



120 V AC and 9 V Battery Backup
(model KN-COSM-IBCA only)

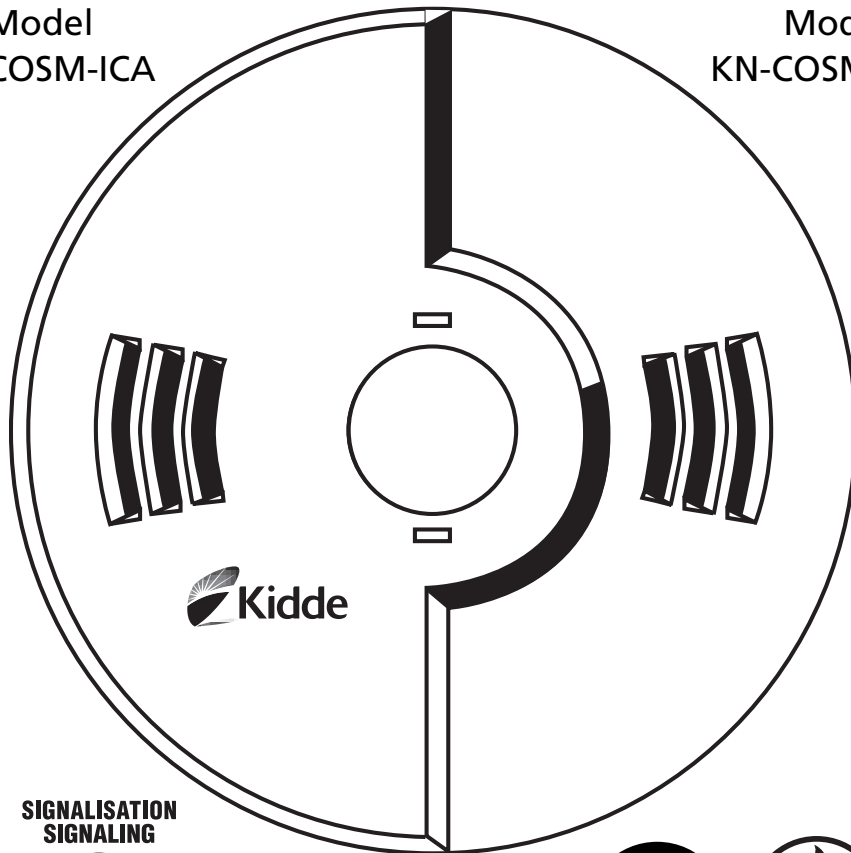
Combination Smoke & Carbon Monoxide Alarm

with Voice Alarm System, Hush[®], and Peak Level Memory

User's Guide

Model
KN-COSM-ICA

Model
KN-COSM-IBCA



Manual P/N 810-1692 Rev. J

**SIGNALISATION
SIGNALLING**



**LISTED
HOMOLOGUÉ**

SINGLE AND/OR MULTIPLE STATION
SMOKE ALARM

SINGLE AND/OR MULTIPLE STATION
CARBON MONOXIDE ALARM



CSA 6.19-01

SINGLE AND/OR MULTIPLE STATION
CARBON MONOXIDE ALARM

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Introduction

Thank you for purchasing the Kidde
Combination Smoke and Carbon Monoxide Alarm.

Model # KN-COSM-IBCA

(with battery backup, ten-year limited warranty)

Model # KN-COSM-ICA

(without battery backup, ten-year limited warranty)

This unit is suitable as a Single Station and/or Multiple
Station alarm (interconnects with up to 24 devices).

**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, and save for future reference. Teach
children how to respond to the alarms, and that they
should never play with the unit.

