



SINGLE STATION CARBON
MONOXIDE ALARM



CSA & 19-01



**LISTED
HOMOLOGUÉ**

SINGLE STATION
SMOKE ALARM

Smoke and Carbon Monoxide Alarm

User's Guide

900-0220CA

KN-COSMXTR-BCA

Advanced Detection



AA Battery Operated

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

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Introduction

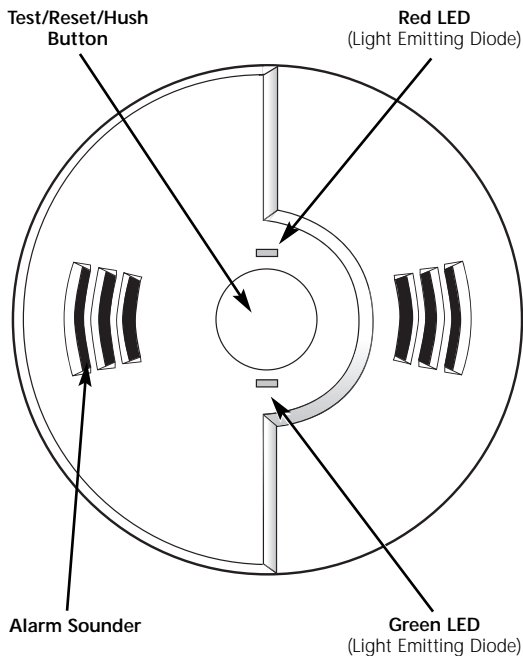
Thank you for purchasing the Kidde Combination Smoke and Carbon Monoxide Alarm model KN-COSMXTR-BCA. This alarm has a ten-year limited warranty. Please take a few minutes to thoroughly read this user's guide, and save for future reference. Teach children how to respond to the alarms, and that they should never play with the unit.

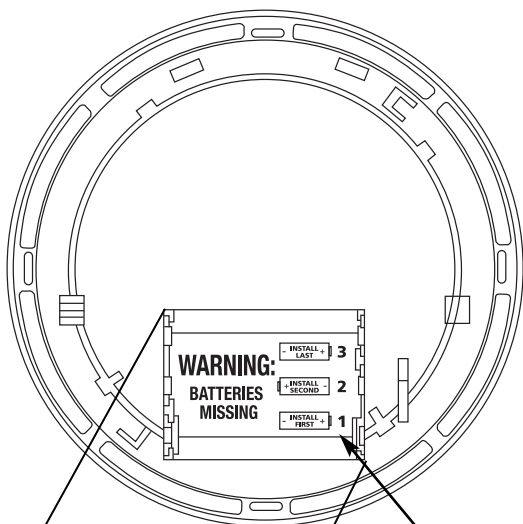
Your Kidde Smoke/CO Alarm was designed to detect both smoke and carbon monoxide from any source of combustion in a residential environment. It is not designed for use in a recreational vehicle (RV) or boat.

If you have any questions about the operation or installation of your alarm, please call our toll free Consumer Hotline at 1-800-880-6788. The guide on page 25 will help you determine the correct location of safety products that will help keep your home a safer place.

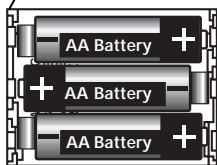
Product View

FRONT





Battery Chamber



Battery Placement

Features

- Permanent independent smoke and carbon monoxide sensors.
- **Smoke alarm takes precedence when both smoke and carbon monoxide are present.**
- Alarm/Voice message warning system that alerts you of the following conditions in the manner described below, thus eliminating any confusion over which alarm is sounding:
 - **FIRE:** The alarm/voice pattern is three long alarm beeps followed by the verbal warning message *"FIRE! FIRE!"*. This pattern is repeated until the smoke is eliminated. The red LED light will flash while in alarm/voice mode.
 - **CARBON MONOXIDE:** The alarm/voice pattern is four short alarm beeps followed by the verbal warning message *"WARNING! CARBON MONOXIDE!"*. After four minutes the alarm/voice pattern will sound **once every minute** until the unit is reset, or the CO eliminated. The red LED light will flash while in alarm/voice mode.
 - **LOW BATTERY:** When the batteries are low and need replacing the red LED light will flash and the unit will "chirp" one time, followed by the warning message *"LOW BATTERY"*. This cycle will occur once every minute for the first hour. After the first hour the red LED light will continue to flash every minute accompanied by the **"chirp" only sound**. The voice message *"LOW BATTERY"* will sound once every fifteen minutes during the "chirp" only cycle. This will continue for at least seven days.
- One "chirp" every 30 seconds is an indication that the alarm is malfunctioning. If this occurs call the Consumer Hotline at 1-800-880-6788.
- After ten (10) years of cumulative power up, this unit will "chirp" twice every 30 seconds. This is an "operational end of life" feature which will indicate that it is time to replace the alarm.

