

Smoke Alarm

User's Guide

i9070CA

i9070CA
with Front loading
battery door



9 V Battery Operated

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

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Made in China. Patents Pending

Introduction

Thank you for purchasing this smoke alarm. It is an important part of your family's home safety plan. You can trust this product to provide the highest quality safety protection. We know you expect nothing less when the lives of your family are at stake.

Please take a few minutes to thoroughly read this alarm manual, and save it for future reference. Teach children how to respond to the alarms, and that they should never play with the unit.

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.

Image 1C will help you determine the correct location of safety products that will help make your home a safer place.

Installation

This product is designed to detect products of combustion using the ionization technique. It contains 0.9 microcurie of Americium 241, a radioactive material. Distributed under U.S. NRC License No. 32-23858-01E. Manufactured in compliance with U.S. NRC safety criteria in 10 CFR 32.27. The purchaser is exempt from any regulatory requirements.

This smoke alarm uses an extremely small amount of radioactive element in the ionization sensor chamber. Do not try to repair the smoke alarm yourself. Refer to the instructions in Warranty for service.

WARNING! Removal of the smoke alarm battery will render the smoke alarm inoperative.

IMPORTANT! Read all instructions before installation and keep this manual near the alarm for future reference.

Installation

Recommended Locations

- Locate the first alarm in the immediate area of the sleeping rooms. Try to monitor the exit path, as the sleeping rooms are usually farthest from the exit. If more than one sleeping area exists, locate additional alarms in each sleeping area (Image 1A).
- Locate additional alarms to monitor any stairway as stairways act like chimneys for smoke and heat.
- Locate at least one alarm on every floor level (Image 1B).
- Locate an alarm in every sleeping room.
- Locate an alarm in every room where electrical appliances are operated (i.e. portable heaters or humidifiers).
- 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 smoke 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.
- For mobile home installation, select locations carefully to avoid thermal barriers that may form at the ceiling. For more details, see **Mobile Homes**.
- When mounting an alarm on the ceiling, locate it at a minimum of 10 cm (4") from the side wall (Image 2A).
- When mounting 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 (Image 2A and 2B).
- Put smoke alarms at both ends of a hallway or large room if the hallway or room is more than 9.1 m (30 ft) long. For large rooms, one smoke alarm is recommended for every 500 square feet of floor space.
- 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 in 2.4 m (1 foot in 8 feet) horizontally shall be located on the high side of the room." NFPA 72 states: "A row of detectors shall be spaced and located within 0.9 m (3') of the peak of the ceiling measured horizontally" (Image 2B and 2C).

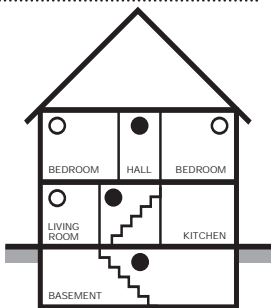
Installation



- Smoke Alarms for Minimum Protection
- Smoke Alarms for Additional Protection
- △ Ionization Type Smoke Alarm with Hush® Control or Photoelectric Type

SINGLE FLOOR PLAN

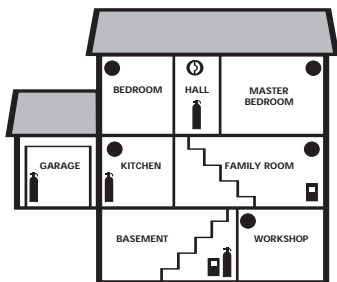
IMAGE 1A



MULTIPLE FLOOR PLAN

IMAGE 1B

- In 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 create a thermal barrier which can prevent the smoke from reaching an alarm mounted on the ceiling. If you are not sure about the insulation in your home, or if you notice that the outer walls and ceiling are either hot or cold, install the alarm on an inside wall. In such homes, install the smoke alarm 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 (Image 2A).



- FIRE EXTINGUISHERS
- SMOKE ALARMS
- CARBON MONOXIDE ALARMS
- TALKING SMOKE/CO ALARM

IMAGE 1C

TOTAL HOME PROTECTION

Installation

- Install Smoke Alarms on tray-shaped ceilings (coffered ceilings) on the highest portion of the ceiling or on the sloped portion of the ceiling within 12" (305mm) vertically down from the highest point (Image 2D).

