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SMOKE ALARM INSTALLATION

Common features in smoke alarms

- Test button to ensure correct operation.
- Tested by Scientific Services Laboratories to comply with AS₃₇86.
- Some models have 'hush' buttons to stop nuisance alarms.
- Some smoke alarms can be interconnected which sound alarms in all connected units.
 - Interconnection allows all smoke alarms to sound simultaneously should any one alarm activate. All occupants are alerted, maximising the opportunity for escape.

Power supply options for smoke alarms

You can buy smoke alarms from hardware stores, electrical retailers, or through your electrician. There are two power supply options for smoke alarms:

240 Volt Smoke Alarms

A 240 volt smoke alarm, also called hard-wired smoke alarms, are connected to a home's electrical system and has battery back-up power supply.

Advantages

- Considered more reliable in the longer term.
- Uses a battery to provide back-up power if the AC power fails. Back up batteries can be either 9 volt or built-in and tamper proof rechargeable lithium.
- Power-on indicator.

Disadvantages

- More expensive.
- Need to be installed by a qualified electrician.

9 Volt Smoke Alarms

A 9 volt smoke alarm, also called battery operated smoke alarms, are stand alone and operated only by a battery.

Advantages

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- Easy to install.
- Low battery indication.
- Battery missing indicator.

Disadvantages

• Battery needs to be replaced annually.

INSTALLATION - Where do they need to go?

As a legal minimum requirement, a smoke alarm must be installed on or near the ceiling on any storey:

- Between any area containing bedrooms and the rest of the house or unit e.g. hallways;
- On a storey not containing bedrooms on the most likely evacuation route from the storey.

Hard-wired smoke alarms are required in all new and significantly renovated homes and units built since July 1997. These need to be installed by a licensed electrician, in line with BCA standards.

Because smoke rises, smoke alarms should be placed on the ceiling out of the corner (dead air space). If that is not possible, it may be positioned high on a wall, according to the manufacturer's instructions.

Every residence is different and you will need to assess your home. The following is suggested as a guide. Alternatively, follow the manufacturer's instructions:

- A smoke alarm outside each sleeping area and on each level of the home provides a minimum degree of protection from the threat of fire;
- In a single-level home, one alarm may be sufficient (as a minimum) if all the bedrooms connect to a common hallway;
- Additional alarms are needed in homes with separated sleeping areas;
- Where occupants sleep with bedroom doors closed, install a smoke alarm in each bedroom and the hallway.

Queensland Fire and Rescue Service strongly recommends that you consider installing additional alarms. In cases where occupants sleep with the door closed or in a child's bedroom, it is especially recommended that an alarm be installed in each bedroom.





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To maximise smoke alarm operation avoid installation in the following positions:

- In dead air space. This is an area in which trapped hot air will prevent smoke from reaching the alarm. This space generally occurs at the apex of cathedral ceilings, the corner junction of walls and ceilings, and between exposed floor joists.
- Near windows, doors, fans or air conditioners. Excessive air movement may prevent smoke and gases from reaching the smoke alarm or cause nuisance alarms.
- In or outside of the bathroom as steam may cause nuisance alarms.
- In kitchens. If there is no alternative, a photoelectric type is preferred.
- In insect infested areas, as insects flying into the alarm could cause nuisance alarms.

Ideal Locations and number required by law:

Between the bedrooms and the rest of the house.



* Minimum by law from 1 July 2007.

Near bedrooms and on every storey of a multi-level house.



* Minimum by law from 1 July 2007.

Additional alarms are needed in homes with separated sleeping areas.



* Minimum by law from 1 July 2007.

Inside the bedroom if you are a heavy sleeper or if you close the door.



* Additional recommendation for added safety (not law).

Inside each bedroom, in the hallway and living areas, and connected together.



* Additional recommendation for added safety (not law).

For advice on the selection, placement and maintenance of smoke alarms contact your local Queensland Fire & Rescue Service fire station or a reputable fire protection company.



