

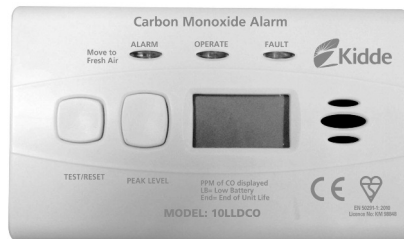


## Kidde Sealed Battery, Long Life Carbon Monoxide Alarm

### 10LLCO



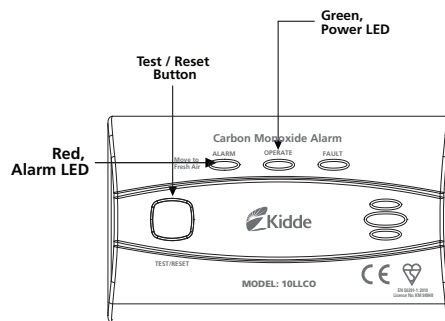
### 10LLDCO



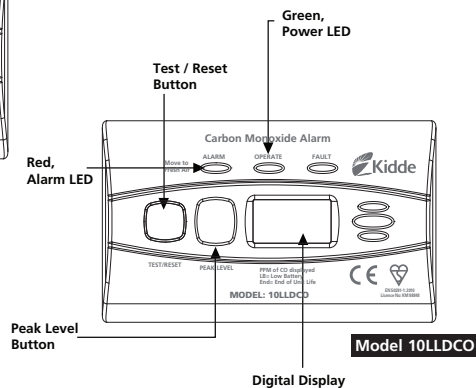
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# Product Features and Specifications



**Model 10LLCO**



**Model 10LLDCO**

# 1. What is Carbon Monoxide?

Carbon monoxide (CO) is a highly poisonous gas with no taste, colour or smell.

## Potential Sources of CO

- Wood-burning stoves
- Gas boilers and fires
- Gas Hobs
- Oil and coal burning appliances
- Portable gas heaters
- Blocked flues and chimneys
- Fumes from integral garages
- Barbecues

This CO alarm is not a substitute for the correct maintenance of your appliances.

Carbon monoxide can be produced from poorly burning appliances or from blocked flues and chimneys.

If your alarm has sounded and you have ventilated the room the CO may have dispersed before help arrives. It is crucial that the source of CO is determined and appropriate maintenance carried out.

Carbon monoxide is a cumulative poison. This Kidde alarm is time-weighted – the higher the level of CO, the sooner it will alarm.

## Further information for Caravan and Boat Owners

The following can lead to carbon monoxide being produced:

- Using LPG cooking appliances for space heating
- Leaving LPG appliances on overnight
- Barbecues within the boat cabin or near a caravan door (e.g. under an awning)

To be safe, know the possible sources of CO in your home. Keep fuel burning appliances, chimneys and vents in good working condition. Learn the early symptoms of exposure, and if you suspect CO poisoning, move outside into fresh air and get emergency help. Your first line of defence is an annual inspection and regular maintenance of your appliances. Contact a licensed contractor or call your local utility company for assistance.

## Alarm levels as defined by EN50291-1:2010

The table below shows the response times at which your CO alarm will sound;

Parts per Million (PPM) of CO	Time until Alarm
50	60 – 90 minutes
100	10 – 40 minutes
300	Must alarm in less than 3 minutes

## CO Advice and Information

The table below shows the effects of different levels of CO poisoning on the body;

Parts per Million (PPM)	Effects on Adults
100	Slight headache, nausea, fatigue (flu-like symptoms)
200	Dizziness and headache within 2 – 3 hours
400	Nausea, frontal headache, drowsiness, confusion and rapid heart rate. Risk to life after over 3 hours of exposure
800	Severe headaches, convulsions, vital organ failures. Death possible within 2 – 3 hours

