

# Smoke Alarm User Guide

**Lithium (non-replaceable sealed in) Battery-Operated Smoke Alarm with Alarm Memory and SMART HUSH™ Control to temporarily silence nuisance alarms.**

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.

***For your convenience, write down the following information. If you call our Consumer Hotline, these are the first questions you will be asked.***

<i>Date Code (located on back of alarm): The National Fire Protection Association (NFPA) and the manufacturer recommend replacing this alarm ten years from the date code.</i>	
<i>Date of Purchase:</i>	
<i>Where Purchased:</i>	

SIGNALLING



This alarm detects products of combustion using the ionization technique. It contains 0.9 microcurie of Americium 241, a radioactive material (see Section 9). Distributed under U.S. NRC License No. 32-23858-01E. Manufactured in compliance with U.S. NRC safety criteria in 10 CFR 32.27. The purchaser is exempt from any regulatory requirements. Do not try to repair the smoke alarm yourself. Refer to the instructions in Section 12 for service.

**IMPORTANT! READ ALL INSTRUCTIONS BEFORE INSTALLATION AND KEEP THIS USER GUIDE NEAR THE ALARM FOR FUTURE REFERENCE.**

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## **1. RECOMMENDED LOCATIONS FOR ALARMS**

- Locate the first alarm in the immediate area of the bedrooms. Try to monitor the exit path as the bedrooms are usually farthest from the exit. If more than one sleeping area exists, locate additional alarms in each sleeping area.
- 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.
- Locate an alarm in every bedroom.
- 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 HOME INSTALLATION below.
- When mounting an alarm on the ceiling, locate it at a minimum of 4" (10 cm) from the side wall (see figure 1).
- When mounting the alarm on the wall, use an inside wall with the top edge of the alarm at a minimum of 4" (10 cm) and a maximum of 12" (30.5 cm) below the ceiling (see figure 1).
- Put smoke alarms at both ends of a bedroom hallway or large room if the hallway or room is more than 30 feet (9.1 m) long.

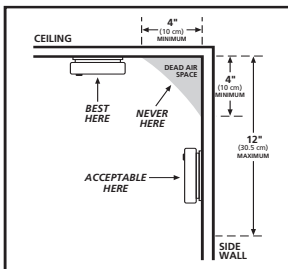


FIGURE 1

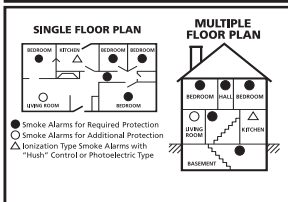


FIGURE 2

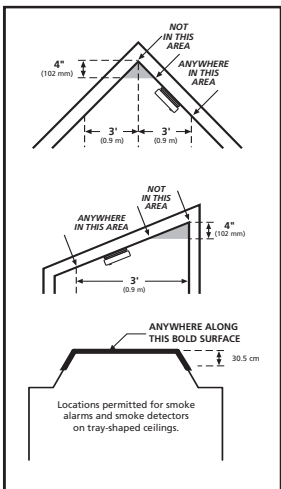


FIGURE 3

- NFPA 72 states: "Smoke alarms in rooms with ceiling slopes greater than 1 ft in 8 ft (.3m in 2.4 m) horizontally shall be located on the high side of the room." NFPA 72 states: "A row of detectors shall be spaced and located within 3 ft (0.9m) of the peak of the ceiling measured horizontally."

## **MOBILE HOME INSTALLATION**

Modern mobile homes have been designed and built to be energy efficient. Install smoke alarms as recommended above (see figures 1 and 2).

In older 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 which 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 4" (10 cm) and a maximum of 12" (30.5 cm) 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 the alarm on an inside wall. For minimum protection, install at least one alarm close to the bedrooms. For additional protection, see SINGLE FLOOR PLAN in figure 2.