Features

- Loud 85 decibel alarm
- Nuisance alarm reduction
- Advanced ion fire detection
- Oversized test button for easy activation
- Test button performs the following functions:
 - Tests the units electronics and verifies proper unit operation
 - Resets the unit during CO alarm
 - Peak Level Memory (see page 16)
 - Activates or Cancels Hush® Feature (see page 16)
- Mounting bracket designed for easy orientation of the unit
- Green and red LED lights that indicate normal operation and alarm status
 - **Green Light:** The green LED light flashes every 30 seconds to indicate the unit is operating properly and once every 2 seconds to indicate the unit is in HUSH® mode. The green light also flashes before a CO reading is taken and when any button is pressed.
 - **Red Light:** When a dangerous level of smoke or carbon monoxide is detected the red LED light will flash and the corresponding alarm pattern (depending on the source) will sound. If the unit malfunctions, the red LED light will flash and the unit will chirp every 30 seconds indicating a system problem.
- Powered by three (3) AA batteries
- Battery lockout system that prohibits installation without using three batteries
- Tamper Resist Feature that deters children and others from removing the alarm

Smoke Alarm Features

Smoke Alarm

The smoke alarm monitors the air for products of combustion that are produced when something is burning or smoldering. When smoke particles in the smoke sensor reach a specified concentration, the alarm/voice message warning system will sound, and be accompanied by the flashing red LED light. **The smoke alarm takes precedence when both smoke and carbon monoxide are present.**

NFPA 72 states: Life safety from fire in residential occupancies is based primarily on early notification to occupants of the need to escape, followed by the appropriate egress actions by those occupants. Fire warning systems for dwelling units are capable of protecting about half of the occupants in potentially fatal fires. Victims are often intimate with the fire, too old or young, or physically or mentally impaired such that they cannot escape even when warned early enough that escape should be possible. For these people, other strategies such as protection-in-place or assisted escape or rescue are necessary.

- Smoke alarms are devices that can provide early warning of possible fires at a reasonable cost; however, alarms have sensing limitations. Ionization sensing alarms may detect invisible fire particles (associated with fast flaming fires) sooner than photoelectric alarms. Photoelectric sensing alarms may detect visible fire particles (associated with slow smoldering fires) sooner than ionization alarms. Home fires develop in different ways and are often unpredictable. For maximum protection, Kidde recommends that both Ionization and Photoelectric alarms be installed.
- A battery powered alarm must have a battery of the specified type, in good condition and installed properly.
- Smoke alarms must be tested regularly to make sure the batteries and the alarm circuits are in good operating condition.

Carbon Monoxide Alarm Features

- Smoke alarms cannot provide an alarm if smoke does not reach the alarm. Therefore, smoke alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor.
- If the alarm is located outside the bedroom or on a different floor, it may not wake up a sound sleeper.
- The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home.
- Although smoke alarms can help save lives by providing an early warning of a fire, they are not a substitute for an insurance policy. Home owners and renters should have adequate insurance to protect their lives and property.
- This device 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.

WARNING: Installation of the device should not be used as a substitute for proper installation, use, and maintenance of fuel-burning appliances, including appropriate ventilation and exhaust systems.

Carbon Monoxide (CO) Alarm

The carbon monoxide (CO) alarm monitors the air for the presence of CO. It will alarm when there are high levels of CO present, and when there are low levels of CO present over a longer period of time. When a CO condition matches either of these situations, the alarm/voice message warning system will sound, and be accompanied by the flashing red LED light. The carbon monoxide sensor uses an electrochemical technology.

