



# 2-in-1 Smoke and Carbon Monoxide Alarm

User Guide for Model KN-COSM-B-RF

Clear Voice Instructions

Smart Wireless Network

SIGNALING



**For questions concerning your 2-in-1 Smoke and Carbon Monoxide Alarm, please call our consumer hotline at 1-800-880-6788. For tips on how to protect your home and family, visit [www.kidde.com](http://www.kidde.com)**

For your convenience, write down the following information. If you call our consumer hotline, these are the first questions you will be asked:

Alarm Model Number <i>(located on back of the alarm):</i>	
Date of Manufacture <i>(located on back of the alarm):</i>	
Date of Purchase:	
Where Purchased:	

**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.

2521-7203-01

# **2-in-1 Smoke and Carbon Monoxide Alarm User Guide**

## **Congratulations**

You are now able to protect your home and family with Kidde.

The Kidde 2-in-1 Smoke and Carbon Monoxide Alarm provides you with multiple options. Choose the level of protection that is right for you:

- Install as a single unit
- Install multiple Kidde alarms that connect wirelessly to communicate with each other in the case of a smoke or CO event
- Use in conjunction with Kidde Fire Extinguisher for complete home protection

This product is compatible with the Wink Hub and the Wink App. Please see Wink Hub documentation for instructions. UL and CSA have not verified this compatibility.

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# What to do When the Alarm Sounds

## Smoke Alarm Procedure

### **NEVER IGNORE THE SOUND OF THE ALARM!**

Determining what type of alarm has sounded is easy with your Kidde 2-in-1 Smoke and Carbon Monoxide Alarm. The voice message warning system will inform you of the type of situation occurring. Refer to the Product Features and Specifications section of this user guide for a detailed description of each alarm pattern.

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. Combustion particles from cooking may set off the alarm if it is located too close to the cooking area. Large quantities of combustion particles are generated from spills or when broiling. Using the fan on a range hood which vents to the outside (nonrecirculating type) will also help remove these combustion particles from the kitchen.

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

- Alert small children in the home.
- Leave immediately by your escape plan. Every second counts, so don't waste time getting dressed or picking up valuables.
- When leaving, don't open any inside door without first feeling its surface. If it is hot, or if you see smoke seeping through cracks, don't open that door! Instead, use an alternate exit. If the inside of the door is cool, place your shoulder against it, open it slightly and be ready to slam it shut if heat and smoke rush in.
- Stay close to the floor if the air is smoky. Breathe shallowly through a cloth, wet if possible.
- Once outside, go to your selected meeting place and make sure everyone is there.
- Call the fire department from a neighbor's home. Not from yours!
- Don't return to your home until fire officials say that it is all right to do so.

# Carbon Monoxide Alarm Procedure

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

## IF ALARM SIGNAL SOUNDS

- 1) Operate the test/reset button;
- 2) Call your emergency services (Fire Department or 911);

fire department or 911

- 3) 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 reenter the premises or 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.
- 4) After following steps 1–3, if the alarm reactivates within a 24-hour period, repeat steps 1–3 and call a qualified appliance technician to investigate sources of CO from fuel burning

appliance technician phone number

equipment and appliances, and to inspect for proper operation of equipment.

If problems are identified during this inspection, have the equipment serviced immediately. Note any combustion equipment not inspected by the technician and consult the manufacturer's instructions, or contact the manufacturer directly for more information about CO safety and the equipment. Make sure that motor vehicles are not, or have not been, operating in a garage attached or adjacent to the residence.

**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.**

## Important Warning Statements

**IMPORTANT:** Read all instructions before installation and keep this User Guide near the alarm for future reference.

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.

**⚠WARNING: Removal of the alarm batteries will render the alarm inoperative. This alarm requires a continuous supply of electrical power – it will not work without power.**

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

This product is intended for use in ordinary indoor locations of family living units. It is not designed to measure compliance with Occupational Safety and Health Administration (OSHA), commercial or industrial standards. It is not suitable for installation in hazardous locations as defined in the National Electric Code.

