HOW TO PREVENT FALSE ALARMS

What is a false alarm?

A false alarm is a fire alarm signal from a detection system that is not caused by a fire. The causes of a false alarm include:

- A fire-like phenomenon (e.g. a fog machine triggering a smoke detector)
- Accidental damage to the system
- Inappropriate human action (someone pulling the fire alarm)
- Equipment malfunction
- Improperly installed or maintained equipment

Why are false alarms a problem?

Put simply, false alarms can cost lives. Not only do they use firefighter's time and delay their attendance to real fires or medical emergencies, they can also cause people to become complacent and not react upon hearing the fire alarm sound. Fatalities have been caused by people believing that it was "just another false alarm" and failing to evacuate in the event of actual danger.

In locations such as hospitals, schools and shopping centers where there are a large number of people on the premises, the threat becomes even greater.

FACT: In 2015, the Vancouver Fire Department received more than 1,700 false alarms.

When a fire occurs, every second counts and any delay in evacuation can result in tragedy.

Help prevent false alarms by:

- Properly designing, installing and maintaining your fire alarm system and working with one fire alarm service provider to ensure appropriate action and effective maintenance
- Isolating zones prior to construction work and cleaning smoke detector covers prior to their removal
- Designating a person (or people) to confirm whether a fire alarm is genuine
- Designating a person (or people) to inform the monitoring company in advance of a fire drill
- Following up on every false alarm and taking corrective/preventive actions to prevent it from happening again
- Ensuring proper procedures are in place for training new staff on how to deal with false alarms in locations with high staff turnover (i.e. hospitals)
- Advising the fire alarm maintenance company when there is a change of building use
- Educating users and responsible persons about how the alarm system and Fire Alarm Control Panel works and providing guidance on how to identify and report false alarms

- Replacing single-sensor detectors with multi-sensor systems
- Using appropriate, approved and correctly located detectors
- Using approved protective covers over manual pull stations with adequate instructional signage
- Using approved analog addressable panels
- Carrying out more rigorous maintenance of the system
- Updating your call list regularly and make sure everyone on the list knows the password on the system
- Installing CCTV (closed circuit television) as a deterrent to pranksters (especially in schools and apartments)

VANCOUVER FIRE MARSHAL'S OFFICE
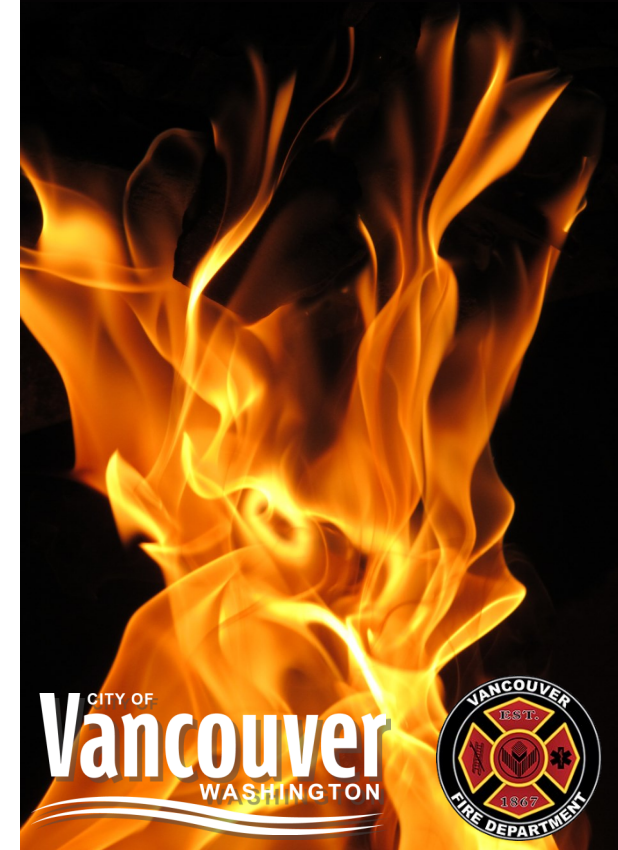Vancouver Fire Department

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FIRE ALARMS

FIRE
PULL DOWN
ALARM

- Components
- Testing
- Preventing false alarms

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Vancouver
WASHINGTON

A fire alarm system is a network of initiating and notification devices connected to a Fire Alarm Control Panel that is used to alert people of a fire emergency in a building so that it can be evacuated safely.

Some modern fire alarm systems are remotely monitored by fire alarm monitoring companies. These companies review messages sent from the system and decide whether to send the Fire Department, notify building owners or service companies of system troubles, or do nothing at all.