Locations to Avoid

- 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.
- Do not place the alarm where drapes or other objects will block the sensor. Smoke must be able to reach the sensor to accurately detect conditions.
- Do not install in peaks of vaulted ceilings, "A" frame ceilings or gabled roofs. (Less than 10 cm (4") from the peak of an "A" frame type ceiling.)
- Install at least 30.5 cm (12") away from fluorescent lights as electronic noise may cause nuisance alarms.
- Keep out of insect infested areas. Avoid excessively dusty, dirty or greasy areas. Dust particles may cause nuisance alarms or failure to alarm.
- Extreme temperatures may effect the sensitivity of the 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%. Very humid areas, with moisture or steam, can cause nuisance alarms.
- Avoid placing ionization smoke alarms in kitchen areas. Normal cooking may cause nuisance alarms. If a kitchen alarm is desired, it should have an alarm silence feature or be a photoelectric type.
- Do not place in the garage. Particles of combustion are present when you start your automobile.
- 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.

Installation

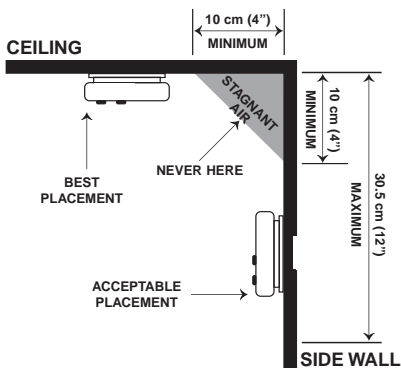


IMAGE 2A

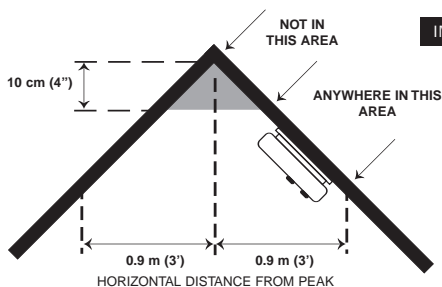


IMAGE 2B

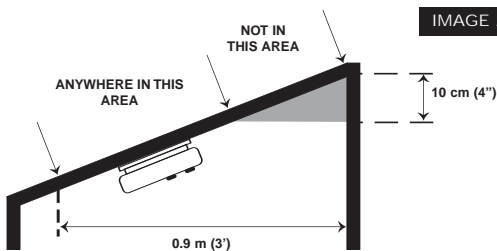
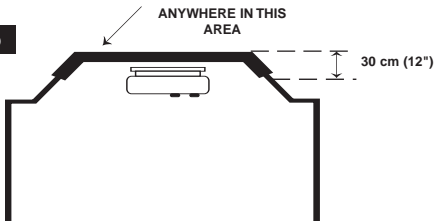


IMAGE 2C

Installation

IMAGE 2D



Mobile Homes

Modern mobile homes have been designed and built to be energy efficient. Install smoke alarms as recommended in Recommended Locations and Image 2A.

In mobile homes that are not well insulated compared to present standards, extreme heat or cold can be transferred from the outside to the inside through poorly insulated walls and roof. This may create a thermal barrier that can prevent the smoke from reaching an alarm mounted on the ceiling. In such units, install the smoke 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 (Image 2A).

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. For minimum protection, install at least one alarm close to the sleeping areas. For additional protection, see Image 1A.

WARNING: Test your smoke alarm operation after R.V. or mobile home vehicle has been in storage, before each trip and at least once a week during use.

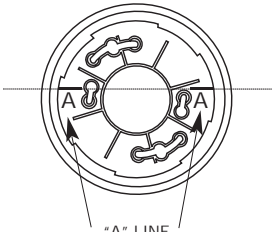
Mounting

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

CAUTION: When wall mounting, the unit must be mounted so that battery door faces down! (Image 3C) Incorrect orientation of wall mounted smoke alarms will decrease operational effectiveness.

Installation

- After selecting the proper smoke alarm location as described previously, hold the mounting plate against the selected installation location (wall or ceiling) and mark the center of the holes with a pencil. To ensure aesthetic alignment of the alarm with the hall-way, or wall, the "A" line on the mounting plate should be *parallel* with the hallway when ceiling mounted, or *horizontal* when wall mounted (Image 3A and 3B). Drill a hole through the pencil marks and use the enclosed screws and anchors to secure. Use 3/16" drill for anchor holes. Align the alarm with the mounting plate and rotate clockwise (right) until the unit is aligned.