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 alarm has not been investigated for carbon monoxide detection below 70 PPM.

## 6 Important Warning Statements

# Introduction

Congratulations, you are now the owner of a Kidde 2-in-1 Smoke and Carbon Monoxide Alarm. Kidde product - the first networked fire safety solution for your home. The design and functionality of Kidde products is based on years of study with fire safety professionals who have saved families by helping them be prepared in the event of an emergency.

Innovative Kidde products provide a system of networked units around your home that alert your family to danger. This Smart Wireless Network automatically activates all Kidde devices as soon as one alarm is triggered, letting everyone know it is time to follow the family safety plan, exit the house and proceed to the designated meeting area. The modern and elegant look of Kidde is designed for placement anywhere in your home so it is always ready for use. Intuitive, simple instructions will empower everyone in your family to be a Kidde in a time of need.

With the new Kidde networked alert system, safety is something you can plan.

# Fire Safety Information

## Good Safety Habits –

### Develop and Practice a Plan of Escape

- 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.
- Make a floor plan indicating all doors and windows and at least two (2) escape routes from each room. Second story windows may need a rope or chain ladder.
- Have a family meeting and discuss your escape plan, showing everyone what to do in case of fire.
- Determine a place outside your home where you can all meet if a fire occurs.
- Familiarize everyone with the sound of the smoke alarm and train them to leave your home when they hear it.
- Practice a fire drill at least every six months, including fire drills at night. Ensure that small children hear the alarm and wake when it sounds. They must wake up in order to execute the escape plan.

Practice allows all occupants to test your plan before an emergency. In an emergency you may not be able to reach your children. It is important they know what to do.

### Escape Plan

Prepare and practice a home escape plan twice a year, including drills at night. Know two ways out of every room (door and 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 and the voice message warning, and to leave the home using their escape plan when it's heard. Know how to "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. It is the responsibility of individuals in the household who 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.

There are situations in which a smoke alarm may not provide effective protection against fire as stated in the NFPA Standard 72. For instance: a) smoking in bed, b) leaving children home alone, c) cleaning with flammable liquids such as gasoline.

## **NRC Information**

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 particles. 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.

## **NFPA Required Protection**

The National Fire Protection Association's Standard 72 provides the following information:

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. (2) Outside of each separate sleeping area, in the immediate vicinity of the sleeping rooms. (3) On each level of the dwelling, including basements. Exception: In existing one- and two-family dwellings, 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 the smoke alarms in the kitchen, attic (finished or unfinished) or garage is normally not recommended, as these locations occasionally experience conditions that can result in improper operation.

This equipment should be installed in accordance with the National Fire Protection Association's Standard 72 (NFPA, Batterymarch Park, Quincy, MA 02269).

**NOTIFY YOUR LOCAL FIRE DEPARTMENT AND INSURANCE COMPANY OF YOUR SMOKE ALARM INSTALLATION.**

**⚠ CAUTION** (As Required by the California State Fire Marshal)

“Early warning fire detection is best achieved by the installation of fire detection equipment in all rooms and areas of the household as follows: A smoke alarm installed in each separate sleeping area (in the vicinity of, but outside of the bedrooms), and heat or smoke detectors in the living rooms, dining rooms, bedrooms, kitchens, hallways, attics, furnace rooms, closets, utility and storage rooms, basements and attached garages.”

## **General Carbon Monoxide Information**

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

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 alarm 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!

**IMPORTANT:** If the alarm sounds, it should be treated as a potentially serious condition. See Carbon Monoxide Alarm Procedure Section (at the beginning of this user guide).

## **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, backdrafts 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.

## **12 Carbon Monoxide Information**

## 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.
- Vehicles idling in an open or closed garage, or near a home.

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 exposure to low levels may cause symptoms, as well as short-term exposure 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 foolproof. CO alarms have a limited operational life. You must test your CO alarm weekly to insure that it is operating properly at all times.

