



CSA 6.19-01

SINGLE STATION CARBON
MONOXIDE ALARM

Carbon Monoxide Alarm

User Guide

Model: KN-COB-DP2CA (900-0263CO-CA)



AC Plug-in Operated with AA Battery Backup

ATTENTION: Please take a few minutes to thoroughly read this user guide which should be saved for future reference and passed on to any subsequent owner.

What to do When the Alarm Sounds!

Carbon Monoxide Alarm Procedure



WARNING: Activation of the CO Alarm indicates the presence of Carbon Monoxide (CO) which can kill you.

If alarm sounds 4 quick beeps, 5 seconds off:

- 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 your emergency services (Fire Department or 911);

PHONE NUMBER:

Never restart the source of a CO problem until it has been corrected. Never ignore the sound of the alarm!

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.

Welcome

Note: Many times throughout this User Guide, we will refer to Carbon Monoxide as "CO".

This Kidde carbon monoxide (CO) alarm is an important part of your family's home safety plan. This alarm has been designed and tested to detect CO buildup in a residential environment. Your alarm is for use specifically in the home. As an owner of a CO alarm, there are some basic facts you should know for your protection.

Many people think that CO alarms operate like smoke alarms. Like smoke alarms, CO alarms monitor the air in your home and sound a loud alarm to warn you of trouble. The way you respond to a CO alarm is quite different than a smoke alarm. That's because a house fire and a CO problem are two distinctly different situations. If your smoke alarm were to alarm, you would quickly be able to judge the level of danger you were in with your senses. You can see and smell the smoke, feel the heat, see, and possibly hear the fire burning. You can also readily see if your smoke alarm is alarming in a non-emergency situation. Because your sense of sight, smell, hearing and touch give you information, you can almost instantly judge what action to take if you hear your smoke alarm.

CO is an invisible, odorless, tasteless and non-irritating gas – completely undetectable to your senses. That's why it is important to your safety that you have a CO alarm.

Important Warning Statements

IMPORTANT: This carbon monoxide alarm is designed to detect carbon monoxide from ANY source of combustion. It is NOT designed to detect smoke, fire, or any other gas.

⚠ WARNING: Carbon monoxide alarms are not smoke alarms. This carbon monoxide alarm is not a substitute for installing and maintaining an appropriate number of smoke alarms in your home.

This carbon monoxide alarm will not sense smoke, fire, or any poisonous gas other than carbon monoxide even though carbon monoxide can be generated by fire. 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.

⚠ CAUTION: This alarm will only indicate the presence of carbon monoxide at the sensor. Carbon monoxide may be present in other areas.

Important Warning Statements

⚠ WARNING: This product is intended for use in ordinary indoor locations of family living units. It is not designed to measure compliance with commercial or industrial standards.

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. It does not prevent CO from occurring, nor can it solve an existing CO problem.

⚠ WARNING: This device is designed to protect individuals from acute effects of carbon monoxide exposure. It may not fully safeguard individuals with specific medical conditions. If in doubt, consult a medical practitioner.

Individuals with medical problems may consider using warning devices which provide audible and visual signals for carbon monoxide concentrations under 30 ppm.

This carbon monoxide alarm requires a continuous supply of electrical power – it will not work without power. Models without battery backup will not operate during power failure.

This alarm has not been independently investigated for carbon monoxide detection below 70 ppm.

Contents of This User Guide

1. **Information About Carbon Monoxide**
2. **Product Features and Specifications**
3. **Installation Locations**
4. **Installation Instructions**
5. **Alarm Characteristics**
6. **Operating Characteristics**
7. **Maintenance**
8. **Limited Warranty**

1. Information About Carbon Monoxide

General Carbon Monoxide Information

Carbon monoxide is a colorless, odorless and tasteless poison gas that can be fatal when inhaled. CO inhibits the blood's capacity to carry oxygen.

Periodically review this user guide and discuss your CO alarm emergency procedure with all the members of your family. Never ignore a CO alarm. A true alarm is an indication of potentially dangerous levels of CO. CO alarms are designed to alert you to the presence of CO before an emergency – before most people would experience symptoms of CO poisoning, giving you time to resolve the problem calmly.

Determine if anyone in the household is experiencing symptoms of CO poisoning. Many cases of reported CO poisoning indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the building or calling for assistance. Also, young children and household pets may be the first affected. You should take extra precautions to protect high-risk persons from CO exposure because they may experience ill effects from CO at levels that would not ordinarily affect a healthy adult.

