

110-1058C

SMOKE ALARM OWNERS MANUAL

READ AND SAVE FOR YOUR SAFETY

MODELS A, B, C, E
MODEL PB
BATTERY OPERATED

IONIZATION TYPE
PHOTOELECTRIC TYPE



!WARNING: THIS SMOKE ALARM MAY SOUND A SHORT BEEP WHEN POWER IS CONNECTED.

DO NOT USE THIS SMOKE ALARM WITH ANY EXTERNAL BUG SCREENS OR SMOKE ALARM GUARDS. USE OF THESE TYPES OF DEVICES MAY REDUCE SMOKE ALARM RESPONSE TIME.

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IMPORTANT INFORMATION ABOUT YOUR SMOKE ALARM

- Before installing your smoke alarm, you must read this entire Owner's Manual.
- Install a smoke alarm in each room and area of your home. See "WHERE YOU SHOULD INSTALL YOUR SMOKE ALARMS."
- Smoke alarms cannot give you an early warning of fire or smoke unless you install, use and maintain them by following these instructions.
- You must hear the alarm's warning sound and quickly respond to it to reduce the risk of damage, injury or death that may result from a fire.
- Your smoke alarm is packaged with the battery disconnected. Connect it to the battery leads before mounting the smoke alarm.
- A smoke alarm will not work without a good battery installed correctly. The smoke alarm must be tested when a new battery is installed and every week after that.
- A smoke alarm that beeps about once per minute means the battery is weak, and you need a new battery.
- A smoke alarm should never be used, in any case, for more than 10 years.

WHAT SMOKE ALARMS CAN DO

Smoke alarms can only HELP protect your home and family against loss from a fire. The best protection is obtained by installing smoke alarms in each room, and each other area of the home, making sure the people in the home will be able to hear and respond to the alarm sound.

Your smoke alarm meets or exceeds the requirements for audibility, (loudness) set by Underwriters' Laboratories, Inc.

!WARNING: SMOKE ALARMS MAY GIVE YOU A WARNING OF FIRE AND SMOKE, BUT ONLY IF YOU INSTALL, USE AND MAINTAIN THEM IN ACCORDANCE WITH THESE INSTRUCTIONS.

WHAT SMOKE ALARMS WILL NOT DO

A SMOKE ALARM WILL NOT WORK WITHOUT POWER. Your smoke alarm needs a good battery that is installed correctly to work. A smoke alarm will not work if its battery is missing, dead or put in wrong.

A SMOKE ALARM WILL NOT SENSE A FIRE WHEN THE SMOKE ALARM CANNOT REACH THE ALARM. If a fire starts in a chimney, wall, roof, the other side of a closed door, or any other isolated area, the smoke alarm may not sense the smoke and will not give a warning. If you do not have an alarm in the bedroom, and sleep with the door closed, a fire inside the bedroom may not sound the alarm located in another room. Therefore, a smoke alarm must be placed both inside and outside all bedrooms. A SMOKE ALARM WILL NOT PROMPTLY SENSE A FIRE EXCEPT IN THE AREA OR ROOM IN WHICH THE SMOKE ALARM IS LOCATED.

FOR EXAMPLE:

- A SMOKE ALARM MAY NOT SENSE A FIRE ON ANOTHER LEVEL OF A RESIDENCE OR BUILDING. A second-floor smoke alarm may not detect a fire on the first floor or in the basement of a building. Therefore, smoke alarms must be installed on every floor or level of your home or building.
- IF THE SMOKE ALARM IS LOCATED ON A DIFFERENT LEVEL THAN THE BEDROOMS, OR IN AN ISOLATED AREA OF THE HOUSE OR RESIDENCE, IT IS LESS LIKELY TO WAKE UP PEOPLE SLEEPING IN THE BEDROOMS.

ALL TYPES OF SMOKE ALARMS HAVE LIMITATIONS. NO TYPE OF SMOKE ALARM CAN SENSE EVERY KIND OF FIRE OR SMOKE EVERY TIME.

Ionization smoke alarms are your best overall choice for reliability and fast response time (NFP Research Foundation and U.S. Fire Administration Data) since they quickly sense small invisible smoke particles and also sense large visible smoke particles. However, photoelectric smoke alarms may respond faster in certain types of fires, for example slow smoldering fires with large visible smoke particles. Code One Safety recommends the use of smoke alarms that combine in one unit both ionization and photoelectric sensing technologies. For additional protection the NFPA recommends the use of multiple smoke alarms and heat detectors.

You should use both battery-powered and direct-wired 120-volt AC-powered smoke alarms. Since A SMOKE ALARM WILL NOT WORK WITHOUT POWER, having alarms that will work from two different power sources can give you extra protection in case of a dead battery, or an AC power failure.