"A" LINE
ALIGNMENT MARKS

IMAGE 3A

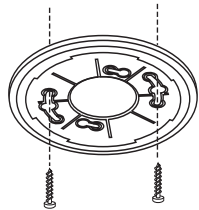
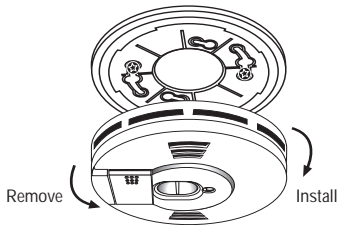


IMAGE 3B



WALL MOUNTING
POSITION

IMAGE 3C



ROTATE TO MOUNT OR
TO REMOVE

IMAGE 3D

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 (Image 3D). This ratcheting function allows for aesthetic alignment.

Note: The alarm will attach to the mounting plate in 4 positions (every 90 degrees). **When wall mounting, make sure the battery door is at the bottom of the unit (Image 3C).**

Battery

This unit will not function without a properly installed battery, and is equipped with a battery lockout feature which prevents the battery door from closing if a battery is not installed correctly. See **Maintenance** section for additional information concerning battery installation.

- For initial installation a pre-installed 9 V battery is included with a battery pull tab that allows for easy connection. Simply pull the tab out, and the battery is connected! See **Maintenance** for additional information concerning battery installation.
- Pull the Battery Pull Tab (yellow tab protruding from the unit) completely out of the unit. This will automatically connect the battery.

Operation

Testing

- Test the unit to ensure proper operation by pressing the Test button.

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

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

Operation

Hush® Control Feature

Smoke alarms are designed to minimize nuisance alarms. Cigarette smoke will not normally set off the alarm, unless the smoke is blown directly into the alarm. Combustion particles from cooking may set off the alarm if the alarm is located close to the cooking area. Large quantities of combustible particles are generated from spills or when broiling. Using the fan on a range hood that vents to the outside (non-recirculating type) will also help remove these combustible particles from the kitchen. The Hush® button is extremely useful in a kitchen area or other areas prone to nuisance alarms.

The Hush® feature has the capability of temporarily desensitizing the smoke alarm circuit for about 7 minutes. This feature is to be used only when a known alarm condition, such as smoke from cooking, activates the alarm.

If the alarm does sound, check for fires first. If a fire is discovered, get out and call the fire department. If no fire is present, check to see if one of the reasons listed in Locations to Avoid may have caused the alarm.

The smoke alarm is desensitized by pushing the Hush® button on the smoke alarm cover. If the smoke is not too dense, the alarm will silence immediately and the red LED will flash every 10 seconds for 8 minutes. This indicates that the alarm is in a temporarily desensitized condition. The smoke alarm will automatically reset after approximately 7 minutes. If after this period particles of combustion are still present, the alarm will sound again.

The Hush® feature can be used repeatedly until the air has been cleared of the condition causing the alarm. Pushing the Test button on the alarm will 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.

Operation

LED Indicators

This alarm is equipped with a red LED indicator, with two modes of operation.

Red LED - Flashing every 30-40 seconds: Indicates that the smoke alarm is operating properly.

Red LED - Flashing: When the smoke alarm senses particles of combustion and goes into alarm (constant pulsating sound), the red LED will flash once per second. The flashing LED and pulsating alarm will continue until the air is cleared.

Operation

Battery Tamper Resist Feature

This alarm has a battery tamper resist feature, which prevents the battery door from being opened. This feature is effective in preventing the removal of the battery from this device (which will render the unit inoperable).

To activate the battery tamper resist feature, remove the unit from the mounting plate 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 direction indicated by the arrows (Image 4). The tamper resist feature is now active and the battery door can not be opened until the tamper resist feature is deactivated.



IMAGE 4

BATTERY TAMPER RESIST SWITCH

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

To deactivate the battery tamper resist, in order to change the battery, remove the unit from the mounting plate and locate the small cut-out in the middle of the product label. Using a screwdriver or similar tool, slide the switch in the **OPPOSITE DIRECTION OF THE ARROWS**. The battery door can now be opened.