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

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

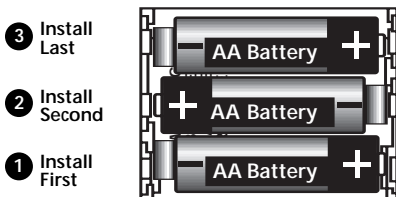
Operating and Installation Instructions

Step 1: Installing Batteries

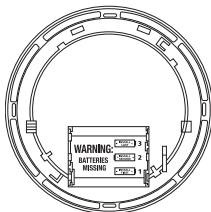
Batteries were not installed at the factory and must be installed for the unit to operate! Install the three (3) AA batteries in the back of the Smoke/CO Alarm.

- The mounting plate must be removed from the back of the unit to install batteries. To remove, hold the mounting plate and twist counterclockwise (left).

Batteries Must Be Installed in Order Shown Below:



- The battery polarity markings on the bottom of the battery compartment must be adhered to.
- Batteries must be installed in the sequence shown. If the batteries seem difficult to install, they're not being installed in the proper sequence.
- Smoke/CO Alarm will not engage to bracket unless all three batteries are installed. Removal of any or all batteries will render the Smoke/CO Alarm inoperative!
- After the batteries are correctly installed the unit will beep once and the red LED light will flash. After 20-30 seconds the green LED light will flash indicating the unit is now operational.



CAUTION: Your Smoke/CO Alarm is sealed and the cover is NOT removable!

IMPORTANT: THIS ALARM MUST BE MOUNTED ON A CEILING OR WALL. IT WAS NOT DESIGNED FOR USE AS A TABLETOP DEVICE! INSTALL ONLY AS DETAILED!

Operating and Installation Instructions

Step 2: Installation Instructions

A. Recommended Installation Locations:

Kidde recommends the installation of a Smoke/CO Alarm in the following locations. For maximum protection we suggest an alarm be installed on each level of a multilevel home, including every bedroom, hallways, finished attics and basements. Put alarms at both ends of bedroom, hallway or large room if hallway or room is more than 9.1m (30 ft.) long. If you have only one alarm, ensure it is placed in the hallway outside of the main sleeping area, or in the main bedroom. Verify the alarm can be heard in all sleeping areas.

Locate an alarm in every room where someone sleeps with the door closed. The closed door may prevent an alarm not located in that room from waking the sleeper. Smoke, heat and combustion products rise to the ceiling and spread horizontally. Mounting the alarm on the ceiling in the center of the room places it closest to all points in the room. Ceiling mounting is preferred in ordinary residential construction.

When mounting an alarm on the ceiling, locate it at a minimum of 4" (10cm) from the side wall (see diagram A). If installing the alarm on the wall, use an inside wall with the top edge of the alarm at a minimum of 10cm (4") and a maximum of 30.5cm (12") below the ceiling (see Diagram A).

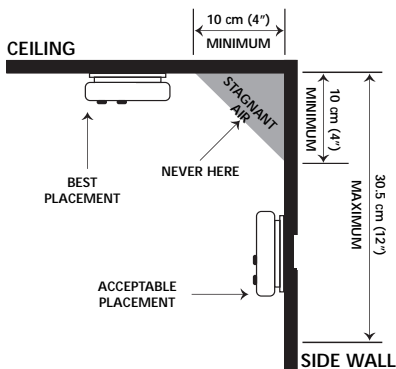


IMAGE 2A

Operating and Installation Instructions

Sloped Ceiling Installation:

The following information is from the National Fire Protection Association and is listed in Fire Code 72. Install Smoke Alarms on sloped, peaked or cathedral ceilings at, or within 3 ft (0.9m) of the highest point (measured horizontally). NFPA 72 states "Smoke alarms in rooms with ceiling slopes greater than 0.3 m to 2.4 m (1 ft to 8 ft) horizontally shall be located on the high side of the room". NFPA 72 states "A row of alarms shall be spaced and located within 0.9 m (3 ft) of the peak of the ceiling measured horizontally" (See figure 2B and 2C).

