



Fact Sheet

Information about Smoke Alarms

Only working smoke alarms save lives.

When you are sleeping you have no sense of smell so a smoke alarm becomes your electronic nose.

A small fire can take over an entire room in just 2 – 3 minutes.

That's why here in the Territory, working smoke alarms have to be in every home or residential dwelling.

Residential dwellings include moveable dwellings such as caravans and temporary accommodation including safari-style tents.

Most homes already have working smoke alarms.

However, if your home was built before 1 January 1998 and you don't already have smoke alarms installed, you now need to install a photoelectric smoke alarm – this can be hard wired by an electrician OR a 10 year sealed lithium battery type that can be manually installed according to the manufacturer's instructions.

If your home was built after 1998, it should already have 240 volt (hard wired) smoke alarms installed at the time it was built as a requirement under the Building Code of Australia (BCA).

This also applies for homes which have undergone major renovations since 1998 in accordance with the BCA.

Residential properties which are owner occupied with hard wired (240 volt) ionisation smoke alarms already installed only need to replace them with compatible mains powered approved photoelectric alarms in the event the ionisation smoke alarms ceases to function. Home owners may choose to replace their alarms sooner but this is not a legal requirement.

Where residential property owners are renewing a tenancy or selling property/dwelling, approved photoelectric smoke alarms must be installed by the owner prior to the occupancy of the tenant/completion of the sale transaction.

In the case of a leased property, once the landlord installs approved smoke alarms, it is then the tenants' responsibility to maintain those alarms in good working order.

How can I tell what type of alarm I have installed?

If you are unsure which type of smoke alarm you have, look on the base. This radiation symbol means it is an ionisation model.

Radiation symbol



So just to clarify:

All residential properties which currently have working ionisation smoke alarms installed **do not have to change to a photoelectric smoke alarm until one of the following occurs:**

- ❖ if an ionisation smoke alarm ceases to function – the day of cessation;
- ❖ if the owner enters into a contract to sell the premises or dwelling – the day before the date of settlement of the contract;
- ❖ if the owner agrees to enter into a tenancy agreement, or renew or extend a tenancy agreement, in relation to the premises – the day before the tenancy agreement or renewal or extension takes effect;
- ❖ if the owner agrees to enter into a hire agreement, or renew or extend a hire agreement, in relation to the dwelling – the day before the hire agreement or renewal or extension takes effect.

How should I dispose of my old ionisation alarms safely?

Individual, domestic smoke alarms may be disposed of in domestic and industrial waste. The radiation sign is covered before disposal. Up to ten domestic smoke alarms may be disposed of at any one time. More than ten must be disposed of in accordance with the Code of Practice of the near-surface disposal of Radioactive Waste in Australia (1992) (for further information email envirohealth@nt.gov.au)

Where can I buy a smoke alarm?

Many hardware, home supply or general merchandise stores, fire protection companies and electrical retailers stock a variety of smoke alarms. Prices vary depending on brands, types and features. The Northern Territory Fire and Rescue Service recommend you buy an alarm that carries the Australian Standard Mark.

It is very important that you confirm with the retailer that they are providing you with an approved photoelectric smoke alarm.



The exact extract from the *Fire and Emergency Regulations* is:

Approved smoke alarm means a photoelectric type smoke alarm that:

- (a) complies with AS3786 (Smoke alarms); and
- (b) is wired to 240 volts (with 9 volt battery back up) or is a sealed 10 year lithium battery unit.

*Note: If you already have a hardwired 240 volt ionisation smoke alarm which ceases to work, hardwired photoelectric alarms should replace it in order to comply with the Building Code of Australia.

How do I install a smoke alarm?

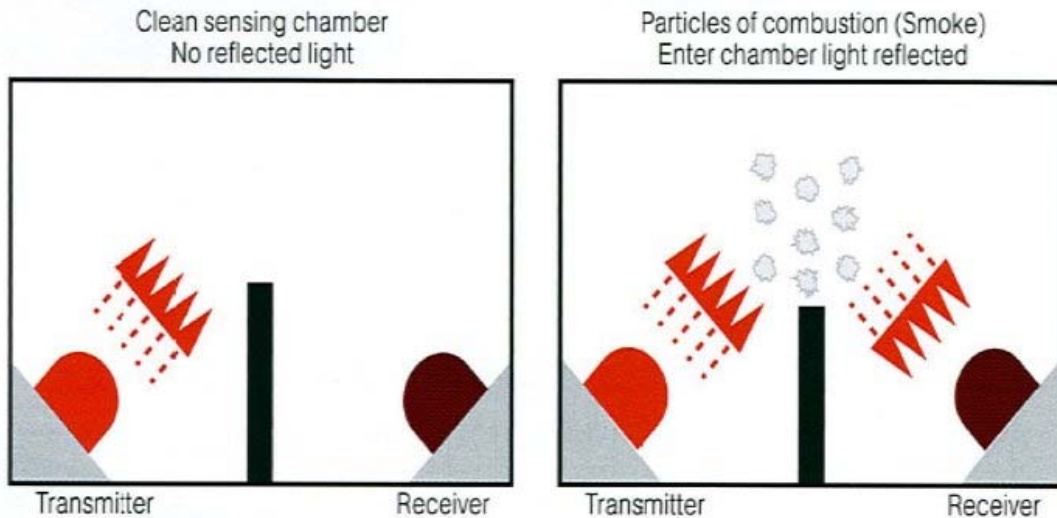
10 year sealed lithium battery photoelectric smoke alarms can be installed by anyone in accordance with the manufacturer's instructions.

