### Office of State Fire Marshal

### Smoke Alarm Frequently Asked Questions



### Why should my home have smoke alarms?

- Seconds count! You have less than three minutes to escape a house fire.
- The earlier a smoke alarm alerts you, the more likely you will get out alive.
- Most fire deaths are caused by smoke not flames.
- Most fire deaths and injuries occur between midnight and 8 a.m. when people are asleep.

## What is the difference between smoke alarms and smoke detectors?

- Smoke alarms are self-contained, single or multiple-station smoke-sensing devices.
- Smoke detectors are smoke-sensing devices that are not self-contained and operate as part of a central control system.

## What is the difference between ionization and photoelectric smoke alarms?

- Ionization smoke alarms are quicker at sensing flaming, fast moving fires.
- Photoelectric smoke alarms are quicker at sensing smoldering fires.

### What are the requirements for installing smoke alarms?

- Meet the applicable requirements of the State building Code at the time of construction.
- All smoke alarms are to be installed according to the manufacturer's recommendations.
- Outside sleeping areas.
- On each level of the home.
- The Office of State Fire Marshal recommends adding smoke alarms to each bedroom for increased protection.

### Are smoke alarms required to be installed in all bedrooms?

- If required by State Building Code at the time of construction or remodel. Note: Some local ordinances have additional requirements. Check with your local building department and/or housing agency.
- The Office of State Fire Marshal recommends installing smoke alarms in all bedrooms for increased protection.



#### Where should smoke alarms not be installed?

• Kitchens, bathrooms, garages, and unheated areas where moisture, frost, cooking vapors and exhaust fumes could cause a false alarm.

# Can 110 volt (hard-wired) smoke alarms be replaced with solely battery operated smoke alarms?

• **No**. All hard-wired smoke alarms must be replaced with compliant hard-wired smoke alarms with battery back-up.

### How often do I replace my smoke alarm?

- According to the National Fire Protection Association National Fire Alarm Code 72-10.4.7 Replacement of Smoke Alarms in One and Two-family Dwellings: "Unless otherwise recommended by the manufacturer's published instructions, single and multiple station smoke alarms installed in one- and two-family dwellings shall be replaced when they fail to respond to operability test, but shall not remain in service longer than 10-years from the date of manufacture." (Adopted as part of the Oregon Fire Code 2007 Edition, October 2007 (10.4.6).)
- Combination Carbon Monoxide/Smoke Alarm are recommended to be replaced 5-years from date of manufacture. (See manufacturer's manual.)

### How do I keep my smoke alarm working?

- Test smoke alarms monthly.
- Clean smoke alarms monthly with compressed canned air or vacuum smoke alarms regularly to remove dust and cobwebs.
- Never disconnect or remove smoke alarm batteries for other uses.
- Determine alarm type. Replace alarm or battery based on the alarm type and "How often do I replace my smoke alarm?" section.

### What do I do if my smoke alarm goes off and there is a fire?

- Get out and stay out! Never go back inside for people, pets or belongings.
- Get low and go under the smoke to your way out.
- Feel the knob and door before opening a door.
- Call the fire department from outside your home.

## What do I do if my smoke alarm goes off and it is a false alarm?

- Do not disable smoke alarms when activated by cooking or other non-fire causes.
- Use the smoke alarm's hush feature if available.
- Open windows and doors to clear smoke from your home.



### What types of Smoke Alarms are available and how are they identified?

- Ionization smoke alarms:
  - Contain material that ionizes the air. These ions form an electrical path between positive and negative terminals provided by the battery. When smoke enters the alarm, it disrupts the electrical current flow and triggers the alarm.
  - All ionization smoke alarms sold in Oregon are required to have a hush feature.
  - If solely battery powered, it is required to have a long life battery designed to last ten years (ORS 479.297).
  - Ionization smoke alarms have one of the following on either the front or back of the alarm:
    - > A lower case letter "i"
    - > The word "ionization"
    - > The phrase "contains radioactive material"
    - > The symbol for radioactive material



#### Photoelectric smoke alarms:

- Contain a light source and photocell, activated by light. When smoke enters the alarm chamber, light from the bulb reflects off the smoke particles and is directed towards the photocell. The photocell then triggers the alarm.
- Photoelectric smoke alarms are exempt from the ten-year battery and hush feature requirements.
- Replace the battery at least once per year or when the alarm "Chirps" indicating a low battery.
- Photoelectric smoke alarms have one of the following on either the front or back of the alarm:
  - > A capitol letter "P"
  - > The word "Photoelectric"
  - > The phrase "Photoelectric Technology"
- Hard-wired smoke alarms with battery back-up (available in photo., ion., or duel):
  - These alarms are wired directly into the homes electrical system.
  - They do not require a ten-year battery. Replace the 9 volt back-up battery at least once per year or when the alarm "Chirps" indicating a low battery.
- Hard-wired smoke alarms without battery back-up (available in photo., ion., or duel):
  - These alarms are wired directly into the home's electrical system. If the electrical power to the home fails, the alarms will not function.
- Combination or dual sensor smoke alarms:
  - Ionization and photoelectric technology in one alarm to sense flaming and smoldering fires.
  - These alarms have one or more of the following on either the front or back of the alarm:
    - > May use the words "photo & ion"
    - > A capitol letter "P" and lower case letter "i"
    - > The words "Photoelectric" and "Ionization"
    - > The phrase "Photoelectric Technology"
    - > The phrase "contains radioactive material"

- Ionization Smoke/Carbon Monoxide Alarms:
  - Activated by smoke or carbon monoxide.
  - Replace the battery at least once per year or when the alarm "Chirps" indicating a low battery.
  - These alarms have one or more of the following on either the front or back of the alarm:
    - > States "Smoke and Carbon Monoxide Alarm"
    - > A lower case letter "i"
    - > The word "ionization"
    - > The phrase "contains radioactive material"
- Photoelectric Smoke/Carbon Monoxide Alarms:
  - Activated by smoke or carbon monoxide.
  - Replace the batteries at least once a year or when the alarm "Chirps" indicating a low battery.
  - These alarms have one or more of the following on either the front or back of the alarm:
    - > States "Smoke and Carbon Monoxide Alarm"
    - > A capitol letter "P"
    - > The word "Photoelectric"
    - > The phrase "Photoelectric Technology"
- Photoelectric Smoke/Carbon Monoxide with voice:
  - Activated by smoke or carbon monoxide. Announces the type and location of danger in your home when programmed.
  - Replace the batteries at least once per year or when the alarm "Chirps" indicating a low battery.
  - These alarms have one or more of the following on either the front or back of the alarm:
    - > States "Smoke and Carbon Monoxide Alarm"
    - > A capitol letter "P"
    - > The word "Photoelectric"
    - > The phrase "Photoelectric Technology"
- Explosive Gas & Carbon Monoxide Alarm: Activated by carbon monoxide, propane, or methane gas.
  - Replace the batteries at least once per year or when the alarm "Chirps" indicating a low battery.
    - > States "Smoke and Carbon Monoxide Alarm"
    - > A capitol letter "P"
    - > The word "Photoelectric"
    - > The phrase "Photoelectric Technology"
- Visual (strobe light) and Tactile (shaker): For people who are deaf or hard of hearing.
  - Replace the 9 volt or double AA batteries at least once per year or when the alarm "Chirps" indicating a low battery.