THE REQUIREMENT FOR SMOKE ALARMS

Is it law for residential properties to have mains powered smoke alarms installed?

The Building Regulations 2012 require owners to install compliant mains powered smoke alarms in residential dwellings:
- Prior to the transfer of ownership (regulation 56);
- Prior to being rented under a residential tenancy agreement or made available for such rental (regulation 58); or
- When being made available for hire (regulation 59).

What is a compliant smoke alarm?

A compliant smoke alarm (regulation 60(2)):
- Meets the requirements of Building Code of Australia (BCA) applicable at the time of installation of the alarms. (The BCA specifies the minimum standards and location with which smoke alarms must comply); and
- Has been installed not more than 10 years before the transfer of ownership, or, if rented or hired, before the dwelling was occupied; and
- Is in working order; and
- Is permanently connected to the mains power supply (unless there is approval to install smoke alarms with a 10-year battery).

Smoke alarms installed in dwellings approved for construction after 1 May 2015 must also be interconnected (if there is more than one alarm).

Smoke alarms installed or replaced on or after 1 May 2017 must comply with Australian Standard 3786:2014.

Look for these markings on your smoke alarm prior to installation or check with the electrical contractor.

What types of dwellings require smoke alarms?

The Building Regulations 2012 apply to the following residential buildings as classified in the Building Code of Australia:

Class 1b:
- Boarding houses, guest houses, hostels or the like in which not more than 12 people would ordinarily be resident, and with a total area of all floors not exceeding 300m²; or
- Four or more single dwellings located on one allotment and used for short term holiday accommodation.

Class 2: dwellings such as apartments and flats in a building containing two or more units.

Class 4: a residential unit in a non-residential building if it is the only dwelling in the building e.g. a caretaker’s residence.

Do park homes need to comply?

All Class 1, Class 2 and Class 4 dwellings that are subject to sale, transfer of ownership, rent or hire need to comply. Your local government can advise you on the classification of the ‘park home’ in question.

TRANSFERRING OWNERSHIP, SELLING OR BUYING A PROPERTY

I am planning to sell my home. It does not have any mains powered smoke alarms installed. What am I required to do?

You are required to install mains powered smoke alarms prior to the transfer of ownership (i.e. prior to settlement).

I am thinking of buying a new house to live in. Who has to fit the smoke alarms?

It is the responsibility of the vendor (seller) to install mains powered smoke alarms prior to the transfer of ownership.

I am thinking of buying a house. How do I know if the smoke alarms fitted are compliant?

When purchasing a home, buyers should check that the smoke alarms are:
- Permanently connected to the mains power supply; and
- Less than 10 years old; and
- In working order; and
- Correctly placed (please see DFES fact sheet for placement of smoke alarms).

A mains powered smoke alarm will have a green LED indicator. Look for terms such as ‘Mains’ or ‘AC’ next to the LED indicator.

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I have recently taken ownership of a house and it does not have smoke alarms fitted. What can I do?
Contact the prior owner (seller) and ask them to rectify the situation. If they refuse to pay for the installation of mains powered smoke alarms, you must install the smoke alarms to meet the requirements within 12 months of the transfer of ownership [regulation 57(1)]. You may then recover reasonable costs from the previous owner by going to court [regulation 57(2)].
The Magistrates Court of WA deals with civil matters relating to debt recovery www.magistratescourt.wa.gov.au.
Action may also be taken against the previous owner by your local government and an infringement notice issued or prosecution action taken [regulation 56]. There are significant penalties that could be imposed for non-compliance. Please note: this action does not result in mains powered smoke alarms being installed. The best advice is to check with the vendor (seller) and confirm that smoke alarms have been installed prior to the transfer of ownership.