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 at which CO reaches the alarm may be affected by:

- Doors or other obstructions.
- Fresh air from a vent, an open window or other source.
- The presence of CO on one level of the home and a CO alarm installed on a different level. (For example, CO in the basement may not reach an alarm on the second level.)

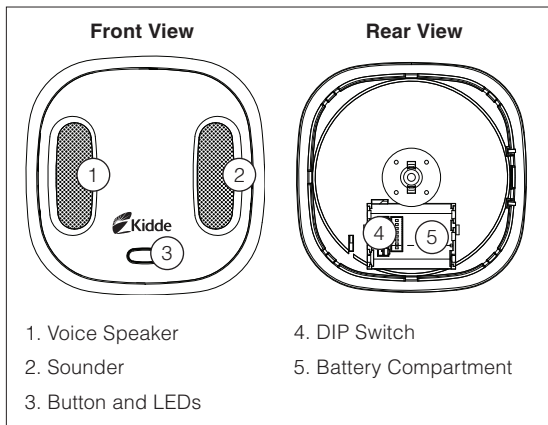
For these reasons, we recommend you provide complete coverage by placing a smoke/CO alarm on every level of the home. Please carefully read all information in the Installation Guide section on properly installing this smoke/CO alarm.

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

Instruct children never to touch, unplug or otherwise interfere with the alarm. Warn children of the dangers of CO poisoning.

# Product Features and Specifications

## Model KN-COSM-B-RF



### **IMPORTANT ALARM REPLACEMENT INFORMATION:**

Ten years after the initial power up, this alarm will “beep” twice every 30 seconds to indicate that it is time to replace the alarm. Replace the alarm immediately! It will not detect CO in this condition.

To help identify the date to replace the alarm, a space has been designated on the product label affixed to the back of the alarm. Write the “replace by date” (ten years from power up) in permanent marker on this label.



This alarm detects combustion particles using the ionization technique. It contains 0.9 microcurie of Americium 241, a radioactive material (see NRC Information section). Distributed under U.S. NRC License No. 32-23858-01E. Manufactured in compliance with U.S. NRC safety criteria in 10 CFR 32.27. The purchaser is exempt from any regulatory requirements. Do not try to repair the alarm yourself. Refer to the instructions in the Warranty section for service.

Kidde 2-in-1 Smoke and Carbon Monoxide Alarms connect to each other wirelessly to create the first Smart Wireless Network for fire safety. When one of your Kidde alarms is triggered, a wireless signal will be transmitted to activate the rest of your Kidde alarms within 11 seconds, alerting you if you are in other parts of the home. All other alarms will activate and remain in alarm mode until the initiating unit is silenced or a non-initiating unit is silenced via a press of that unit's button. Place Kidde alarms throughout your home for comprehensive coverage, so that you will be alerted to any smoke or CO danger no matter where you are in your home.

For instructions on how to set up your Kidde alarms so that they communicate wirelessly, see the Installation Guide section.

This alarm wirelessly interconnects with the following Kidde product:

- Kidde 2-in-1 Smoke and Carbon Monoxide Alarm (Model KN-COSM-B-RF)

The Kidde Smart Wireless Network may be expanded with future Kidde products.

## Alarm Features

- Independent smoke and carbon monoxide sensors.
- The smoke alarm takes precedence when both smoke and carbon monoxide are present.
- Alarm/voice message warning system that alerts you to 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! ” This pattern is repeated until the smoke is eliminated. The red LED will flash along with beeps.
  - 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 will flash while in alarm/voice mode.
  - LOW BATTERY: When the batteries are low and need replacing the red LED 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 will continue to flash every minute accompanied by only the “chirp” 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.
- Loud 85 decibel alarm
- Oversized test button for easy activation

