Kidde
A UTC Fire & Security Company

SIGNALISATION
SIGNALING
c UL us
LISTED
HOMOLOGUÉ
SINGLE AND/OR MULTIPLE
STATION SMOKE ALARM

CSA 6.19-01
SINGLE AND/OR MULTIPLE
STATION CARBON
MONOXIDE ALARM

Photoelectric Smoke and Carbon Monoxide Alarm

User's Guide

900-0213CA

KN-COPE-ICA

120 V AC Operated with 9 V Front-Loading Battery Backup

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.

Manual P/N 2528-7205 Rev. A 05/2011

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.

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 nuisance alarm protection, which will reduce the impact of 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!

- 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 27). 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.

What to do When the Alarm Sounds!

- 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 say that it is safe to do so.**
- **There are situations where a smoke alarm may not be effective to protect against fire as noted by the NFPA Standard 72. 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**

Table of Contents

Introduction

Thank you for purchasing the Kidde Combination Photoelectric Smoke and Carbon Monoxide Alarm model KN-COPE-ICA.

This unit is suitable as a Single Station and/or Multiple Station (24 devices) alarm. This alarm has a ten-year limited warranty.

IMPORTANT: This unit is only approved to interconnect with the Kidde line of products. It is not approved to interconnect with any other manufacturer's products.

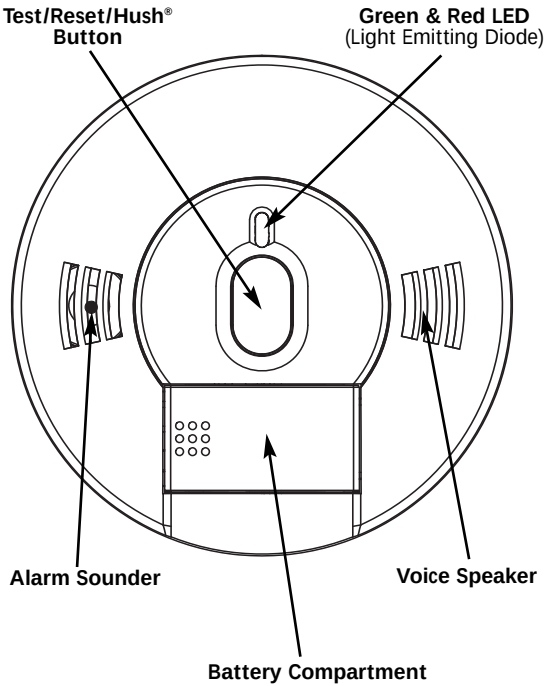
Please take a few minutes to thoroughly read this user's guide which should be saved for future reference. Teach children how to respond to the alarms, and they should never play with the unit.

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 9 will help you determine the correct location of safety products that will help keep your home a safer place.

