

# Smoke Alarm Legislation

## Frequently Asked Questions

Updated 6 March 2014



### THE REQUIREMENT FOR SMOKE ALARMS

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

Residential properties that are subject to sale, transfer of ownership, rent or hire are required under the *Building Regulations 2012* to have compliant mains powered smoke alarms installed:

- Prior the transfer of ownership.
- Where a dwelling is rented under a residential tenancy agreement or made available for such rental.
- Made available for hire.

#### What is a compliant smoke alarm?

This means smoke alarms that are:

- In accordance with the Building Code of Australia (BCA) applicable at the time of installation of the alarms, (the BCA specifies the minimum standards and location that smoke alarms must comply with).
- Not more than 10 years old at the time of the transfer of ownership, or making the dwelling available for rent or hire.
- In working order.
- Permanently connected to consumer mains power.

#### What types of dwellings require smoke alarms?

The Regulations apply to the following residential buildings as classified in the BCA:

**Class 1a** – A single dwelling being a detached house, or row houses, duplexes, town houses, terrace houses or villa units where attached dwellings are separated by a fire resisting wall.

**Class 1b** – Includes the following:

- 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 300m<sup>2</sup>; 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 eg a caretaker's residence.

### TRANSFERRING OWNERSHIP, SELLING OR BUYING A PROPERTY

#### I am planning to sell my home. It does not have any hard wired (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 (settlement). If you are required to install more than one smoke alarm on or after 1 May 2014, they must be interconnected.

#### 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 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 mains power.
- Are less than 10 years old.
- Are in working order.
- Are correctly placed (please see DFES fact sheet for placement of smoke alarms).

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

#### 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 fail to comply with the requirement, you must, within 12 months of the ownership being transferred, install the smoke alarms to meet the requirements. You may then recover reasonable costs in court from the prior owner [Regulation 57(2)].

In addition action can 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 may be imposed for non-compliance. *Please note: this action does not result in the smoke alarms being installed.*

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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 under the Regulations to have compliant mains-powered smoke alarms fitted prior to making the dwelling available for rent or hire.

#### **Is there a requirement to maintain the smoke alarms?**

Yes. The Regulations require owners, who make their dwellings available for rent or hire to:

- Ensure that each alarm installed in the dwelling is in working order.
- If an alarm was, at the time of its installation, required to be connected to the mains power supply, ensure that the alarm:
  - is permanently connected to the mains power supply; or
  - if the alarm is to be installed at a location in the dwelling where there is no hidden space in which to run the necessary electrical wiring and there is no appropriate alternative location – has a 10 year life battery that cannot be removed; or
  - if, in relation to the alarm, the use of a battery powered smoke alarm has been approved (by local government) under the Regulations, the alarm must have a 10 year life battery that cannot be removed.
- Ensure that each alarm installed in the dwelling
  - 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 people involved in the rent or hire of a dwelling to document when the smoke alarms will need replacing.

### **How do you maintain a smoke alarm?**

The Regulations do not specify what is required in order to maintain a smoke alarm in working order. DFES recommends the following smoke alarm maintenance routine for property owners / landlords:

- Check the alarm(s) are firmly secured in the correct location as per the Building Code of Australia requirements (double sided tape is not acceptable).
- Check the required power source is connected and operating. Where a mains powered smoke alarm is installed, alarms will have a visual display/light to indicate that mains power is connected and 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.
- 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.
- Replacing batteries annually, where appropriate. Mains powered smoke alarms have back-up batteries – this can either be a 9V battery which requires to be changed annually while some models have a rechargeable non removable battery which does not need to be changed during the life of the unit.

*\* Always refer to the manufacturer's guide when selecting batteries and following testing procedures*

This maintenance routine should be done at each inspection or at intervals otherwise stated. Please note, a licensed electrical contractor is required to disconnect or install mains powered smoke alarms. All other smoke alarm maintenance does not require a licensed electrical contractor.

DFES recommends the following maintenance routine be included in the tenant's responsibilities:

- Regular testing of the alarm (suggested monthly so tenants are familiar with the alarm sound).

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- Not to tamper with alarm(s) or place any obstruction to restrict airflow to the alarm(s) including paint.

