



Smoke alarm laws

Western Australia's Building Regulations 2012 (the Regulations) require the owner of a dwelling to have compliant smoke alarms installed:

- i) prior to the sale or transfer of ownership;
- ii) where a dwelling is rented under a residential tenancy agreement or made available for such rental; and
- iii) where a dwelling is made available for hire.

What is a compliant smoke alarm?

To comply with the Regulations, owners must ensure that the smoke alarm(s):

- are in accordance with the Building Code of Australia (BCA) applicable at the time of the installation of the alarms. (The BCA specifies the relevant edition of the Australian Standard for residential smoke alarms (AS 3786) and location the smoke alarms must comply with);
- are not more than 10 years old at the time of the transfer of ownership, or making the dwelling available for rent or hire;
- are in working order; and
- are permanently connected to consumer mains power (hard-wired).

The BCA requires smoke alarms to be interconnected where there is more than one alarm. However interconnection of smoke alarms is not applicable to a dwelling that was constructed on an application for a building permit made before 1 May 2015.

What types of dwellings need to comply?

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 300m²; or

- four or more single dwellings located on one allotment and used for short term holiday accommodation. This includes dwellings in tourist parks, farmstays, holiday resorts, cabins in caravan parks and similar tourist 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, for example, a caretaker's residence.

Do park homes need to comply?

All dwellings with the above classifications, that are subject to sale, transfer of ownership, rent or hire, need to comply. The relevant local government (Shire/Council) can advise you on the classification of the particular 'park home' in question.

Smoke alarm location

The location of smoke alarms must be in accordance with the BCA applicable at the time of installation of the alarms. The number of smoke alarms to be installed depends on the classification of the dwelling and its general layout and size.

In order to reduce the likelihood of nuisance alarms, the smoke alarm should not be located near cooking appliances and bathrooms. However if it is necessary to locate alarms in these positions, an ionisation type alarm is more suitable near bathrooms, while a photoelectric alarm may be used near cooking appliances.

The smoke alarm requirements for a Class 1 building can be found in Part 3.7.2 of BCA volume two. A reference to a Class 1 building includes a Class 1a dwelling and a Class 1b dwelling (refer to diagrams on page four of this document).

In a Class 1a dwelling smoke alarms must be installed on or near the ceiling in:

- (a) storey containing bedrooms –
 - between each part of the dwelling containing bedrooms and the remainder of the dwelling; and
 - where bedrooms are served by a hallway, in that hallway; and

- (b) any other storey not containing bedrooms, even if those storeys consist only of carparking, bathrooms, laundries and the like.

In a Class 1b dwelling 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, even if those storeys consist only of carparking, bathrooms, laundries and the like.

The favoured location for smoke alarms on other storeys (not containing bedrooms) is in the path of travel that people will most likely take to evacuate the building.

For the proper mounting of smoke alarms, electricians and installers should refer to Part 3.7.2 of the BCA volume two.

Class 2 and Class 4 dwellings

The smoke alarm requirements for a Class 2 dwelling unit and a Class 4 dwelling can be found in Specification E2.2a of BCA volume one. In general the location of smoke alarms inside the dwelling/unit is similar to the examples for a Class 1a dwelling.

You must always refer to the BCA for smoke alarm requirements. Further explanatory information on smoke alarms can also be found in the BCA which is available free of charge at www.abcb.gov.au

If you are unsure whether your dwelling complies, you may wish to engage the services of a qualified building surveyor, either employed by a local government or a private registered building surveying contractor.

Are battery powered smoke alarms permitted?

Battery powered smoke alarms may be installed without local government approval where:

- 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 and there is no appropriate alternative location, 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.

Where a two-storey dwelling is permitted the use of a battery powered smoke alarm because the ground floor ceiling is concrete, the owner must not (for the sake of convenience) install a battery powered smoke alarm on the upper floor ceiling where there is sufficient roof space to run the electrical wiring.

What type of smoke alarm is acceptable?

There are two types of residential smoke alarms, ionisation and photoelectric. Both types are acceptable providing they comply with the relevant edition of AS 3786 as referenced in the BCA at the time of installation of the smoke alarms.

Ionisation smoke alarms use a small amount of radioactive material to create an electrical current, when smoke enters the detection chamber it impedes the flow of the current and causes the alarm to sound.

Photoelectric smoke alarms have a chamber with a light source. As smoke enters the detection chamber it interferes with the light beam which causes the alarm to sound.

The Department of Fire and Emergency Services recommends the use of photoelectric smoke alarms.

In circumstances where the BCA 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 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.

Will a smoke alarm in a home security system comply?

Smoke alarms that are powered through a home security system in dwellings that are subject to sale, transfer of ownership, rent or hire may not comply with the smoke alarm laws. 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 not comply with the requirement for smoke alarms to be permanently connected to consumer mains power.