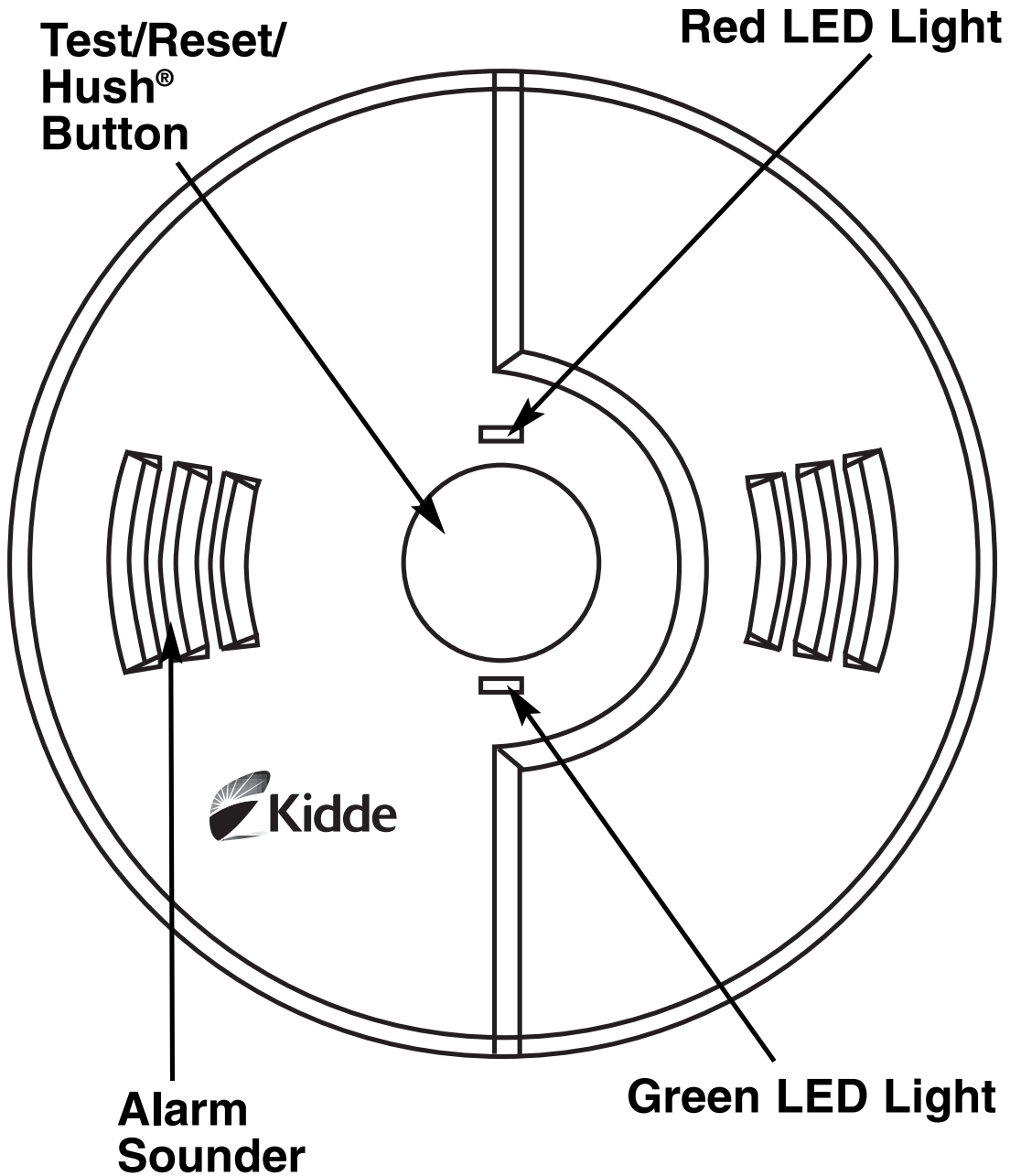
Your Kidde Smoke/CO Alarm was designed to detect
both smoke and carbon monoxide from any source of
combustion in a residential environment. It is not
designed for use in a recreational vehicle (RV) or boat.

If you have any questions about the operation or
installation of your alarm, please call our toll free
Product Support Line at 1-800-880-6788.

The guide on Page 29 will help you determine the
correct location of safety products that will help keep
your home a safer place.