## 2. Important Safety Information

**If you recognise any of the above symptoms consult your Doctor immediately.**

**Young children, elderly and pets are more susceptible to the dangers of CO.**

**Your Kidde alarm is designed to detect CO gas. It is not designed to detect smoke, fire or other gas such natural gas.**

**This product is intended for use in ordinary family homes. It is not designed to measure compliance with occupational safety and the HSE.**

**Individuals with certain specific medical conditions may need an alarm that operates below 30ppm. If this applies consult your Doctor.**

**IMPORTANT: Ensure that all family members are familiar with the symptoms of CO poisoning and how your alarm works.**

### 3. What to do if Your Alarm Sounds!

#### Carbon Monoxide Alarm Procedure



**WARNING!** Activation of the alarm indicates the presence of Carbon Monoxide (CO) which can kill you.

If alarm sounds (4 loud audible pulses followed by a pause for 5 seconds, repeating):

- 1) 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 re-enter 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.
- 2) Call Gas Emergency Services: 0800 111 999, or your local Gas Safe Registered Engineer:

***GAS SAFE ENGINEER'S PHONE NUMBER:***

Additional telephone numbers are available for solid fuel (HETAS) and oil (Oftec) users at the back of this manual

**Never ignore the sound of the alarm!** Never restart the source of the CO problem until it has been corrected. If the alarm is sounding, pressing the test/reset button will terminate the alarm. If the CO condition that caused the alert in the first place continues, the alarm will reactivate. If the unit alarms again within six minutes, it is sensing high levels of CO which can quickly become a dangerous situation.

## 4. Switching on Your CO Alarm

NOTE: Your CO alarm must be installed by a competent person using the guidance that follows:

1. The alarm is shipped turned off and is activated the first time the mounting bracket is attached. To activate the alarm; for wall-mounting install the mounting bracket using the instructions below and slide the alarm until it snaps into place. For tabletop applications simply slide the bracket onto the unit until it snaps into place.
2. To test the alarm, press the test button. The alarm will beep once followed by 4 loud pulses, then a brief pause and then 4 more pulses, ending with a single beep. The alarm has a 'ramp-up' horn so during the test sequence it will sound more softly, making it more comfortable for the user. This confirms that the alarm is powered up and working.
3. Check that the green LED flashes at 30 second intervals to show that the alarm has power. This is easiest to see in a dark area, or with lights switched off.

## 5. Installation Instructions – Recommended Locations

Recommended Locations	Not Recommended
Place the alarm at least 2 metres from fuel burning appliances, and not more than 4 metres away	Do not place closer than 2 metres from fuel burning appliances
Away from draughts, such as doors and windows	Do not wall-mount close to obstructions (e.g. behind curtains, shelving or furniture)
Within hearing distance of bedrooms* If heating appliance is in the bedroom an additional alarm should be located within.	Do not fit in dusty, dirty or greasy areas (e.g. garages or workshops)
If wall-mounting, install at eye-level (approx 1.5m), and at least 30cm from adjoining walls or ceiling	Do not wall-mount within 30cm of the ceiling as this is a “dead air” space
If free-standing, the unit should be placed no more than 1 metre from the ground (to avoid permanent damage in case accidentally knocked)	Avoid humid (bathrooms), cold (< 0°C) or hot (>40°C) areas and away from sinks

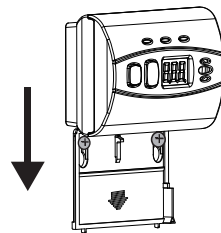
\*It is recommended that at least one Kidde carbon monoxide alarm is installed on each level of the home.

## 6. Installation Instructions – Mounting

**THIS ALARM MUST BE INSTALLED BY A COMPETENT PERSON AND IS TO BE INSTALLED ACCORDING TO THESE INSTRUCTIONS**

### Wall-mounting

1. Using bracket as a guide, drill two holes in a wall 7cm (2 3/8") apart.
2. Insert the two fixings, that are supplied, into the holes.
3. Slide bracket on to screws then tighten.
4. Slide alarm onto base plate to activate it, and remember to test it.
5. The alarm is tamper-proof and can only be removed using a screw driver.