Symptoms of CO Poisoning

The following common symptoms are related to CO poisoning and should be discussed with ALL members of the household.

Mild Exposure:

Slight headache, nausea, vomiting, fatigue (often described as "flu-like" symptoms).

Medium Exposure:

Severe throbbing headache, drowsiness, confusion, fast heart rate.

Extreme Exposure:

Unconsciousness, convulsions, cardio-respiratory failure, death.

If you experience even mild symptoms of CO poisoning, consult your doctor immediately!

1. Information About Carbon Monoxide

Possible Sources of Carbon Monoxide

Inside your home, appliances used for heating and cooking are the most likely sources of CO. Vehicles running in attached garages can also produce dangerous levels of CO.

CO can be produced when burning any fossil fuel, such as gasoline, propane, natural gas, oil and wood. It can be produced by any fuel-burning appliance that is malfunctioning, improperly installed, or not ventilated correctly, such as:

- Automobiles, furnaces, gas ranges/stoves, gas clothes dryers, water heaters, portable fuel burning space heaters and generators, fireplaces, wood-burning stoves and certain swimming pool heaters.
- Blocked chimneys or flues, back drafts and changes in air pressure, corroded or disconnected vent pipes, loose or cracked furnace exchangers.
- Vehicles and other combustion engines running in an open or closed garage, attached or near a home.
- Burning charcoal or fuel in grills and hibachis in an enclosed area.

Conditions That Can Produce Carbon Monoxide

The following conditions can result in transient CO situations:

- Excessive spillage or reverse venting of fuel-burning appliances caused by outdoor ambient conditions, such as wind direction and/or velocity, including high gusts of wind, heavy air in the vent pipes (cold/humid air with extended periods between cycles).
- Negative pressure resulting from the use of exhaust fans.
- Simultaneous operation of several fuel-burning appliances competing for limited internal air.
- Vent pipe connections vibrating loose from clothes dryers, furnaces, or water heaters.
- Obstructions in, or unconventional, vent pipe designs which can amplify the above situations.
- Extended operation of unvented fuel-burning devices (range, oven, fireplace, etc.).
- Temperature inversions which can trap exhaust gases near the ground.
- Vehicle idling in an open or closed garage, or near a home.

1. Information About Carbon Monoxide

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

Information About Carbon Monoxide Alarms – What They Can and Cannot Do:

CO alarms provide early warning of the presence of CO, usually before a healthy adult would experience symptoms. This early warning is possible, however, only if your CO alarm is located, installed and maintained as described in this guide.

Because carbon monoxide is a cumulative poison, long-term exposures to low levels may cause symptoms, as well as short-term exposures to high levels. This Kidde unit has a time-weighted alarm – the higher the level of CO present, the sooner the alarm will be triggered.

This CO alarm can only warn you of the presence of CO. It does not prevent CO from occurring, nor can it solve an existing CO problem. If your unit has alarmed and you've provided ventilation by leaving your windows and doors open, the CO buildup may have dissipated by the time help responds. Although your problem may appear to be temporarily solved, it's crucial that the source of the CO is determined and that the appropriate repairs are made.

This CO alarm is designed to act as a monitor; it is not designed for use as a short-term testing device to perform a quick check for the presence of CO.

CO alarms have limitations. Like any other electronic device, CO alarms are not fool-proof. CO alarms have a limited operational life. You must test your CO alarm weekly, because it could fail to operate at any time.

If your CO alarm fails to test properly, or if its self-diagnostic test reveals a malfunction, immediately have the unit replaced. This alarm will not monitor CO levels while in an error condition.

CO alarms can only sense CO that reaches the unit's sensor. It's possible that CO may be present in other areas without reaching the alarm. The rate and ability that which CO reaches the alarm may be affected by:

- Doors or other obstructions.
- Fresh air from a vent, an open window or other source.