Illustrations

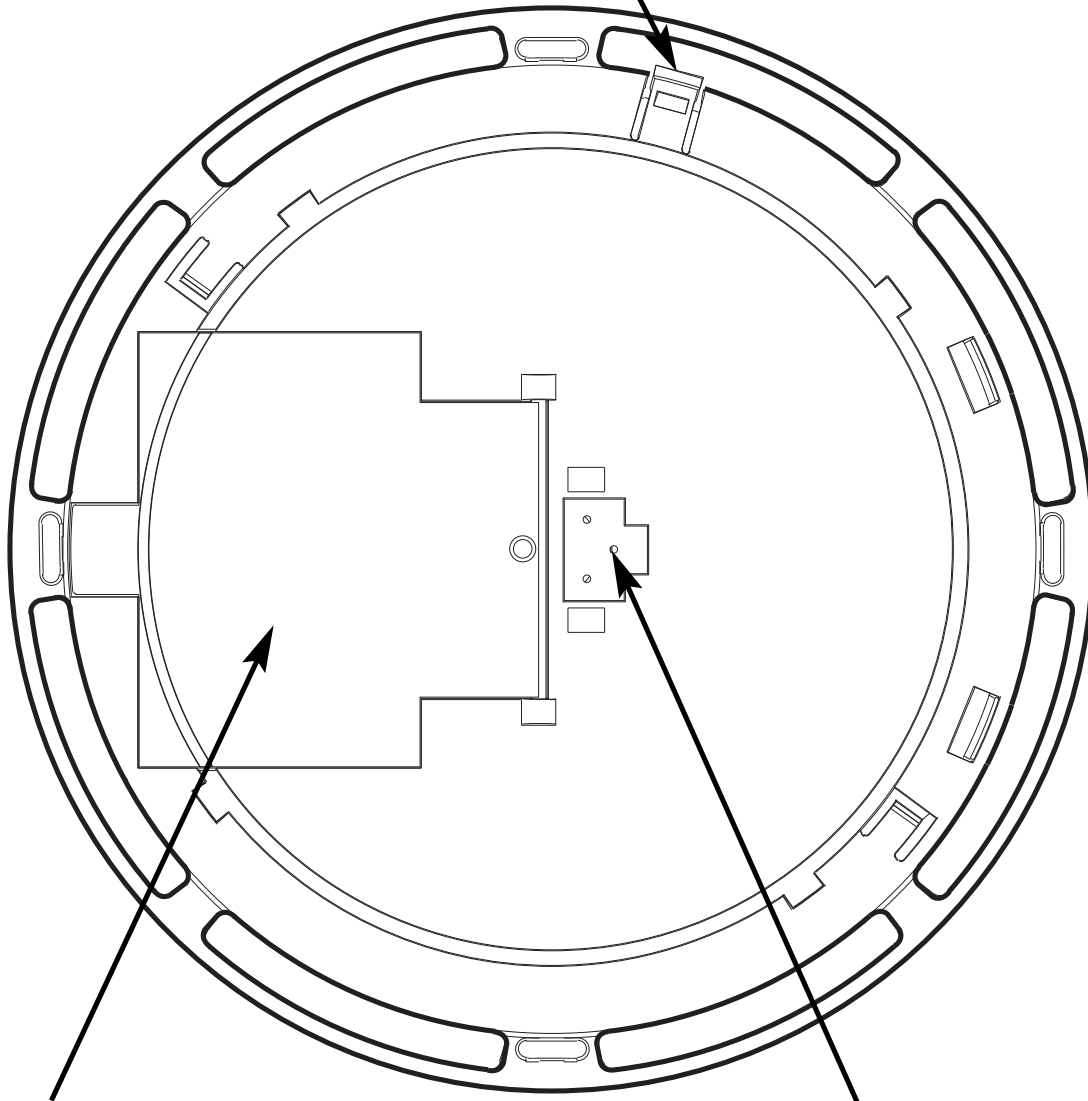
FRONT



Illustrations

BACK

Tamper Resist Feature



**Battery
Compartment**
(Model KN-COSM-IBCA only)

AC Connector Pins

Features

- Permanent, independent smoke and carbon monoxide sensors (ionization and electrochemical).
- Powered by 120 V AC (60 Hz, 25 mA max) Quick-Connect wire harness. Model KN-COSM-IBCA is also equipped with a 9 V battery backup.
- Interconnectable to other alarms and safety accessories.
- Loud 85 decibel alarm.
- Hush[®] Control Feature that silences the unit during nuisance alarm situations.
- Test/Reset/Hush[®] button performs the following functions: Tests the unit's electronics and verifies proper unit operation, resets the unit during CO alarm, activates Hush[®] feature, and activates Peak Level Memory feature.
- Alarm/Voice message warning system that specifies which dangerous condition exists, eliminating any confusion over which alarm is sounding:

FIRE: The alarm/voice pattern is 3 long alarm beeps followed by the verbal warning message, "*Fire! Feu!*" 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, "*Carbon Monoxide! Monoxyde de carbone!*" This continues until the unit is reset or the CO eliminated. While powered by battery only, after four minutes the alarm/voice pattern will sound once every minute. The red Light Emitting Diode (LED) light will flash while in alarm/voice mode.

LOW BATTERY (model KN-COSM-IBCA only): When the battery is low and needs replacing, 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 and will continue for at least 7 days.

Features

- Voice Message System that alerts user to the following additional conditions:
 - System announces, "*Hush[®] mode on! Mode Hush[®] activé!*" when the unit is first put into Hush[®] Mode.
 - System announces, "*Hush[®] mode cancelled! Mode Hush[®] annulé!*" when unit resumes normal operation after Hush[®] Mode has been cancelled.
 - System announces, "*Caution! Attention!*" when the unit has detected CO concentrations of 100 ppm or higher.
- One "chirp" every 30 seconds indicates that the alarm is malfunctioning. If this occurs call the Product Support Line at 1-800-880-6788.
- Peak Level Memory Feature which alerts user when the unit has detected CO concentrations of 100 ppm or greater.
- Alarm Memory Feature that gives visual indication when the alarm has sensed a hazardous condition.
- Green and red LED lights that indicate normal operation and alarm status.
- Tamper Resist Feature that deters children and others from removing the alarm.
- For initial installation, model KN-COSM-IBCA includes a pre-installed 9 V battery, and a battery pull tab that allows for easy connection. Simply pull the tab out, and the battery backup is connected!
- Model KN-COSM-IBCA is equipped with a battery reminder tab that prohibits installation when a battery is not present.
- Smoke alarm takes precedence when both smoke and carbon monoxide are present.
- Ten (10) years after initial power up, this unit will "chirp" twice every 30 seconds to indicate that it is time to replace the alarm.