When maintaining your smoke alarm it is also important to note the following:

- Generally smoke alarms will sound a regular warning 'beep' if the battery needs replacing. Refer to manufacturer's guide for exact warning details.
- Smoke alarms should never be painted.
- Contact the manufacturer or supplier with any queries regarding your smoke alarm.

Smoke alarm maintenance may require you to use a ladder. Please take care.

### **I am a tenant moving into a rental property and observe there are no smoke alarms fitted. What should I do?**

Speak to your lessor (landlord). The Regulations require owners to have mains powered smoke alarms installed in all residential properties that are subject to sale, transfer of ownership, rent or hire.

If this does not resolve the situation, you should speak to your local government who can inspect the property, issue a rectification notice, infringement notice or prosecute for any breaches. Significant fines or penalties may be imposed for non-compliance.

### **WHERE ARE SMOKE ALARMS REQUIRED AND WHAT TYPE SHOULD BE FITTED?**

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

The number of smoke alarms you will require will depend on the design of your property, in particular the number of bedrooms, how far they are separated and how many levels in your house.

Class 1a, Class 2 and Class 4 dwellings (including single and multi-storey dwellings, duplexes, town houses, terrace houses, apartments and residential units in a building of another class eg. a caretaker's residence) require smoke alarms to be installed on or near the ceiling in:

- Any storey containing bedrooms
  - between the bedrooms and the remainder of the dwelling
  - where bedrooms are served by a hallway, in **that** hallway.
- Any other storey 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.
- In every corridor or hallway associated with a bedroom.
- Any other storey not containing bedrooms, in the area of the stairway (exit path) between each level.

### **NEW REQUIREMENT TO INTERCONNECT SMOKE ALARMS**

From 1 May 2014, where more than one smoke alarm is required to be installed in a dwelling that will be sold, rented or hired or is subject to transfer of ownership, each smoke alarm must be interconnected so that if one alarm activates then other alarms in other parts of the dwelling are also automatically activated. This is a new requirement under the Building Code of Australia.

#### **How will I be affected by this new interconnection requirement?**

There are several scenarios that will affect owners of dwellings that are required to have more than one smoke alarm depending on when the smoke alarms are installed, these are outlined in Table 1 below:

Table 1: Scenarios that demonstrate the requirement for interconnection of smoke alarms.		
	Compliant smoke alarms installed	
Scenario	Before 1 May 2014	On or after 1 May 2014
New smoke alarms to be installed in a dwelling that is subject to sale, transfer of ownership, rent or hire.	Interconnection not required.	Interconnection required.
New smoke alarms that are replacing existing smoke alarms in a dwelling that is subject to sale, transfer of ownership, rent or hire.	Interconnection not required.	Interconnection required.
New dwelling under construction	Smoke alarms must comply with the approved plans and specifications associated with the building permit.	

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### **I own a rental property that has two or more existing smoke alarms. Do I have to interconnect these alarms?**

Interconnection of smoke alarms is not retrospective for existing compliant smoke alarms. You only need to interconnect when replacing non-compliant smoke alarms on or after 1 May 2014 in dwellings that are subject to sale, transfer of ownership, rent or hire. For example, if you had installed the smoke alarms on 1 April 2010 in accordance with the requirements at that time, and provided they are still in working order, the smoke alarms are not required to be interconnected. However 10 years after 1 April 2010, or when the expiry date on the alarms is reached (whichever is earlier), the alarms need to be replaced and will need to be interconnected.

### **Does the interconnection requirement apply to new dwellings?**

All new dwellings require smoke alarms as part of their building permit (ie. the construction of a new dwelling or certain alterations and additions to an existing dwelling). The builder named on the building permit is responsible for ensuring that smoke alarms are installed in accordance with the approved plans and specifications associated with the building permit.

If the plans and specifications of the dwelling were certified as compliant with the deemed-to-satisfy provisions of the BCA 2013 or an earlier edition, interconnection of smoke alarms would not be required because the new changes to the BCA commence with the BCA 2014 edition.