Using a smoke alarm in a smoky area like a kitchen, or in a high humidity area near a shower, can cause false alarms. DO NOT REMOVE YOUR BATTERY TO QUIET THE ALARM. DO NOT TAKE THE ALARM DOWN. DO NOT SHUT OFF THE POWER TO THE ALARM. IF YOU HAVE A FALSE ALARM, TRY WAVING A TOWEL NEAR THE ALARM TO CLEAR THE SENSING CHAMBER. A SMOKE ALARM WILL NOT HELP PROTECT YOU IF IT IS NOT POWERED, OR THE UNIT IS REMOVED. An alarm with a FALSE ALARM CONTROL feature should be used to minimize these nuisance alarms, where allowed by state and local codes.

A SMOKE ALARM MAY NOT ALWAYS WARN YOU ABOUT FIRES CAUSED BY CARELESSNESS OR SAFETY HAZARDS SUCH AS SMOKING IN BED, VIOLENT EXPLOSIONS, ESCAPING GAS, IMPROPER STORAGE OF FLAMMABLE MATERIALS, OVERLOADED ELECTRICAL CIRCUITS, NATURAL CAUSES SUCH AS LIGHTNING, CHILDREN PLAYING WITH MATCHES AND ARSON. Fire prevention is your best safeguard.

Installing smoke alarms may make you eligible for lower insurance rates, but SMOKE ALARMS ARE NOT A SUBSTITUTE FOR INSURANCE. Home-owners and renters alike should continue to insure their lives and properties.

WHERE YOU SHOULD INSTALL YOUR SMOKE ALARMS

The National Fire Protection Association's (NFPA) Standard 74, Section 2-1 provides information regarding the smoke detection equipment required within the family unit.

Section 2-1.1.1 reads as follows:

"Smoke detectors shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit including basements and excluding crawl spaces and unfinished attics.

The provisions of 2-1.1.1 represent the minimum number of detectors required by this standard. It is recommended that the householder consider the use of additional smoke or heat detectors for increased protection for those areas separated by a door from the areas protected by the required smoke detectors under 2-1.1.1 above. The recommended additional areas are the living room, dining room, bedroom(s), kitchen, attic (finished or unfinished), furnace room, utility room, basement, garage (attached or unattached), and hallways not included in Section 2-1.1.1 above. However, the use of additional detectors remains the option of the householder."

This equipment should be installed in accordance with the National Fire Protection Association's Standard 74, NFPA, Batterymarch Park, Quincy, MA 02269.

THIS STANDARD MEANS YOU SHOULD INSTALL AND USE A SMOKE ALARM IN EVERY ROOM AND AREA OF YOUR HOUSEHOLD OR BUILDING FOR GOOD PROTECTION.

THE FOLLOWING INFORMATION WILL HELP YOU SAFELY LOCATE YOUR SMOKE ALARMS:

- Do install your smoke alarms in accordance with all applicable laws, regulations, standards and codes.
- Do install a smoke alarm in the hallway outside of every bedroom area. If the bedroom has a door, there must be a smoke alarm inside and outside the bedroom. See Figure 1. If your home or residence has two bedroom areas, a smoke alarm must be placed outside the second bedroom area, and inside the bedroom(s) if they have doors. See Figure 2.

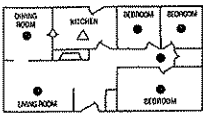


FIGURE 1

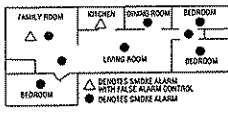
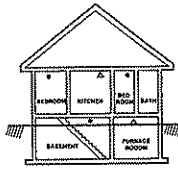


FIGURE 2

IF YOUR HOUSEHOLD OR RESIDENCE HAS SEVERAL FLOORS, THERE MUST BE AN ALARM ON EVERY FLOOR, INCLUDING IN THE BASEMENT. See Figure 3.

- Do not install a smoke alarm in every bedroom where a smoker sleeps.
- Do not install a smoke alarm in every room and bedroom where electrical appliances (such as portable heaters, humidifiers or electric blankets) may be operated while someone sleeps.
- Do not install a smoke alarm inside every bedroom where someone sleeps with the door closed. Smoke can be blocked by the closed door, or the alarm may not wake the sleeper if the door is closed.
- Do not install smoke alarms at both ends of a bedroom hallway if it is more than 30 feet long.
- Do not install basement smoke alarms at the bottom of the basement stairwell.
- Do not install second floor smoke alarms at the top of the first-to-second floor stairwell, as long as no door or obstruction blocks the path of the smoke to the alarm.
- Do not install a smoke alarm in a room where flammable household chemicals or solvents are stored. For example, if you keep kerosene, paint thinner or certain types of contact cements within your residence, install a smoke alarm in that room, unless not recommended by a situation described in the section "WHERE YOU SHOULD NOT INSTALL SMOKE ALARMS."
- Do not install smoke alarms on the ceiling not closer than 4 inches to any wall or corner, or on the wall at least 4 inches but no more than 12 inches from the ceiling. See Figure 4.