In other words, the power for the smoke alarms must be separate to the power source for the home security system and the smoke alarms permanently connected to consumer mains power.

Are there any exemptions for proposed demolition?

The current owner of a dwelling that is subject to transfer of ownership may choose not to install smoke alarms if the new owner intends to demolish the dwelling and has provided a *declaration of intended demolition* to the current owner before 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 six 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 in the dwelling within six months of the transfer.

This does not remove the requirement for the new owner to install smoke alarms should he or she subsequently decide to rent or hire the dwelling after the transfer.

Who can install smoke alarms?

Smoke alarms required to be permanently connected to the mains power supply require a licensed electrician to either connect or disconnect the smoke alarm. Where the Regulations permit a battery powered smoke alarm to be fitted instead of one connected to mains power, a licensed electrician is not required to fit the battery powered smoke alarm.

Requirement to maintain smoke alarms

Owners who rent or hire their dwelling are required by law to maintain the smoke alarms. This includes ensuring the smoke alarm:

- is in working order;

- is permanently connected to mains power;
- is less than 10 years old, or has not reached its expiry date if one is provided on the alarm; and
- if the use of a battery powered smoke alarm has been approved under the Regulations, the alarm has a 10-year life battery that cannot be removed.

How to maintain smoke alarms

For smoke alarms to remain in working order they should be tested and maintained regularly. The Department of Fire and Emergency Services recommends the following maintenance routine:

- Testing once per month to ensure the battery and the alarm sounder are operating.
- Check the smoke alarm for any build-up of dust and cobwebs and clean with a vacuum cleaner at least every six months.
- Vacuum with a soft brush attachment around the smoke alarm vents.
- Use a surface insect spray around the smoke alarm to prevent insects nesting inside.
- Replacing batteries annually (mains powered smoke alarms generally have back-up batteries).
- Smoke alarms should never be painted.

Are there penalties for non-compliance?

Yes, local governments have the power under the *Building Act 2011* and the Regulations to either issue an infringement notice or prosecute an owner who fails to have compliant smoke alarms installed prior to selling, transferring ownership, renting or hiring the dwelling. A penalty of \$5,000 applies for owners who fail to comply.

Further information

Issue	Contact
Smoke alarm location	Register online to view the BCA at www.abcb.gov.au , or engage the services of a registered building surveying contractor or local government that provides this service. You can check whether a building surveying contractor is registered on our website at www.commerce.wa.gov.au/building-commission/find-registered-building-service-provider
Smoke alarms, smoke alarm maintenance, fire safety around the home	Department of Fire and Emergency Services 9395 9816 or www.dfes.wa.gov.au
<i>Building Act 2011</i> Building Regulations 2012	Parliamentary Counsel's Office www.legislation.wa.gov.au
Australian Standard for residential smoke alarms – AS 3786	Refer to the BCA for the relevant edition of AS 3786 that applies to your dwelling at the time of installation of the smoke alarms. Your local government may have a copy of the Standard that you can view at their front counter or library, or you can purchase a copy from SAI Global at www.saiglobal.com The Standard can also be viewed at the Department of Mines, Industry Regulation and Safety library in Cannington.
Statutory Declaration	Visit www.courts.dotag.wa.gov.au

Diagram 1. Example of smoke alarm location in dwelling with bedrooms grouped together.

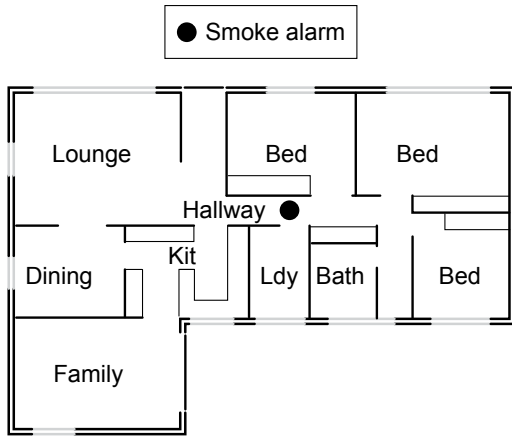


Diagram 2. Example of smoke alarm locations in dwelling with separated sleeping areas.

