RF-SM-ACDC

For model: RF-SM-ACDC

Wireless Smoke Alarm User's Guide

Wireless Smoke Alarm with SMART HUSH® Control to temporarily silence nuisance alarms and battery backup.

Thank you for purchasing a Kidde Wireless AC Powered Smoke Alarm, part of the Kidde Wireless System. It is an important part of your family's home safety plan. You can trust this product to provide the highest level of quality and performance. We know you expect nothing less when the lives of your family are at stake. This alarm, in combination with other Kidde Wireless products, provides you with an interconnected alarm system without having the inconvenience or extensive labor of rewiring your home. An interconnected alarm system provides an earlier warning to smoke or fire by linking alarms so that when one unit sounds, it will trigger all other units to sound, thereby giving a family more time to escape. Kidde estimates that nearly 100 million U.S. homes either do not have interconnected smoke alarms, or have limited coverage. For homes that do have interconnected systems, this battery powered alarm can provide additional fire protection in other areas of the home.

For your convenience, write down the following information. If you call our Consumer Hotline, these are the first questions you will be asked.	
Smoke Alarm Model Number (located on back of alarm):	
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.	
Date of Purchase:	
Where Purchased:	

SIGNALING UL LISTED

Manual P/N 820-0833 Rev. C
1279-7201-02

The key features that are included in this wireless smoke alarm are:

- *Smart HUSH*® feature allows you to quiet your alarm while taking care of a non-emergency event (see section 4).
- Remote *HUSH*® feature allows you to temporarily desensitize the initiating Kidde Wireless alarm from any Kidde Wireless unit (see section 4).
- Remote Push To Test prompts every Kidde Wireless device to perform a self-diagnosis. Simply press the button on any Kidde Wireless unit to activate (see section 4).
- Internal timer reminds you to replace your unit after 10 years to ensure the most reliable protection (see section 6).
- Low Battery *HUSH*® feature allows you to stop the smoke alarm from producing a low battery warning for up to twelve hours in order to maintain protection without having to replace the battery at inconvenient times.

NOTE: To expand the coverage of your home's current *Hardwire with Interconnect* smoke alarm system, replace ONLY ONE of the hardwired alarms with a Kidde Wireless AC Powered Smoke Alarm. Never connect two as doing so will result in the wireless alarms triggering each other. They will not stop alarming until one is disconnected from the electrical circuit. If your home has *Hardwired* alarms that are NOT interconnected, you can create an interconnected system by replacing each of the home's smoke alarms [up to 12] with a Kidde Wireless AC Powered Smoke Alarm.

Wireless, AC Wire-in Single and/or Multiple Station (24 devices maximum, see Section 3) Ionization Smoke Alarm with 9 Volt Battery Back Up and *Smart HUSH*™ Control to temporarily silence nuisance alarms.

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 13 for service.

WARNING! REMOVAL OF THE SMOKE ALARM BATTERY AND DISCONNECTING OR LOSS OF AC POWER WILL RENDER THE SMOKE ALARM INOPERATIVE.

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.

ELECTRICAL RATING: 120 VAC, 60HZ, 15mA maximum per alarm (maximum 15mA for originating unit with 24 devices interconnected).

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

This alarm is interconnect compatible with the following alarms and accessories:

- Smoke alarms: 1235, 1275, 1276, 1285, 1296, i12020, i12040, i12060, i12080, PE120, PI2000, KN-COSM-I, KN-COSM-IB, RF-SM-ACDC and RF-SM-DC
- Heat alarm: HD135F
- CO alarms: KN-COB-IC, KN-COP-IC
- Relay modules: 120X, SM120X, CO120X
- Strobe Light: SL177i
- Smoke Sounder: RF-SND (not a UL certified accessory)

See User's Guides for specific application information.