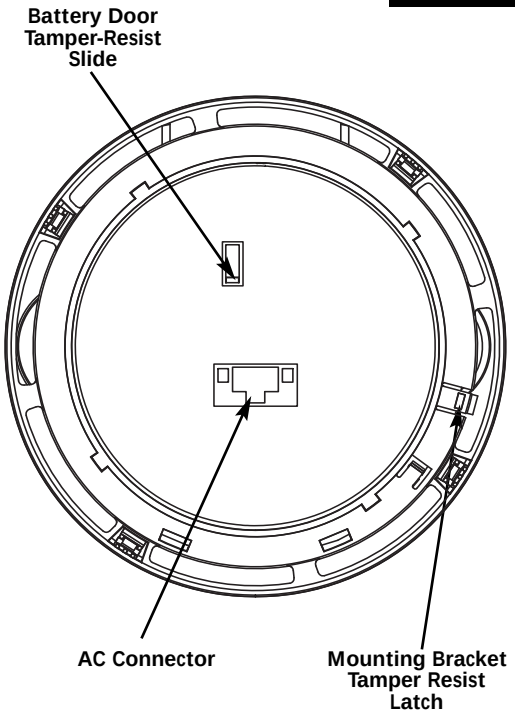
Product View

Front



Product View

Back



Features

- Permanent independent smoke and carbon monoxide sensors (photoelectric and electrochemical)
- 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 a series of 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.
- Voice Message System that alerts user to the following conditions:
  - System announces "HUSH MODE ACTIVATED" when the unit is first put into HUSH Mode.
  - System announces "HUSH MODE CANCELLED" when unit resumes normal operation after Hush Mode has been cancelled.
  - System announces "CARBON MONOXIDE PREVIOUSLY DETECTED" when the unit has detected CO concentrations of 100 ppm or higher.
  - System announces "PUSH TEST BUTTON" when the unit is powered up, reminding user to activate the Test Button.

Features

- 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.
- Loud 85 decibel alarm
- Hush® Control Feature that silences the unit during nuisance alarm situations (see page 16).
- 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
  - Activates or cancels Hush® Feature
- 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 will be lit continuously or flash every 30 seconds to indicate the unit is operating properly. In Hush® mode the LED blinks every 2 seconds and once per second if it is the initiating alarm.
  - 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 120V AC (60 Hz, 30 mA max) wire-in connector and is also equipped with a 9V battery backup
- Can be interconnected to other Kidde smoke and CO alarms (see page 16 for details)
- Tamper Resist Feature that deters children and others from removing the battery or 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, 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.
- 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, 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. Homeowners and renters should have adequate insurance to protect their lives and property.

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, 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 less than 30 ppm.

Step 1 Installation Instructions

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

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 9.1 m (30') 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 10 cm (4") from the side wall (see Figure 1). If installing the alarm on the wall, use an inside wall with the top edge of the alarm at a minimum of 10 cm (4") and a maximum of 30.5 cm (12") below the ceiling (see Figure 1).

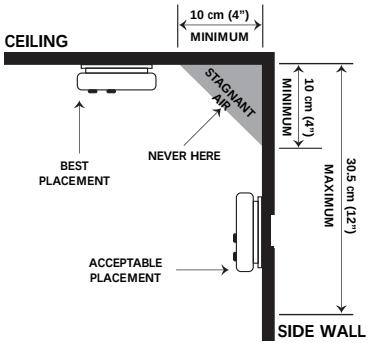


Figure 1

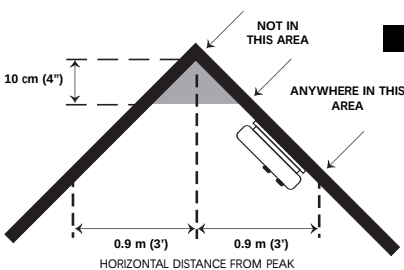


Figure 2

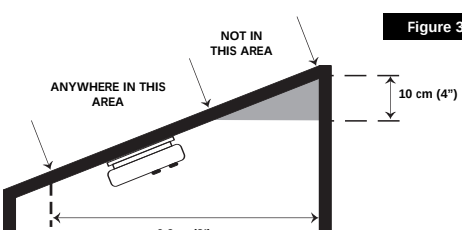


Figure 3

Sloped Ceiling Installation:

Install smoke alarms on sloped, peaked or cathedral ceilings at, or within 0.9 m (3') of the highest point (measured horizontally). NFPA 72 states "Smoke alarms in rooms with ceiling slopes greater than 0.3 m – 2.4 m (1' to 8') horizontally shall be located on the high side of the room". Do not place the alarm in the peak of an "A" frame type ceiling (see Figure 1 and 2).

Mobile Homes:

Modern mobile homes have been designed and built to be energy efficient. Install Smoke/CO alarms as recommended previously (refer to Recommended Installation Instructions and Figure 2).

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 10 cm (4") and a maximum of 30.5 cm (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

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. Locations to Avoid:

WARNING: Do not install in garages, kitchens, furnace rooms or bathrooms! INSTALL AT LEAST 1.5 M (5') AWAY FROM ANY FUEL BURNING APPLIANCE.