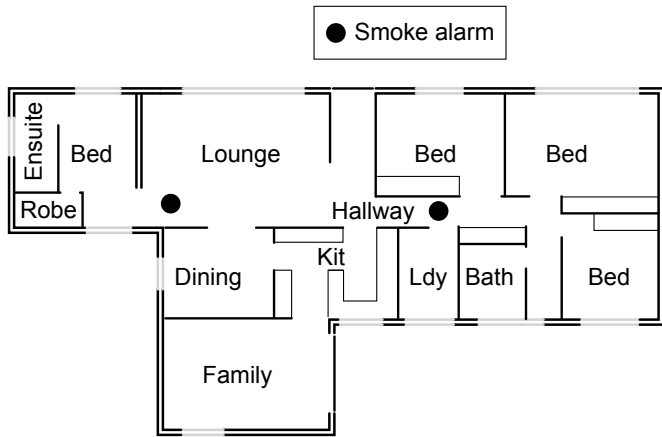


Diagram 3. Cross section of dwelling showing smoke alarms on every storey.

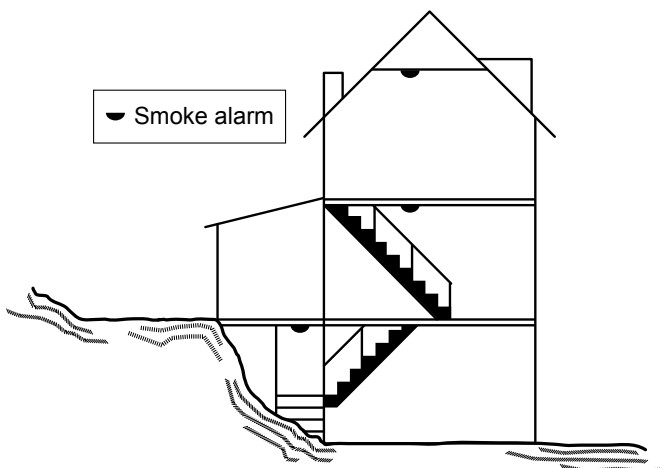
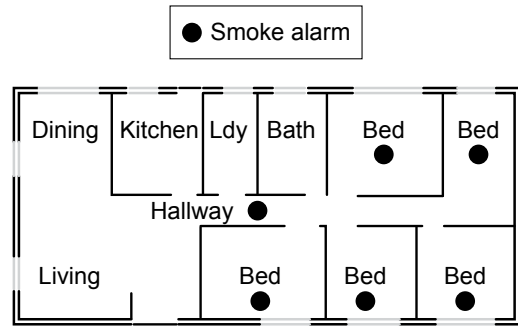


Diagram 4. Example of smoke alarm locations for small boarding houses, guest houses, hostels, B&Bs etc.



Disclaimer: The information contained in this document provides general guidance and information only and is current at time of publication. Readers should not act or omit to act solely on the basis of anything contained herein. In relation to a particular matter, you should seek appropriate professional advice. The State of Western Australia and its servants and agents expressly disclaim liability, whether in negligence or otherwise, for any act or omission resulting from reliance on this document or for any consequence of such act or omission.

Department of Mines, Industry Regulation and Safety

Building and Energy:

1300 489 099

Level 1 Mason Bird Building
 303 Sevenoaks Street (entrance Grose Avenue)
 Cannington Western Australia 6107
 Plumbers general enquiries: 08 6251 1377
 Subcontractor Payment Disputes: 1300 484 481
 Website: www.dmirs.wa.gov.au
 Email: bcinfo@dmirs.wa.gov.au

Regional Offices

Goldfields/Esperance	(08) 9026 3250
Great Southern	(08) 9842 8366
Kimberley	(08) 9191 8400
Mid-West	(08) 9920 9800
North-West	(08) 9185 0900
South-West	(08) 9722 2888

National Relay Service: 13 36 77
Quality of service feedback line: 1800 304 059
Translating and Interpreting Service (TIS) 13 14 50

This publication is available in other formats on request to assist people with special needs.



Residual current devices (RCDs)

All home sellers and landlords must ensure that RCDs are installed in accordance with the Electricity Regulations to protect all power points and lighting circuits.

RCDs save lives

RCDs cut the electricity supply instantly if a person touches a live part and receives a shock. By installing two or more RCDs, the property's circuits can be divided evenly between them, ensuring some light and power remains if one RCD operates. Multiple RCDs also avoid nuisance operation caused by appliances with low-level leakage currents. All properties constructed after 2000 should already have two RCDs fitted.

Homes for sale

If you are planning to sell your home, RCDs must be fitted to protect all circuits supplying power points and lights before the land title is transferred. If two or more RCDs protecting **all** power points and lighting circuits are not installed, you will need to engage a licensed electrical contractor to install them to comply with the Electricity Regulations.

Renting a home

Landlords must ensure RCDs are installed in accordance with the Regulations on the switchboards of their rental premises. If RCDs are not fitted, tenants should contact the managing agent or landlord and request that RCDs be installed as required.

Number of RCDs

The regulations require RCDs to be installed on the main switchboard. Two is a required minimum but more than two may be needed. A licensed electrical contractor will install the correct number and rating of RCDs to ensure your premises complies with the regulations.