CONTENTS OF THIS USER'S GUIDE

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 they act as chimneys for smoke and heat.
- Locate at least one alarm on every floor.
- Locate an alarm in every bedroom.
- Locate an alarm in every room where electrical appliances operate (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. Kidde recommends installing a Wireless Smoke Sounder in all rooms where older adults, individuals with partial hearing loss, and children sleep.
- Smoke, heat, and combustion products rise to the ceiling and spread horizontally. Mounting the smoke alarm in the center of the ceiling 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 sidewall (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.
- Install Smoke Alarms on sloped, peaked or cathedral ceilings at or within 3ft (0.9m) of the highest point (measured horizontally). NFPA 72 states: "Smoke alarms in rooms with ceiling slopes greater than 1 foot in 8 feet (.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" (see Figure 3).

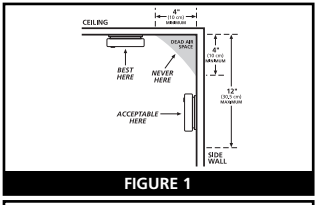

FIGURE 1

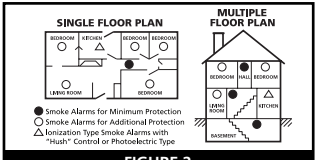

FIGURE 2

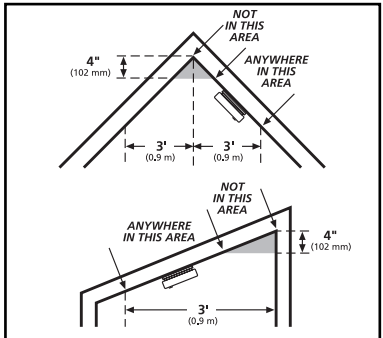

FIGURE 3

MOBILE HOME INSTALLATION

Modern mobile homes have been designed and built to be energy efficient. Install smoke alarms as recommended above, refer to RECOMMENDED LOCATIONS and Figure 1. 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 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 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 R.V. OR MOBILE HOME VEHICLE HAS BEEN IN STORAGE, BEFORE EACH TRIP 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 40ºF or rise above 100ºF, such as garages and unfinished attics.
- In dusty areas. Dust particles may cause nuisance alarm or a 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 paddle 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, amateur radios, electrical equipment or other devices known to transmit in the RF band. Electronic "noise" may cause nuisance alarms.
- Near large metal surfaces and bundles of wire.
- Smoke alarms are not to be used with detector guards unless the combination (alarm and guard) have been evaluated and found suitable for that purpose.

3. INSTALLATION INSTRUCTIONS

WIRELESS INTERCONNECT SETUP

1. Remove your new Kidde Wireless Interconnect devices from their respective packages and place them in front of you.
   DO NOT PLUG THEM IN OR INSTALL THE BATTERIES.
2. Find the 8-position dipswitch located on the back of each device. For this model, the dipswitch is located under the battery door (see Figure 4).

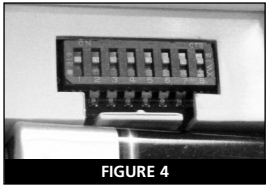

FIGURE 4

3. Select one of the units. You will define the ID of your system by positioning the switches of the dipswitch in a random pattern. The ID will need to be the same for each alarm or accessory. This ID will differentiate your alarm system from similar systems nearby. DO NOT USE THE DEFAULT ID YOUR UNITS ARE SHIPPED WITH!

4. Using a pen or pencil, change the switches in each of the Kidde Wireless devices to match the pattern you selected in step 3. Ensure that the sequence is not reversed.
5. Power each unit after setting the ID by installing the batteries. The alarms only read the ID that has been set when they are first supplied power. Any changes to the switch after the unit is powered will not be recognized, and will require the power to be removed for a minimum of 30 seconds before powering again.
6. Push and hold the test button on each unit for at least 5 seconds, or until all the devices produce an alarm. If all the units do not produce an alarm, refer to the trouble-shooting section at the end of the user's guide.

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

7. Install the alarms in accordance with the user's guide as described in section 1, and **repeat step 6**. Since wireless communication can be interrupted by a number of factors, you must test your alarms weekly to ensure proper communication between alarms.
8. Read the user's guide and keep it in a safe place for future reference.