Given that the building laws allow plans and specifications to comply with standards that are up to 2 years old and the building work can take up to 2 years to complete, it is possible that the smoke alarms may not require interconnection even though they were installed on or after 1 May 2014. It is imperative that you liaise with the builder of the house to ensure the smoke alarms are installed in accordance with the correct standards. It is suggested to interconnect the new smoke alarms if there is any doubt about the version of the BCA that applies.

### **How do you interconnect smoke alarms?**

All work associated with installation of mains powered smoke alarms must be carried out by a licensed electrical contractor.

Most mains powered smoke alarms come with the ability to be interconnected. This may be through wired connections, however wireless technology is also available. Some battery powered smoke alarms also come with wireless technology for interconnection.

You may wish to speak to your electrician about the options that are available for your specific property.

### **What type of smoke alarms are the best to use?**

Any smoke alarm used must conform to AS 3786. DFES recommends you install photo-electric 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.

## **THERE ARE SMOKE ALARMS INSTALLED, DO THEY MEET THE REQUIREMENTS?**

### **There are more than two hard wired smoke alarms installed and they have been fitted at different dates. What date should I use?**

If a dwelling has 2 or more smoke alarms installed and they were not all installed at the same time, the requirements that apply to the dwelling and the alarms are the provisions of the BCA at the time the last smoke alarm was installed.

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**The house has mains powered security system installed which has a smoke detection function incorporated. 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:

- Smoke alarms must comply with AS 3786.
- Smoke alarms must be permanently connected (hard-wired) to the mains power (requiring a licensed electrician to install them) and not able to be isolated from mains power if the security system is switched off. The supplier or manufacturer would be best placed to confirm whether the security system meets these requirements.
- 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.

### **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. However owner-occupiers, who don't intend to sell, rent or hire or transfer ownership, should 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 may be 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 or where there is no hidden space in the existing dwelling in which to run the necessary wiring for hard wired smoke alarms, for example where there is a concrete ceiling. The use of battery powered smoke alarms in any other circumstance must be approved by the local government. (Battery powered smoke alarms must have a non-removable 10 year life battery).

Owners should be aware that it is unlawful to install battery powered smoke alarms just because it is more convenient to do so. From 1 May 2014, where more than one battery powered smoke alarm is required to be installed, they must be interconnected. Wireless interconnected battery powered smoke alarms are available and they need to be installed in accordance with the BCA and the manufacturer's specifications.

### **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 (such as the wall) then a smoke alarm powered by a 10 year life non-removable battery is to be used.

### **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 the mains power.



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### **I am an owner or a lessor (landlord) and installing a mains powered smoke alarm, and there are other 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 life non-removable battery.

Application for approval to install a smoke alarm powered by a 10 year life non-removable battery 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 \$170 to process your application. [Regulation 61].

### **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?**

The vendor must understand that a purchaser's intention to demolish the house does not remove their responsibility to install smoke alarms in accordance with the Regulations. This means the vendor will be in breach of the Regulations if they have not installed smoke alarms prior to the transfer of ownership.

## **MAINS POWER SMOKE ALARMS AND POWER FAILURE**

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

Australian Standard Smoke Alarms AS3786-1993 specifies that the stand-by power supply (that is provided to energise the smoke alarm upon failure of the mains power) must be capable of powering the smoke alarm without a fault signal for at least 7 days, followed by 3 days with a battery fault signal and then also be capable of producing an alarm signal 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 signal may sound (i.e. a short beep) every 40 seconds for up to 2 hours whilst it is charging. This condition may also apply to 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 lithium batteries**

If a smoke alarm is subjected to many power failures for extended periods of time over the life of the smoke alarm, the rechargeable lithium cells may degrade and become inoperable. A low battery fault signal will operate to alert occupants that there is an issue with the battery. In this case 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 occurred within this warranty period if the unit 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.

#### **■ Non-rechargeable 9V alkaline battery**

Smoke alarms which use a 9V alkaline battery as its stand by power source require the battery to be replaced each year (DFES suggests the 1 April) and when the low battery indicator (chirp) sounds. In most models the audible chirping sound will also be accompanied with a flashing LED signal. In replacing these batteries, use only 9V alkaline batteries specified by the manufacturer. Use of a different battery may have a detrimental effect on operation or may cause the battery to explode resulting in injury or fire.