DFES recommends photoelectric smoke alarms

There are **two main types** of smoke alarms, with the difference being their smoke sensing technology. These technologies are called *ionisation* and *photoelectric* smoke sensors and they react differently to a fire.

Ionisation

Ionisation smoke alarms work by detecting the presence of large quantities of very small particles entering the ionisation chamber, which when in sufficient quantity will cause an alarm to sound. Ample quantities of very small particles are generally only produced by flaming fires or from very hot surfaces. Sources of these fires may include paper burning in a wastebasket or a grease fire in the kitchen.

Fires that start as a smouldering fire produce large visible particles, but the amount of smoke may not be enough to cause the ionisation alarm to respond. Ionisation smoke alarms are more prone to nuisance alarms from cooking (toasters, open grillers, birthday cake candles and the like) and should not be installed near kitchens.

Photoelectric

Photoelectric smoke alarms have a chamber with a light source and visible smoke entering the chamber makes the light scatter (like the dust in the air in a sunbeam of light), and in sufficient quantity makes the alarm sound.

Photoelectric technology is generally more sensitive to the large smoke particles that tend to be produced by smouldering fires.

In today's modern homes furnishings contain a significant amount of synthetic materials. These types of materials burn and give off large smoke particles. Sources of smouldering fires may also include poorly maintained electrical appliances or overloading power boards.

Most residential dwelling fires tend to produce large amounts of visible smoke. This is why photoelectric smoke alarms are considered superior to ionisation technology in providing early warning in a residential house fire.

☐ Install a photoelectric smoke alarm in sleeping areas and paths of travel to sleeping areas.

☐ In multi-storey dwellings smoke alarms should be installed in every level, even if that level consists only of carparking, storage, laundries or the like. In storeys not containing bedrooms smoke alarms should be installed in the area of the stairway between each level to ensure that an alarm will be raised before the pathway becomes impassable.

☐ Regularly maintain your smoke alarm. Every month test your smoke alarm by holding down the test button until you hear a loud alert tone. Every six months vacuum your smoke alarm with a soft brush attachment to remove the build-up of dust and cobwebs.

☐ Replace your smoke alarms every 10 years.

All smoke alarms must comply with Australian Standard 3786. Look for a SAI Global or ActivFire label.

Certified Product™
Australian Standard

Only working smoke alarms save lives.

In the event of a fire

☐ Crawl low under smoke.
☐ Assist or alert any people in danger, but only if it is safe to do so.
☐ Go to your safe meeting place, such as your letter box.
☐ Call **000** (triple zero).
☐ Wait for firefighters to arrive.
☐ Do not re-enter a burning house under any circumstances.

For more information visit **www.dfes.wa.gov.au** or contact **DFES Community Engagement** 9395 9816