- Test button performs the following functions:
  - Tests the electronics and verifies proper unit operation
  - Resets the unit during CO alarm
  - Peak and Alarm Memory
  - Activates smoke alarm Silent Mode feature
  - Activates Low Battery Silence feature
- Easy-mount alarm attachment stud for quick, simple installation
- Green and red LEDs that indicate normal operation and alarm status
- Green LED:
  - One flash every 30 seconds indicates the unit is operating properly. (If red LED is also flashing, the unit has malfunctioned.)
  - One flash every two seconds indicates the unit is in smoke alarm Silent Mode. (See Smoke Alarm Silent Mode Feature section for more details.)
  - One flash every second indicates Initiating Alarm and one flash every 16 seconds indicates Alarm Memory. (See Initiating Alarm and Alarm Memory sections for more details.)
- Red LED: When a dangerous level of smoke or carbon monoxide is detected the red LED will flash and the corresponding alarm pattern will sound. If the unit malfunctions, the red LED will flash and the unit will chirp every 30 seconds indicating a system problem.
- Powered by three (3) AA batteries
- Battery lockout system prohibits installation without using three batteries

## **Smoke Alarm**

The smoke alarm monitors the air for combustion particles that are produced when something is burning or smoldering. When combustion 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.

**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.

AC powered alarms (without battery backup) will not operate

if the AC power has been cut off, such as by an electrical fire or an open fuse.

Smoke alarms must be tested regularly to make sure the batteries and the alarm circuits are in good operating condition.

Smoke alarms cannot provide an alarm if smoke does not reach the alarm. Therefore, smoke alarms may not sense fires starting in chimneys, in 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.

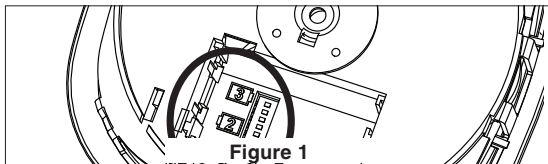
## **Carbon Monoxide Alarm**

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. The carbon monoxide sensor uses an electrochemical technology.

# Installation Guide

## How to Install

1. Remove all your new Kidde wireless interconnect devices from their respective packages and place them in front of you.
2. Find the eight-position DIP switch located inside the battery compartment (see Figure 1).



3. Select one of the units. You will define the ID pattern of your system by positioning the switches of the DIP switch in a random pattern. The ID pattern will need to be the same for each alarm. This ID pattern will differentiate your alarm system from similar systems nearby. Do not use the default ID pattern that your units are shipped with.
4. Use a pen or pencil to change the switches in each of the Kidde wireless devices to match the pattern you selected in Step 3. Ensure that the pattern sequence is not reversed.
5. Power each unit after setting the ID pattern by installing the batteries (see the Installing Batteries section). The alarms only read the ID that has been set when they are first supplied power.

6. Push and hold the test button on each unit for at least five seconds, or until all the devices produce an alarm. If all the units do not produce an alarm, refer to the Troubleshooting Guide at the end of the User Guide.



**CAUTION: Due to the loudness of the alarm, always stand an arm's length away from the unit when testing.**

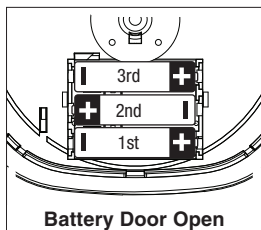
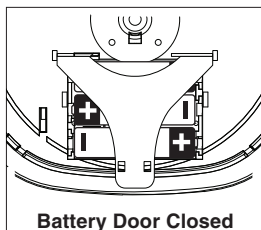
7. Install the alarm in accordance with the User Guide as described in the Where to Mount the Alarm section and repeat Step 6. Since wireless communication can be interrupted by a number of factors, you must test your alarms weekly to ensure proper communication between alarms.

If your Kidde smoke alarms enter alarm mode, first check for a fire. If a fire does not exist and the test buttons have not been activated on any of the units, it is likely that you are receiving interference from a similar system nearby. In this case, repeat the above steps and select a different DIP switch pattern. Be sure to disconnect power and remove the batteries before changing the switch positions.