**⚠ WARNING: TEST YOUR SMOKE ALARM OPERATION AFTER MOBILE HOME HAS BEEN IN STORAGE OR UNOCCUPIED AND AT LEAST ONCE A WEEK DURING USE.**

## **2. LOCATIONS TO AVOID**

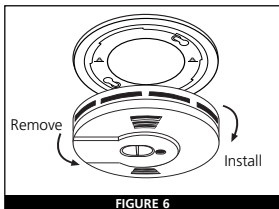
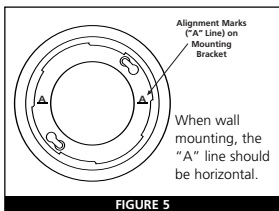
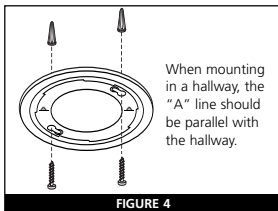
- In the garage. Products of combustion are present when you start your automobile.
- Less than 4" (10cm) from the peak of an "A" frame type ceiling.
- In an area where the temperature may fall below 40°F or rise above 100°F, such as garages and unfinished attics.
- In dusty areas. Dust particles may cause nuisance alarm or failure to alarm.
- In very humid areas. Moisture or steam can cause nuisance alarms.
- In insect-infested areas.

- Smoke alarms should not be installed within 3 ft (.9m) of the following: the door to a kitchen, the door to a bathroom containing 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.
- Kitchens. Normal cooking may cause nuisance alarms. If a kitchen alarm is desired, it should have an alarm silence feature or be a photoelectric type.
- Near fluorescent lights. Electronic “noise” may cause nuisance alarms.
- 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.

### 3. INSTALLATION INSTRUCTIONS

**⚠ CAUTION: THIS UNIT IS SEALED (INCLUDING THE BATTERY). THE COVER IS NOT REMOVABLE!**

1. To insure aesthetic alignment of the alarm with the hallway or wall, the “A” line on the mounting bracket should be parallel with the hallway when ceiling mounting or horizontal when wall mounting.



2. After selecting the proper smoke alarm location as described in Section 1, attach the mounting bracket to the ceiling as shown in figure 3. For wall mounting see figure 4. Place the mounting plate on the wall; be sure the "A" line is horizontal (parallel to the floor). Use the screws and anchors provided to secure the mounting bracket (use 3/16" drill bit for anchors).
3. This alarm has a battery permanently sealed inside the alarm no battery installation is necessary.

## **ACTIVATING THE ALARM**

**This model is equipped with a feature that automatically activates the alarm when the alarm is mounted to the mounting bracket for the first time.**

**This battery activation is a one-time action, and cannot be reversed. Once activated the battery will supply power to the alarm for the life of the alarm (10 years). Be sure that the mounting bracket is mounted correctly before installing the alarm on the mounting bracket.**

1. To activate the alarm, install the alarm on the mounting bracket (figure 6) and rotate the alarm clockwise (as indicated on the alarm cover) until the alarm ratchets into place (the ratcheting function allows for aesthetic alignment). NOTE: The alarm will mount to the bracket in four (4) positions (every 90 degrees).

**The alarm is now activated!**

2. After installation/activation, test your alarm by depressing and holding down the test button for a minimum of 5 seconds (or until the alarm sounds). This should sound the alarm.

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

## **TAMPER RESIST FEATURE**

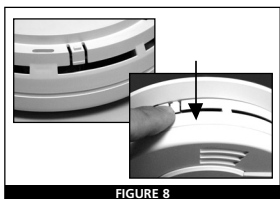
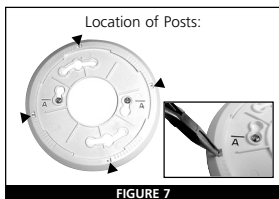
### **Smoke Alarm Tamper Resist Feature**

This alarm is equipped with a tamper resist feature that helps prevent someone from removing the unit from the mounting bracket. When activated, it can be very effective in preventing smoke alarm removal or tampering.

Activate the smoke alarm tamper resist feature by breaking off the four posts in the square holes in the mounting bracket (see figure 7). When the posts are broken off, the tamper resist 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 the bracket.