240 volt (mains power) smoke alarms must be installed by a licensed electrician. Do not attempt to do your own wiring unless you are qualified to do so. It is recommended you request a receipt or certificate on completion from the installer and retain this for your records and future use if you sell or lease your property.

Technical Details - How do photoelectric smoke alarms work?

As the name suggests, the photoelectric (also known as photo-optical) smoke alarm is an optical device comprising a transmitter and receiver, mounted inside a black chamber with the transmitter and receiver in an offset arrangement. Under normal circumstances, the transmitter emits a focused light beam into the chamber. The projected light is absorbed by the black walls of the chamber and the receiver receives no light.

When visible smoke particles enter the chamber the projected light is scattered in all directions. The scattered light is detected by the receiver and activates the alarm.¹



Where should I install smoke alarms?

Class 1a buildings (normal residential buildings)

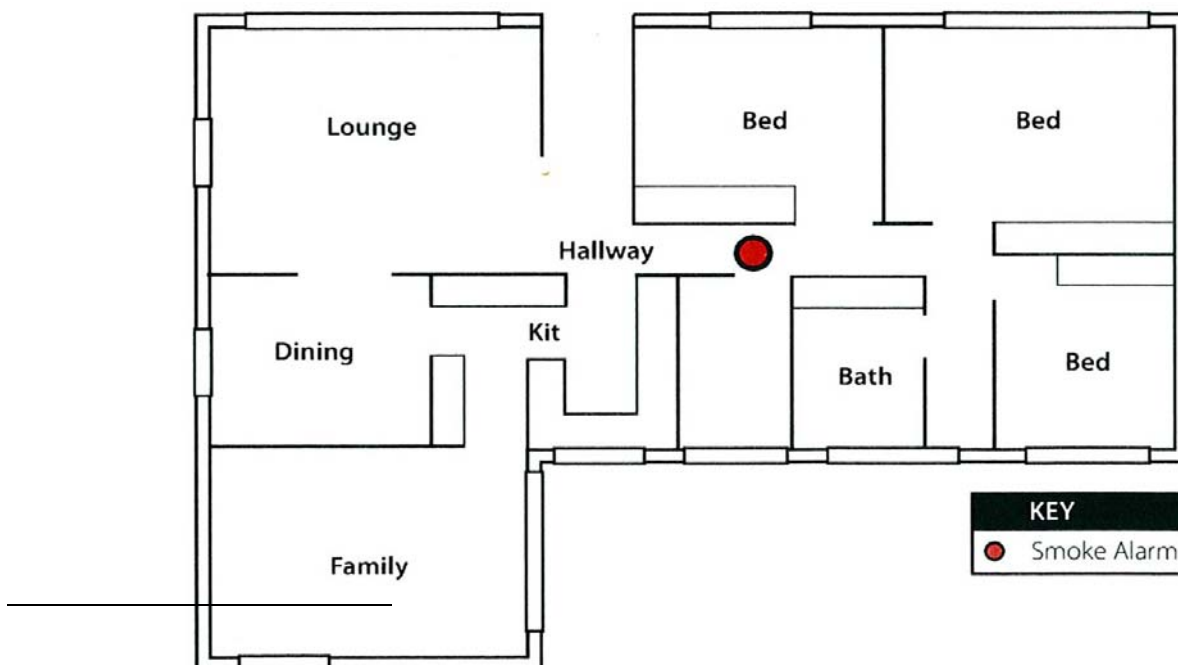
Smoke alarms must be installed in a Class 1a building on or near the ceiling in –

- (a) any storey containing bedrooms -
 - (i) between each part of the dwelling containing bedrooms and the remainder of the dwelling; and
 - (ii) where bedrooms are served by a hallway, in that hallway; and
- (b) any other storey not containing bedrooms (see Fig. 3 for multilevel)

For a sole-occupancy unit in a class 2 and 3 buildings or a class 4 part of a building

specification E 2.2a, clause 3(c)(i) of the Building Code; must be installed (i) within each sole occupancy unit on or near the ceiling in any storey (A) containing bedrooms – (a) between each part of the *sole occupancy unit* containing bedrooms and the remainder of the *sole occupancy unit*; and (B) not containing any bedrooms, in egress paths; and (ii) in a building not protected by a sprinkler system, in public corridors and other internal public places in accordance with AS1670.1.