**Wall Mounting**

### Free-standing

No more than 1 metre from the floor (to minimise this risk of the alarm being permanently damaged should it be knocked to the floor from a greater height)

## 7. Using Your Alarm (non-digital version, 10LLCO)

### Recognising Alarm Signals and Warnings

Feature	What this means	Required Action
Green LED flashes every 30 seconds	Normal operation	None
Amber LED flashes every second, beeps every 60 seconds	Low battery	If cold allow unit to warm up for a couple hours then replace if still beeping
Two chirps and two red LED flashes every 30 seconds. Amber LED flashing every second.	End of life of the alarm	Replace the alarm
Amber LED flashes every second, beep every 30 seconds and green LED blinks error code every other 30 seconds.	Fault	Replace the alarm
Constant tone	Malfunction	Replace the alarm
Loud continuous alarm (four loud alarm sounds, repeated for four minutes, followed by two patterns per minute) with the red LED	Dangerous levels of CO have been detected	Follow emergency procedures (see Page7)
Red LED flash every 60 seconds	Historical event in last 14 days	Check your appliances

## 7. Using Your Alarm (non-digital version, 10LLCO)

### Testing

Test your alarm each week by pressing the test button. It will beep once followed by 4 loud pulses, then a brief pause and then 4 more pulses, ending with a single beep.

This confirms that the alarm is powered up and working.

### Re-setting the Alarm








If the alarm sounds, the test / reset button will silence the alarm unless it is still detecting dangerous levels of CO. The green light will then flash every 30 seconds to indicate that the alarm has power.

### Alarm Memory (non-digital only)

The red LED will flash every 60 seconds to indicate if a CO event has occurred whilst the house has been unoccupied. This automatically cancels after 14 days or if the reset button is pressed.

## 7. Using Your Alarm (for Digital unit only, 10LLDCO)

Additional features for the CO alarm with the digital display screen, model 10LLDCO;

Digital Screen	Digital Screen	LED	Sound emitted	What this means	Required action
	Dot flashes every 5 second	Green flash every 30 seconds	None	Normal operation. (LCD will not show levels < 30ppm)	None
	Displays up to 999	Red LED flashes	Full alarm	Dangerous levels of CO has been detected	Follow emergency procedures (see Page 7)
	Shows 3 dashes, then 888	Red LED flashes Green and Amber LED on	1 beep, then 2 sets of 4 beeps, followed by 1 beep	Successful test or reset sequence in operation	None
		Amber LED flashes every second	Chirp every 60 seconds	Low batteries (Lb)	If cold allow unit to warm up for a couple hours then replace if still beeping
		Amber LED flashes every second and green flashes error code every other 30 seconds	Chirp every 30 seconds	Fault	Replace the alarm
			Constant tone	Malfunction	Replace the alarm
		Two chirps and two red LED flashes every 30 seconds. Amber LED flashing every second.	Chirps twice every 30 seconds	End of Life	Replace the alarm

## 7. Using Your Alarm (for Digital unit only) – Cont'd

### Peak Level Display

Press peak level button to display the highest CO reading between 11 – 999ppm since the peak level was reset.

This feature is useful to help you to know what levels of CO may have been detected in your absence so corrective action can be taken (such as servicing your boiler).

**NOTE:** The peak level memory is cleared to zero if while holding the peak level button the test reset is pressed and released before releasing the peak level.

CO levels up to 30ppm can occur under normal non-dangerous conditions. Such conditions could include nearby heavy traffic, starting a vehicle in an attached garage, starting a fire or a nearby charcoal barbecue.