Do not install within 0.9 m (3') 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 the alarm 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. Keep out of damp and humid areas.

Install at least one 30.5 cm (12") away from fluorescent lights as 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 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 greater than 85%. Place away from doors and windows that open to the outside.

Step 2: Wiring Instructions

Wiring Requirements

- This smoke alarm should be installed on a CSA listed or recognized junction box. All connections should be made by a qualified electrician and all wiring used shall be in accordance with codes having jurisdiction in your area. The multiple station interconnect wiring to the alarms must be run in the same raceway or cable as the AC power wiring. In addition, the resistance of the interconnect wiring shall be a maximum of 10 ohms.
- The appropriate power source is 120 V AC Single Phase supplied from a non-switchable circuit, which is not protected by a ground fault interrupter.
- **WARNING:** The alarm cannot be operated from power derived from a square wave, modified square wave or modified sine wave, inverter. These types of inverters are sometimes used to supply power to the structure in off grid installations, such as solar or wind derived power sources. These power sources produce high peak voltages that will damage the alarm.
- 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.

WIRING INSTRUCTIONS FOR AC QUICK CONNECT HARNESS

CAUTION! TURN OFF THE MAIN POWER TO THE CIRCUIT BEFORE WIRING THE ALARM.

- For alarms that are used as single station, DO NOT CONNECT THE RED WIRE TO ANYTHING. Leave the red wire insulating cap in place to make certain that the red wire cannot contact any metal parts or the electrical box.
- When alarms are interconnected, all interconnected units must be powered from a single circuit.

- A maximum of 24 Kidde Safety devices may be interconnected in a multiple station arrangement. The interconnect system should not exceed the NFPA interconnect limit of 12 smoke alarms and/or 18 alarms total (smoke, CO, Smoke/CO Combination, heat, etc.). This Smoke/CO combination alarm must be counted as a smoke alarm when determining the number of units on an interconnect line. With 18 alarms interconnected, it is still possible to interconnect up to a total of 6 remote signaling devices and /or relay modules (see page 16 for details on interconnecting Kidde devices).
- The maximum wire run distance between the first and last unit in an interconnected system is 305 m (1000').
- Figure 4 illustrates interconnection wiring. Improper connection may result in damage to the alarm, failure to operate, or a shock hazard.
- Make certain alarms are wired to a continuous (non-switched) power line.

NOTE: Use standard CSA Listed household wire (as required by local codes) available at all electrical supply stores and most hardware stores

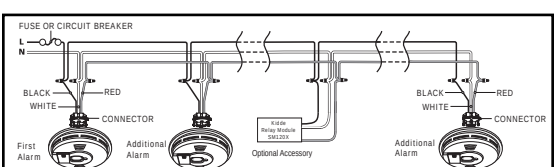


FIGURE 4 Interconnect Wiring Diagram

WIRES ON ALARM HARNESS	CONNECTED TO
Black	Hot side of AC line
White	Neutral side of AC line
Red	Interconnect lines (red wires) of other units in the multiple station set up

Step 3: Mounting Instructions

CAUTION: YOUR SMOKE/CO ALARM IS SEALED AND THE COVER IS NOT REMOVABLE!

1. 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.
2. Remove the mounting bracket from the back of the alarm by holding the mounting bracket and twisting the alarm in the direction indicated by the "OFF" arrow on the alarm cover.
3. After selecting the proper location for your Smoke/CO Alarm, as described on Pages 8-10, and wiring the AC QUICK CONNECT harness as described in the WIRING INSTRUCTIONS, attach the mounting bracket to the electrical box. To ensure aesthetic alignment of the alarm with the hallway, or wall, the "A" line on the mounting bracket must be parallel with the hallway when ceiling mounted, or horizontal when wall mounted.

