™.

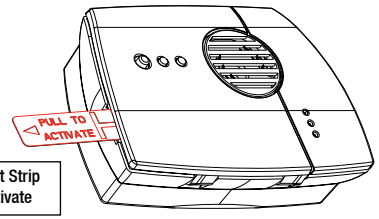
Once activated and tested (see “using the alarm”), the unit can be hung on the protruding fixing pin using one of the ‘keyholes’ indicated on the back of the unit by the lines shown.

USING THE ALARM

To activate the unit, pull out the activation strip at the side of the unit. The green and red lights will flash briefly and the buzzer will sound a short chirp.

Press the test button and hold for up to 5 seconds and check that the red light flashes and the buzzer sounds.

The unit is now operating and is ready for use.



Pull out Strip to Activate

TESTING YOUR CARBON MONOXIDE ALARM

The unit should be tested once a month by pressing and holding the test button on the front of the unit for 5 seconds, this tests the electrochemical cell, electronics and audible alarm. If the unit is functioning correctly, the green light will stay illuminated, the red light will flash and the alarm will sound. In case of a fault the unit is giving visual and audible signals once per minute. These signals can be triggered any time by pressing the test button.

SPECIFICATION

Model:	H450EN
Gas Detected:	Carbon Monoxide
Detection Principle:	Electro-chemical cell
Alarm Indication:	Flashing red light and audible alarm
Alarm Levels:	50ppm Between 60 to 90 mins 100ppm Between 10 to 40 mins 300ppm Less than 3 mins
Operating Temperature:	-10˚C to 40˚C
Humidity Range:	30 to 90% RH non-condensing
Warm-up time after initial switch on:	Instantaneous
Normal Operating Life:	Up to 7 years
Battery life when in alarm:	At least 5 days
Dimensions:	110mm x 76mm x 34mm
Weight:	Approximately 110g

CARE AND MAINTENANCE OF ALARM

The Carbon Monoxide alarm is pre-calibrated at the factory and requires no maintenance other than to clean the outside case occasionally with a clean tissue. Ensure that the holes on the front of the unit are not blocked with dust or dirt. DO NOT USE CLEANING AGENTS, BLEACH OR POLISH.

END OF UNIT LIFE

The unit will operate for up to 7 years under normal use. The unit must be replaced when a low battery warning (1 chirp per minute or a fault warning signal (2 chirps per minute and the status light flashing yellow) is given. It is recommended to replace the unit after the date marked on the front of the unit.

DISPOSAL

When the unit has come to the end of its life, dispose of it in accordance with local regulations.

BATTERY DIRECTIVE STATEMENT

For safety reasons the H450EN is a sealed unit and the battery is not replaceable. At the end of the unit's life, if you have any concerns over the safe disposal of the unit/battery, please contact your local recycling centre or the Honeywell helpline printed in this manual.

OPERATION OF THE ALARM

	Status Light	Red Alarm Light	Buzzer	
Normal Operation When no Carbon Monoxide is present, the status light will flash green approximately once every minute. During normal operation the unit carries out a self-check test every 5 minutes.	Green			1 green flash per minute
Alarm Condition When the unit detects Carbon Monoxide, it will give the **alarm signal** continuously. The red alarm light will flash and the buzzer will sound approximately 5 chirps per second.				5 chirps per 1 second
When the unit has been in alarm for 30 minutes the full **alarm signal** will be given once every minute.				5 chirps per 1 second per minute
Alarm Signal The Carbon Monoxide alarm can be distinguished from smoke detector alarms as it signals C.O. in morse code (approximately 5 chirps per second).				(–•–•– – –) C O
Hush Feature If required, the audible alarm can be silenced for 5 minutes by pushing the button marked 'Test'. The red alarm light will continue to flash 5 times per second.				5 flashes per 1 second
If Carbon Monoxide is still present after the 5 minute hush period, the audible alarm will sound. **NOTE:** The hush facility will not operate at levels above 350ppm Carbon Monoxide. At levels below 350ppm the hush facility will only operate once, ie the audible alarm can only be silenced for one 5 minute period.				5 chirps per 1 second
Return to Normal Operation When the Carbon Monoxide gas disperses, the alarm signal will stop. The status light will flash green approximately once every minute again.	Green			1 green flash per minute
Fault Warning If a fault is detected the buzzer will sound 2 short chirps every minute. The unit must then be replaced.	Yellow			2 chirps per minute and yellow flash
Battery Fault Warning/End of Battery Life The buzzer will sound 1 short chirp every minute. **NOTE:** With normal use the batteries will last for up to 7 years. However, battery life will be reduced if either a fault occurs with the battery or the unit remains in alarm for long periods of time. Should the Battery Fault Warning occur please contact your supplier.	Yellow			1 chirp per minute and yellow flash