Features

Smoke Alarm

The smoke alarm constantly 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.

NOTE: The smoke alarm takes precedence when both smoke and carbon monoxide are present.

WARNING: PLEASE READ CAREFULLY AND THOROUGHLY

NFPA Standard 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.

Features

- Smoke alarms cannot provide an alarm if smoke does not reach the alarm. Therefore, smoke alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor.
- If the alarm is located outside the bedroom or on a different floor, it may not wake up a sound sleeper.
- The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home.

Carbon Monoxide (CO) Alarm

The carbon monoxide (CO) alarm constantly 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.

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

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

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

Never ignore the sound of the alarm!

Determining what type of alarm has sounded is easy with the Kidde Combination Smoke/CO Alarm. The voice message warning system will inform you of the type of hazard occurring.

Installation

Recommended Installation Locations



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.

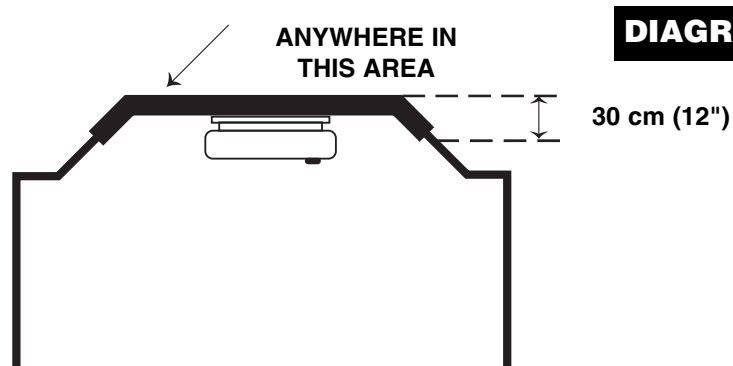
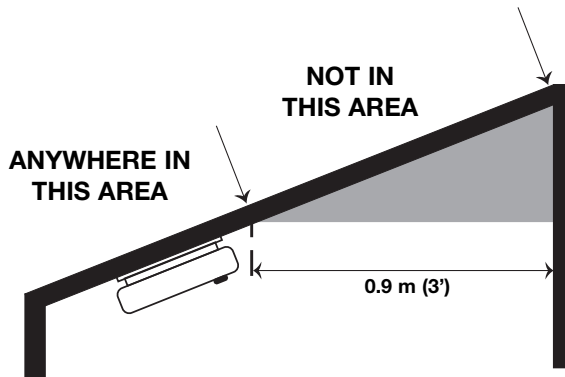
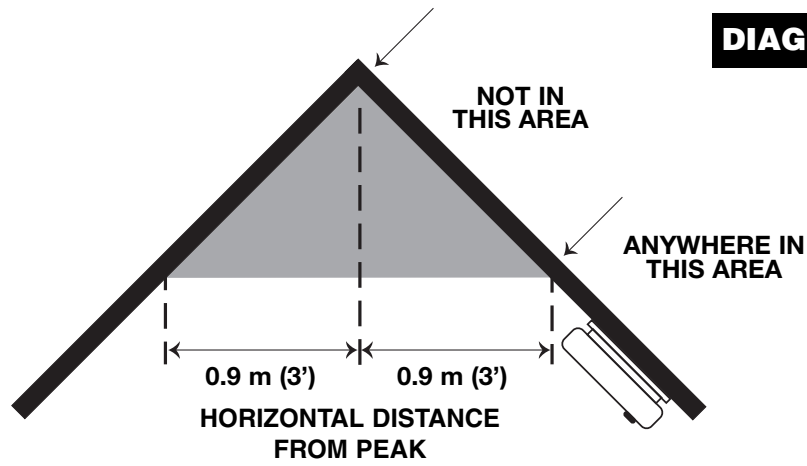
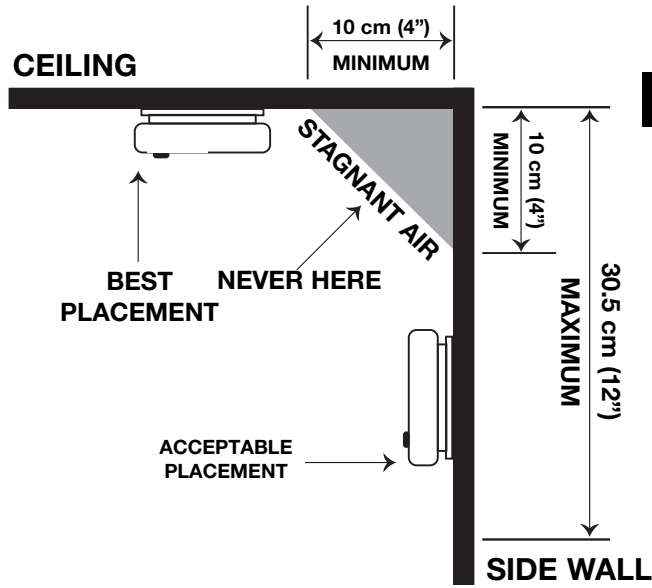
IMPORTANT: This alarm must be mounted on a ceiling or wall. It was not designed for use as a tabletop device. Install only as directed.

