

# Smoke detector alarms

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The photoelectric smoke detectors have special features that allow them to be efficient. This encompasses the use of an LED lens and a photodiode that is specifically placed to act as a light detector. In the occurrence of a fire, when the particles of smoke rise and enter the photoelectric chamber, the smoke particles distort the light beam and this triggers the alarm. This technique seems technologically enhanced and effective.

The mechanism of ionization smoke detectors is however different from that of photoelectric detectors. It utilizes radioactive elements, for instance, americium-241 which can emit radiations through the ionization chambers. The ionization chamber has two electrodes through which the radiations pass causing the constant generation of current. The photoelectric smoke detectors are more preferable since they are dependable and less likely to trigger false alarms. In fact, the utilization of radioactive components by the ionization smoke detectors can be injurious to individuals who come close to it since it constantly emits radiations. In contrast, the photoelectric detector alarms are not radioactive and quick in indicating any signs of smoke, especially in open flame fires. There are two chief requirements for detector placement in residential occupancies. One includes informing the residents on fire prevention, maintenance, and escape plans. Secondly, is to ensure full documentation of the installed smoke detector.

Finally, few considerations are necessary during the placement of smoke detectors. First, the smoke detector should not be installed in areas such as fireplaces. It should be installed near the cooking areas in the kitchen since it will be prone to indicate false alarms. The non-insulated attic and outside

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walls are also not good ideas. It can be tricky since the smoke could emanate externally and initiate false alarms when putting near windows and doors.