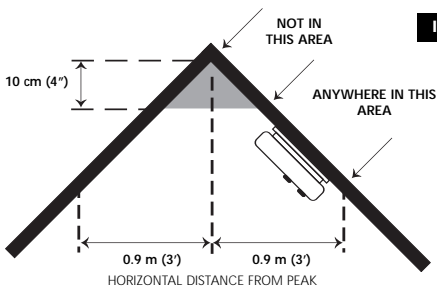


IMAGE 2B

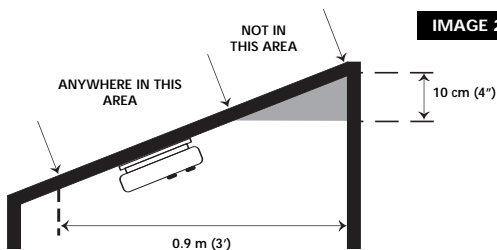
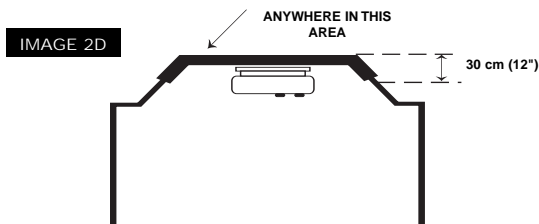


IMAGE 2C

Operating and Installation Instructions



Install Smoke Alarms on tray-shaped ceilings (coffered ceilings) on the highest portion of the ceiling or on the sloped portion of the ceiling within 30.5cm (12") vertically down from the highest point (Image 2D).

Mobile Homes:

Modern mobile homes have been designed and built to be energy efficient. Install Smoke/CO alarms as recommended above (refer to Recommended Installation Instructions and figure 1). In older mobile homes that are not well insulated, extreme heat or cold can be transferred from the outside to the inside through poorly insulated walls and roof. This may cause a thermal barrier, which can prevent smoke from reaching an alarm mounted on the ceiling. In such mobile homes install your Smoke/CO Alarm on an inside wall with the top edge of the alarm at a minimum of 10cm (4") and a maximum of 30.5cm (12") below the ceiling (See figure 1). If you are not sure about the insulation in your mobile home, or if you notice that the outer walls and ceiling are either hot or cold, install your alarm on an inside wall ONLY!

THIS EQUIPMENT SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S STANDARD 72 (National Fire Protection Association, Batterymarch Park, Quincy, MA 02269).

Operating and Installation Instructions



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.

B. Where Not to Install:

Do not install in garages, kitchens, furnace rooms or bathrooms! INSTALL AT LEAST 5 FEET AWAY FROM ANY FUEL BURNING APPLIANCE.

Do not install within 0.9m (3 ft) of the following: The door to a kitchen, or a bathroom that contains 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. Avoid excessively dusty, dirty or greasy areas. Dust, grease or household chemicals can contaminate the alarm's sensors, causing it to not operate properly.

Place the alarm where drapes or other objects will not block the sensors. Smoke and CO must be able to reach the sensors to accurately detect these conditions. Do not install in peaks of vaulted ceilings, "A" frame ceilings or gabled roofs (see diagram A). Keep out of damp and humid areas.

Operating and Installation Instructions

Install at least one (1) foot away from fluorescent lights, electronic noise may cause nuisance alarms. Do not place in direct sunlight and keep out of insect infested areas. Extreme temperatures will effect the sensitivity of the Smoke/CO Alarm. Do not install in areas where the temperature is colder than 4.4°C (40°F) or hotter than 37.8°C (100°F), such as garages and unfinished attics. Do not install in areas where the relative humidity (RH) is above 85%. Place away from doors and windows that open to the outside.

Smoke alarms are not to be used with detector guards unless the combination (alarm and guard) has been evaluated and found suitable for that purpose.

C. How to Install:

To help identify the date to replace the unit, a label has been affixed to the side of the alarm. Write the "Replace by" date (10 years from initial power up) in permanent marker on the label. See Alarm Replacement section for additional information.

Remove mounting plate from the back of the unit by holding the rim of the mounting plate and twisting counterclockwise (left). See Diagram C. Hold the mounting plate against the selected installation location (wall or ceiling) and mark the center of the holes with a pencil.

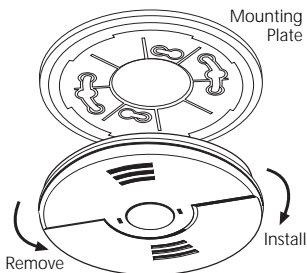


DIAGRAM C

Operating and Installation Instructions

To ensure aesthetic alignment of the alarm with the hallway or wall, the "A" line on the mounting plate should be parallel with the hallway when ceiling mounting, or horizontal when wall mounting. See Diagram D.

