

## Smoke and Carbon Monoxide Alarms for the Home

*A working smoke alarm increases your chance of surviving a fire by 50%*

### **Smoke Alarm Sensor Types – You Need Both, But Probably Only Have One**

*It is a good idea to install both types of alarms in your home.*

Ionization: This is the most common type of smoke alarm, and is present in over 80 percent of homes. Ionization sensors are best at detecting flaming fires, such as paper burning in a wastebasket or a grease fire in the kitchen. These sensors have a tendency to false alarm for things like burned toast and shower steam, especially in smaller spaces such as apartments and condominiums.

Photoelectric: These alarms are not as common in households, but are very important to have. Tests show that photoelectric sensors can detect smoldering fires an average of 15 minutes faster than ionization detectors. Smoldering fires include cigarette ashes burning in a couch cushion, or fireplace ashes on carpet. Photoelectric alarms are also less likely to false alarm when placed near a kitchen or bathroom.

### **Alarm Power Source: Battery Powered, Hard-Wired or Hard-Wired with Battery Backup**

If your home was built before 1980, you most likely have battery-powered smoke alarms. Homes built in the 80's typically have smoke alarms that are hard-wired, but do not have a battery backup in case of power outages. Since smoke alarms need to be replaced every ten years, those with hard-wired alarms may want to consider replacing them with hard-wired/battery back-up alarms. These are available at hardware stores and on-line. Those with battery only alarms may choose to replace them with the same type, or with the new wireless smoke alarm systems. These systems use wireless technology to signal each other in the event of a fire, causing all alarms to sound, not just the one in the affected area.

If your home is newer, you most likely have hard-wired smoke alarms with nine-volt battery backups. Homes built in the last 10 years may also have **Interconnected Smoke Alarms**, meaning when one alarm senses smoke it triggers all of the alarms to sound. Also, when one alarm has a low battery, it may cause them all to “chirp” the warning intermittently. To prevent this problem, change **all** of the batteries at the same time, and at least once a year. Be sure to reset each one by pressing and holding the test button for a few seconds after the new battery is installed. Replace all smoke alarms every 10 years. Hard-wire replacement alarms can be found at home improvement stores and on-line with both photoelectric and ionization sensors.

### **Special Features**

Some smoke alarms have special features such as voice prompts, or the ability to record a personal alert message. Others have escape lights, hush buttons, 10-year batteries, remote control capability, or can be installed in light fixtures.

Hearing Impaired smoke alarms are available for those who cannot hear the alarm sound. They utilize a 90 decibel horn and strobe light to signal a possible fire. These units can be found through the same distributors that carry other specialty hearing equipment and devices.

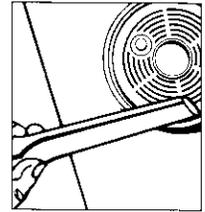
## ***Location of Smoke Alarms***

Smoke alarms should, at a minimum, be located in or near each sleeping area and on all levels of the home. Install them on the ceiling or high on a wall, according to manufacturer's instructions. Pay special attention to the instructions for cathedral ceilings. Consider installing long-life lithium batteries in hard to reach alarms, such as those located on high/cathedral ceilings. For areas near kitchens and bathrooms, consider installing a photoelectric sensing alarm to avoid false fire alarms caused by things like burned toast or shower steam.

Fire code regulations for new construction require smoke alarms in every room (excluding kitchens and bathrooms) and on every level of the home.

## ***Maintenance and Replacement***

Smoke alarms need to be vacuumed or dusted at least once a year, or more if the environment is dusty. This will keep the sensors clear. They should never be painted over or covered in any way. Batteries should be changed at least once a year, or when you hear the low-battery "chirp." Some alarms contain a 10-year lithium battery, requiring the owner to simply replace the entire alarm after 10 years. Long-life lithium batteries can also be purchased for most smoke alarms and are recommended for smoke alarms located on high ceilings or in hard to reach areas.



Smoke alarms generally have a 5-year warranty, and may be effective up to 10 years. After 10 years, all smoke alarms should be replaced.

## ***Carbon Monoxide Alarms***

Carbon Monoxide Alarms sense dangerous levels of the deadly and odorless gas. Homes with any type of fuel burning appliances or attached garages should consider installing carbon monoxide alarms. These alarms do not need to be installed on the ceiling, as carbon monoxide is nearly the same density as air. They can be installed at any level, in fact many models simply plug into a wall outlet. Carbon monoxide alarms are not a replacement for smoke alarms, although combination smoke and carbon monoxide alarms are available for purchase. Combination smoke and carbon monoxide alarms must be installed on the ceiling or high on a wall, please follow installation instructions included with the alarm.



*Please direct any questions to the Valley Regional Fire Authority Public Education Division at (235)288-5800.*