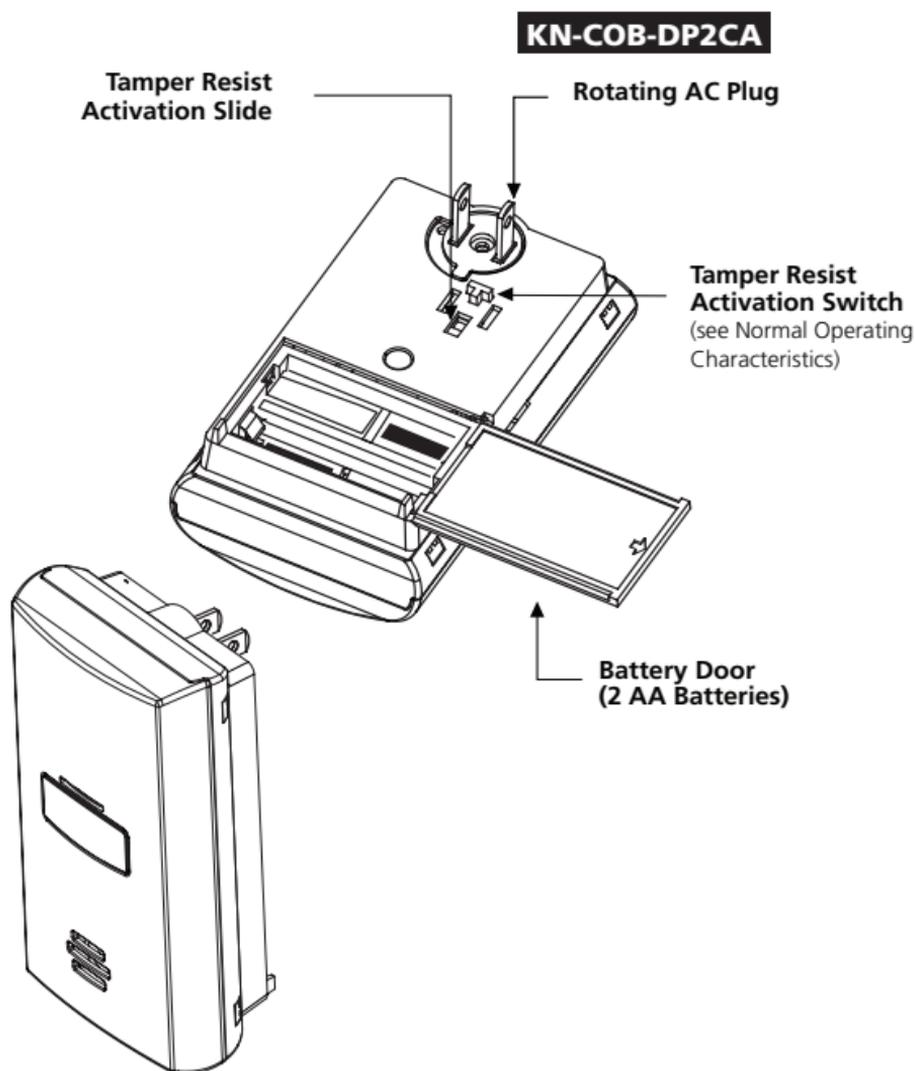
1. Information About Carbon Monoxide

- CO being present on one level of the home and not reaching a CO alarm installed on a different level. (For example, CO in the basement may not reach an alarm on the second level, near the bedrooms).

For these reasons, we recommend you provide complete coverage by placing a CO alarm on every level of the home. Please carefully read all information on properly installing this CO alarm.

CO alarms should not be used to detect the presence of natural gas (methane), propane, butane, or other combustible fuels.

2. Product Features and Specifications



2. Product Features and Specifications

Low Battery Warning

If the battery is missing or battery power is low, the unit will chirp every 60 seconds to indicate the batteries must be replaced.

THE BATTERIES MUST BE REPLACED IMMEDIATELY!

Low Battery Hush® CONTROL

When the batteries need to be replaced, the unit will produce a low battery warning. The Low Battery Hush® feature allows you to press the button on the alarm and disable the “chirp” for a random period of up to 12 hours. This gives you a chance to replace the battery at a more convenient time by disconnecting the alarm from power. During this Low Battery Hush® period, your alarm is monitoring for CO.

Tamper Resist Feature

The Tamper Resist feature is optional and DOES NOT need to be activated for the CO alarm to function properly. The Tamper Resist feature is a constant 85 dB alert to indicate the unit has been unplugged or has come loose from the outlet. THIS FEATURE IS INITIALLY DISABLED FROM THE FACTORY AND MUST BE ACTIVATED IF FEATURE IS DESIRED. To activate the Tamper Resist feature: Move the Tamper Resist Activation Slide to the “ON” position. Once enabled, there is a two minute delay when power is supplied to give you time to plug in the unit after activating the batteries. This feature is automatically disabled once the battery voltage has reached a level to cause a low battery warning chirp. Pressing the Test/Reset button will defeat the 85 dB tamper alarm for two minutes to allow time for the batteries to be changed without the alarm sounding. To deactivate the Tamper Resist feature, press in the Tamper Resist Activation Switch and move the Activation Slide to the “OFF” position.