Industry experts recommend the installation of a Smoke/CO Alarm in the following locations. For maximum protection they suggest an alarm be installed on each level of a multilevel home, every bedroom, hallways, finished attics and basements. Put alarms at both ends of bedroom, hallway or large room if it 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 Diagram A). 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 Diagram A).

Installation



Installation

Sloped Ceilings

Install smoke alarms on sloped, peaked or cathedral ceilings at, or within 0.9 m (3') of the highest point (measured horizontally). Smoke alarms in rooms with ceiling slopes greater than 0.3 m - 2.4 m (1' to 8') horizontally should be located on the high side of the room. Do not place the alarm in the peak of an "A" frame type ceiling (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 Recommended Installation Instructions and Diagram A).

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 the 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 Diagram A). 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 the alarm on an inside wall only!

Installation

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 it to not operate properly.

Place the alarm where drapes or other objects will not block the sensor. 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. Do not place near a diaper pail.

Install at least 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 effect the sensitivity of the Smoke/CO Alarm. Do not install in areas where the temperature is colder than 4.4°C (40°F) or hotter than 37.8°C (100°F), such as garages and unfinished attics. Do not install in areas where the relative humidity (RH) is greater than 85%. Place away from doors and windows that open to the outside.

Installation

Wiring

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 should not be operated on power derived from a square wave, modified square wave or modified sine wave inverter. 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 For AC Quick-Connect Harness:

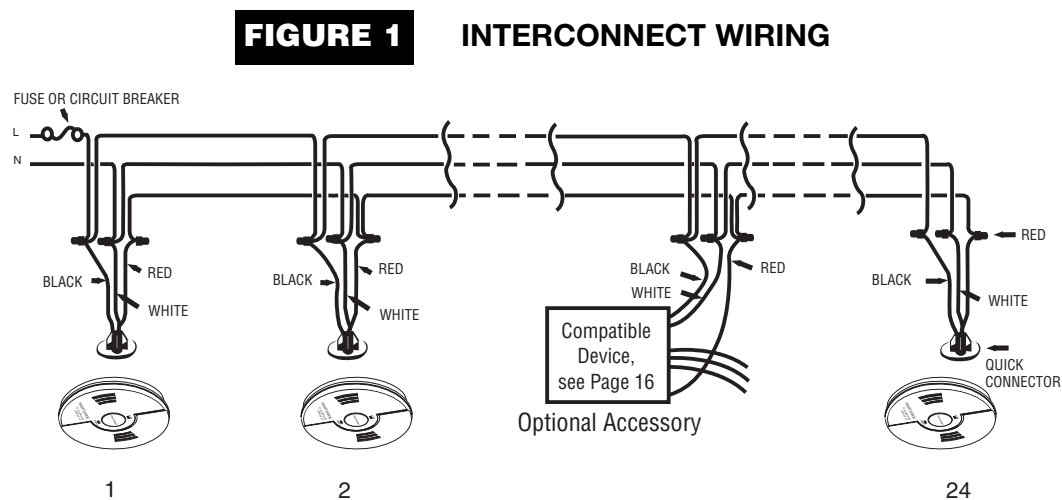
CAUTION: Turn off the main power to the circuit before wiring the alarm.

- 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 products may be interconnected in a multiple station arrangement: Limit of 12 smoke alarms and/or 18 alarms total (smoke, CO, Smoke/CO Combination, heat, etc.). This Smoke/CO Combination alarm is counted as a smoke alarm when determining the maximum 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).

Installation

- The maximum wire run distance between the first and last unit in an interconnected system is 305 m (1000').
- Figure 1 illustrates interconnection wiring. Improper connection will 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.



IMPORTANT: This unit is only approved to interconnect with other Kidde products. It is not approved to interconnect with any other brand of product.

Wires on Alarm Harness:

- Black Connected to hot side of AC line.
- White Connected to neutral side of AC line.
- Red Connected to interconnect lines (red wires) of other units in a multiple station set-up.

Installation

Mounting

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

- 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 power up) in permanent marker on the label. See Alarm Replacement section for additional information.
- Remove the mounting plate from the back of the alarm by holding the mounting plate and twisting the alarm in the direction indicated by the "OFF" arrow on the alarm cover.
- After selecting the proper Smoke/CO alarm location as described on Pages 8-10, and wiring the AC Quick-Connect wire harness as described in **Wiring**, attach the mounting plate to the electrical box. To ensure aesthetic alignment of the alarm with the hallway, or wall, the "A" line on the mounting plate must be parallel with the hallway when ceiling mounted, or horizontal when wall mounted.
- Pull the AC Quick-Connect wire harness 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.