**NOTE: To remove the alarm when the tamper resist tab is engaged, press down on the tamper resist tab and rotate the alarm in the direction indicated by the arrows on the cover of the alarm (see figure 8).**



#### 4. OPERATION AND TESTING

**OPERATION:** The smoke alarm is operating once the alarm is activated (see Section 3) and testing is complete. When products of combustion are sensed, the unit sounds a loud 85db pulsating alarm until the air is cleared.

**SMART HUSH™ CONTROL:** The SMART HUSH™ feature has the capability of temporarily desensitizing the alarm circuit for approximately 8 minutes. This feature is to be used only when a known alarm condition, such as smoke from cooking, activates 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 illuminate for 1 seconds every 8 seconds for 7 to 9 minutes. This indicates that the alarm is in a temporarily desensitized condition. The smoke alarm will automatically reset after approximately 8 minutes and sound the alarm if particles of combustion are still present. The SMART HUSH™ feature can be used repeatedly until the air has been cleared of the condition causing the alarm. Pushing the test/reset button on the alarm will end the temporarily desensitized period.

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

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

**FLASHING LED LIGHT:** This smoke alarm is equipped with a flashing red indicator light with four modes of operation:

- The LED will flash every 40-45 seconds in the standby mode signifying that the alarm is receiving power.
- The LED will flash every 1.5 seconds when the alarm is sounding.
- The LED will illuminate for 1 seconds every 8 seconds while the alarm is in the temporarily desensitized mode.
- If alarm memory has been set (see below for alarm memory description), the LED will flash rapidly when the test button is pressed.

**ALARM MEMORY:** This smoke alarm has an memory function that will inform you if the alarm has sounded since the test button was last pressed. The alarm memory will cause the red LED to flash rapidly when the test button is pressed. The alarm memory is reset when the test button is released.

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

**NOTE: WEEKLY TESTING IS REQUIRED.**

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 Section 11).



## 5. NUISANCE ALARMS

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 which vents to the outside (non-recirculating type) will also help remove these combustible products from the kitchen.

This model i9010 has a SMART HUSH™ control that is extremely useful in a kitchen area or other areas prone to nuisance alarms. For more information refer to Section 4, OPERATION AND TESTING.

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 Section 2 may have caused the alarm.

## 6. Battery

**NOTE: One Lithium-Ion battery, permanently sealed inside the alarm, powers this unit; no battery installation or replacement is necessary for the life of the alarm.**

**⚠ WARNING! DO NOT ATTEMPT TO OPEN THE ALARM FOR ANY REASON!**

To activate the alarm, attach the alarm to the mounting bracket by rotating in the direction of the arrows on the cover, see ACTIVATING ALARM in Section 3 (INSTALLATION INSTRUCTIONS).

**Low battery:** This alarm has a low battery monitor circuit which will cause the alarm to “chirp” approximately every 40-45 seconds, for a minimum of thirty (30) days, when the battery is low, to indicate that the alarm needs replacement.

**NOTE: If the tamper resist feature has been activated, see TAMPER RESIST FEATURE in Section 3 (INSTALLATION INSTRUCTIONS).**

**THE UNIT MUST BE DISCHARGED (see “Permanently Disable Alarm / Discharge Battery” section) when alarm is in “low battery” condition.**

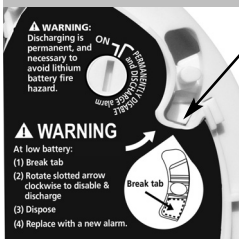
## 7. PERMANENTLY DISABLE ALARM / DISCHARGE BATTERY

### ⚠ WARNING!

- Discharging the battery is permanent. Once the alarm has been discharged, it cannot be reactivated!
- Once discharged, the alarm will NO LONGER DETECT SMOKE.
- Once the alarm is discharged the battery will be depleted and the alarm will no longer function.
- Once the alarm has been discharged, it cannot be mounted onto the mounting plate or reactivated.

### To Permanently Disable Alarm / Discharge Battery:

- To remove the alarm when the tamper resist tab is engaged, press down on the tamper resist tab and rotate the alarm in the direction indicated by the arrows on the cover of the alarm (see figure 8).