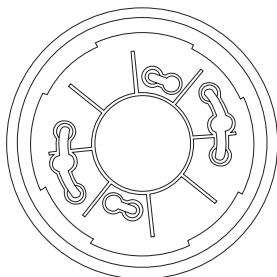


DIAGRAM D

Drill a hole through the pencil marks and use the enclosed screws and anchors (see diagram E) to secure (use 3/16" drill bit for anchor holes). Align the Smoke/CO Alarm with the mounting plate and rotate clockwise (right) until the unit is aligned. Screw and anchor accessories are supplied.

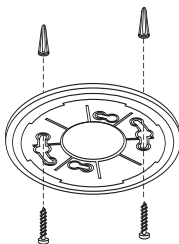


DIAGRAM E

Operating and Installation Instructions

D. Tamper Resist Feature:

To make your smoke alarm tamper resistant, a tamper resist feature has been provided. Activate the tamper resist feature by breaking off the four posts in the square holes in the trim ring (see figure A). When the posts are broken off, the tamper resist tab on the base is allowed to engage the mounting bracket. Rotate the alarm onto the mounting bracket until you hear the tamper resist tab snap into place, locking the alarm on the mounting bracket. Using the tamper resist feature will help deter children and others from removing the alarm from bracket. NOTE: To remove the alarm when the tamper resist tab is engaged, press down on the tamper resist tab, and rotate the alarm off of the bracket (see figure B).

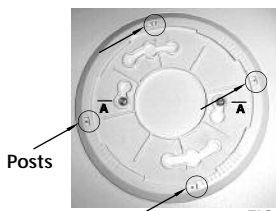


FIGURE A

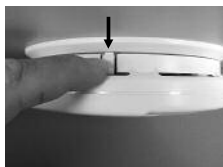


FIGURE B

Operating and Installation Instructions

Step 3: Testing the Alarm

The test button has four purposes. It tests the unit's electronics, resets the alarm, activates the Hush® feature, and activates the peak level memory.

CAUTION: Due to the loudness (85 decibels) of the alarm, always stand an arms length away from the unit when testing.

- **To test:** Press and release the test/reset button and a series of beeps will sound, followed by the message *"Fire! Fire!"*, then another two series of beeps and the message *"Warning! Carbon Monoxide"*, followed by 4 additional short beeps.
- **Reset:** If the Smoke/CO Alarm is sounding a CO alarm, pressing the test/reset button will silence the alarm. If the CO condition that caused the alert continues, the alarm will reactivate. Reactivation times depend on the amount of CO present. See page 21.
- **Hush®:** If the Smoke/CO Alarm is sounding a Smoke alarm, pressing the test/reset button will temporarily silence the alarm. If the smoke level continues to build, the alarm will reactivate. See Step 4: Hush® Control Feature.
- **Peak Level Memory:** If the green LED is blinking once every 16 seconds, the unit has detected a hazardous condition. If the unit has detected a CO level of 100 PPM or greater, pushing the Test/Reset button will result in a voice message *"Caution, carbon monoxide previously detected"*. Peak level also happens if the unit detects smoke and then comes out of alarm. However, there is no voice message if the unit is in peak level due to smoke. When the Test/Reset button is pushed, the unit exhibits a normal PTT if in peak level due to smoke.

Weekly testing is required! If at anytime it does not perform as described, verify the three batteries are installed correctly and that they don't need replacing. Clean dust and other buildup off the unit. If it still doesn't operate properly call the Consumer Hotline at 1-800-880-6788.

Operating and Installation Instructions

Step 4: Hush® Control Feature

The Hush® feature has the capability of temporarily desensitizing the smoke alarm circuit for approximately 10 minutes. This feature is to be used only when a known alarm condition, such as smoke from cooking, activates the alarm. You can put your Smoke/CO Alarm in Hush® mode by pushing the test/reset button. The unit will give a voice message "Hush mode activated." If the smoke is not too dense, the alarm will silence immediately and the green LED light will flash every 2 seconds for approximately 10 minutes. This indicates that the smoke alarm is in a temporarily desensitized condition. Your Smoke/CO Alarm will automatically reset after approximately 10 minutes. When the unit returns to normal operation after being in Hush® mode the alarm will sound if smoke is still present. The Hush® feature can be used repeatedly until the air has been cleared of the condition causing the alarm. While the unit is in Hush® mode, pushing the test/reset button on the alarm will also end the Hush® period. The unit will give a voice message "Hush mode cancelled."