FIGURE 2 ATTACHING THE AC QUICK-CONNECT WIRE HARNESS



- Plug the AC Quick-Connect wire harness into the back of the alarm (see Figure 2), making sure that the locks on the connector snap into place. Push the excess wire back into the electrical box through the hole in the center of the mounting plate.

Installation

- Install the alarm on the mounting plate 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).
- Turn on the AC power. The green AC Power On Indicator should be lit when the alarm is operating from AC power.
- For model KN-COSM-IBCA only, pull the Battery Pull Tab (yellow tab protruding from unit) completely out of unit. This will automatically connect the battery.

Testing

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

The Test/Reset/Hush[®] 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/Hush[®] button. A series of beeps will sound, followed by the message, *"Fire! Feu!"* then another series of beeps and the message, *"Carbon Monoxide! Monoxyde de carbone!"* followed by 4 additional short beeps.

Weekly testing is required! If at anytime it does not perform as described, verify that the power is connected correctly and that the battery is fresh. Clean any dust or other buildup on the unit. If it still does not operate properly, call the Product Support Line at 1-800-880-6788.

Operation

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, KN-SMFM-ICA, PE120CA, PI2000CA, PI2010CA) 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 about 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 the Smoke/CO Alarm in Hush[®] mode by pushing the Test/Reset/Hush[®] button. If the smoke is not too dense, the alarm will silence immediately, verbally announce, "*Hush[®] mode on! Mode Hush[®] activ !*", 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. The 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[®] annul !*" and sound the alarm if smoke is still present.

Operation

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/Hush[®] 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 the Smoke/CO Alarm is sounding a CO alarm, pressing the Test/Reset/Hush[®] button will silence the alarm. If the CO condition that caused the alert continues, the alarm will reactivate. Reactivation times depend on the amount of CO present.

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/Hush[®] button. If a reading of 100 PPM or higher has been recorded, the unit will announce, "*Caution! Attention!*" 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/Hush[®] button resets the memory. The memory is also reset when the unit loses power.

Operation

LED Indicators

Red LED

The Red LED flashes in conjunction with the alarm. 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:

In Standby Condition (powered by AC and battery backup) the green LED will be constantly on indicating that 120 V AC power is being delivered to the alarm. It will briefly flicker every 30 seconds when a CO reading is taken.

For model KN-COSM-IBCA only, in Standby Condition (powered only by battery backup) the green LED will flash every 5 seconds.

In Alarm Memory Condition the green LED will flash every second signifying that the alarm has sensed a smoke or CO hazard. It will continue to flash every second until the Test/Reset/Hush[®] button is pressed to reset the alarm. When interconnected alarms cease to sound, this flashing green LED indicates the originating alarm that triggered all the others in the circuit, thus reducing the time spent troubleshooting.

While in Hush[®] Mode, the green LED will flash every 2 seconds.

Operation

TAMPER RESIST FEATURE

FIGURE 3A

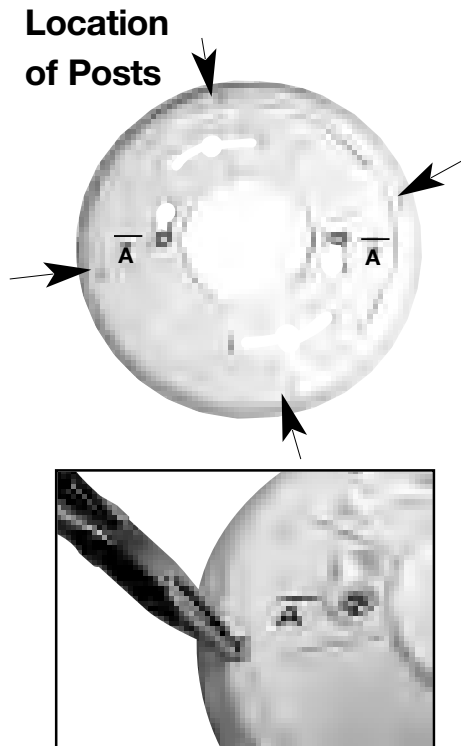
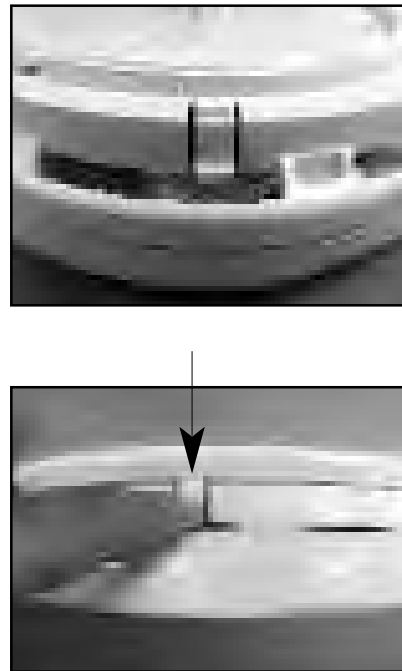