RENTING OR HIRING

I own several dwellings that I rent and hire out. What are my legal responsibilities in respect to smoke alarms?
An owner who rents their dwelling under a residential tenancy agreement, or hires their dwelling, is required to have compliant mains-powered smoke alarms fitted prior to making the dwelling available for rent or hire. What is a compliant smoke alarm?
A compliant smoke alarm [regulation 60(2)]:
- Meets the requirements of Building Code of Australia (BCA) applicable at the time of installation of the alarms (the BCA specifies the minimum standards and location with which smoke alarms must comply); and
- Has been installed not more than 10 years before the transfer of ownership, or, if rented or hired, before the dwelling was occupied; and
- Is in working order; and
- Is permanently connected to the mains power supply (unless there is approval to install smoke alarms with a 10-year life battery).
Smoke alarms installed in dwellings approved for construction after 1 May 2015 must also be interconnected (if there is more than one alarm).
Smoke alarms installed or replaced on or after 1 May 2017 must comply with Australian Standard 3786:2014. Look for an AS 3786:2014 marking on your smoke alarm prior to installation or check with the electrical contractor.

Is there a requirement to maintain the smoke alarms?
Yes. Regulation 62 requires you as a landlord to ensure each alarm installed:
- Is in working order; and
- Is permanently connected to the mains power supply (unless you have an exemption that allows the installation of smoke alarms with a 10-year battery life); and
- Has not reached its expiry date if one is provided on the alarm; or is not more than 10 years old if no expiry date is provided on the alarm.
It may be useful for landlords and property managers to document when smoke alarms need replacing.

How do I maintain a smoke alarm?
The Regulations do not state how to maintain a smoke alarm; only that they must be “in working order”. DFES recommends the following smoke alarm maintenance routine for property owners/landlords/property managers:
- Check the alarm(s) are firmly secured in the correct location as stated in the Building Code of Australia requirements. (Double sided tape is not acceptable);
- Check the required power source is connected and operating. Where mains powered smoke alarms are installed, they will have a green visual display / light to indicate that mains power is connected. This should be easily seen when standing beneath the alarm;
- Test the smoke alarm during routine inspections, or at least every six months;
- Check the smoke alarm(s) for a build-up of dust and cobwebs;
- Vacuum around the smoke alarm vents with a soft brush at least every 6 months;
- Use a surface insect spray around the smoke alarm to prevent insects nesting inside. (Do not spray directly onto the smoke alarm);
- Check the smoke alarms are within their service life. Smoke alarms require replacement every 10 years. The date for replacement is often located on the unit;
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**WHERE ARE SMOKE ALARMS REQUIRED AND WHAT TYPE SHOULD BE FITTED?**

**How many smoke alarms will have to be fitted in my house?**

The number of smoke alarms needed depends on the design of your property. In particular the number of bedrooms, how far apart the bedrooms are from each other, and how many levels in your house.

Class 1a, Class 2 and Class 4 dwellings require smoke alarms to be installed on or near the ceiling in:

- Any level containing bedrooms
- Between the bedrooms and the remainder of the dwelling; and
- Where bedrooms are served by a hallway, in THAT hallway.

In any other level not containing bedrooms, in the area of the stairway (exit path) between each level.

Class 1b dwellings (boarding houses, guest houses, hostels, holiday cabins) require smoke alarms to be installed on or near the ceiling:

- In every bedroom; and
- In every corridor or hallway associated with a bedroom; and
- Any other storey not containing bedrooms, in the area of the stairway (exit path) between each level.

**I have two smoke alarms in a house that I rent out to tenants. Do they need to be interconnected?**

Interconnection of smoke alarms is required in dwellings that were constructed or approved for construction after 1 May 2015. Houses constructed (or approved for construction) before this date do not require interconnection of smoke alarms.

If your property has more than one smoke alarm installed, having them interconnected is safer than standalone alarms. When they are interconnected, if one alarm detects smoke, the other interconnected alarms will also sound.

Interconnection provides the earliest warning for sleeping occupants if a fire starts away from sleeping areas.
What type of smoke alarms are the best to use?
Smoke alarms installed or replaced after the 1 May 2017 must comply with Australian Standard 3786:2014. Look for an AS 3786:2014 marking on your smoke alarm prior to installation or check with the electrical contractor.

DFES recommends you install photoelectric smoke alarms. Research indicates this type of alarm consistently provides sufficient time for occupants to escape from smouldering and flaming fires, provided the alarms are properly installed and maintained and occupants hear them.