The interconnect system should not exceed the NFPA interconnect limit of 12 smoke alarms.

Kidde battery-powered alarms CAN ONLY BE interconnected with other Kidde wireless alarms. Refer to the User Guide supplied with your Kidde product for lists of interconnect compatible models, brands and devices.

To help identify the date to replace the alarm, a space has been designated on the product label affixed to the back of the alarm. Write the "replace by date" (ten years from initial power up) in permanent marker on the label (see Alarm Replacement section for additional information).



## Installing Batteries

Batteries were not installed at the factory and must be installed for the unit to operate.

Install the three AA batteries in the back of the smoke/CO alarm.

- Open battery door by lifting up on the lip at the bottom edge of the alarm.
- The battery polarity markings on the bottom of the battery compartment must be adhered to.
- Batteries must be installed in the sequence shown above. If batteries seem difficult to install, they're not being installed in the proper sequence.
- Smoke/CO alarm will not engage the attachment stud (see page 29) unless all three batteries are installed and the battery door is closed. Removal of any or all batteries will render the smoke/CO alarm inoperative!
- After the batteries are correctly installed the unit will beep once, the red LED will flash, "Push Test Button" will be played. The green LED will flash immediately after power is applied, and then will flash every 30 seconds to display normal operation.

**⚠ CAUTION: Your smoke/CO alarm is sealed and the cover is NOT removable!**



## Battery Replacement

If any form of battery failure is detected the red LED 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 will continue flashing accompanied by the chirp sound every 60 seconds. The voice message “Low battery” will sound once every 15 minutes during the chirp-only cycle, and will continue for at least seven days.

If the red LED 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.

Replace batteries with Alkaline 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. A good safety measure is to replace the batteries twice a year, at the same time you change your clocks for daylight saving time. Constant exposure to high or low temperatures or high humidity may reduce battery life.**

**NOTE: Do not use Lithium batteries with this unit.**

### Where to Mount the Alarm

**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!**

For maximum protection, Kidde recommends the installation of a smoke/CO alarm in the following locations: on each level of a multilevel home, including every bedroom, hallway, finished attic and basement. Put alarms at both ends of bedroom, hallway or large room if hallway or room is more than 30 ft. (9.1 m) 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 particles 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" (10.2 cm) from the side wall (see Diagrams B and C).

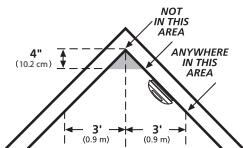
If installing the alarm on the wall, use an inside wall with the top edge of the alarm at a minimum of 4" (10.2 cm) and a maximum of 12" (30.5 cm) below the ceiling (see Diagram C).

### **Sloped Ceiling Installation**

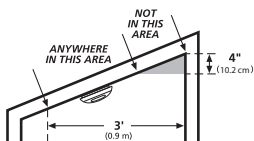
The following information is from the National Fire Protection Association and is listed in Standard 72. Install smoke alarms on sloped, peaked or cathedral ceilings at, or within 3 ft. (0.9 m) of the highest point (measured horizontally) (see Diagram A). NFPA 72 states "Smoke alarms in rooms with ceiling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

### **Mobile Homes**

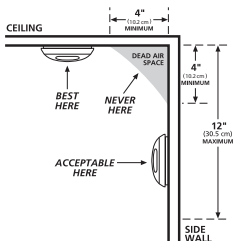
Modern mobile homes have been designed and built to be energy efficient. Install smoke/CO alarms as recommended above (refer to Where to Mount the Alarm section and Diagram C). In older mobile homes that are not well insulated, extreme heat or cold can be transferred from the outside to the inside through poorly insulated walls and roofs. 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 4" (10 cm) and a maximum of



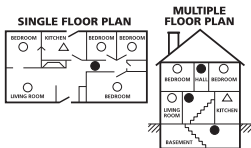
**Diagram A**



**Diagram B**



**Diagram C**



- Smoke Alarms for Minimum Protection
- Smoke Alarms for Additional Protection
- △ Ionization Type Smoke Alarms with Silent Mode or Photoelectric Type

**Recommended Locations**

12" (30.5 cm) below the ceiling (see Diagram C). 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).

