

Smoke alarms are an incredible success story. Once the concept took hold in the 1970s, it wasn't long before the fire death rate was cut in half! Now, more than three decades later, most homes have at least one smoke alarm but we still have a problem – the smoke alarms aren't working! In one quarter of the homes with smoke alarms, the alarms don't work. The cause is missing or dead, disconnected batteries (National Fire Protection Association). Pillar To Post® would like to encourage you to pay more attention to your smoke alarms.

## The Benefits of Smoke Alarms

**To Wake You:** Most of us have heard this story more than once but it can't hurt to hear it again: If a fire breaks out while you are asleep, you might expect the smoke and flames to wake you up but it does not. You cannot sense the smoke while you are asleep. The fact is you will not wake up. This is the main reason we have smoke alarms.

**Early Warning:** There is another key benefit of smoke alarms, early warning. The sooner you know you have a fire, the better the outcome. For a minor fire, early warning may make the difference between quick containment and a fire that is out of control. For a bigger fire, early warning could make the difference between minor damage and complete loss of your home.

## Placement of Smoke Alarms

Here are the general guidelines. We do not address local bylaws and codes here.

- There should be at least one smoke alarm per floor including the basement.
- Smoke alarms should be placed outside every separate sleeping area.
- Many authorities suggest an alarm inside each bedroom as well.
- The alarm can be placed on the ceiling or high up on the wall.
- If the alarm is on the ceiling, it should be at least four inches away from any walls.
- If the alarm is on the wall, it should be at least four inches but not more than twelve inches from the ceiling.
- Peaked ceilings have stagnant air at the top. The smoke alarm should be three feet from the highest point.
- Do not place the smoke alarm where it could be affected by drafts such as next to a window or air vent.
- Follow the installation instructions provided with the smoke alarm.

## Types of Smoke Alarms

There are two different types of smoke alarms, photoelectric and ionization. Without going into the technical details, photoelectric smoke alarms are slightly better at detecting smoldering fires such as from a cigarette burning on a couch whereas an ionization type is slightly better at detecting flaming fires such as burning paper. In the past, this generated much discussion about which one was better. The fact is they are both so good that the difference is insignificant. Both must pass the same certification requirements for all types of fires.

## Maintaining

Smoke detectors require very little maintenance:

- Test the smoke alarm once per month by pressing the test button until the alarm sounds then release the button.
- If the smoke alarm is battery operated, replace the battery every year.
- If you hear a chirping sound from the smoke alarm, change the batteries.
- Dust or vacuum the surface periodically.
- Replace the entire unit if it is older than 10 years or if you are not sure how old it is. Print the installation date inside the cover.

## False alarms

Nuisance tripping of your smoke alarm is bound to happen occasionally. For example, smoke from the stove could trip the alarm. Unfortunately, many people remove the battery to silence the alarm with the good intention of replacing it after the smoke clears. This is one of the most common causes of non-functioning smoke alarms. Here are some better ways to deal with nuisance tripping:

- Use an alarm with a 'hush button'. If the smoke alarm sounds, just press the hush button, you will have up to ten minutes to clear the smoke.
- Move the smoke alarm a little further from the kitchen area.
- Try a different type of alarm. Some experts say that a photoelectric smoke alarm is a little less sensitive to common causes of false alarms.

## Long life battery

If you are the type that is unlikely to remember to change the battery every year there is a product for you. Some modern smoke alarms come with a ten year lithium battery built in. After ten years, you replace the unit. You still have to test monthly to make sure it's working.

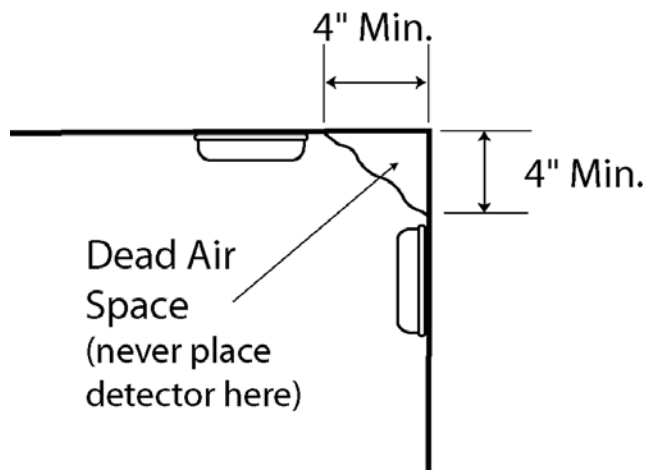
## Hard wired alarms

Many homes today have smoke alarms wired right into the household electrical system. There are two benefits:

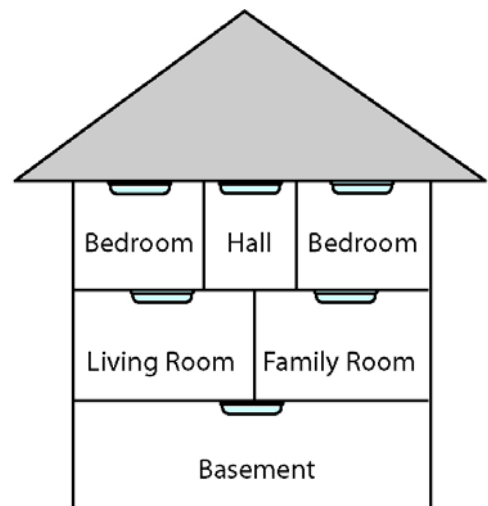
- You don't have to change the batteries every year because the alarm is powered from the electrical system. Many also have a battery backup so the alarm operates even if there is a power failure.
- You can have the alarms interconnected. This means if one alarm in the home sounds then the others sound as well. This is a big advantage. For example, if there is a fire in the basement, you may not hear a smoke alarm sounding from two floors away while you are asleep. If the alarms are interconnected, the alarm in the basement will trigger all of the alarms in the home.

## Escape plan

Smoke and flame can spread quickly so you need to react quickly. It is vital that you and your family know what to do on hearing a smoke alarm. You should plan an escape route from every area of the home and identify a safe area to meet outside the home. You should rehearse the escape plan with your family. Walk through and identify obstacles that may slow you down such as windows that are jammed or exits that are crowded with storage etc.



**Placement on Walls & Ceilings**



**Placement Throughout Home**