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

WIRING REQUIREMENTS

- This smoke alarm should be installed on a U.L. listed or recognized junction box. All connections should be made by a qualified electrician and all wiring used shall be in accordance with articles 210 and 300.3(B) of the U.S. National Electrical Code ANSI/NFPA 70, NFPA 72 and/or any other 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 Volt AC Single Phase supplied from a non-switchable circuit that is not protected by a ground fault interrupter.

WARNING: This alarm cannot be operated on power derived from a square wave, modified square wave or modified sine wave inverter. These types of inverters are sometimes used to supply power to the structure in off grid instal-

lations, such as solar or wind derived power sources. These power sources produce high peak voltages that will damage the alarm.

WIRING INSTRUCTIONS FOR AC QUICK CONNECTOR

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

- If you are using the Kidde Wireless AC Powered alarms to replace *Hardwired* alarms that are not interconnected (see definitions on Quick Setup Guide), 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.
- Only one Wireless AC Powered alarm may be used when all existing alarms are *Hardwired* with Interconnect (see definitions on Quick Setup Guide).
- A maximum of 24 devices may be hardwire interconnected in a multiple station arrangement. The interconnect system should not exceed the NFPA interconnect limit of 12 smoke alarms and/or 18 alarms total (smoke, heat, carbon monoxide, etc.). With 18 alarms interconnected, it is still possible to interconnect up to a total of 6 remote signaling devices and/or relay modules.

Kidde alarms and accessories CAN ONLY BE interconnected with other Kidde alarms and accessories as well as specified brands and models of interconnect compatible alarms. Connection of Kidde products to a non-specified manufacturer's interconnect system, or connection with non-specified equipment from another manufacturer into an existing Kidde system could result in nuisance alarming, failure to alarm, or damage to one or all of the devices in the interconnect system. Refer to User's Guide supplied with each Kidde product for lists of interconnect compatible models, brands, and devices.

- When mixing models that have battery backup (1275, 1276, 1285, 1296, i12040, i12060, i12080, PE120, PI2000, KN-COSM-IB, HD135F, KN-COB-IC, KN-COP-IC) with models without battery backup ((1235, i12020, KN-COSM-I, 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.KiddeUS.com.
- The maximum wire run distance between the first and last unit in an interconnected system is 1000 feet.

- Figure 5 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 UL listed household wire (as required by local codes) available at all electrical supply stores and most hardware stores.

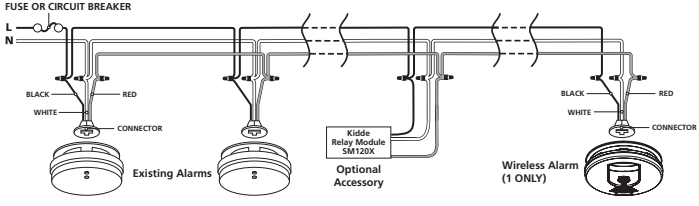

FIGURE 5

INTERCONNECT WIRING DIAGRAM

WIRES ON AC QUICK CONNECTOR MUST BE CONNECTED TO:
Black . . . Hot Side of AC Line
White . . . Neutral Side of AC Line
Red . . . . Interconnect Lines (Red Wires) of Other Units in the Multiple Station Setup

BATTERY INSTALLATION

CAUTION! 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.

If your unit was supplied with a yellow pull tab, gently pull the tab out to activate the battery backup once the unit has been connected to AC power and mounted to the electrical box with the included trim ring. See MOUNTING INSTRUCTIONS in the following section.

To install a battery for the first time, remove the alarm from the mounting bracket and open the battery door. Battery installation instructions are provided on the inside of the battery door. When installing, use the battery to press the battery reminder finger down into the battery compartment (see figure 6).