DFES also recommends that owners purchase smoke alarms with the following features:
- Hush (silence) function;
- Test function;
- Rechargeable back-up battery.

In circumstances where the Building Code of Australia requires a smoke alarm in a Class 10a part of a Class 1 building (such as in a private garage) it is permitted to use any other alarm, such as a heat alarm, that complies with Australian Standard AS 1670.1 provided that smoke alarms complying with AS 3786:2014 are installed elsewhere in the Class 1 building. This is because a smoke alarm can give spurious alarms if the atmosphere contains particles which obscure vision, which may occur in a private garage for example. (A Class 10A building is a non-habitable building such as a private garage).

THERE ARE SMOKE ALARMS INSTALLED, DO THEY MEET THE REQUIREMENTS?
The house has a main powered security system installed which includes a smoke detection function. The system has a battery back-up fitted at each smoke detector. Does this meet the requirements of the regulations?

Smoke alarms connected as part of a security system are acceptable as long as they conform to the following requirements:
- The power for the smoke alarms must be separate to the power source for the home security system and the smoke alarms must be permanently connected to the mains power.
- Smoke alarms that are powered through a home security system may not comply as while the home security system may be on 240 volt from the consumer mains power, a feed of 12 volt to the smoke alarm would mean they are not permanently connected to consumer mains power;
- The location of the smoke alarms must comply with the requirements of the Building Code of Australia;
- The smoke alarms must be less than 10 years old;
- Smoke alarms installed on or after 1 May 2017 must comply with AS 3786:2014. (Smoke alarms installed before this date are to comply with AS 3786:1993).

How often should smoke alarms be replaced?
The Regulations require owners who rent or hire their dwellings to ensure that the smoke alarms are replaced every 10 years.

Owner-occupiers who don’t intend to rent, hire or transfer ownership, should also consider replacing their smoke alarms every 10 years. Smoke alarms don’t last forever even if they are 240 volt mains powered.

Smoke alarms are manufactured to a standard that requires them to perform for 10 years. After that time smoke alarms may malfunction and their efficiency is compromised with accumulated dust, insects, airborne contaminants and corrosion of electrical circuitry.

The limited lifespan of smoke alarms applies to ALL smoke alarms regardless of power source (battery or 240 volt) or the type of smoke alarm (ionisation or photo-electric/ photo-optical).

IT IS NOT PRACTICAL TO INSTALL A MAINS POWERED SMOKE ALARM
There is no mains power available. Do I still have to install smoke alarms?

Battery powered smoke alarms may be installed where consumer mains power is not connected to the dwelling. Battery powered smoke alarms must have a 10-year non-removable battery.

I am selling an apartment in a block where the ceiling is solid concrete. Do I have to install a hard wired (mains powered) smoke alarm?

In dwellings where the construction of the building does not permit a space to conceal the wiring and there is no appropriate alternative location to install a mains powered smoke alarm, battery powered smoke alarms may be installed. Battery powered smoke alarms must have a 10-year non-removable battery.
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Smoke alarm (such as a wall), then a smoke alarm powered by a 10-year non-removable battery is to be used.

Owners should be aware that it is unlawful to install battery-powered smoke alarms just because it is more convenient to do so.

I have to install mains powered smoke alarms, and there are reasons of a structural nature that make this impractical. Do I have to install smoke alarms?

You will require local government approval to install a smoke alarm powered by a 10-year non-removable battery (regulation 61). The only exemptions that do not require local government approval are:

- Where consumer mains power is not connected to the dwelling; or
- Where the construction of the building does not permit a space to conceal the wiring, for example where there is a concrete ceiling.

Owners should be aware that it is unlawful to install battery-powered smoke alarms just because it is more convenient to do so.

Application for approval to install a battery-powered alarm must be made to your local government. They will review the circumstances. You will need to follow the local government process and this may involve paying a fee no greater than $174.40.

Do I require a licensed electrical contractor to install a smoke alarm powered by a 10-year non-removable battery?