Figure 5

4. Pull the AC QUICK CONNECTOR through the center hole in the mounting bracket and secure the bracket, making sure that the mounting screws are positioned in the small ends of the keyholes before tightening the screws.
5. Plug the AC QUICK CONNECTOR into the back of the alarm (see Figure 5), making sure that the locks on the connector snap into place. Then push the excess wire back into the electrical box through the hole in the center of the mounting bracket.

6. Install the alarm on the mounting bracket and rotate the alarm in the direction of the "ON" arrow on the cover until the alarm ratchets into place (this ratcheting function allows for aesthetic alignment). Note: The alarm will mount to the bracket in 4 positions (every 90 degrees).
7. Turn on the AC power. The green AC Power On Indicator should be lit when the alarm is operating from AC power.
8. Pull the Battery Pull Tab (yellow tab protruding from unit) completely out of unit. This will automatically connect the battery.

Step 4: Testing the Alarm

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

The test/reset button has four purposes. It tests the unit's electronics, resets the CO alarm, activates the Hush® feature, and activates the Peak Level Memory Feature.

After installation, TEST THE UNIT'S ELECTRONICS by pressing and releasing the test/reset button. 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.

Weekly testing is required! If at anytime it does not perform as described, verify power is connected correctly and that the battery doesn'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.

Interconnect Feature

IMPORTANT: This unit is only approved to interconnect with the Kidde line of products. It is not approved to interconnect with any other manufacturer's products.

- When compatible smoke alarms (1235CA, 1275CA, 1276CA, 1285CA, i12020CA, i12040CA, i12060CA PE120CA, PI2000CA) and heat alarms (HD135F) are interconnected to this alarm, they will only respond to a smoke related event.

- When mixing compatible models with battery backup (1275CA, 1285CA, i12040CA, i12060CA, PE120CA, PI2000CA, HD135F, KN-COSM-IBCA, KN-COB-IC-CA, KN-COP-IC-CA) with models without battery backup (1235CA, i12020CA, KN-COSM-ICA, KN-COB-ICB-CA, 120X, SM120X, CO120X, SL177i), be advised that the models without battery backup will not respond during an AC power failure.

For more information about compatible interconnect units and their functionality in an interconnect system, visit our web site at: www.kiddecanada.com

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. If the smoke is not too dense, the alarm will silence immediately, the unit will verbally announce "HUSH MODE ACTIVATED! MODE HUSH ACTIVÉ", and the green LED 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, it will verbally announce "HUSH MODE CANCELLED! MODE HUSH ANNULÉ", and sound the alarm 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.

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.

Reset Feature

If the Smoke/CO Alarm is sounding a CO alarm, pressing the test/reset button will initiate a test/reset. If the CO condition that caused the alert continues, the alarm will reactivate.

Low Battery Hush® Control

When the battery needs to be replaced, the unit will produce a low battery "chirp" once per minute. The Low Battery Hush® feature allows you to press the button on the alarm producing the warning and disable the "chirp" for a random period of up to 12 hours. This gives you a chance to replace the battery at a more convenient time without sacrificing your safety by disconnecting the alarm from power. During this Low Battery Hush® period, your alarm is performing normally and is not desensitized.

Alarm/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 will produce three rapid beeps. Pushing the test/reset button resets the memory. It's also reset when the power is removed.

LED Indicator Operation

Red LED
The red LED will flash in conjunction with the alarm sounder. Therefore, the red LED will flash during a smoke alarm, a CO alarm, a low battery mode chirp and a unit error mode chirp.

Green LED
The green LED will flash under the following conditions:

- Standby Condition (powered by AC and battery backup): The LED will be constantly on, but will flicker every 30 seconds when a CO reading is taken.

- Standby Condition (powered by only battery backup): The LED will flash every 30 seconds.

- Alarm Condition: The LED will flash every second signifying that the alarm sensed a smoke or CO hazard. If the green LED is not flashing every second while sounding an alarm, then the alarm is acting as a remote sounder and an alarm in another area is initializing the warning.