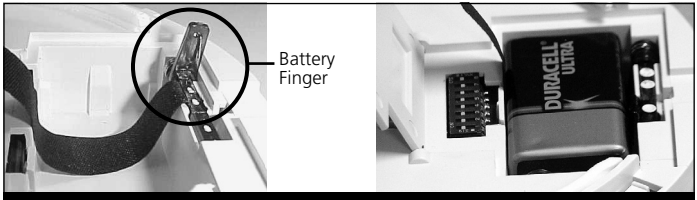

FIGURE 6 BATTERY REPLACEMENT

CAUTION! IF THE BATTERY REMINDER FINGER IS NOT HELD DOWN IN THE BATTERY COMPARTMENT BY THE BATTERY, THE BATTERY DOOR WILL NOT CLOSE, THE AC QUICK CONNECTOR WILL NOT ATTACH TO THE ALARM, AND THE ALARM WILL NOT ATTACH TO THE MOUNTING BRACKET.

After installing the battery, connect your alarm to the AC Quick Connector and mount the unit. Test your alarm by using the test/reset button and check that the green LED is on.

A missing or improperly installed battery will prevent the battery door from closing and result in improper alarm operation. This smoke alarm uses a 9V alkaline battery (lithium batteries may also be used). A fresh battery should last for one year under normal operating conditions. This alarm has a low/missing battery monitor circuit that will cause the alarm to "chirp" approximately every 60 seconds for a minimum of seven (7) days when the battery gets low. Replace the battery when this condition occurs.

MOUNTING INSTRUCTIONS

CAUTION: THIS UNIT IS SEALED. THE COVER IS NOT REMOVABLE!

CAUTION: WHEN WALL MOUNTING: UNIT MUST BE MOUNTED SO THAT THE SOUNDER OPENINGS ARE AT THE BOTTOM! (SEE FIGURE 7). INCORRECT ORIENTATION OF WALL MOUNTED SMOKE ALARMS WILL DECREASE OPERATIONAL EFFECTIVENESS.

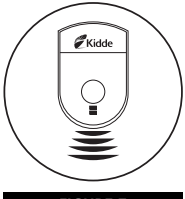

FIGURE 7

1. Complete the steps in section 3, WIRELESS INTERCONNECT SETUP.

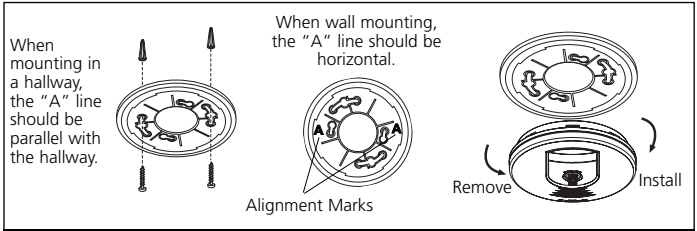

FIGURE 8

2. After selecting the proper smoke alarm location as described in Section 1 and wiring the AC Quick Connector as described in the WIRING INSTRUCTIONS, attach the trim ring to the electrical box (see Figure 8). To ensure aesthetic alignment of the alarm, the "A" line on the mounting bracket should be parallel with the hallway when ceiling mounted, or horizontal when wall mounted.
3. Pull the AC Quick Connector through the center hole in the mounting bracket and secure the bracket, making sure that the mounting screws are positioned in the small ends of the keyholes before tightening the screws.
4. Plug the AC Quick Connector into the back of the alarm (see Figure 5), making sure that the locks on the connector snap into place. Then push the excess wire back into the electrical box through the hole in the center of the mounting bracket.
5. Install the alarm on the mounting bracket and rotate the alarm clockwise 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).
6. Turn on the AC power. The green Power On Indicator should be lit when the alarm is operating from AC power. Confirm unit operation by pressing the test button.
7. Test the unit to ensure proper operation by pressing the Test Button. All interconnected alarms should respond.