2. Product Features and Specifications

End of Life Notification

IMPORTANT: Ten (10) years after unit is first powered, this alarm will chirp two times every 30 seconds to indicate it is time to replace the alarm.

End of Life "Hush": This model has an End of Life Hush feature which allows you to press the Test / Reset button on the alarm and disable the "chirps" for a period of 3 days. This gives you a chance to replace the alarm at a more convenient time while still providing protection. The two chirps will repeat again every 3 days and can be reset a total of 30 days. After 30 days, the End of Life signal cannot be "Hushed." The alarm must be replaced.

During this End of Life Hush period, your alarm is monitoring for CO.

To help identify the date to replace the alarm, a label has been affixed to the side of the alarm. Write the "replace by" date (ten years from power up) in a permanent marker on this label.

Temperature:

Operating Range: 40°F (4.4°C) to 100°F (37.8°C)

Humidity:

Operating range: 10-95% non-condensing

Audible Alarm:

85+ dB at 10' @ 3.4±0.5 KHz pulsing alarm

Sensor:

Electrochemical

Power:

120 V AC, 60 Hz, 90 mA max, 2AA battery back-up

Alarm Response Times:

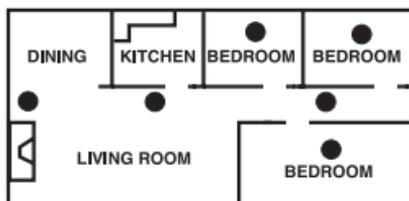
70 ppm = 60-240 min., 150 ppm = 10-50 min., 400 ppm = 4-15 min.

3. Installation Locations

Recommended Installation Locations

CO alarms should be mounted in or near bedrooms and living areas. It is recommended that you install a Kidde CO alarm on each level of your home.

When choosing your installation locations, make sure you can hear the alarm from all sleeping areas. If you install only one CO alarm in your home, install it near bedrooms, not in the basement or furnace room.



Recommended Locations

Locations To Avoid

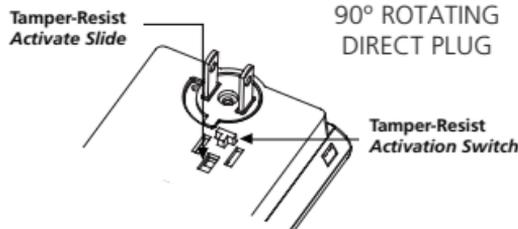
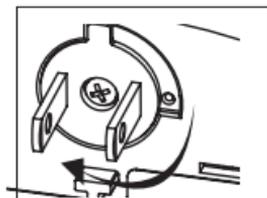
IMPORTANT: Improper location can affect the sensitive electronic components in this alarm. To avoid causing damage to the unit, to provide optimum performance, and to prevent unnecessary nuisance alarms:

- Do not install in kitchens, garages or furnace rooms that may expose the sensor to substances that could damage or contaminate it.
- Do not install in areas where the temperature is colder than 40°F (4.4°C) or hotter than 100°F (37.8°C) such as crawl spaces, attics, porches and garages.
- Do not install within 5' of heating or cooking appliances. (Kidde recommends 15' to prevent nuisance alarms).
- Do not install near vents, flues, chimneys or any forced/unforced air ventilation openings.
- Do not install near ceiling fans, doors, windows or areas directly exposed to the weather.
- Do not install in dead air spaces, such as peaks of vaulted ceilings or gabled roofs, where CO may not reach the sensor in time to provide early warning.
- Do not install this unit near deep-cell large batteries. Large batteries have emissions that can cause the alarm to perform at less than optimum performance.
- Do not obstruct the vents located on the alarm. Do not place the alarm where drapes, furniture or other objects block the flow of air to the vents.
- Do not install on a switched or dimmer-controlled outlet.
- Children should not be allowed to handle the CO alarm. Make sure the Tamper Resist feature is activated if children are within reach of the CO alarm.