These smoke alarms do not require a licensed electrical contractor to install, as they are not connected to mains power supply.

I am selling a house that is likely to be demolished after the transfer of the property. Do I have to install mains powered smoke alarms?

From the 22 January 2018, houses are exempt from installing mains powered smoke alarms if they are to be demolished within 6 months of transfer of ownership.

This means the current owner of a dwelling may choose not to install smoke alarms if the new owner has provided the current owner a declaration of intended demolition prior to the transfer of ownership.

A declaration of intended demolition is a statutory declaration, made by the person to whom the ownership is to be transferred (the new owner), declaring that the person intends to demolish the dwelling within 6 months beginning on the transfer day (being the day on which ownership is transferred).

If the property is not demolished, the new owner must install the required number of smoke alarms (at their own expense) within 6 months of the transfer.

Please note, if the new owner subsequently decides to rent/hire the dwelling after the transfer of ownership, they must install mains powered smoke alarms (at their own expense).

A statutory declaration is a written statement that the maker (the new owner) signs and declares to be true before an authorised witness. Further information about statutory declarations is available on the Department of Justice (WA) website.

MAINS POWER SMOKE ALARMS AND POWER FAILURE

How long will the back-up battery last upon failure of the mains power?

User-replaceable battery type (9V alkaline battery)

Australian Standard (AS) 3786:2014 specifies that the stand-by power supply (that is provided to energise the smoke alarm upon failure of the mains power) shall be capable of powering the alarm over a period of at least 1 year before a battery-low fault warning is given, followed by 30 days with a battery fault warning, and then also be capable of producing an alarm condition for at least 4 minutes.

Rechargeable battery type (non-removable 10-year lithium battery)

AS3786:2014 specifies that the stand-by power supply (that is provided to energise the smoke alarm upon failure of the mains power) shall be capable of powering the alarm for a minimum period of 72 hours before a battery-low fault warning is given, followed by 24 hours with a battery fault warning, and then also be capable of producing an alarm condition for at least 4 minutes.

This is the minimum standard and many manufacturers state that their batteries are able to provide more substantial periods of back-up on mains power failure.

Consumers should be aware of the manufacturer’s
instructions for all smoke alarms and that rechargeable batteries may require a few days to charge after the smoke alarm is first being connected to the mains. During this time an alarm fault warning may sound (i.e. a short beep) every 40 seconds for up to 2 hours whilst it is charging. This condition may be longer if the batteries that have been totally depleted during a period of mains power failure.

**Do I need to replace batteries in mains powered smoke alarms after extended periods of mains power outage?**

**Rechargeable battery type (non-removable 10-year lithium battery)**

If there are many periods of power outage over the life of a smoke alarm, the rechargeable lithium cells may degrade and become inoperable. A low battery fault signal will operate.

Please be aware that rechargeable batteries may require a few days to charge after the smoke alarm is first being connected to the mains. During this time an alarm fault warning may sound (i.e. a short beep) every 40 seconds for up to 2 hours whilst it is charging. This condition may be longer if the batteries that have been totally depleted during a period of mains power failure.

If the low battery fault signal continues to operate over an extended period, it may mean that the alarm is faulty. It is not possible to change the battery and you will require an electrical contractor to replace the entire smoke alarm.

Many manufacturers provide a limited warranty on their smoke alarms that may allow for repair or replacement of the smoke alarm if a low-battery / battery-fault alarm occurs within the warranty period. Smoke alarms would need to have had regular mains power connected. Other manufacturers exclude batteries from their warranty. Consumers should be aware of the limitations of the warranty prior to purchase and installation.

**User-replaceable battery type (9V alkaline battery)**

Smoke alarms which use a 9V alkaline battery as their standby power source require the battery to be replaced each year (DFES suggests the 1 April) and/or when the low battery fault signal sounds (i.e. a short beep). The low battery fault signal sound will also be accompanied with a flashing LED signal. When replacing a ‘user-replaceable’ battery, use only 9V alkaline batteries specified by the manufacturer. Use of a different battery may damage the smoke alarm or cause the battery to overheat resulting in injury or fire.