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

Tamper Resist Features

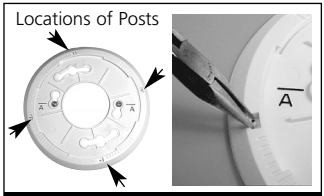

FIGURE 9A

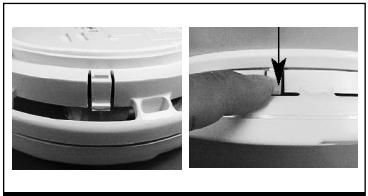

FIGURE 9B

This alarm has a tamper resist feature, which helps prevent someone from removing the unit from the mounting bracket. Activate the smoke alarm tamper resist feature by breaking off the four posts in the square holes in the mounting bracket (see Figure 9A). When the posts are broken off, the tamper resist tab on the base is allowed to engage the mounting bracket. Rotate the alarm onto the mounting bracket until you hear the tamper resist tab snap into place, locking the alarm on the mounting bracket. Using the tamper resist feature will help deter children and others from removing the alarm from the bracket. NOTE: To remove the alarm when the tamper resist tab is engaged, press down on the the tamper resist tab, and rotate the alarm off the bracket (see Figure 9B).

4. OPERATION AND TESTING

OPERATION

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

Smart HUSH® CONTROL: The *Smart HUSH*® feature has the capability of temporarily desensitizing the smoke sensing circuitry in order to quiet your alarm while you take care of a non-emergency event. This feature is to be used only when a known alarm condition, such as smoke from cooking, activates the alarm. Activate *Smart HUSH*® control by pushing the button on the smoke alarm cover. If the smoke is not too dense, the alarm will silence immediately. The green LED will blink every 2 seconds for approximately 7 minutes to indicate that the alarm is in a temporarily desensitized condition. The smoke alarm will automatically reset after approximately 7 minutes, and will sound again 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 button on the alarm will end the *HUSH*® period.

Remote *HUSH*® CONTROL: Press the button on any Kidde Wireless device to activate the *Smart HUSH*® feature on the Wireless smoke alarm that is initiating an alarm. This allows you to enable the *Smart HUSH*® feature on an alarm that may be installed in an area that is difficult to reach. This feature should only be used when a known alarm condition, such as smoke from cooking, activates the alarm.

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.***

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

LED Indicator Operation

Red LED:

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

Green LED:

The green LED will illuminate as described below:

STANDBY CONDITION (powered by AC and battery backup) - The LED will be constantly on.

STANDBY CONDITION (powered by only battery backup) - The LED will flash approximately every 10 seconds.

INITIATING ALARM INDICATOR - The LED will flash every second while sounding an alarm to signify that the alarm sensed a smoke hazard. This will only be displayed on the alarms that sensed smoke. The remaining interconnected alarm will sound but will not display the initiating indicator. The initiating indicator varies from model to model. See the users guide for each specific model of interconnected alarm for a description of the initiating alarm indicator.

ALARM MEMORY CONDITION - The LED will flash every second signifying that the alarm sensed a smoke hazard. It will continue to flash every second until the test/reset button is pressed, thus resetting the alarm.

HUSH® MODE CONDITION - The LED will flash every 2 seconds while the alarm is in *HUSH*® mode.

TESTING

TEST THE ALARM WEEKLY TO ENSURE PROPER OPERATION.

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

Remote Push To Test: Test your Kidde Wireless alarm system by activating the test button on any Kidde Wireless alarm for a minimum of 5 seconds, or until all of the interconnected alarms sound. When the other alarms respond, this verifies that both the alarms and the interconnect system are functioning properly.

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

If the alarm does not sound, check the fuse or circuit breaker supplying power to the alarm circuit. If the alarm still does not sound, the unit may have defective batteries or other failure and you should call Kidde customer service at 1-800-880-6788. If other interconnected alarms do not produce an alarm signal, see the trouble-shooting guide in section 12.

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

Erratic or low sound coming from your alarm may indicate a defective alarm, and it should be returned for service (see Section 13).

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.

Model RF-SM-ACDC has a HUSH® button 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.

In rare occasions, interference from other electronic devices may cause nuisance alarms. If you do get nuisance alarms, please refer to the trouble-shooting guide at the end of this and each of your Kidde Wireless products' user's guides.

6. MAINTENANCE

ALARM REMOVAL

IF THE SMOKE ALARM'S TAMPER RESIST FEATURE HAS BEEN ACTIVATED, REFER TO THE PARAGRAPH ON SMOKE ALARM TAMPER RESIST FEATURE IN SECTION 3 FOR REMOVAL INSTRUCTIONS.

