

Domestic Fire Detection

Evidence shows that correctly installed and maintained smoke and heat alarms significantly increase the chances of surviving a fire in a home.

The purpose of this information sheet is to provide a guide to the types of alarms currently available, how they work and where they should be fitted.

There are three commonly available types of alarm, two are smoke alarms, and the third is a heat alarm.

SMOKE ALARMS

The two types of smoke alarms extensively available for use in domestic property are:-

1. Ionisation Alarms

2. Optical Alarms

1. Ionisation Alarms

- These are the most popular alarms in part due to the fact that they are cheap to produce.
- They are activated by a wide range of fire situations and are particularly responsive to fast flaming fires where little visible smoke may be produced.
- They have a tendency to activate accidentally in non-fire situations such as cooking, the use of portable gas fires etc.
- They are slow to respond to smoke produced by slow smouldering fires.

This advice is given in outline only, it is not intended to be comprehensive or to be a substitute for taking proper legal or other advice. We hope it will help you consider some of the issues that would otherwise not have occurred to you.

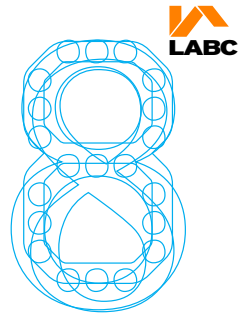
Your Building Control Surveyors will be pleased to assist you in any further enquiries:

1. Waterloo/Cowplain:
Tel: 9244 6576
2. Leigh Park/Purbrook/Widley/ Bedhampton/ West Leigh:
Tel: 9244 6643
3. Havant/Emsworth/Langstone:
Tel: 9244 6574
4. Hayling Island:
Tel: 9244 6577

Admin and answer phone Tel: **9244 6571** or **9244 6573**
Email address: **Planning.Development@havant.gov.uk**

It is advisable to telephone between the following hours:
9.00am – 10.00am and 4.00pm – 5.30pm
(Outside office hours a telephone answering service operates)

BUILDING CONTROL



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2. Optical Alarms

- They are activated by a wide range of fires but are particularly responsive to smouldering fires and the dense smoke produced by foam filled furnishings.
- They are less likely to be activated accidentally by non-fire solutions, i.e. cooking.
- They can be activated by dust or insect contamination so it is important to keep them clean.

HEAT ALARMS

- These require little maintenance.
- They are ideal for use in kitchens where smoke alarms cannot be used yet where 40% of house fires develop.
- Fixed temperature heat alarms are generally recommended for domestic use, they are activated when the temperature reaches 58°C (136°F).
- Rate of heat rise type alarms are not generally recommended for domestic use as they can be activated by the steam from kettles and the heat from opened oven doors.

(a) MAINTENANCE OF ALARMS

Building Regulations require all new property/extensions/alterations to have mains operated alarms these should include a rechargeable battery back up.

(b) LOCATION OF ALARMS

- A smoke alarm needs to be within 7 meters of a fire for it (and any linked alarms) to be activated quickly enough to allow occupants sufficient time to react and leave the building.
- Minimum protection to ensure that reliable early warning is given is two interlinked alarms one at each level.
- For maximum protection all rooms where a fire is most likely to break out (i.e. living rooms, bedrooms and kitchens) should be fitted with an alarm and the alarms should be interlinked.

Single Storey

A smoke alarm needs to be situated in a hallway between sleeping and living areas, within 3 metres of bedroom doors and within 7 metres of other rooms.

Two Storey

For minimum protection mains operated smoke alarms need to be situated in the hallway and the upstairs landing.

(c) POSITIONING OF ALARMS

Heat Alarms

- Must be situated on the ceiling. Wall mounting if manufactures details allow.
- Must be as central as possible.
- Must be between 2.50mm and 150mm below the ceiling.
- Must be at least 300mm from any light fitting or object that might obstruct heat reaching the sensor.

Smoke Alarms

- May be ceiling or wall mounted.
- If wall mounted position between 150mm and 300mm below the ceiling and at least 150mm away from corners.
- If ceiling mounted position at least 300mm from corner and walls.
- Must be at least 300mm from any light fitting or obstruction.
- If on a sloping ceiling or one where the ceiling follows the angle of the roof (such as in a loft conversion) keep the alarm 900mm from the highest point measured horizontally.

REMEMBER

1. Do not fit a smoke alarm in a kitchen, bathroom or garage.
2. Do fit a heat alarm in a kitchen or garage.
3. Smoke alarms require regular cleaning. Please read manufactures details
4. Mains operated alarms must have a built in re-chargeable battery in case of mains failure.
5. If more than one alarm is fitted they should be interlinked.