## Where Not to Install

Do not install in garages, kitchens, furnace rooms or bathrooms!

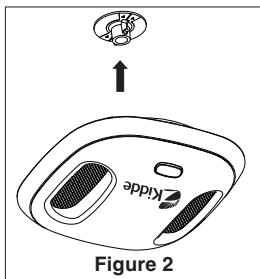
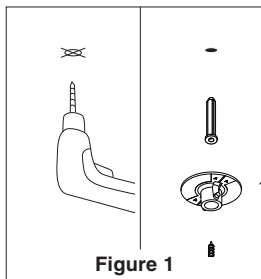
### **INSTALL AT LEAST 5 FEET AWAY FROM ANY FUEL BURNING APPLIANCE.**

Do not install within 3 ft. (0.9 m) 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 not to 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 for the alarm to accurately detect these conditions. Do not install in peaks of vaulted ceilings, A-frame ceilings or gabled roofs (see Diagram A on previous page). Keep out of damp and humid areas.

Install at least 1 ft. away from fluorescent lights, since electronic noise may cause nuisance alarms. Do not place in direct sunlight and keep out of insect infested areas. Extreme temperatures will affect the sensitivity of the smoke/CO alarm. Do not install in areas where the temperature is colder than 40 degrees Fahrenheit (4.4 Celsius) or hotter than 100 degrees Fahrenheit (37.8 Celsius), 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.

## Mounting the Alarm

1. Choose a mounting location (wall or ceiling) and mark the location with a pencil.



2. To ensure aesthetic alignment of the alarm with the hallway or wall, the "A" line on the attachment stud should be parallel with the hallway when ceiling mounting, or vertical when wall mounting. See Figures 1 and 2.

3. Drill a hole through the pencil mark and use the enclosed screw and anchor (see Figure 1) to secure the attachment stud. Use 1/4" (0.25") drill bit for anchor holes. Align the smoke/CO alarm with the attachment stud and rotate clockwise (right) until the unit is aligned. Screw and anchor accessories are supplied.

# Testing and Using the Alarm

The smoke alarm is operating once fresh batteries are installed and testing is complete. When the smoke alarm ionization chamber senses combustion particles, the horn will sound a loud (85 decibels) temporal alarm until the sensing chamber is cleared of smoke particles.

The test button has four purposes. It tests the unit's electronics, resets the alarm, activates the Smoke Alarm Silent Mode feature (See page 31), and activates the Peak Level Memory.



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

When testing, ensure that all units activate in response to a push to test from another unit. This will verify that changes in your environment (i.e., moved furniture, addition of electronic appliances) have not adversely affected the operation of your wireless system.

Remote Push to Test: Test your Kidde alarm system by activating the test button on any Kidde alarm for a minimum of five seconds, or until all of the interconnected alarms sound. When the other alarms respond, this verifies that both the alarms and the interconnect system are functioning properly.

It may take up to 12 seconds for your wireless interconnected alarms to enter alarm mode in response to a remote push to test.

If the alarm does not sound, the unit may have defective batteries or other failure and you should call Kidde customer service at 1-800-880-6788. If other interconnected alarms do not produce an alarm, see the Troubleshooting Guide.

**DO NOT** use an open flame to test your alarm; you could damage the alarm or ignite combustible materials and start a structure fire.

Erratic or low sound coming from your alarm may indicate a defective alarm, and it should be returned for service.

**To test:** Press and hold the test/reset button until you hear three long beeps, "Fire!" repeated twice, followed by 4 quick beeps, "Warning, Carbon Monoxide" repeated twice.