FIRE ALARM COMPONENTS

Fire Alarm Control Panel (FACP)

A FACP is the brains of the fire alarm system. The different parts of a fire alarm system communicate with it and it then decides what to do. Modern FACPs include keypads, LCD screens, and communication ports that make the system easier to work with.

FACPs are usually inside a locked red box located somewhere safe, like an electrical room, office, or maintenance area.

Initiating Devices

An initiating device is either a sensor that detects signs of fires and other hazards, or a switch that allows building occupants to trigger the alarm manually.

Common initiating device sensors include smoke detectors, heat detectors and water flow detectors on fire sprinklers. Manual initiating devices consist of various types of pull stations.

Notification Devices

A notification device, or notification appliance, is a device that alerts everyone in the building of a fire emergency.

Common notification devices include audible alarms (horns/speakers), sprinklers, visual strobe lights/flashers or a combination of these items.

INITIATING DEVICES

Smoke Detector

FIRE
Emergency Break Glass

Heat Detector

FIRE ALARM CONTROL PANEL

NOTIFICATION DEVICES

LED Flasher

Water Sprinkler

ALARM ALARM
Alarm

Door Release

You must use a contractor endorsed by the Vancouver Fire Department to install, inspect, maintain or test fire protection equipment within the city. View the contractor list:

www.cityofvanouver.us/VFDEndorsed
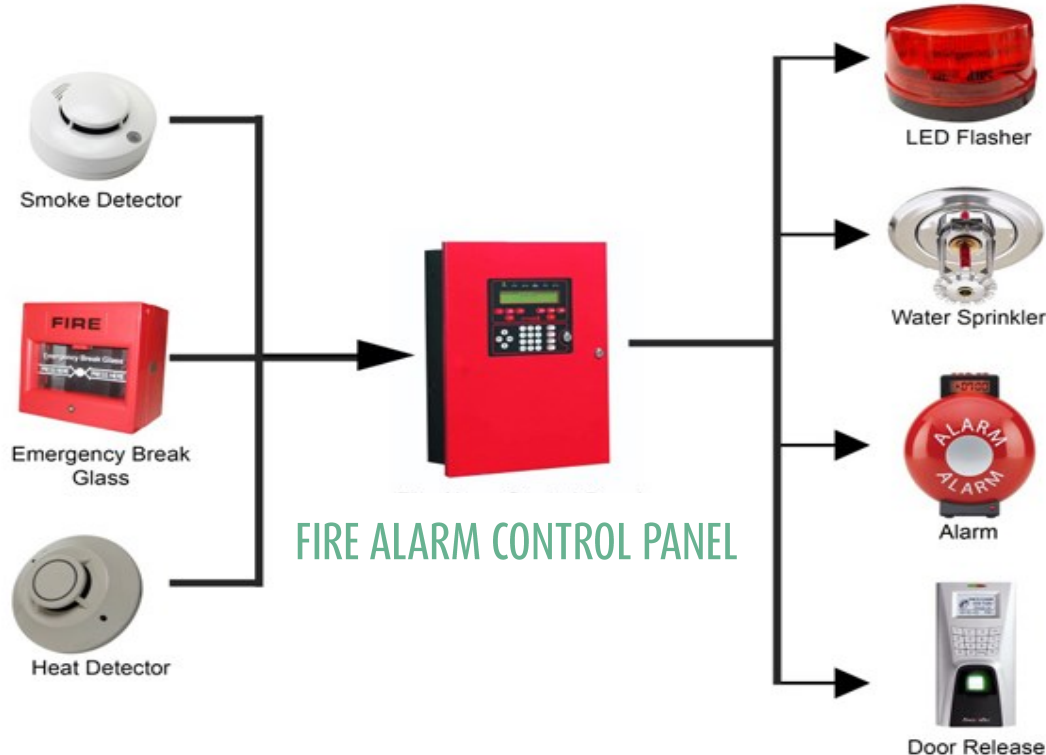
SMOKE DETECTOR TESTING

The sensitivity of your smoke detector can and does change over time. Over-sensitivity can lead to false alarms and under-sensitivity can lead to late alarms or no alarms.

The National Fire Protection Association (NFPA) requires the sensitivity of non-residential smoke detectors be checked every other year (NFPA 72 Chapter 14, section 14.4.4.3).

This test should not be confused with a smoke detector functionality test, however.

A **functionality test** verifies that smoke can enter a detector's sensing chamber and that the detector activates properly. Too often, this test passes for a sensitivity test as well. It is not.

A **sensitivity test** checks a smoke detector's ability to activate *using the amount of smoke the detector's manufacturer intended*.

A detector's sensitivity is an important part of the facilities life safety report that is reviewed by its approving authority.