FIGURE 3B



Tamper Resist Feature

To make the Smoke/CO alarm somewhat tamper resistant, a Tamper Resist Feature has been provided. Activate the Tamper Resist Feature by breaking off the four posts in the square holes in the mounting plate (see Figure 3A). Rotate the alarm onto the mounting plate until you hear the tamper resist tab snap into place, locking the alarm.

Using the Tamper Resist Feature will deter children and others from removing the alarm. To remove the alarm, press on the tamper resist tab, and rotate the alarm off of the mounting plate (see Figure 3B).

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 plate by rotating the alarm in the direction of the "OFF" arrow on the cover. To disconnect the AC Quick-Connect wire harness, squeeze the locking arms on the sides while pulling the connector away from the bottom of the alarm (see Page 14, Figure 2).

Battery Replacement

For model KN-COSM-IBCA only.

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, and will continue for at least 7 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, the unit has malfunctioned. Call our toll free Product Support Line at 1-800-880-6788 for instructions on how to return the unit.

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

To replace the battery you must first remove the alarm from the mounting plate by following the **Alarm Removal** instructions above. After the alarm has been removed, you can open the battery door and replace the battery. Battery installation instructions are provided on the inside of the battery door.

When installing the battery, press the battery reminder tab down into the battery compartment and install the battery (see Figure 4).

Battery Replacement

(For model KN-COSM-IBCA only)

FIGURE 4

BATTERY REPLACEMENT



Battery
tab



CAUTION! If the battery reminder tab is not held down in the battery compartment by the battery, the battery door will not close, the AC Quick-Connect wire harness will not attach to the alarm, and the alarm will not attach to the mounting plate.

After changing the battery, reconnect the alarm and test by using the Test/Reset/Hush[®] button, and check that the green LED is on.

Replace battery with one of the following approved brands:

Duracell MN1604 or MX1604

Energizer 522

Eveready 1222

Gold Peak 1604A or 1604S

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.

Constant exposure to high or low humidity, or temperature may reduce battery life.

Maintenance

To keep this Smoke/CO Alarm in peak condition:

- Verify the unit's alarm and LED lights operation by pushing the Test/Reset/Hush® button once a week.
- Remove the unit from mounting plate and vacuum the alarm cover and vents with a soft brush attachment at least once a year to remove dust and dirt. Reinstall immediately after cleaning and then test using the Test/Reset/Hush® button.
- Never use detergents or other solvents to clean the unit.
- Avoid spraying air fresheners, 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 to 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.

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

When household cleaning supplies or similar contaminants are used, the area must be well ventilated. The following substances can affect 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

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.

Symptoms of CO Poisoning

The following symptoms are related to carbon monoxide poisoning and should be discussed with ALL members of the household:

Mild Exposure: Headaches, running nose, sore eyes, often described as "flu"-like symptoms

Medium Exposure: Dizziness, drowsiness, vomiting

Extreme Exposure: Unconsciousness, brain damage, 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 affected. Familiarization with the effects of each level is important.

Carbon Monoxide Safety

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.

CO Sensor Response Times

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.

Carbon Monoxide Safety

Possible Sources 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:

- 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 drafts and changes in air pressure, corroded or disconnected vent pipes, loose or cracked furnace exchangers
- Vehicles and other combustion engines running in an open or closed garage, attached or near a home
- Charcoal/gas grills and hibachis in an enclosed area

Carbon Monoxide Safety

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, and insufficient draft in the vent pipes
- negative pressure differential resulting from the use of exhaust fans
- simultaneous operation of several fuel-burning appliances competing for limited internal air
- loose vent pipe connections from fuel-fired appliances
- obstructions, or unconventional vent pipe designs that can amplify the above situations
- poorly designed or maintained chimneys and/or vents
- Extended operation of unvented fuel-burning devices (range, oven, fireplace, etc.)
- Temperature inversions that can trap exhaust gases near the ground
- Car idling in an open or closed attached garage, or near a home

Every year, have the heating system, vents, chimney and flue inspected and cleaned by a qualified technician. Always install appliances according to manufacturer's instructions and adhere to local building codes. Most appliances should be installed by professionals and inspected after installation. Regularly examine vents and chimneys for improper connections, visible rust, or stains, and check for cracks in furnace heat exchangers. Verify that 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 in an emergency.