**Reset:** If the the smoke/CO alarm is sounding a CO alarm, pressing the test/reset button on any Kidde device will silence the system. If the CO condition that caused the alert continues, the alarm will reactivate. Reactivation times depend on the amount of CO present.

### **Weekly testing is required!**

If at any time the alarm 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.

### **Smoke Alarm Silent Mode Feature**

The smoke alarm Silent Mode feature has the capability of temporarily desensitizing the smoke alarm circuit for approximately eight minutes.

This feature is to be used only when a known condition, such as smoke from cooking, activates the alarm. Activate the smoke alarm Silent Mode feature by pushing the button on the smoke alarm cover. If the smoke is not too dense, the alarm will silence immediately and the voice will announce "Hush mode activated". The green LED will blink every two seconds for approximately eight minutes to indicate that the alarm is in a temporarily desensitized condition. The smoke alarm will automatically reset after approximately eight minutes and will sound again if combustion particles are still present. The smoke alarm Silent Mode feature can be used repeatedly until the air has been cleared of the condition causing the alarm. Pushing the button while the unit is in Silent Mode will end the smoke alarm Silent Mode period and the voice will announce "Hush mode cancelled."

## Remote Smoke Alarm Silent Mode

You can silence all of the Kidde alarms in your home at once by pressing the button on any single Kidde alarm to activate the smoke alarm Silent Mode feature. This allows you to silence an alarm that may be difficult to reach, even if it is the initiating alarm. This feature should only be used when a known alarm condition, such as smoke from cooking, activates the alarm.

### Low Battery Silence

When the batteries need to be replaced, the unit will produce a low battery “chirp” and the voice will announce “Low battery.” once per minute. The Low Battery Silence feature allows you to press the button on the alarm producing the warning to disable the notification for about 10 hours. This gives you a chance to replace the battery at a more convenient time without sacrificing your safety by disconnecting the alarm from power. During this Low Battery Silence period your alarm is performing normally and is not desensitized.

**NOTE:** Dense smoke will override the smoke alarm Silent Mode feature and sound a continuous alarm.

**⚠ CAUTION: BEFORE USING THE SMOKE ALARM SILENT MODE FEATURE, IDENTIFY THE SOURCE OF THE SMOKE AND BE CERTAIN A SAFE CONDITION EXISTS.**

### Peak Level Memory

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 alarm will chirp followed by the voice “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. The memory is also reset when the batteries are removed. If Peak Level Memory has not been triggered, pushing the test button will initiate the test sequence.



## Initiating Alarm

The green LED will flash every second while sounding an alarm to signify that the alarm sensed a smoke or CO hazard. This will only be displayed on the alarms that sensed the hazard. The remaining interconnected alarm(s) will sound but will not display the initiating indicator.

## Alarm Memory Condition

The green LED will flash every 16 seconds signifying that the alarm sensed a smoke or CO hazard. It will continue to flash every 16 seconds until the test/reset button is pressed, thus announcing the hazard and resetting the alarm.

If a smoke condition was detected, the alarm will chirp followed by the voice "Fire! "

## Understanding Peak and Alarm Memory Signals

- If 100ppm or more CO was previously detected, there is no LED indicator, but pushing the test button will give the Peak Level Memory voice message mentioned above.
- If a CO alarm previously occurred, the green LED will flash every 16 seconds (Alarm Memory). Pushing the test button will clear CO Alarm Memory and initiate the test sequence.
- If 100ppm or more CO was detected, and a smoke alarm also occurred, the green LED will flash every 16 seconds (alarm memory). Pushing the test button will give the Smoke Alarm Memory "Fire!" message, and will clear smoke alarm memory. Pushing the test button a second time will give the Peak Level Memory voice message and clear Peak Level Memory. A third button push will initiate the test sequence.
- If a CO alarm (with less than 100ppm) and a smoke alarm occurred, the green LED will flash every 16 seconds (alarm memory). Pushing the test button will give the Smoke Alarm Memory "Fire!" message, and will clear smoke alarm memory. The green LED will continue to flash every 16 seconds, alerting you of the previous CO alarm. Pushing the test button a second time will clear CO alarm memory and initiate the test sequence.