To remove the alarm from the trim ring, rotate the alarm counter clockwise in the direction of the "OFF" arrow on the cover. To disconnect the AC power, squeeze the locking arms on the sides of the AC Quick Connector while pulling the connector away from the bottom of the alarm (see Section 3, Figure 3).

ALARM REPLACEMENT

Ten years after initial power-up, this unit will "chirp" every 30 seconds to indicate that it is time to replace the alarm. A label has been provided on the side of the alarm that has "Replace by" printed on it. Write the replace by date on the label. The date written on the label should be after ten (10) years of cumulative power. NOTE: Chirping once a minute is an indication of a low battery where as the indication for replacement is once every 30 seconds.

BATTERY INSTALLATION AND REMOVAL

Battery Replacement

If any form of battery failure is detected, the red LED light will flash and the unit will "chirp" once every minute.

Refer to Section 3, BATTERY INSTALLATION and the inside of the battery door.

USE ONLY THE FOLLOWING 9 VOLT BATTERIES FOR SMOKE ALARM REPLACEMENT.

Alkaline type: ENERGIZER 522; DURACELL MN1604 OR MX1604; GOLD PEAK 1604A; PANASONIC 6AM6, 6AM-6, 6AM-6PI, 6AM6X, and 6LR61(GA).

Lithium type: ULTRALIFE U9VL-J

NOTE: WEEKLY TESTING IS REQUIRED!

⚠ **WARNING! BE SURE TO FOLLOW BATTERY INSTALLATION INSTRUCTIONS PRINTED ON THE INSIDE OF THE BATTERY DOOR OF THE ALARM AND USE ONLY THE BATTERIES SPECIFIED. USE OF DIFFERENT BATTERIES MAY HAVE A DETRIMENTAL EFFECT ON THE SMOKE ALARM AND MAY CAUSE IT NOT TO FUNCTION AS INTENDED.**

CONSTANT EXPOSURES TO HIGH OR LOW TEMPERATURES OR HIGH HUMIDITY MAY REDUCE BATTERY LIFE.

CLEANING YOUR ALARM

YOUR ALARM SHOULD BE CLEANED AT LEAST ONCE A YEAR

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 around the perimeter of the alarm. The outside of the alarm can be wiped with a damp cloth. After cleaning, reinstall your alarm, verify the green LED is on and test your alarm by using the test button. If cleaning does not restore the alarm to normal operation the alarm should be replaced.

7. 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 so that escape should be possible. For these people, other strategies such as protection-in-place or assisted escape or rescue are necessary.
- **Smoke alarms are devices that can provide early warning of possible fires at a reasonable cost; however, alarms have sensing limitations. Ionization sensing alarms may detect invisible fire particles (associated with fast flaming fires) sooner than photoelectric alarms.**

Photoelectric sensing alarms may detect visible fire particles (associated with slow smoldering fires) sooner than ionization alarms. Home fires develop in different ways and are often unpredictable. For maximum protection, Kidde recommends that both Ionization and Photoelectric alarms be installed.

- A battery-powered alarm must have a battery of the specified type, in good condition and installed properly.
- AC powered alarms (without battery backup) will not operate if the AC power has been cut off, such as by an electrical fire or an open fuse.
- Smoke alarms must be tested regularly to make sure the batteries and the alarm circuits are in good operating condition.
- Smoke alarms cannot provide an alarm if smoke does not reach the alarm. Therefore, smoke alarms may not sense fires starting in chimneys, walls, on roofs, on the other side of a closed door or on a different floor.
- If the alarm is located outside the bedroom or on a different floor, it may not wake up a sound sleeper.
- The use of alcohol or drugs may also impair one's ability to hear the smoke alarm. For maximum protection, a smoke alarm should be installed in each sleeping area on every level of a home.
- Although smoke alarms can help save lives by providing an early warning of a fire, they are not a substitute for an insurance policy. Homeowners and renters should have adequate insurance to protect their lives and property.

