

Building Control Guidance Note	Subject	SMOKE DETECTORS IN DWELLINGS					16
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In most cases the installation of smoke detectors in dwellings can significantly increase the occupants safety by giving early warning of a fire outbreak.

Building Regulations now require the installation of automatic smoke detectors to new dwellings and loft conversions.

The guidance below covers most normal sized dwellings, for larger premises with storey floor areas in excess of 200m<sup>2</sup> or for dwellings more than 3 storeys - you **MUST** make reference to the Building Regulations for further guidance.

#### TYPE OF SMOKE DETECTORS.

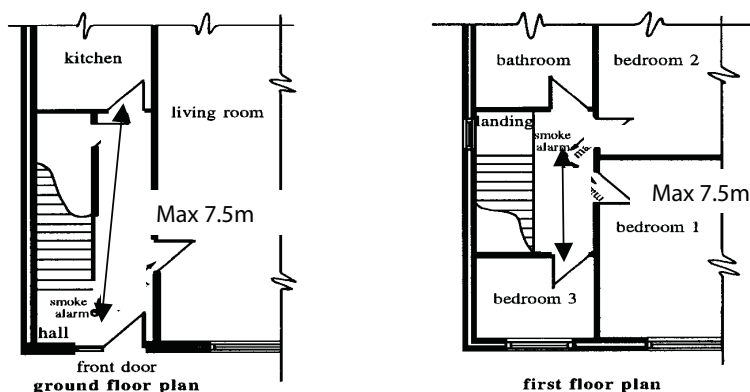
All smoke detectors must be mains powered (preferably with a secondary battery power supply) and be designed to comply with BS5446; Part 1.

Where there is more than one smoke detector required (see positioning requirements below), they should be interlinked together, so that all sound the warning should one of the detectors pick up smoke.

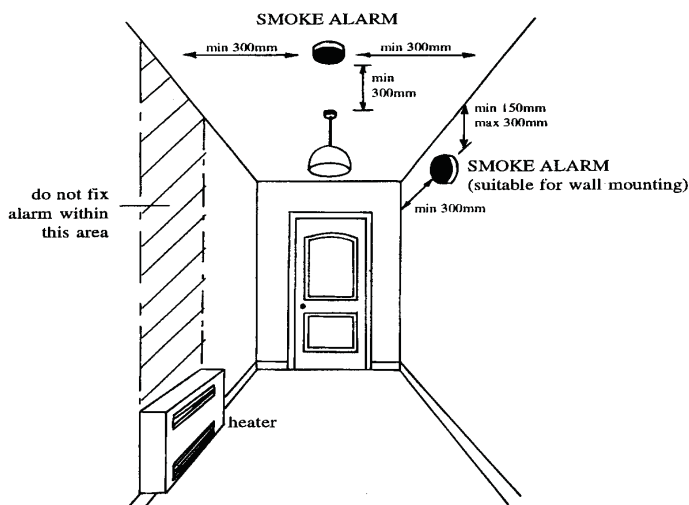
#### NUMBER AND POSITIONING OF SMOKE DETECTORS

- Smoke detectors should be provided in the circulation areas of each and on every floor of the dwelling. Smoke detectors should be positioned between the sleeping spaces and places where a fire is likely to start e.g. living room / kitchen and yet be close enough to the bedroom doors to effectively wake sleeping occupants.
- Smoke detectors should be positioned so that there is one within 7.5m of every habitable room door.
- If your kitchen is not separated from the stairways or circulation routes by a suitable door, then you must also install a compatible heat detector interlinked with the other smoke detector system positioned as above in the circulation routes.
- Smoke detectors should preferably be fitted to the ceiling in a central position and at least 300mm from any wall or light fitting. Check the manufacturers instructions carefully when deciding where to position them – particularly if you are going to mount them on the wall. Wall mounted detectors should generally be fixed between 150mm and 300mm below the ceiling.
- Smoke detectors should not be fixed directly above heaters, ducted heat outlets, or in bathrooms, showers, cooking areas or garages, where steam, condensation or fumes could cause false alarms to occur.
- Also they should not be fitted in very hot or very cold rooms e.g. boiler rooms or unheated porches, where air currents may move smoke away from the detector before it activates.
- Always position your detectors so that they can easily be maintained, cleaned and tested – so don't position them over stairs etc.

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**Position of Smoke Alarms within a Typical House**



**Position of Smoke Alarms within the Circulation Area**

**INSTALLATION AND MAINTENANCE.**

- Smoke detectors should be powered by a mains supply connected to a separate circuit on the dwellings distribution board (consumer unit).
- If there is any other equipment connected to the electric circuit, then the smoke detectors should also have an in-built battery back-up - which will operate the alarm if the power fails.

NOTE - If you use a battery backed up smoke detector they can be connected to a regularly used lighting circuit this avoids prolonged power disconnection.

- There is no need for special fireproof wiring.
- Always maintain, clean and test your smoke detectors regularly as directed by the manufacturers instructions.