SINGLE STORY

FIGURE 3

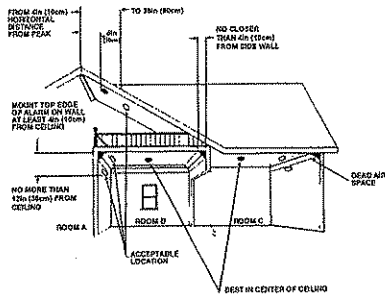


FIGURE 4

- If your ceiling has radiant heat or has a lack of insulation to the outside, ceiling mounting of your smoke alarm is not advisable due to temperature variations. You should follow the wall-mounting procedures.
- If you have a peaked, sloped, gabled or cathedral-style ceiling, mount your smoke alarm 4 to 36 inches (3 feet) MEASURED HORIZONTALLY FROM THE HIGHEST POINT ON THE CEILING, as shown in Figure 4.
- Do not install smoke alarms in both rooms (areas) that are divided by a partial wall extending 24 or more inches down from the ceiling. See smoke alarms located in rooms B and C in Figure 4.

SPECIAL DIRECTIONS FOR INSTALLING YOUR SMOKE ALARM IN MANUFACTURED AND MOBILE HOMES

WARNING: SMOKE ALARMS MAY BE INSTALLED ON THE CEILING OF MANUFACTURED AND MOBILE HOMES IF THERE IS ADEQUATE INSULATION IN THE CEILING. Install smoke alarms on walls only between 4 and 12 inches from the ceiling. Install smoke alarms on inside walls in older homes or in homes where you are not sure of the insulation level. In older homes (manufactured in approximately 1976 or before) that have little or no insulation compared to today's standards, uninsulated metal outside walls and roofs can transfer heat and cold from the outdoors, making the air right next to the wall or roof hot or cold, compared to the rest of the air inside the room. These layers of hot or cold air can prevent smoke from reaching a smoke alarm. If your mobile home has this condition, put your smoke alarm on an inside wall only, between 4 and 12 inches from the ceiling. If you are not sure about the insulation in your mobile home or if you notice the outside walls or ceiling are unusually hot or cold, put the smoke alarm on an inside wall.



FIGURE 5: EFFICIENCY APARTMENT AND MOBILE HOME INSTALLATION WHERE YOU SHOULD NOT INSTALL SMOKE ALARMS

- Do not install a smoke alarm within close proximity of heating and cooling supply vents or within close proximity of return or fresh air vents. Smoke may be blown away from the smoke alarm by the supply vents, or could be diffused or reduced by being diverted into the return air vent. The NFPA states in Standard 72E, Section 4-4.1: "In rooms, buildings, where forced ventilation is present, detectors shall not be located where air from supply diffusers ("vents") could dilute smoke before it reaches the detector."
- Do not install your smoke alarm in an area where the temperature may fall below 40°F, or rise above 160°F. Smoke alarms are designed to work safely only within these temperature ranges, and failure to alarm, improper alarms or nuisance alarms may result from operation outside these temperature limits.
- Do not install a smoke alarm in damp or very humid areas such as bathrooms with showers, where the normal humidity may rise above 93% relative humidity. Above this level, moisture may condense inside the smoke chamber and cause false alarms.
- Do not install a smoke alarm in an area where particles of combustion are normally present, such as kitchens or automobile garages, unless the smoke alarm has a False Alarm Control feature.
- Do not install a smoke alarm in dusty or dirty areas; SUCH AN INSTALLATION CANNOT BE RELIED UPON. An accumulation of dust and dirt in the sensing chamber may block the openings and prevent an alarm, or may get inside the alarm and cause false alarms. If a smoke alarm is required in such an area, vacuum it frequently and test it according to the section "TAKING CARE OF YOUR SMOKE ALARM."
- Do not install a smoke alarm in the dead air space in the corner where the wall meets the ceiling. If in doubt as to the exact location of mounting, for your safety, contact your local fire department for help in choosing a location.
- Do not install a smoke alarm where bugs or insects are present before eliminating or minimizing the bug problem. Although all smoke alarms built since 1986 are made to help prevent bugs from entering the detection chamber, bugs may build up on chamber openings and prevent smoke from entering. As a result, unit should be vacuumed frequently as explained in the section "TAKING CARE OF YOUR SMOKE ALARM."
- Do not install a smoke alarm within close proximity of a fluorescent light. Electrical noise may cause nuisance alarms.