WHAT TO DO WHEN THE ALARM SOUNDS

If the unit raises an alarm, proceed as follows:

- Open all doors and windows to ventilate the area and allow the Carbon Monoxide to disperse.
- Where possible turn off all fuelled appliances and stop using them.
- Evacuate the property leaving the doors and windows open.
- Ring the gas or other fuel supplier on their emergency number and explain the problem. Keep the telephone number in a prominent place.
- Do not re-enter the property until the alarm has stopped.
- Get medical help immediately for anyone suffering from the effects of Carbon Monoxide poisoning such as headaches, nausea, etc. and advise that Carbon Monoxide poisoning is suspected.
- 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.

GAS EMERGENCY SERVICE TELEPHONE NUMBER

0800 111 999

Contact Numbers for **OTHER FUEL** Appliances:

OIL USERS: Contact OFTEC on 0845 658 5080

SOLID FUEL USERS: Contact HETAS on 0800 600 000 (Please note these numbers are only available during normal office hours)

Gas appliances should be checked for safety annually by a Gas Safe registered engineer. To find a registered engineer in your area call Gas Safe Register on 0800 408 5500 or look on the website: www.gassaferegister.co.uk.

User Manual also available in Braille. A Carbon Monoxide safety information sheet is available in: Punjabi; Urdu; Bengali; Gujarati and Hindi. For copies please call Honeywell Analytics on: **01202 645577**

DECLARATION OF CONFORMITY

This product complies with European Directives for Low voltage 2006/95/EC and Electromagnetic Compatibility 2004/108/EC. The manufacturers full Declaration of Conformity may be found at the following website address: www.honeywellanalytics.com

KM 565387
BS EN 50291:2001

DISCLAIMER

This Carbon Monoxide alarm is designed to alert you to a potentially dangerous build-up of Carbon Monoxide gas. It is not designed to remedy a Carbon Monoxide problem nor to locate a specific source of Carbon Monoxide. Honeywell shall not be liable to pay for any Carbon Monoxide investigation or service call carried out or arranged in response to an alarm.

GUARANTEE

We guarantee your new Carbon Monoxide alarm for six years from the date of purchase or until the expiry date on the front of the unit, whichever occurs first - under normal use and service, to be free from defects in materials and workmanship. During this period we will, at our discretion, repair or replace any part of the Carbon Monoxide alarm which is found to be defective in either materials or workmanship providing this occurs under normal use and service. We shall, however, be under no obligation to repair, or replace units which are found to be defective in any way due to damage, neglect, unreasonable use or which have been tampered with or found to have been dismantled. Should a problem arise with your detector, please contact your supplier. If you have further problems, please contact Honeywell Analytics helpline direct on +44 (0) 1202 645577. If units need to be returned, send them in suitable packaging along with proof of purchase to

CO Returns, Honeywell Analytics, 4 Stinsford Road, Nuffield Industrial Estate, Poole, BH17 0RZ.

An accompanying letter should state clearly any problem with the Carbon Monoxide alarm. This guarantee does not affect your statutory rights.

Register your detector at
www.sfdetection.com

Find out more
www.honeywellanalytics.com

Contact us:

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