## 8. Maintenance of Your Alarm





To keep your alarm in good working order:

- **Test every week**
- **Vacuum regularly to remove dust**
- **Keep away from solvents or detergents**
- **Avoid spraying air-freshener, hair-spray near the alarm**
- **Do not paint the alarm. If decorating or using adhesives close to the alarm, remove it temporarily**
- **Keep away from nappy buckets**

The following substances can affect the sensor and cause false alarms:

Methane, Propane, Iso-butane, Iso-propanol, Ethylene, Benzene, Toluene, Ethyl acetate, Hydrogen Sulphide, Hydrogen, Sulphur Dioxide, alcohol based products, paints, thinners, solvents, adhesives, hair-sprays, aftershaves or perfumes and some cleaning agents.

## 9. Troubleshooting

Symptom	LCD Screen Display (model 10LLDCO only)	Problem	Action Required
Single chirp every 60 seconds. Amber LED flashes every second		Low batteries	If cold allow unit to warm up for a couple hours then replace if still beeping
Single chirp every 30 seconds with Amber LED flashes every second.		Alarm fault	Replace alarm (contact Kidde if still in guarantee)
Constant tone Alarm		Alarm malfunction	Replace alarm (contact Kidde if still in guarantee)
Two chirps and two red LED flashes every 30 seconds. Amber LED flashing every second.		End of Life of the alarm	Replace the alarm

## 10. Product Specifications

Power	Sealed in lithium battery
Sensor	Electrochemical CO Sensor
Accuracy	Depending on the ambient condition (temperature, humidity) and the condition of the sensor, the alarm readings may vary. The digital readings tolerances are:  Ambient: 27°C +/- 12°C (80°F +/- 10°F), atmospheric pressure +/- 10%, 40% +/- 3% relative humidity
Temperature Range	Operating range: 0°C to 40°C
Humidity	Up to 90% non-condensing
Alarm Sound	At Least 85dB (A) at 1 metre @ 3.4 +/- 0.5 KHz pulsing alarm
Size and weight	Weight: 160g Dimensions: 118mm x 70mm x 40mm

NOTE: Constant exposures to extreme temperatures or humidity can reduce battery life.

## 11. Warnings and Important Notices

**⚠ WARNING: THIS CARBON MONOXIDE ALARM IS NOT A SUBSTITUTE FOR INSTALLING AND MAINTAINING AN APPROPRIATE NUMBER OF SMOKE ALARMS IN YOUR HOME. THIS ALARM WILL NOT SENSE SMOKE, FIRE, OR ANY POISONOUS GAS OTHER THAN CARBON MONOXIDE. 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: THIS PRODUCT IS INTENDED FOR USE IN ORDINARY INDOOR RESIDENTIAL AREAS. IT IS NOT DESIGNED TO MEASURE COMPLIANCE WITH COMMERCIAL AND INDUSTRIAL STANDARDS. THIS ALARM IS NOT SUITABLE FOR INSTALLATION IN HAZARDOUS LOCATIONS. INDIVIDUALS WITH MEDICAL PROBLEMS MAY CONSIDER USING WARNING DEVICES WHICH PROVIDE AUDIBLE AND VISUAL SIGNALS FOR CARBON MONOXIDE CONCENTRATIONS UNDER 30 PPM.**

**IMPORTANT: THIS CARBON MONOXIDE ALARM IS DESIGNED TO DETECT CARBON MONOXIDE FROM ANY SOURCE OF COMBUSTION INCLUDING IMPROPER OR MALFUNCTIONING APPLIANCES. THE INSTALLATION OF THIS DEVICE SHOULD NOT BE USED AS A SUBSTITUTE FOR PROPER INSTALLATION, USE AND MAINTENANCE OF FUEL BURNING APPLIANCES INCLUDING APPROPRIATE VENTILATION AND EXHAUST SYSTEMS**

**⚠ WARNING: THIS ALARM WILL NOT WORK WITHOUT POWER. THIS ALARM REQUIRES A CONTINUOUS SUPPLY OF POWER.**

**⚠ WARNING: THIS UNIT IS NOT A SMOKE ALARM. IT WILL NOT SENSE SMOKE. FOR EARLY WARNING OF FIRE YOU MUST INSTALL SMOKE ALARMS.**