8. 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 when family members are asleep to see who responds. If someone doesn't wake up, assign an adult to wake and assist that individual in the event of a fire. Kidde recommends that parents plan on alerting and assisting children. Practice allows all occupants to test your plan before an emergency. 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

- Leave immediately by your escape plan. Families have on average less than three minutes to escape a fire 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 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

9. 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.

10. NFPA REQUIRED PROTECTION

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

Smoke Detection - Where required by applicable laws, codes, or standards for the specified occupancy, approved single- and multiple-station smoke alarms shall be installed as follows: (1) In all sleeping rooms Exception: Smoke alarms shall not be required in sleeping rooms in existing one- and two-family dwelling units. (2) Outside of each separate sleeping area, in immediate vicinity of the sleeping rooms. (3) On each level of the dwelling unit, including basements Exception: In existing one- and two-family dwelling units, approved smoke alarms powered by batteries are permitted.

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.

11. 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."

12. TROUBLESHOOTING GUIDE

Problem	Possible cause	Solution
Not all of the alarms/accessories produce an alarm signal when the Test button is pushed on a unit.	Devices may not all be on the same ID.	Locate the 8-position dipswitch on the back of each unit and ensure that all of the corresponding switches are set the same. If an ID needs to be changed: Remove power, change the ID and reapply power.
	Devices may not have power.	Check to see if the Green LED is on continuously (this tells you the alarm is receiving AC power) or that it blinks every ten seconds (this tells you that it is receiving only battery power). If not, make sure the batteries are installed correctly and AC Quick Connector is installed correctly. Contact a qualified electrician to check power to the wires.
	Button not pressed long enough.	Press and hold the button for a minimum of 5 seconds.
	There may be too much interference between units.	Move the other units to a new location and try again. You should try to locate the wireless units as closely to each other as possible.
Other interconnected hardwired alarms do not sound.	Wiring not installed properly.	Turn off the power to the alarms' circuit and ensure that the wires are connected correctly. See section 3, WIRING INSTRUCTIONS FOR AC QUICK CONNECTOR .
Units signal an alarm when no fire is present and none of the test buttons have been pushed.	Unit is set to the same ID as a system nearby.	Change the ID of your units by following the instructions in Section 3, *INSTALLATION INSTRUCTIONS, WIRELESS INTERCONNECT SETUP*. Make sure to turn power off to all units before changing the switch positions.
	Unit is located in area prone to cause false alarms.	Review section 2.LOCATIONS TO AVOID. Relocate the unit.
	Electrical noise on the interconnect line of an AC alarm	Ensure that the smoke alarms are installed on a dedicated electrical circuit. A professional electrician may be needed to correct a problem with the wiring.
	Wireless Interference.	Move the other units to a new location.
Units continue to signal an alarm after the smoke has been removed from the area or more than 60 seconds after a test button was pushed.	You have two RF-SM-ACDC units installed on the same interconnect circuit.	Only one RF-SM-ACDC unit can be connected to system that uses a third wire to interconnect units. If two RF-SM-ACDC units are connected to a wired interconnect system they will interfere with each other's transmissions and can cause each other to alarm continuously.

13. SERVICE AND WARRANTY

If after reviewing this user's guide you feel that your smoke alarm is defective in any way, do not tamper with the unit. Call the Consumer Hotline, 1-800-880-6788, to determine if you need to return it for servicing (See Warranty for in-warranty returns).

KIDDE
1016 Corporate Park Dr., Mebane, NC 27302

FCC COMPLIANCE STATEMENT

This device has been designed, constructed, and tested for compliance with FCC Rules that regulate intentional and unintentional radiators. The user is not permitted to make any modifications to this equipment or use it in any manner inconsistent with the methods described in this User's Guide, without express approval from Kidde. Doing so will void the user's authority to operate this equipment.

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

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

TEN 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 Warranty Service Department, KIDDE, 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 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 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.

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.

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

Kidde

Kidde, 1016 Corporate Park Drive, Mebane, NC 27302

U.S. Patent No. 6,753,786; 6,791,453 and other Patents Pending