NOTE: DENSE SMOKE WILL OVERRIDE THE HUSH® CONTROL FEATURE AND SOUND A CONTINUOUS ALARM.

CAUTION: BEFORE USING THE ALARM HUSH® FEATURE, IDENTIFY THE SOURCE OF THE SMOKE AND BE CERTAIN A SAFE CONDITION EXISTS.

Step 5: Peak Level Memory

if the green LED is blinking once every 16 seconds, the unit has detected a hazardous condition. If the CO sensor has detected a CO level of 100 PPM or higher since last reset, it will be recorded by the Peak Level Memory function. To access the Peak Level Memory press the test/reset button. If a reading of 100 PPM or higher has been recorded the unit will give a voice message "Caution, Carbon Monoxide previously detected." If you've been away from home this feature allows you to check if there was a CO reading of 100 PPM, or higher, during your absence. Pushing the test/reset button resets the memory. It's also reset when the batteries are removed. There is no voice message associated with peak level due to smoke. When the test/reset button is pushed, the unit exhibits a normal PTT if the peak level is due to smoke.

What To Do When The Alarm Sounds!

NEVER IGNORE THE SOUND OF THE ALARM!

Determining what type of alarm has sounded is easy with your Kidde Combination Smoke/CO Alarm. The voice message warning system will inform you of the type of situation occurring. Refer to the Features section on page 4 for a detailed description of each alarm pattern.

When the smoke alarm sounds:

Smoke alarms are designed to minimize false alarms. Cigarette smoke will not normally set off the alarm, unless the smoke is blown directly into the alarm. This unit contains advanced technology designed to reduce nuisance alarms, such as from cooking particles. However, large quantities of combustible particles from spills or broiling could still cause the unit to alarm. Careful location of the unit away from the kitchen area will give the maximum nuisance alarm protection. Combustion particles from cooking may set off the alarm if located too close to the cooking area. Large quantities of combustible particles are generated from spills or when broiling. Using the fan on a range hood which vents to the outside (non- recirculating type) will also help remove these combustible products from the kitchen.

If the alarm sounds, check for fires first. If a fire is discovered follow these steps. Become thoroughly familiar with these items, and review with all family members!

What To Do When The Alarm Sounds!

- Alert small children in the home. Children sleep very sound and may not be awakened by the sound of the smoke alarms.
- Leave immediately using one of your planned escape routes (see page 25). Every second counts, don't stop to get dressed or pick up valuables.
- Before opening inside doors look for smoke seeping in around the edges, and feel with the back of your hand if the door is hot use your second exit. If you feel it's safe, open the door very slowly and be prepared to close immediately if smoke and heat rush in.
- If the escape route requires you to go through smoke, crawl low under the smoke where the air is clearer.
- Go to your predetermined meeting place. When two people have arrived one should leave to call 911 from a neighbor's home, and the other should stay to perform a head count.
- **Do not reenter under any circumstance until fire officials give the go ahead.**
- **There are situations where a smoke alarm may not be effective to protect against fire as noted by the NFPA and UL. For instance:**
 - Smoking in bed.
 - Leaving children unsupervised.
 - Cleaning with flammable liquids, such as gasoline.
 - Fires where the victim is intimate with a flaming initiated fire; for example, when a person's clothes catch fire while cooking.
 - Fires where the smoke is prevented from reaching the detector due to a closed door or other obstruction.
 - Incendiary fires where the fire grows so rapidly that an occupant's egress is blocked even with properly located detectors.

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 the 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 local emergency service.
(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.

Alarm Response Time

The CO sensor meets the alarm response time requirements of UL standard 2034. Standard alarm times are as follows:

At 70 PPM, the unit must alarm within 60-240 minutes.

At 150 PPM, the unit must alarm within 10-50 minutes.

At 400 PPM, the unit must alarm within 4-15 minutes.

This carbon monoxide alarm is designed to detect carbon monoxide gas from ANY source of combustion. It is NOT designed to detect any other gas.

Fire Departments, most utility companies and HVAC contractors will perform CO inspections, some may charge for this service. It's advisable to inquire about any applicable fees prior to having the service performed. Kidde will not pay for, or reimburse, the owner or user of this product, for any repair or dispatch calls related to the alarm sounding.