- If 100ppm or more CO was detected (Peak Level Memory triggered), with a previous CO alarm and a smoke alarm, the green LED will flash every 16 seconds (alarm memory). Pushing the test button will give the Smoke Alarm Memory "Fire!" message, and will clear smoke alarm memory. Pushing the test button a second time will give the Peak Level Memory voice message and clear Peak Level Memory, but the green LED will continue to flash, alerting you of the previous CO alarm. Pushing the test button a third time will clear CO alarm memory and initiate the test sequence.

## 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 attachment stud 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!**

- Never use detergents 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 ensure continuous protection.**

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, isobutane, iso-propanol, ethyl acetate, hydrogen sulfide, sulfide dioxides, alcohol-based products, paint, paint thinner, solvents, adhesives, hair spray, aftershave, perfume and some cleaning agents.

## **FCC Compliance Statement**

This device has been designed, constructed and tested for compliance with FCC Rules that regulate intentional and unintentional radiators.

The user is not permitted to make any modifications to this equipment or use it in any manner inconsistent with the methods described in this User Guide, without express approval from Kidde.

Doing so will void the user authority to operate this equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The term "IC:" before the radio certification number only signifies that Industry of Canada technical specifications were met.

# Troubleshooting Guide

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
Not all of the alarms produce an alarm signal when the test button is pushed on a unit.	Devices may not all be on the same ID pattern.	Locate the 8-position DIP switch on the back of each unit and ensure that all of the corresponding switches are set the same. If an ID needs to be changed: Remove batteries, change the ID and reinstall batteries.
	Devices may not have power.	Check to see if the green LED blinks every 30 seconds. (This tells you that it is receiving power from the batteries.) If not, make sure the batteries are installed correctly.
	Button not pressed long enough.	Press and hold the button for a minimum of five seconds.
	There may be too much interference between units.	Move the other units to a new location and try again. You should try to locate the wireless units as close to each other as possible.
Units signal an alarm when no fire is present and none of the test buttons have been pushed.	Unit is set to the same ID pattern as a nearby system.	Change the ID pattern of your units by following the instructions in How to Install section. Make sure to remove batteries from all units before changing the switch positions.
	Unit is located in area prone to cause false alarms.	Review Where Not to Install section. Relocate the unit. Move the other units to a new location.
	Wireless interference.	Move the other units to a new location.

# Ten-Year Limited Warranty

**Warranty Coverage:** The Manufacturer warrants to the original consumer purchaser, that this product (except battery) 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 warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering or other causes not arising from defects in material or workmanship. This warranty extends to the original consumer purchaser of the product only.

**Warranty Disclaimers:** 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. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of consequential or incidental damages, so the above limitations or exclusions may not apply to you.

**Legal Remedies:** This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

**⚠️ Warranty Performance:** During the above warranty period, your product will be replaced with a comparable product if the defective product is returned in a postage paid package to the following address: Kidde, Customer Service Department, 1016 Corporate Park Drive, Mebane, NC 27302 USA, together with proof of purchase date. Please include a note describing the problem when you return the unit. The replacement product will be in warranty for the remainder of the original warranty 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. In many cases the quickest way to exchange your alarm is to return it to the original place of purchase. If you have questions, call Kidde's customer service department.

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

Your Kidde 2-in-1 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.

Also, Kidde makes no warranty, express or implied, written or oral, including that of merchantability or fitness for any particular purpose, with respect to the battery.

The above warranty may not be altered except in writing signed by both parties hereto.



For questions or for more information, call our consumer hotline at 1-800-880-6788 or contact us at our website at [www.kidde.com](http://www.kidde.com)

Kidde, 1016 Corporate Park Drive, Mebane, NC 27302

**Limited Warranty 37**