Figure 1 – Class 1a and Class 2 buildings

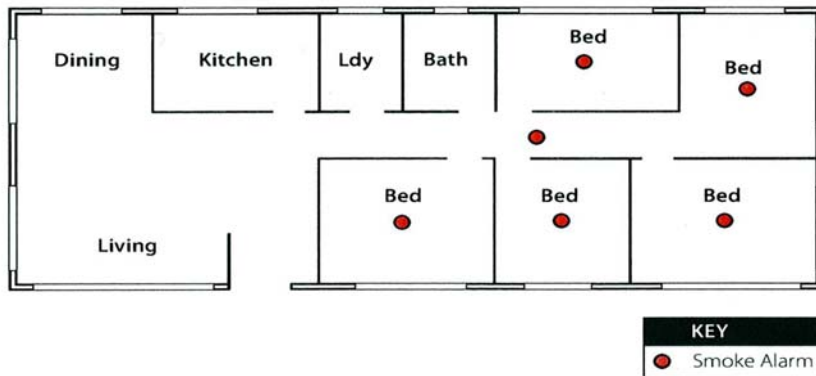


Class 1b buildings (Boarding Houses)

Smoke alarms must be installed on or near the ceiling –

- (a) in every bedroom; and
- (b) in every corridor or hallway associated with a bedroom, or if there is no corridor or hallway, in an area between the bedrooms and the remainder of the building; and
- (c) on each other storey. (see Fig. 3 for multilevel)

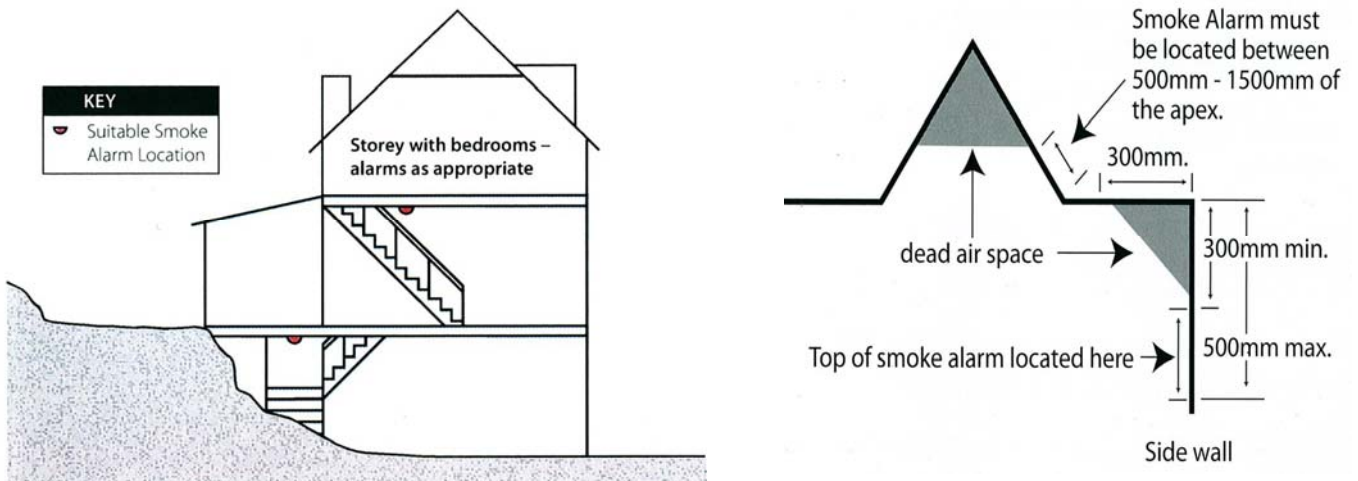
Figure 2 – Class 1b buildings



Multilevel properties

Smoke alarms should be installed in each bedroom, in corridors and hallways that lead to exits and the living area. If you are installing smoke alarms in a multilevel home or property you should have an additional alarm in the stairway between each level. Often people sleep with their bedroom doors closed at night and only a smoke alarm installed in that room will detect a fire fast enough to get out safely.

Figure 3 – Multilevel homes and properties



Installation of smoke alarms

Smoke alarms should be installed on or near the ceiling, with special care taken to avoid installation in the following areas:

- the apex of cathedral ceilings
- the corner junction of walls and ceilings
- between exposed beams, where there may be a dead air space

If it is not practical to install the smoke alarm on the ceiling, then it may be installed on the wall between 300mm to 500mm below the ceiling.

For cathedral ceilings, between 500mm and 1500mm from the apex to the top of the alarm.