Carbon Monoxide Safety

Carbon Monoxide Alarm Procedure



If alarm signal sounds 4 quick beeps, 5 seconds off:

- 1) Immediately move to fresh air - outdoors or by an open door or window. Check that all persons are accounted for. Do not re-enter the premises or move away from the open door/window until emergency services responders have arrived, the premises have been aired out, and your alarm remains in its normal operating condition.
- 2) Call your emergency local 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!**

Fire Safety

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.

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.

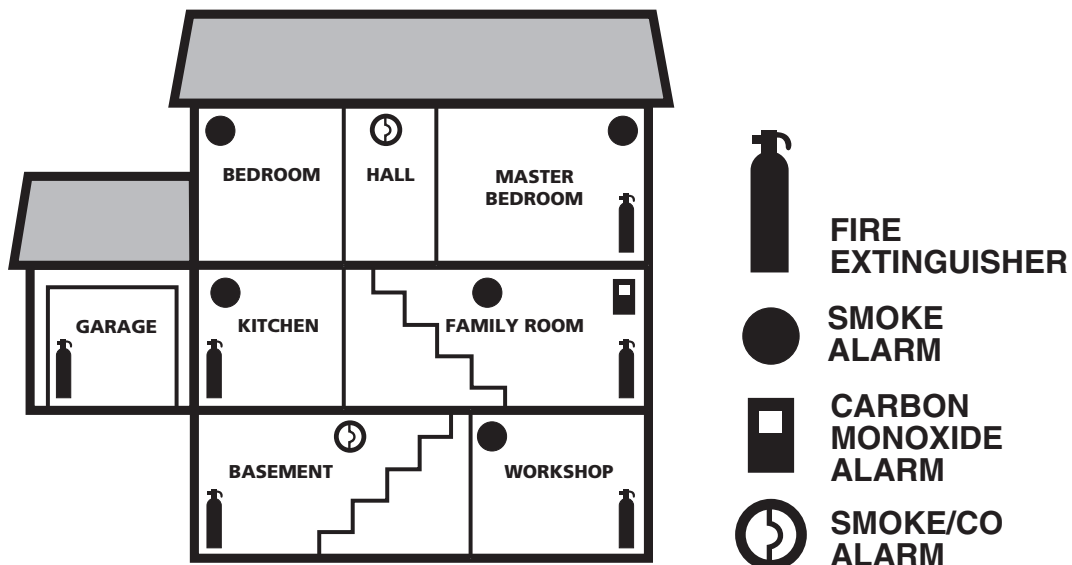
- Alert small children in the home.
- Leave immediately using one of your planned escape routes (see above).
- Before opening inside doors look for smoke seeping through the edges. Feel with the back of your hand - if the door is hot use your second exit. If you feel it's safe, open the door very slowly 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

- Go to a 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 re-enter 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 stated in the NFPA Standard 72. For instance:
 - smoking in bed
 - leaving children unsupervised
 - cleaning with flammable liquids, such as gasoline

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. Be prepared to Stop, Drop and Roll if clothes catch on fire, and 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.



Fire Safety

Additional Recommendations

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. (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. Check with local officials for specific regulations concerning your situation.

The **required number of smoke alarms** (protected areas mentioned above) 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.

Warranty

Limited Warranty

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 for model KN-COSM-IBCA or model KN-COSM-ICA** 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 AC or DC 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 Kidde 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. Kidde 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.

Warranty

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.

This Kidde Combination Smoke & CO Alarm is not a substitute for property, fire, 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 the warranty.

NOTE: This alarm is not intended to alert hearing impaired individuals.

During the specified warranty period Kidde will repair or replace, at its discretion any defective Kidde Combination Smoke & CO Alarms that are returned in a postage paid package to the following address: Kidde Canada Inc., P.O. Box 40, Apsley, ON K0L 1A0. Please include your name, address and phone number along with a brief description of what is wrong with the unit. For further assistance please call our toll free Product Support Line at 1-800-880-6788. Damage from neglect, abuse or failure to adhere to any of the enclosed instructions will result in termination of the warranty, and the unit will not be replaced or repaired.

The model numbers are:

KN-COSM-IBCA (with battery backup)

KN-COSM-ICA (without battery backup)

This user's guide and the products described herein are copyrighted, with all rights reserved. Under these copyright laws, no part of this manual may be copied for use without the written consent of Kidde. If you require further information please contact our Product Support Line at: 1-800-880-6788, or write us at: Kidde Canada Inc., P.O. Box 40, Apsley, ON K0L 1A0.

Our internet address is www.kiddecanada.com

Notes

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

Alarm Model Number (located on back of alarm):

Date of Manufacture (located on the back of the alarm):

Date of Purchase:

Where Purchased:

Alarm Assembly Number (located on the back of the alarm):



P.O. Box 40, Apsley, ON K0L 1A0.
Product Support Line: 1-800-880-6788
www.kiddecanada.com

Custom Assembled in China with U.S. and Foreign Components.