HOW TO INSTALL YOUR SMOKE ALARM

AFTER HAVING CAREFULLY READ THE FIRST FIVE SECTIONS OF THIS MANUAL, YOU ARE READY TO INSTALL YOUR SMOKE ALARM.

PLEASE FOLLOW THESE DIRECTIONS:

- Unlock and remove mounting bracket from smoke alarm with a counterclockwise twist.
- Place mounting bracket on ceiling or wall in prearranged location and use pencil to trace two opposing hole positions for mounting screws. Drill two 1/16-inch holes.
- Use mounting screws provided for attaching to studs or woodwork. For plaster or plasterboard, you may wish to use plastic anchors and screws. See Figure 6.
- Screw mounting bracket to surface securely. **NOTE:** Before mounting alarm on a wall, be sure arrow on mounting bracket is pointing up toward ceiling. See Figure 6.
- Install battery. (See "REPLACING THE BATTERY")
- Attach smoke alarm to mounting bracket with a clockwise twist until it snaps into locked position. **NOTE:** Your smoke alarm is designed with a safety mechanism that prevents mounting unless a battery is installed. This helps ensure the alarm is functional when mounted.
- You have now finished installing your smoke alarm. For your safety, proceed with testing described in the next section.

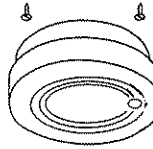
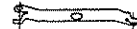


FIGURE 6

WEEKLY TESTING OF YOUR SMOKE ALARM

- FOR A COMPLETE WEEKLY TEST OF THE ELECTRONICS AND THE SENSOR OPERATION, FIRMLY DEPRESS THE TEST BUTTON ON THE COVER OF THE SMOKE ALARM FOR A FEW SECONDS. The smoke alarm will sound by making a continuous loud beeping noise. On models with an LED (light emitting diode) the indicator light under the clear Push-to-Test button will blink once per second while the button is being pushed and the alarm is sounding. The smoke alarm will stop sounding when you release the button.

- If your smoke alarm has the False Alarm Control or Safety Light feature see "SPECIAL SMOKE ALARM FEATURES" for further testing information.
- IMPORTANT:** Always test your smoke alarm upon returning from vacation, or any other time when no one has been in your household or residence for several days.
- If a smoke alarm is installed in a mobile home, test the smoke alarm after you remove the vehicle from storage and before each trip.

WARNING: IF YOUR SMOKE ALARM DOES NOT RESPOND AS DESCRIBED IN ANY OF THE ABOVE TESTS, CHECK THAT A GOOD BATTERY IS PROPERLY INSTALLED. IF A GOOD BATTERY IS PROPERLY INSTALLED, PROMPTLY REMOVE THE UNIT, REPACK IT AND RETURN IT FOR REPAIR OR REPLACEMENT [SEE SECTION "WHERE TO SEND YOUR SMOKE ALARM IF IT NEEDS SERVICE"].

TAKE CARE OF YOUR SMOKE ALARM

Your smoke alarm has been designed and manufactured to be as maintenance-free as possible. Here are a few simple steps you must perform, in addition to the weekly tests described in the section "WEEKLY TESTING OF YOUR SMOKE ALARM," to keep your unit in good working order.

- The smoke alarm should be vacuumed monthly or more often if there is dust, dirt or kitchen grease that can accumulate. Use a soft brush or wand attachment and vacuum all slots in the cover and side. **FOR YOUR SAFETY,** you must properly clean and maintain your smoke alarm, since a dirty or malfunctioning unit may fail to alarm or cause unwanted nuisance alarms.
- If the unit is damaged or fails to operate properly, and you have checked that a good battery is installed correctly, follow the directions in the section "WHERE TO SEND YOUR SMOKE ALARM IF IT NEEDS SERVICE" for return. **FOR YOUR SAFETY, DO NOT OPEN THE SMOKE ALARM AND TRY TO REPAIR IT YOURSELF.** While smoke alarms are economical devices, they contain precision electronic components that are precisely calibrated. Repair must be done by the manufacturer.

REPLACING THE BATTERY

The smoke alarm will beep once a minute for at least 30 days when the battery is weak. The battery must be replaced immediately with a fresh one. The battery also should be changed if it does not sound an alarm when tested.