**IMPORTANT: IF ANY FAULT SIGNALS OCCUR, CONTACT THE MANUFACTURER OR SUPPLIER AND DO NOT CONTINUE USING THE ALARM.**

**⚠ WARNING: THE DEVICE CANNOT WARN AGAINST THE CHRONIC EFFECTS OF EXPOSURE TO CARBON MONOXIDE OR PROTECT INDIVIDUALS WHO ARE AT SPECIFIC RISK.**

**⚠ WARNING: ALTERING THE ALARM IN ANY WAY MAY LEAD TO A RISK OF ELECTRIC SHOCK OR PREVENT IT FROM FUNCTIONING CORRECTLY.**

## 12. Guarantee

### TEN YEAR LIMITED GUARANTEE

**GUARANTEE COVERAGE:** THE MANUFACTURER WARRANTS TO THE ORIGINAL CONSUMER PURCHASER, THAT THIS PRODUCT WILL BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF TEN (10) YEARS FROM DATE OF PURCHASE. THE MANUFACTURER'S LIABILITY HEREUNDER IS LIMITED TO REPLACEMENT OF THE PRODUCT. REPAIR OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT WITH REPAIRED PRODUCT AT THE DISCRETION OF THE MANUFACTURER. THIS GUARANTEE IS VOID IF THE PRODUCT HAS BEEN DAMAGED BY ACCIDENT, UNREASONABLE USE, NEGLIGENCE, TAMPERING OR OTHER CAUSES NOT ARISING FROM DEFECTS IN MATERIAL OR WORKMANSHIP. THIS GUARANTEE EXTENDS TO THE ORIGINAL CONSUMER PURCHASER OF THE PRODUCT ONLY.

**Guarantee Disclaimers:** Any implied guarantees arising out of this sale, including but not limited to the implied warranties of description, merchantability and fitness for a particular purpose, are limited in duration to the above guarantee period. In no event shall the Manufacturer be liable for loss of use of this product or for any indirect, special, incidental or consequential damages, or costs, or expenses incurred by the consumer or any other user of this product, whether due to a breach of contract, negligence, strict liability in tort or otherwise. The Manufacturer shall have no liability for any personal injury, property damage or any special, incidental, contingent or consequential damage of any kind resulting from gas leakage, fire or explosion. This guarantee does not affect your statutory rights.

**Guarantee Performance:** During the above guarantee period, your product will be replaced with a comparable product if the defective product is returned, postage prepaid, to Kidde Safety Europe Ltd, Mathisen Way, Colnbrook, Slough SL3 0HB, UK. Telephone 01753 685148, together with proof of purchase date. Please include a note describing the problem when you return the unit. The replacement product will be in guarantee for the remainder of the original guarantee period or for six months, whichever is longer. Other than the cost of postage, no charge will be made for replacement of the defective product. Important: Do not open unit. Opening unit will void guarantee.

Your Carbon Monoxide Alarm is not a substitute for property, disability, life or other insurance of any kind. Appropriate insurance coverage is your responsibility. Consult your insurance agent.

**For Guarantee Service:** In many cases the quickest way to exchange your CO alarm is to return it to the original place of purchase. If you have questions, call the KIDDE customer service department on +44 (0) 1753 685148

## 13. Environmental Protection

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



## 14. Useful Contact Information

Kidde Helpline	(UK) 0800 917 0722 / (Ireland) 1 800 818 601
CoGDEM CO Advice Line	0800 1694 457
Emergency No.s	Gas Emergency Services 0800 111 999
	HETAS (Solid Fuel Emergency) 0845 634 5626
	Oftec (oil) 0845 658 5080

Kidde Website **[www.TenYCO.kiddefyrnetics.co.uk](http://www.TenYCO.kiddefyrnetics.co.uk)**

Manufacturer Address Kidde Safety Europe Limited  
Mathisen Way  
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UK

Made in China

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