



Smoke & CO Alarms

New Requirements for Photoelectric Alarms

The Vermont Division of Fire Safety has prepared the following information regarding the type, placement, and installation of photoelectric smoke alarms and carbon monoxide alarms in single family dwellings. This information is required to be posted where smoke alarms and carbon monoxide alarms are sold in accordance with Vermont state law, 20 VSA § 2731 (j).

Smoke Alarm Requirements

Photoelectric-only type of smoke alarms are required to be installed in the vicinity of any bedrooms and on each level of a dwelling, for all new dwellings and dwellings that are sold or transferred, beginning January 1, 2009.

The law allows the use of photoelectric and carbon monoxide combination alarms but it does not allow ionization / photoelectric combination alarms to be used for these specific locations.

The Different Types of Smoke Alarms

There are two different types of smoke alarms in general use today.

Ionization - Ionization smoke alarms respond faster to flaming fires, such as those involving paper or flammable liquids.

Photoelectric - Photoelectric smoke alarms respond faster to smoldering fires, such as those involving upholstered furniture or bedding materials.

Updating Smoke Alarms

Smoke alarms save lives, prevent injuries, and minimize property damage by alerting people to a fire when a fire is still small. Smoke alarms need to be properly installed, maintained and replaced when needed.

Many existing Vermont homes currently have old outdated ionization smoke alarms installed. These old alarms need to be replaced. The division recommends that when you are replacing alarms that you update to a photoelectric smoke alarm.

No home should be without smoke alarms, and ionization alarms should continue to be used until a home can be equipped with new photoelectric alarms.

Carbon Monoxide (CO) Alarm Requirements

CO alarms are required to be installed in the vicinity of any bedrooms for all new dwellings and dwellings that are sold or transferred, beginning July 1, 2005.

Heating appliances that are not working properly are the major cause of unintentional carbon monoxide poisoning in Vermont. Other common sources include emergency generators or space heaters and motor vehicles left running in attached garages.

It is very important to be aware of the early signs of CO poisoning. Exposure to CO can mimic flu systems - headaches, dizziness, disorientation, nausea and fatigue. Higher levels of exposure will result in disorientation and drowsiness, leading to unconsciousness and death. Often the symptoms will be less when the person exposed to carbon monoxide leaves the building, only to have the symptoms reoccur when the person re-enters the building.

Power Supply for Alarms

Smoke alarms installed in a dwelling constructed after January 1, 1994 and carbon monoxide alarms installed in a dwelling constructed after July 1, 2005 must be directly wired to the building electrical service and have a battery back up.



Installation Information

Alarms that are hard-wired into the home electrical system should be installed by a qualified electrician.

Choose smoke and carbon monoxide alarms that bears the label of Underwriters Laboratories or another nationally recognized testing laboratory.

Read and follow the manufacturers' instructions that are supplied with each alarm.

Install photoelectric-only smoke alarms in the vicinity of any bedrooms and on each level of a dwelling including the basement.

Install smoke alarms in each bedroom for additional protection and interconnect smoke alarms together so if one sounds an alarm, they all sound an alarm, to make sure the alarm is heard.

Mount smoke alarms on flat ceilings no closer than 4" from the adjoining wall surface. Mount smoke alarms on walls no closer than 4", and not further than 12", from the adjoining ceiling surface. Do not install a smoke alarm within 36" of a ceiling suspended fan, a supply register or the door to the bathroom or kitchen.

Alarm Maintenance

Clean alarms monthly by gently vacuuming to remove dust and cobwebs allowing proper air flow through all vents.

Install a new battery in all alarms that require changing the battery at least once a year. Immediately install a new battery if an alarm "chirps," warning the battery is low.

Smoke and CO alarms don't last forever. Replace smoke alarms when they are 10 years old and carbon monoxide alarms when indicated in the manufacture's instructions, or when indicated by a trouble alarm on the unit.

Test alarms each month, as indicated by the manufactures instructions.

For additional information and additional fire fact sheets contact:



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