Battery Replacement

If any form of battery failure is detected the red LED light will flash and the unit will "chirp" one time, followed by the warning message "LOW BATTERY". This cycle will occur once every minute for the first hour. After the first hour, the red LED light will continue flashing accompanied by the **chirp only sound** every 60 seconds. The voice message "LOW BATTERY" will sound once every fifteen minutes during the chirp only cycle, and will continue for at least seven days.

If the red LED light flashes along with a chirp every 30 seconds, and is not followed by the voice message "LOW BATTERY" as described above, your unit has malfunctioned.

Call our toll free Consumer Hotline at 1-800-880-6788 for instructions on how to return the unit.

Refer to Step 1 on page 8 for information on installing the batteries.

Replace batteries with one of the following approved brands: Duracell MN1500, MX1500 or Energizer E91. These batteries can be purchased at your local retailer.

WARNING! Use only the batteries specified. Use of different batteries may have a detrimental effect on the Smoke/CO alarm.

CAUTION! Constant exposure to high or low humidity may reduce battery life.

Alarm Replacement

Ten years after initial power-up, this unit will “chirp” twice every 30 seconds to indicate that it is time to replace the alarm. A label has been provided on the side of the alarm that has “Replace by” printed on it. Write the replace by date on the label. The date written on the label should be after ten (10) years of cumulative power. **REPLACE IMMEDIATELY! IT WILL NOT DETECT CO IN THIS CONDITION.**

General Maintenance

To keep your Smoke/CO Alarm in good working order, please follow these simple steps:

- Verify unit alarm, lights and battery operation by pushing the test/reset button once a week.
- Remove the unit from mounting bracket and vacuum the alarm cover and vents with a soft brush attachment once a month to remove dust and dirt. REINSTALL IMMEDIATELY AFTER CLEANING AND THEN TEST USING THE TEST/RESET BUTTON! IF TAMPER RESIST FEATURE HAS BEEN ACTIVATED, REFER TO TAMPER RESIST FEATURE DESCRIPTION ON PAGE 15 FOR REMOVAL INSTRUCTIONS.
- Never use detergent or other solvents to clean the unit.
- Avoid spraying air freshener, hair spray, or other aerosols near the Smoke/CO Alarm. Do not paint the unit. Paint will seal the vents and interfere with the sensor's ability to detect smoke and CO. Never attempt to disassemble the unit or clean inside. This action will void your warranty. Move the Smoke/CO Alarm and place in another location prior to performing any of the following:
 - Staining or stripping wood floors or furniture
 - Painting
 - Wall papering
 - Using adhesives

Storing the unit in a plastic bag during any of the above projects will protect the sensors from damage. Do not place near a diaper pail.

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

General Maintenance

When household cleaning supplies or similar contaminants are used, the area must be well ventilated. The following substances can effect the CO sensor and may cause false readings and damage to the sensor:

Methane, propane, iso-butane, iso-propanol, ethyl acetate, hydrogen sulfide, sulfide dioxides, alcohol based products, paints, thinner, solvents, adhesives, hair spray, after shave, perfume, and some cleaning agents.

Carbon Monoxide Safety Information

General CO Information

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

Possible Sources

CO can be produced when burning any fossil fuel: 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. Possible sources include furnaces, gas ranges / stoves, gas clothes dryers, water heaters, portable fuel burning Space heaters, fireplaces, wood-burning stoves and certain swimming pool heaters. Blocked chimneys or flues, back drafting and changes in air pressure, corroded or disconnected vent pipes, and a loose or cracked furnace exchanger can also cause CO. Vehicles and other combustion engines running in an attached garage and using a charcoal/gas grill or hibachi in an enclosed area are all possible sources of CO.

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 differential 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 gasses near the ground, car idling in an open or closed attached garage, or near a home.

Carbon Monoxide Safety Information

CO Safety Tips

Every year have the heating system, vents, chimney and flue inspected and cleaned by a qualified technician. Always install appliances according to manufacturer's instructions and adhere to local building codes. Most appliances should be installed by professionals and inspected after installation. Regularly examine vents and chimneys for improper connections, visible rust, or stains, and check for cracks in furnace heat exchangers. Verify the color of flame on pilot lights and burners is blue. A yellow or orange flame is a sign that the fuel is not burning completely. Teach all household members what the alarm sounds like and how to respond.

