

Smoke Detectors:

Sound Protection

Death By Fire

Nearly four thousand Americans die every year in residential fires. Most of these deaths are not from heat or flames but from inhaling smoke and toxic fumes.

Smoke is actually the particles of combustion generated by what is burning – paper, wood, chemicals, plastic, upholstery, or other fuels.

Buying Time

When a smoke detector senses smoke, an alarm automatically sounds. Most fatal home fires occur between 8:00 p.m. and 8:00 a.m. Fires often generate lethal amounts of unseen smoke and fumes well before flames are visible and before heat makes residents feel uncomfortably warm. As a result, many people who die in home fires are asleep and never wake up. When carefully purchased, installed, and maintained, smoke detectors can prevent such needless deaths. Smoke detectors buy time to get out of the house fast – before toxic fumes accumulate to lethal levels.

Purchasing

Quality, not price, should be the determining factor when buying smoke detectors. Check for the following.

- Laboratory label, insuring that samples of the model you are buying have been carefully tested.
- Alarm loud enough to awaken the family through closed bedroom doors.
- Malfunction signal, to warn you when batteries are weak or dead.
- Manufacturer's warranty of at least five years.
- Ease in maintenance and cleaning.

Which Type



Ionization – Contains a small amount of radioactivity that conducts electricity. Electric current flows continuously between two electrodes in the chamber. When smoke particles enter, they disturb the flow, causing the alarm to go off.



Photoelectric – Contains a beam of light and a photocell within the chamber. When smoke enters, it deflects the beam, causing it to strike the photocell and set off the alarm.

Which is better?

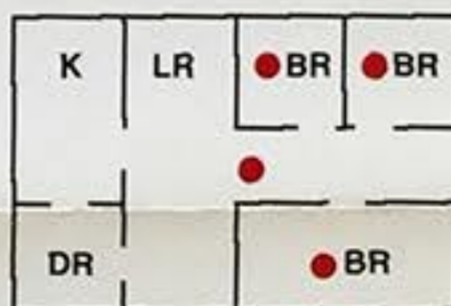
Ionization detectors are more sensitive to the tiny particles of combustion that can't be seen or smelled – those emitted by flaming fires. Photoelectric detectors are more sensitive to the large particles of combustion emitted by smoldering fires.

The differences between the two types are generally not critical, since the difference in response time is only a matter of seconds. Since most home fires produce a rich mixture of smoke types, with detectable amounts of both large particle and small particle smoke early in the fire's growth, either an ionization or a photoelectric detector will meet most needs.

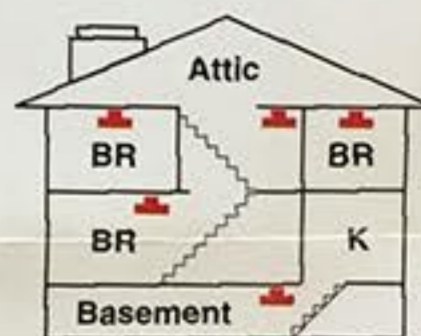
Placement

- Buy as many smoke detectors as it takes to give your home complete coverage.

- You obviously increase your chances of survival with each detector that you have, but one on each level of the house is the absolute minimum.
- You should have a smoke detector in each bedroom, in the hallway close to each sleeping area and in heavily-occupied areas like the living room.
- When bedroom doors are left open, you should have at least one detector in the hallway outside the bedroom area.



● Single Level



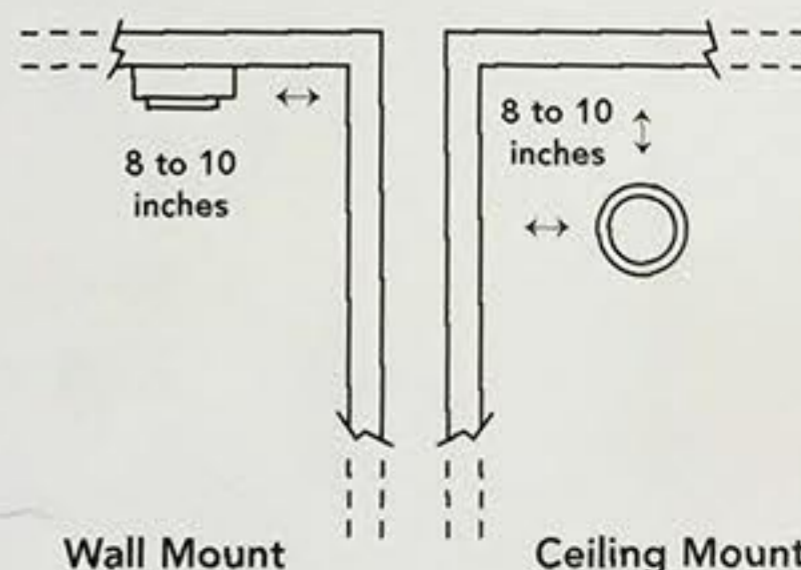
■ Multi-Story

Installation

- Follow the manufacturer's installation instructions.
- On the ceilings, mount the device away from corners and walls, which have dead air space nearby.

About eight to ten inches is the recommended distance.