4. Installation Instructions

How to Install Your Alarm Direct Plug Alarm To install:

1. Choose a standard 120 V unswitched outlet to plug the alarm into.
2. Write the date ten years from installation on the Replace by sticker on the CO alarm.
3. If outlet is mounted sideways, (horizontally) rotate the AC blades.
4. If desired, activate the Tamper Resist Switch by moving the Tamper Resist Disable Slide to the "ON" position. The Tamper Resist feature signals a loud 85 dB alarm should the unit become unplugged or loose from the outlet. (See Tamper Resist Feature details in the Product Features and Specifications section.)
5. Pull the yellow tab to activate the battery backup.
6. Plug the alarm into the outlet.



5. Alarm Characteristics

Carbon Monoxide Alarm Indicator

When the alarm senses a dangerous level of CO, the unit will emit a loud alarm pattern. The alarm pattern is 4 quick beeps followed by 5 seconds of silence. This cycle repeats as long as a dangerous CO conditions exist. The red Alarm LED will flash the same pattern.

⚠ WARNING: This model will stay in alarm on battery operation as long as dangerous CO condition exists

6. Operating Characteristics

When you first power up the alarm: The alarm will sound briefly, then the green Operate LED will light. This indicates that the CO alarm is receiving power and that the alarm circuit is functioning.

Within a few minutes, your carbon monoxide alarm will start monitoring for CO and will continue to do so as long as it receives power or the end of life function is activated.

6. Operating Characteristics

When the CO alarm loses AC power: If you have two good AA batteries installed, the alarm will automatically switch to the battery backup mode and the green LED will flash approximately every 60 seconds. The unit will continue to operate normally and detect CO.

When AC power is restored, the alarm will automatically switch back to normal operating mode and the green LED will stay lit continuously.

When the CO alarm is unplugged: If the Tamper Resist feature is "ON" and the unit is unplugged it will produce a constant tone until a battery is removed, Tamper Resist disabled or the unit is plugged back into the wall. If Tamper Resist feature is in "OFF" position and unit is unplugged, it will operate as if on battery backup only. Plug unit back into AC as soon as possible.

Observe the CO alarm regularly to make sure the green Power LED is on, indicating normal operation.

If the green Power LED is not on, unplug the CO alarm, then plug it in again. This will clear the alarm for restart. If the green Power LED does not light, your CO alarm may be malfunctioning.

Event Memory: If the unit has detected a CO concentration of 100 ppm or greater, the green LED will flash every 10 seconds. Pushing the Test button will clear the Event Memory and initiate the test sequence.

When the CO alarm detects an error condition: If the unit detects an internal error or malfunction, it will produce one beep every 30 seconds with a red LED flash. If error condition continues, replace the CO alarm immediately. Unit will not respond to CO in this condition.

The following table describes the audible alarm patterns and the recommended actions to take.

Operating and Alarm Characteristics

Function	LED Display	Alarm Sound	Unit Status	Recommendation
Normal Operation	Green LED constantly on	None	Normal AC operation (sensing no CO) and with a good battery	None
Normal Operation	Green LED flashes every 60 seconds	None	Normal DC operation on battery backup	Verify AC power is restored as soon as possible to conserve battery. Replace batteries.
Carbon monoxide alarm	Red LED flashes with beeps.	4 quick beeps, 5 seconds silence, repeating	Alarm condition. Dangerous concentrations of CO detected	Refer to "What to do When the Alarm Sounds" (inside front cover)
Low battery	Red LED flashes every 60 seconds	One quick beep every 60 seconds	AC powered and low or missing batteries	Install or replace two AA batteries.

Operating and Alarm Characteristics

Function	LED Display	Alarm Sound	Unit Status	Recommendation
Error/service alarm	Red LED flashes every 30 seconds	One quick beep every 30 seconds	Unit is in error condition	Replace batteries. If "Err" continues, unit has malfunctioned. Replace immediately. Unit will not respond to CO
Error	Red LED constantly on	Constant alarm	Very low batteries or unit malfunction	
Normal Test/Reset function	Red LED flashes with beeps	4 quick beeps, 5 seconds silence, repeated once	Normal operation when Test/Reset button is pressed	CO not detected. Alarm for test purposes only
Event Memory	Green LED flashes every 10 seconds	None	100 ppm or more CO previously detected	Push button to clear and test unit.
Tamper Resist	Red LED constantly on	Constant alarm (after 2 minutes)	Tamper Resist feature activated	Plug unit into AC outlet. Disable feature if desired. (See Section 2)
End of Unit Life Indicator	Red LED flashes two times every 30 seconds	Two quick beeps every 30 seconds	End of unit life	Replace unit immediately. Unit will not respond to CO.

7. Maintenance

NOTE: This unit is sealed. The cover is not removable.