Symptoms of CO Poisoning

Initial carbon monoxide poisoning symptoms are similar to the flu with no fever and can include dizziness, severe headaches, nausea, vomiting and disorientation. Everyone is susceptible but experts agree that unborn babies, pregnant women, senior citizens and people with heart or respiratory problems are especially vulnerable. If symptoms of carbon monoxide poisoning are experienced seek medical attention immediately. CO poisoning can be determined by a carboxyhemoglobin test.

The following symptoms are related to CARBON MONOXIDE POISONING and should be discussed with ALL members of the household:

1. **Mild Exposure:** Slight headache, nausea, vomiting, fatigue (often described as "Flu-like" symptoms)
2. **Medium Exposure:** Severe throbbing headache, drowsiness, confusion, fast heart rate
3. **Extreme Exposure:** Unconsciousness, convulsions, cardiorespiratory failure, death

The above levels of exposure relate to healthy adults. Levels differ for those at high risk. Exposure to high levels of carbon monoxide can be fatal or cause permanent damage and disabilities. Many cases of reported carbon monoxide 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 effected. Familiarization with the effects of each level is important.

Carbon Monoxide Safety Information

Escape Plan

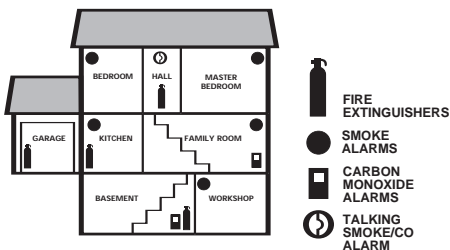
Prepare and practice a home escape plan twice a year, including drills at night. Know two ways out of every room (door & window) and identify a meeting place outside the home where everyone will gather once they have exited the residence. When two people have reached the meeting place, one should leave to call 911 while the second person stays to account for additional family members.

Establish a rule that once you're out, you never reenter under any circumstance!

Fire Prevention

Never smoke in bed, or leave cooking food unattended. Teach children never to play with matches or lighters! Train everyone in the home to recognize the alarm pattern, voice message warning and to leave the home using their escape plan when it's heard. Know how to do "Stop, Drop and Roll" if clothes catch on fire, and how to crawl low under smoke. Install and maintain fire extinguishers on every level of the home and in the kitchen, basement and garage. Know how to use a fire extinguisher prior to an emergency. Second level and higher occupied rooms with windows, should have an escape ladder.

Current studies have shown smoke alarms may not awaken all sleeping individuals, and that it is the responsibility of individuals in the household that are capable of assisting others to provide assistance to those who may not be awakened by the alarm sound, or to those who may be incapable of safely evacuating the area unassisted.



Industry Safety Standards

NFPA (National Fire Protection Association)

For your information, the National Fire Protection Association's Standard 72, reads as follows: Smoke Detection. Where required by applicable laws, codes, or standards for the specified occupancy, approved single- and multiple-station smoke alarms shall be installed as follows: (1) In all sleeping rooms Exception: Smoke alarms shall not be required in sleeping rooms in existing one- and two-family dwelling units. (2) Outside of each separate sleeping area, in immediate vicinity of the sleeping rooms. (3) On each level of the dwelling unit, including basements Exception: In existing one- and two-family dwelling units, approved smoke alarms powered by batteries are permitted.

Smoke Detection—Are More Smoke Alarms Desirable? The required number of smoke alarms might not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke alarms. For this reason, it is recommended that the householder consider the use of additional smoke alarms for those areas for increased protection. The additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke alarms. The installation of smoke alarms in kitchens, attics (finished or unfinished), or garages is not normally recommended, as these locations occasionally experience conditions that can result in improper operation.

Consumer Product Safety Commission

The Consumer Product Safety Commission (CPSC) recommends the use of at least one CO Alarm per household, located near the sleeping area.

NRC

Ionization type smoke alarms use a very small amount of a radioactive element in the sensing chamber to enable detection of visible and invisible combustion products. The radioactive element is safely contained in the chamber and requires no adjustments or maintenance. This smoke alarm meets or exceeds all government standards. It is manufactured and distributed under license from the U.S. Nuclear Regulatory Commission.

Limited Warranty

Ten Year Limited Warranty

If after reviewing this manual 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 five 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 Smoke and 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 K0L 1A0

QUESTIONS OR FOR MORE INFORMATION

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