- Push in the dashed area with a screwdriver to break tab.



- After the tab is broken, use the screwdriver to turn the slotted arrow to the "PERMANENTLY DISABLE and DISCHARGE alarm" location. This will disable the alarm, stop the low battery "chirps" and render the alarm safe for disposal by draining the battery.

⚠ WARNING! Failure to DISCHARGE alarm as instructed prior to disposal may create potential for lithium battery related fire or hazard.

## **8. MAINTENANCE**

### **CLEANING YOUR ALARM**

#### **YOUR ALARM SHOULD BE CLEANED AT LEAST ONCE A YEAR**

If the tamper resist feature has been activated you will need to follow the instructions in Section 3 to remove your alarm for maintenance.

To clean your alarm, remove it from the mounting bracket as outlined in the beginning of this section. You can clean the interior of your alarm (sensing chamber) by using compressed air or a vacuum cleaner hose and blowing or vacuuming through the openings around the perimeter of the alarm. The outside of the alarm can be wiped with a damp cloth.

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.

## **9. LIMITATIONS OF SMOKE ALARMS**

### **▲ WARNING: PLEASE READ CAREFULLY AND THOROUGHLY**

- 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.
- Leading authorities recommend that both ionization and photoelectric smoke alarms be installed to help insure maximum detection of the various types of fires that can occur within the home. 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.
- 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. Home owners and renters should have adequate insurance to protect their lives and property.

## **10. GOOD SAFETY HABITS**

### **DEVELOP AND PRACTICE A PLAN OF ESCAPE**

- Install and maintain Fire extinguishers on every level of the home and in the kitchen, basement and garage. Know how to use a fire extinguisher prior to an emergency.
- Make a floor plan indicating all doors and windows and at least two (2) escape routes from each room. Second story windows may need a rope or chain ladder.
- Have a family meeting and discuss your escape plan, showing everyone what to do in case of fire.
- Determine a place outside your home where you 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.

## **WHAT TO DO WHEN THE ALARM SOUNDS**

- 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. Breathe shallowly through a cloth, wet if possible.
- Once outside, go to your selected meeting place and make sure everyone is there.
- Call the fire department from your cell phone outside, or 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 stated in the NFPA Standard 72. For instance:

- a) smoking in bed
- b) leaving children home alone
- c) cleaning with flammable liquids, such as gasoline

## **11. 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.

## **12. NFPA REQUIRED PROTECTION**

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

Where required by other governing 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 21 ft (6.4 m) of any door to a sleeping room, with 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?

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

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

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

### **13. ⚠ CAUTION (AS REQUIRED BY THE CALIFORNIA STATE FIRE MARSHAL)**

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

The NFPA suggests that alarms installed within 20' (6.1m) of cooking appliances shall have an alarm silence feature or be of the photoelectric type.

### **14. FCC**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### **15. SERVICE AND WARRANTY**

If after reviewing this user guide you feel that your smoke alarm is defective in any way, do not tamper with the unit. Return it for servicing to: KIDDE Safety, 1016 Corporate Park Dr., Mebane, NC 27302. 1-800-880-6788 (See Warranty for in-warranty returns).

## TEN YEAR LIMITED WARRANTY

KIDDE Safety warrants to the original purchaser that the enclosed smoke alarm 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 Safety 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 Warranty Service Department, KIDDE Safety, 1016 Corporate Park Dr., Mebane, NC 27302.

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 SAFETY 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 SMOKE ALARM AND, IN NO CASE, SHALL KIDDE SAFETY OR ANY OF ITS PARENT OR SUBSIDIARY CORPORATIONS BE LIABLE FOR CONSEQUENTIAL LOSS OR DAMAGES RESULTING FROM THE FAILURE OF THE 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 states 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 state to state.

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

### QUESTIONS OR FOR MORE INFORMATION

Call our Consumer Hotline at **1-800-880-6788** or contact us at our website at **[www.kidde.com](http://www.kidde.com)**



Kidde, 1016 Corporate Park Drive, Mebane, NC 27302

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