Due to the loudness of the alarm, we suggest that you place your fingers over the sounder opening while testing your alarm.

⚠ CAUTION: Continuous exposure to the high sound level of this alarm over an extended period of time may cause hearing loss.

Testing

To test the CO alarm, press and release the Test/Reset button, you will hear 4 quick beeps – followed by 5 seconds of silence – followed by 4 quick beeps. Notice the red Alarm LED flashes when the unit alarms. The alarm will then return to monitoring for carbon monoxide.

Battery Replacement

⚠ WARNING: If at any time you test the alarm and it does not perform as described, have it replaced immediately.

NOTE: This CO alarm is not battery-operated. However, this alarm is equipped with 2 AA batteries backup – the 2 AA batteries are to supply short term back-up during a power outage.

If installed, slide the battery door in the direction of the arrows to release it. Remove the batteries and replace with two of the following approved replacement Alkaline batteries:

- Energizer E91
- Duracell MN1500, MX1500

7. Maintenance

Any of these batteries can be purchased where you bought the alarm or at your local hardware store.

NOTE: Do not use lithium batteries with this unit.

IMPORTANT: Constant exposures to high or low humidity may reduce battery life. Use only the batteries specified. Use of different batteries may have a detrimental effect on alarm. A good safety measure is to replace the batteries twice a year, at the same time you change your clocks for daylight saving time.

After installing or changing the batteries, reinstall your alarm. Test your alarm by using the Test/Reset button and check that the green Power LED is on.

Maintenance Tips

To keep your alarm in good working order, you must follow these steps:

- Test the alarm once a week by pressing the Test/Reset button.
- Vacuum the alarm cover once a month to remove accumulated dust.
- Instruct children never to touch, unplug or otherwise interfere with the unit. Warn children of the dangers of CO poisoning.
- Never use detergents or solvents to clean the alarm. Chemicals can permanently damage or temporarily contaminate the sensor.
- Avoid spraying air fresheners, hairspray, paint or other aerosols near the alarm.
- Do not paint the unit. Paint will seal the vents and interfere with proper sensor operation.

Move the CO Alarm to a remote location, to prevent possible damage or contamination of the sensor, prior to performing any of the following:

- Staining or stripping floors or furniture, painting or wall-papering
- Using aerosols or adhesives

! WARNING: Reinstall the CO Alarm as soon as possible to assure continuous protection.

The following is a list of substances that at high levels can damage the sensor or cause temporary readings that are not CO readings:

- Ethylene, ethanol, alcohol, iso-propanol, benzene, toluene, ethyl acetate, hydrogen, hydrogen sulfide and sulfur dioxide.
- Also most aerosol sprays, alcohol based products, paint, thinner, solvent, adhesive, hairspray, aftershave, perfume, auto exhaust (cold start) and some cleaning agents.

8. Limited Warranty

Ten Year Limited Warranty

If after reviewing this user guide you feel that your alarm is defective in any way, do not tamper with the unit. In many cases, the quickest way to exchange your alarm is to return it to the original place of purchase. Alternatively, you may return it for servicing to Kidde. If you have questions, call Kidde Customer Service at 1-800-880-6788.

Kidde warrants that the enclosed alarm (but not the batteries) will be free from defects in material and workmanship or design under normal use and service for a period of ten years from the date of purchase. The obligation of Kidde under this warranty is limited to repairing or replacing the alarm or any part which we find to be defective in material, workmanship or design, free of charge, upon sending the alarm with proof of date of purchase, postage and return postage prepaid, to: Kidde Canada Inc., P.O. Box 40, Apsley, ON K0L 1A0.

This warranty shall not apply to the alarm if it has been damaged, modified, abused or altered after the date of purchase or if it fails to operate due to improper maintenance or inadequate D.C. power. Any implied warranties 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 warranty 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.

Since some provinces do not allow limitations of the duration of an implied warranty or do not allow the exclusion or limitation of incidental or consequential damages, the above limitations or exclusions may not apply to you. While this warranty gives you specific legal rights, you may also have other rights which vary from province to province. The above warranty may not be altered except in writing signed by both parties hereto.

IMPORTANT: Do not remove unit back cover. Back cover removal will void warranty. Your Kidde 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.



Kidde Canada Inc., P.O. Box 40, Apsley, ON K0L1A0

QUESTIONS OR FOR MORE INFORMATION

Call our Consumer Hotline at **1-800-880-6788** or contact us at our website at **www.kiddecanada.com**

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