- HUSH MODE Condition: The LED will flash every 2 seconds while the alarm is in HUSH mode.
  - Alarm Memory: The LED blinks once every 16 seconds to indicate a hazardous condition was previously detected.

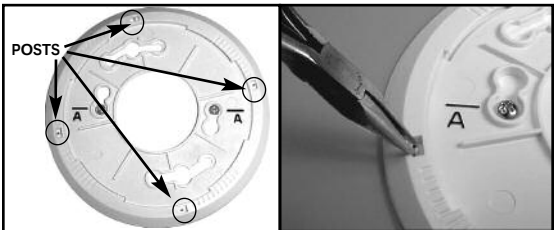


Figure 6A

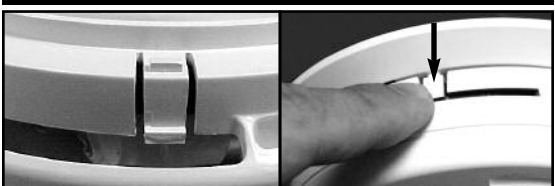


Figure 6B

Tamper Resist Features

To make your smoke/CO alarm tamper resistant, two tamper resist features have been provided. The first is used to discourage removal of the alarm while the second is for the battery. To activate the mounting bracket tamper resist feature break off the four posts in the square holes in the trim ring (see Figure 6A). 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.

Figure 7

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 6B).

This alarm also has a battery carrier tamper resist feature, which helps prevent the battery carrier from being opened. This feature is effective in preventing the removal of the battery from this device (which will render the unit inoperable during the loss of AC power).

To activate the battery carrier tamper resist feature, remove the unit from the trim plate, disconnect the AC quick connector and locate the small cut-out in the middle of the product label on the back of the unit. With a small screwdriver, or similar tool, slide the switch towards the top of the label (see Figure 7). The tamper resist feature is now active and the battery carrier cannot be opened until the tamper resist feature is deactivated.

NOTE: Before activating the battery carrier tamper resist feature, make sure a fresh battery is installed in the unit and that the battery carrier is properly closed. If the battery carrier tamper resist feature is activated while the battery carrier is open, the battery carrier will not close and the unit will be inoperable during the loss of AC power.

To deactivate the battery carrier tamper resist, in order to change the smoke alarm battery, remove the unit from the trim plate (see Smoke Alarm Tamper Resist Feature if activated), disconnect the AC quick connector and locate the small cut-out in the middle of the product label. Using a screwdriver, or similar tool, slide the switch towards the bottom of the product label. The battery carrier can now be opened and the battery changed.

Alarm Removal

IF THE TAMPER RESIST FEATURE HAS BEEN ACTIVATED, REFER TO TAMPER RESIST FEATURE DESCRIPTION ON PAGE 19 FOR REMOVAL INSTRUCTIONS.

Remove the alarm from the mounting bracket by rotating the alarm in the direction of the "OFF" arrow on the cover. To disconnect the AC power harness, squeeze the locking arms on the sides of the Quick Connector while pulling the connector away from the bottom of the alarm.

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! PILE FAIBLE!"*. 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! PILE FAIBLE!"* 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! PILE FAIBLE!"* 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.

CAUTION: YOUR SMOKE/CO ALARM IS SEALED AND THE COVER IS NOT REMOVABLE!

Note: If battery carrier tamper resist feature has been activated it will need to be deactivated in order to change the battery. Refer to page 19 "Battery Carrier Tamper Resist Feature" for instructions.

Battery Replacement

To replace or install the batteries press on the battery carrier and then release to allow the carrier to pop open. The battery can then be pulled out of the carrier. When installing a new battery into the carrier, make sure the battery terminals are exposed and that the polarity matches the markings printed on the battery carrier. Completely press the battery carrier down into the alarm and release, the battery carrier will lock into the closed position.

