

A Message from the Garfield Heights Fire Prevention Officer

Over the past few years there has been a strong effort in helping people understand the differences between the 2 (two) types of smoke detectors available for alerting people of smoke or fire. This message is a compilation of several facts about smoke detectors.

What Type of Smoke Detectors is there?

1. Ionization
2. Photoelectric

Both types of detectors have been used for years and both are approved by the National and State Fire Codes. Ionization smoke detectors account for about 90% of the smoke detectors that people own. The reason you ask? This type of smoke detector costs less and unless educated as to the differences, one would not know that they work differently. Let me remind everyone that ionization smoke detectors are still approved by all national standards. I should also remind you that these are good smoke detectors, but for certain smoke conditions they lack the ability to alarm as quickly as the photoelectric detectors.

The Garfield Heights Fire Department along with many other local fire departments is part of the NEOFPA. The NEOFPA (North Eastern Ohio Fire Prevention Association) has been working on a campaign along with other fire prevention associations throughout Ohio to change the Fire Codes to make it mandatory for the use of photoelectric detectors in new construction. Through years of research we have found that the pros of photoelectric smoke detectors outweigh the cons. The photoelectric smoke detector costs 3-4 times more than the ionization smoke detector. It also reacts slightly slower in flaming fires. I will discuss these findings a bit later. In the campaign to push for, what we believe, is the better choice of smoke detectors, you will start to notice signs around the Northeast Ohio area. Public Service Announcements, like "Click it or Ticket", "Drive Sober or be pulled over", will be joined by the Fire Prevention Banner, "Over Half of All Smoke Alarms Fail". There will also be a web site that you can go to for more information and demonstrations about the smoke detectors.

In the research that the NEOFPA has conducted, which has been aired on local television and "Good Morning America", it was found that during a fast blazing fire the ionization alarm went off in 45 seconds and the photoelectric alarm sounded in 4 minutes. However, most deaths occur during the smoldering state of a fire. In a smoldering smoke filled room the results show that the photoelectric sounded after 12 minutes of smoke where as the ionization still did not alarm after an hour and 10 minutes.

This is the crucial difference between the two types of smoke detectors. It is the smoldering smoke that kills most people, sometimes within seconds of breathing in the toxic smoke.

There is still one more type of smoke detector that was not mentioned. It is the Dual Alarm detector. This smoke detector combines both technologies in to one alarm. In our demonstration we did notice that the alarm still responded a bit slower in the smoldering fire as one that is strictly a photoelectric alarm, it was still substantially more responsive then the ionization alarm.

How can I tell the difference between Smoke Detectors?

It is easy, the Ionization alarm may have an “I” or an “i” somewhere on the front, it will carry a warning about having some radiation on the box or alarm, or there may be nothing on the alarm. The Photoelectric smoke detector will have a “P” located somewhere on the packaging and should have the “P” symbol on the alarm. This is pretty much the industry standard and without the “P” or without words on the box it is most likely an Ionization Smoke Detector.

The following links to the NEOFPA web site showing everything that you will need to understand the history of these two types of Smoke Detectors.

Photoelectricsaves.com
Getsafealarms.com
NEOFPA.org



Earl Lee Warning

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