Maintenance

Testing

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

Test by pushing the Test button on the cover and hold it down for a minimum of 5 seconds. This will sound the alarm if all the electronic circuitry, horn and battery are working. If no alarm sounds, the unit has a defective battery or some other failure. DO NOT use an open flame to test your alarm, you could damage the alarm or ignite combustible materials and start a fire.

Test the alarm weekly to ensure proper operation. Erratic or low sound coming from your alarm may indicate a defective alarm, and it should be returned for service (see Warranty section).

Alarm Removal

To remove the alarm from the mounting plate, rotate the alarm in the direction of the “OFF” arrow on the cover.

Maintenance

Battery Removal

NOTE: If battery tamper resist feature has been activated it will need to be deactivated in order to change the battery. Refer to the **Battery Tamper Resist Feature** section for instructions.

To replace or install the battery press down on the battery door and then release to allow the door to pop open. The battery can then be pulled out (Image 5). When installing a new battery, make sure the battery terminals are facing outwards as illustrated inside the battery door and that the polarity matches the markings printed. Completely press the battery door down into the alarm and release. The battery door will secure into the closed position.

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

This alarm has a low battery monitor circuit which will cause the alarm to “chirp” approximately every 30-40 seconds for a minimum of seven (7) days when the battery gets low. Replace the battery when this condition occurs.



IMAGE 5

BATTERY DOOR OPERATION

Maintenance

This smoke alarm uses a 9 V carbon zinc battery (alkaline and lithium batteries may also be used). A fresh battery should last for one year under normal operating conditions.

Use only the following 9 volt batteries for replacement:

Carbon-Zinc Type	Eveready 216 or 1222 Gold Peak 1604P or 1604S
Alkaline Type	Energizer 522 Duracell MN1604 or MX1604 Gold Peak 1604A Panasonic 6AM6, 6AM-6, 6AM-6PI, 6AM6X or 6LR61(GA)
Lithium Type	Ultralife U9VL-J

These batteries can be purchased at your local retailer.

WARNING! Use only the batteries specified above. Use of different batteries than the recommended ones, may have a detrimental effect on the smoke 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. Be sure to follow the battery installation instructions printed on the back of the alarm.

NOTE: REGULAR WEEKLY TESTING IS REQUIRED!

NOTE: If after battery replacement the alarm continues to chirp, push the Test button. The Hush® feature may have been activated accidentally while changing the battery and pushing the Test button will end the Hush® cycle.

Maintenance

Cleaning the Alarm

The alarm should be cleaned at least once a year.

- To clean your alarm, remove it from the mounting plate as outlined in previous sections. You can clean the alarm by using compressed air or a vacuum cleaner hose with a soft brush attachment. Blow or vacuum around the perimeter of the alarm to remove dust and dirt. The outside of the alarm can be wiped with a damp cloth (do not use a wet cloth to avoid water entering the unit).
- After cleaning, reinstall your alarm and test your alarm by using the Test button. If cleaning does not restore the alarm to normal operation, the alarm should be replaced.
- Do not paint the unit. Paint will seal the vents and interfere with the sensor's ability to detect smoke. Never attempt to disassemble the unit or clean inside. This action will void your warranty.

Replacing the Alarm

The National Fire Protection Association (NFPA) and Kidde recommend replacing this alarm ten years from the date code label (located on the back of the alarm).

Fire Safety

WARNING: Please read carefully and thoroughly.

- NFPA 72 states: Fire-warning equipment for residential occupancies are capable of protecting about half of the occupants in potentially fatal fires. Victims are often intimate with the fire, too old or too 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 would be 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 smouldering fires) sooner than ionization alarms. Home fires develop in different ways and are often unpredictable. Neither type of alarm (photoelectric or ionization) is always best, and a given alarm may not always provide warning of a fire.
- 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 sleeping area or on a different floor, it may not wake up a sound sleeper.
- The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home.
- Although smoke alarms can help save lives by providing an early warning of a fire, they are not a substitute for an insurance policy. Home owners, landlords and tenants should have adequate insurance to protect their lives and property.

Fire Safety

Good Safety Habits

Develop and practice a plan of escape!