REPLACE THE BATTERY:

- Check if the tamper resist locking pin is installed in the smoke alarm (see "USING THE TAMPER RESIST LOCKING MECHANISM" section). If so, pull the pin completely out of the smoke alarm using long-nose pliers.
- Remove the smoke alarm from the mounting bracket by twisting counterclockwise.
- Replace old battery with a fresh one. If your smoke alarm has a safety light, the miniature lamp operates on two AA batteries (see recommended batteries below).
- Check that battery connections are tight and the battery is secured in its compartment.
- Test smoke alarm for proper operation (see "WEEKLY TESTING OF YOUR SMOKE ALARM" section). The smoke alarm operates on a 9-volt battery. The normal battery operating life will be one (1) year. The life of some batteries may be less.
- Firex smoke alarms sold with Ultralife long-life lithium batteries require replacement approximately every ten (10) years. Replace the battery approximately every ten (10) years or when the low battery signal sounds.

CAUTION: YOU SHOULD ONLY USE THE BATTERIES SPECIFIED HERE OR ON THE LABEL OF THE UNIT.

For Models A, B, C, E and PB use: Eveready 522 or 1222; Mallory MN1604; Duracell MN1604; or Ultralife U9VL-J.

For Model E also use AA Heavy Duty for light power. The miniature lamp operates on two (2) AA batteries. For replacement, use heavy-duty or alkaline AA batteries: Eveready 1215, E91, or Duracell M15HD, MN1500.

CAUTION: DO NOT USE ANY TYPE OF RECHARGEABLE BATTERIES.

USING THE TAMPER RESIST LOCKING MECHANISM

To make the smoke alarm somewhat tamper resistant, a locking pin has been provided in the base of the unit. It will help deter a child or other individual from removing the smoke alarm from the bracket. See Figure 7. This can be installed using the following directions.

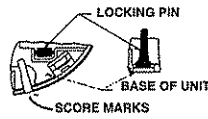


FIGURE 7

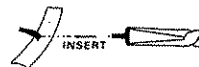


FIGURE 8

- Remove the break-away locking pin from the base of the unit by rocking the pin back and forth (see Figure 7).
- Create opening with long-nose pliers between score marks on base of unit near where the locking pin was removed (see Figure 7).
- Put the smoke alarm back on the mounting bracket. (See section "HOW TO INSTALL YOUR SMOKE ALARM.")
- Using long-nose pliers, grab the head of the locking pin and insert into hole located on the side of the smoke alarm (see Figure 8).
- The Tamper Resist feature is now installed and complete.

To Remove:

- Using long-nose pliers, grasp the head of the locking pin and pull the pin completely out of the smoke alarm.
- The smoke alarm can now be removed from the mounting bracket with a counterclockwise twist.

SPECIAL SMOKE ALARM FEATURES

If your smoke alarm has one or more of these special features, read the following:

- BLINKING LED LIGHT (Models B, C, E and PB):** The indicator light under the Push-to-Test button blinks about once per minute to indicate the smoke alarm is receiving power.
- FALSE ALARM CONTROL (Model C):** Simply push the test button to temporarily silence the smoke alarm if a nuisance alarm occurs or to prevent nuisance alarms. By momentarily depressing the test button, your alarm will automatically switch to a special reduced sensitivity condition for up to 15 minutes, after which it will reset to its full normal sensitivity. If a real fire occurs, however, and the quantity of smoke reaching the smoke alarm is sufficiently great, the unit will sound an alarm. The reduced sensitivity level is only intended to eliminate nuisance alarms caused by light concentrations of smoke. If additional reduced sensitivity time is required, push the button again. Every time the smoke alarm is tested it will enter the reduced sensitivity condition for up to 15 minutes and then automatically switch back to full normal sensitivity.
- SAFETY LIGHT (Model E):** This smoke alarm uses a miniature lamp designed to last for an average of 15 hours of continuous operation. When you push the test button the light will flash along with the alarm sounding to indicate it is working properly.

WARNING: VERY THICK SMOKE MAY OBSCURE THE LIGHT.

WHERE TO SEND YOUR SMOKE ALARM FOR SERVICE

To return smoke alarms under warranty, send the smoke alarm with postage prepaid, a note describing the nature of the difficulty, and proof of date of purchase to:

Code One Safety
28C Leigh Fisher Blvd.
El Paso, TX 79906

To return Ultralife lithium batteries under warranty, include the lithium battery, a note describing the nature of the difficulty, with proof of date of purchase, postage and return postage prepaid to:

ULTRALIFE BATTERIES, INC.
c/o CODE ONE SAFETY
P.O. Box 622
1350 Route 88 South
Newark, NY 14513