A missing or improperly installed battery will prevent the battery carrier from closing and result in improper alarm operation.

This smoke alarm uses a 9V battery. A fresh battery should last for one year under normal operating conditions.

Replace batteries with one of the following approved brands:
Duracell MN1604, MX1604
Energizer 522 and
Gold Peak 1604A.

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 battery at least once a year, or at the same time you change your clocks for daylight saving time.

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 ten (10) years after the alarm was initially powered.

Alarm Replacement

This alarm does have end of life Hush® which allows you to silence the trouble chirp for two days giving you exrtra time to replace the unit at a more convenient time. To activate, press the test/reset button. While in the End of Life Hush® mode, will still detect CO and Smoke. This feature can only be used for 30 days from the time the unit first indicates end of life. At the end of the 30 day period the alarm cannot be hushed and must be replaced immediately. **REPLACE IMMEDIATELY!**

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.
- Clean your alarm monthly using compressed air or a vacuum cleaner hose and vacuuming or blowing air through the openings around the perimeter of the alarm. If cleaning does not restore your alarm to normal operation the alarm should be replaced.

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 19 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.

Carbon Monoxide Safety Information

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 or 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.

When household cleaning supplies or similar contaminates 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.

Carbon Monoxide Safety Information

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.

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.

Carbon Monoxide Safety Information

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.

CO Alarm Response Times

Never restart the source of a CO problem until it has been fixed. NEVER IGNORE THE ALARM!

The CO sensor meets the alarm response time requirements 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.

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

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.

Fire Safety Information

Escape Plan

Familiarize everyone with the sound of the smoke alarm and train them to leave the 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. You may not be able to reach your children. It is important they know what to do. 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.

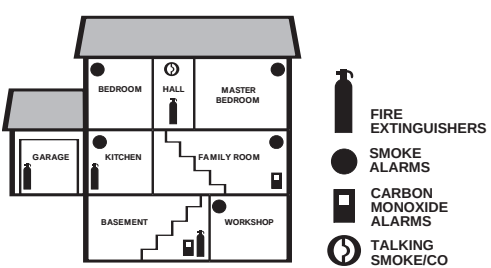
Fire Safety Information

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.

Smoke Alarm Procedure

Smoke alarms are designed to minimize false alarms. Cigarette smoke will not normally set off the alarm, unless it's blown directly into the alarm. Combustion particles from spills or broiling may set off the alarm if located too close to the cooking area. If the alarm sounds, check for fires first. If a fire is discovered follow these steps. Become thoroughly familiar with these steps, and review them with all family members.

- Alert small children in the home.
- Leave immediately using one of your planned escape routes
- Before opening inside doors look for smoke seeping through the edges. 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 it immediately if smoke and heat rush in.
- If the escape route requires going through smoke, crawl low under the smoke where the air is clearer.



Fire Safety Information

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.

Industry Safety Standards

NFPA (National Fire Protection Association) Required Number of Smoke Alarms

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.

Industry Safety Standards

Check with local officials for specific regulations concerning your situation.

The required number of smoke alarms (protected areas mentioned on the previous page) might not be reliable enough to provide early warning for unprotected areas that are separated by a door. For this reason, it is recommended that the householder consider the use of additional smoke alarms for those unprotected areas, for increased protection. Additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required number of 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.

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 battery) will be free from defects in material and workmanship or design under normal use and service for a period of ten years from the date of purchase. The obligation of Kidde under this warranty is limited to repairing or replacing the alarm or any part which we find to be defective in material, workmanship or design, free of charge, upon sending the alarm with proof of date of purchase, postage and return postage prepaid, to: Kidde Canada Inc., P.O. Box 40, Apsley, ON K0L 1A0.

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

Your Kidde Combination 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. Removal of the front cover will void your warranty.

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

QUESTIONS OR FOR MORE INFORMATION
Call our Consumer Hotline at **1-800-880-6788** or contact us at our website at **www.kiddecanada.com**