- Install and maintain Fire extinguishers on every level of the home and in the kitchen, basement and garage. Know how to use a fire extinguisher prior to an emergency.
- Make a floor plan indicating all doors and windows and at least two (2) escape routes from each room. Second story windows may need an escape ladder.
- Have a family meeting and discuss your escape plan, showing everyone what to do in case of fire.
- Determine a place outside your home where you all can meet if a fire occurs.
- Familiarize everyone with the sound of the smoke alarm and train them to leave your home when they hear it.
- Practice a fire drill at least every six months, including fire drills at night. Ensure that small children hear the alarm and wake when it sounds. They must wake up in order to execute the escape plan. Practice allows all occupants to test your plan before an emergency. You may not be able to reach your children. It is important they know what to do.
- 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.

Fire Safety

Alarm Exit Procedure

- Alert small children in the home.
- Leave immediately by your escape plan. Every second counts, so don't waste time getting dressed or picking up valuables.
- In leaving, don't open any inside door without first feeling its surface. If hot, or if you see smoke seeping through cracks, don't open that door! Instead, use your alternate exit. If the inside of the door is cool, place your shoulder against it, open it slightly and be ready to slam it shut if heat and smoke rush in.
- Stay close to the floor if the air is smoky. If possible do not breathe too deeply to avoid smoke inhalation. Breathe through a cloth (preferably wet) if possible.
- Once outside, go to your selected meeting place and make sure everyone is there.
- Call the fire department from your neighbor's home - not from yours!
- Don't return to your home until the fire officials say that it is all right to do so.
- There are situations where a smoke alarm may not be effective to protect against fire as noted by the NFPA and UL. For instance:
 - a) smoking in bed
 - b) leaving children home alone
 - c) cleaning with flammable liquids, such as gasoline
 - d) fires where the victim is intimate with a flaming initiated fire; for example, when a person's clothes catch fire while cooking
 - e) fires where the smoke is prevented from reaching the detector due to a closed door or other obstruction
 - f) incendiary fires where the fire grows so rapidly that an occupant's egress is blocked even with properly located detectors

NRC Information

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

Fire Safety

Additional Recommendations

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

Smoke Detection. Where required by applicable laws, codes, or standards for a specific type of occupancy, approved single- and multiple-station smoke alarms shall be installed as follows:

- (1) In all sleeping rooms and guest rooms
- (2) Outside of each separate dwelling unit sleeping area, within 6.4 m (21 ft) of any door to a sleeping room, the distance measured along a path of travel
- (3) On every level of a dwelling unit, including basements
- (4) On every level of a residential board and care occupancy (small facility), including basements and excluding crawl spaces and unfinished attics
- (5) In the living area(s) of a guest suite
- (6) In the living area(s) of a residential board and care occupancy (small facility)

Smoke Detection - Are More Smoke Alarms Desirable?

Required number of smoke alarms (as shown in Image 1A and Image 1B): The required number of smoke alarms might not provide reliable early warning protection for those areas separated by a door from the areas protected by the required smoke alarms. For this reason, the use of additional smoke alarms for those areas for increased protection is recommended.

The additional areas include the basement, bedrooms, dining room, furnace room, utility room, and hallways not protected by the required smoke alarms. The installation of smoke alarms in kitchens, attics (finished or unfinished), or garages is not normally recommended, because these locations occasionally experience conditions that can result in improper operation.

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

Notify your local fire department and insurance company of your smoke alarm installation.

Warranty

If after reviewing this manual you feel that your smoke 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.

10 Year Limited Warranty

Kidde warrants to the original purchaser that the enclosed smoke 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 smoke alarm or any part which we find to be defective in material, workmanship or design, free of charge to the customer, upon sending the smoke alarm with proof of date of purchase, postage and return postage prepaid, to Kidde Canada Inc., P.O. Box 40, Apsley K0L 1A0. 1-800-880-6788.

This warranty shall not apply to the smoke 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 electrical power.

The liability of Kidde or any of its parent or subsidiary corporations arising from the sale of this smoke alarm or under the terms of this limited warranty shall not in any case exceed the cost of replacement of this smoke alarm and, in no case, shall Kidde or any of its parent or subsidiary corporations be liable for consequential loss or damages resulting from the failure of this smoke alarm or for breach of this or any other warranty, express or implied, even if the loss or damage is caused by the company's negligence or fault.

Since some provinces do not allow limitations on 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.

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.