- On walls, install the detectors high, because smoke rises, and place them eight to ten inches away from corners and ceilings.
- Install smoke detectors at least three feet from vents, which might recirculate the smoke.
- Never place smoke detectors on uninsulated walls or ceilings. Extreme temperatures can ruin batteries and prevent smoke from reaching the detectors.



Wall Mount

Ceiling Mount

"Early detection of home fires is important to a family's survival."

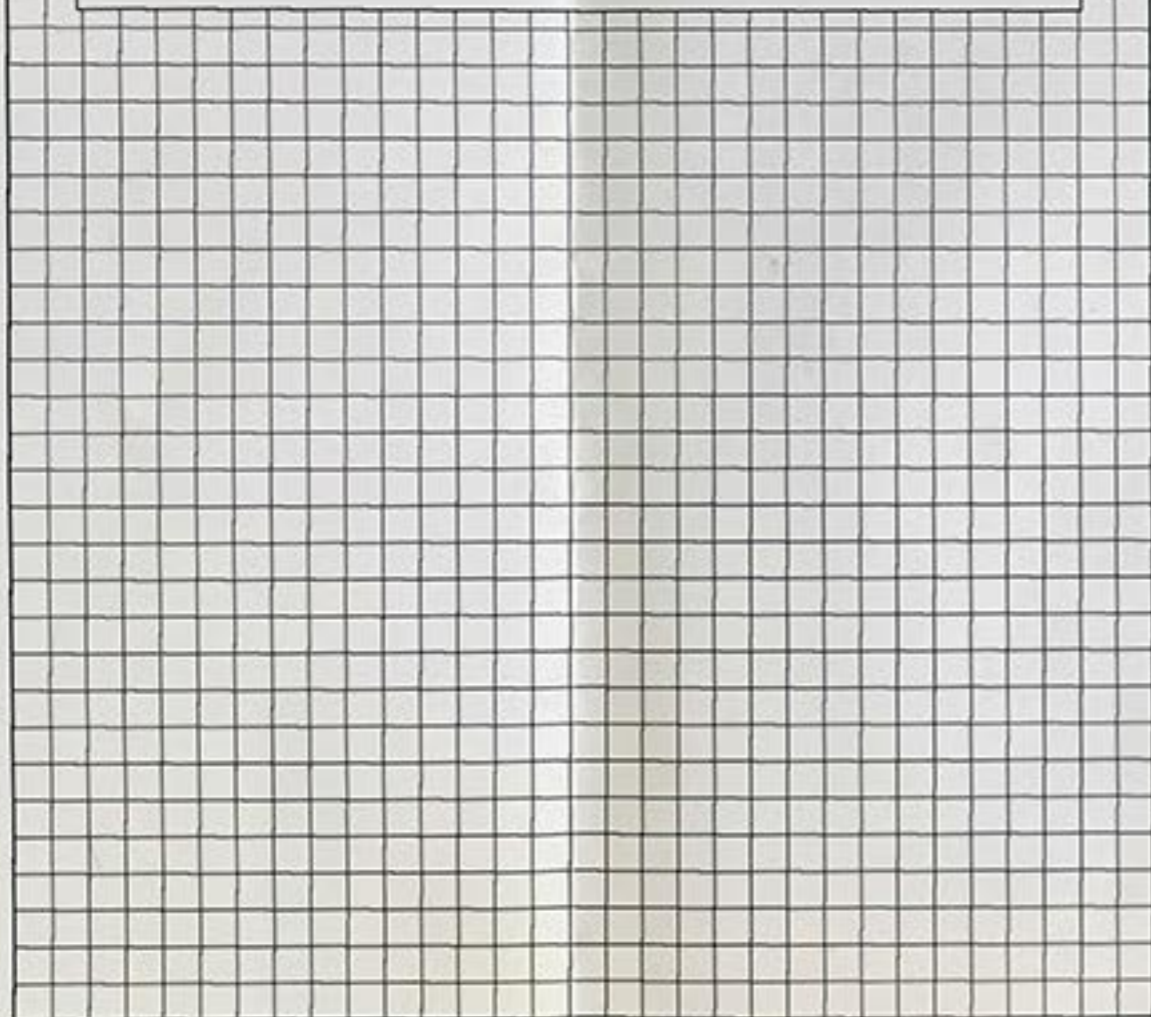


Exit Drills In The Home

Smoke detectors provide an early warning system to allow you and your family extra time to get out of the house fast during a fire.

IF THE ALARM SOUNDS... be sure each family member knows what the alarm sounds like and what to do. Families should regularly practice Operation EDITH - Exit Drills In The Home. This means having a prepared escape plan, with two possible escape routes from every room, and a prearranged meeting place outside the house. Families should actually run through a fire drill at least twice a year.

Use the grid below to draw a floor plan of your home, showing walls, windows, doorways, corridors and stairways. Draw two escape routes from every room, especially bedrooms.



Maintenance Check List

- ✓ Test each smoke detector at least once a month by pressing the test button.
- ✓ Replace weak or worn out batteries at once.
- ✓ Never borrow smoke detector batteries for other uses.
- ✓ Keep extra batteries on hand.
- ✓ Change batteries at least once a year.
- ✓ Dust and vacuum smoke detectors at least twice a year.
- ✓ Make sure smoke detectors are working when you return home after an extended absence.

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Test Your Detectors



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