Testing RCDs

All RCDs have a test button (the round blue buttons in the illustration) which should be pressed every three months as a minimum to verify they are functioning properly. When the button is pressed, the RCDs switch should snap into the 'off' position instantly.

Moving the RCDs switch back into the 'on' position can be done immediately. You may wish to switch off your computing equipment before doing the test. Timing devices and clocks will need to be reset.



Department of Mines, Industry Regulation and Safety Building and Energy

303 Sevenoaks Street
 Cannington Western Australia 6107
 Administration: 6251 1900
 Licensing: 6251 2000
 Facsimile: 6251 1901
 Email: energysafety@dmirs.wa.gov.au
www.dmirs.wa.gov.au

Regional Offices

Goldfields/Esperance (08) 9026 3250
 Great Southern (08) 9842 8366
 Kimberley (08) 9191 8400
 Mid-West (08) 9920 9800
 North-West (08) 9185 0900
 South-West (08) 9722 2888

National Relay Service: 13 36 77

Quality of service feedback line: 1800 304 059

Translating and Interpreting Service (TIS) 13 14 50

This publication is available in other formats on request to assist people with special needs.



Government of Western Australia
Department of Commerce
Building Commission

Building
Commission

Rules for POOLS AND SPAS



Contents

Section 1 - Why legislate?	1
Section 2 - The rules and regulations	3
Section 3 - How do you comply?	4
Section 4 - Frequently asked questions	17
Section 5 - Further information	20

Referenced document

Standards Australia

Australian Standard AS 1926.1-1993 Part 1: Fencing for swimming pools
(incorporating Amendment No. 1 only)

Disclaimer

The material contained in this booklet provides general guidance and information only and is current at time of printing. Readers should not act or omit to act solely on the basis of anything contained herein. In relation to a particular matter, you should seek appropriate professional advice. The State of Western Australia and its servants and agents expressly disclaim liability, whether in negligence or otherwise, for any act or omission resulting from reliance on this document or for any consequence of such act or omission.

Section 1 - Why legislate?

Drowning is the most common cause of preventable death for children aged 0-5. Over the past five years 16 toddlers have drowned in Western Australia. For every drowning death, it is estimated that 10 children are admitted to hospital following a near-drowning incident (160 children over the past five years).

In Western Australia, domestic swimming pools are the most common site in which drowning for children aged 0-5 occurs with 94% of drowning incidents at locations in and around the home. Of the 94%, 31% occurred at a relative or neighbour's home.

These tragic incidents can be significantly reduced if we are all aware of the potential hazards of water in our everyday life - using simple prevention methods and learning the life saving skill of resuscitation.

There are specific laws in Western Australia that mandate the installation of a safety barrier to enclose private swimming and spa pools.

The laws are intended to protect the safety of young children by restricting their access to the area containing the swimming or spa pool.

Causes of accidental drowning

Most drownings occur where there is no barrier between the residence and the pool area or because the barrier is defective.

The Royal Life Saving Society Australia has also identified a number of contributory factors associated with drowning and near-drowning incidents through its 'Keep Watch' program and associated research.

Factors relating to parents/carers:

- Absence of or poor supervision.
- Parental 'vulnerable period' such as when family routine is broken (ie parents acutely ill, visitors call, domestic duties).
- Underestimating the young child's capacity to gain access to areas where parental supervision is necessary.
- Unrealistic expectations of young children's behaviour and self control.
- False sense of security when each parent or carer mistakenly assumes that the other is supervising the young child.
- False belief that the pool safety devices such as retractable ladders and lockable covers, or an inadequate barrier, will provide adequate protection.
- False belief that the presence of several or older children reduces the threat of drowning.
- Other children may not appreciate a child is in danger and simply assume they are 'playing'.

Factors relating to children:

- Young children have limited strength, judgement and physical coordination.
- Young children are attracted to water.
- A young child is not able to understand the concept of danger and therefore may have difficulty in understanding that water can cause harm.
- An active, intensely curious child does not understand the consequences of falling into the water.
- Infants and toddlers generally are not coordinated well enough to swim and breathe at the same time.
- Very young children are susceptible to drowning because they are top heavy. A young child leaning forward to look into the water or reach for an object easily topples over and drowns even in several millimetres of water.
- Child drowning is silent and coughs or splashing may not even be heard.
- Children may disobey parent/carer instructions.

Factors relating to the swimming or spa pool:

- Absence of a barrier between the residence and swimming or spa pool.
- Ineffective gates or doors.
- Ineffective placement or design of barrier.
- Tempting objects floating in the water.



Section 2 - The rules and regulations

All private swimming and spa pools that contain water that is more than 300mm deep must have a compliant barrier installed that restricts access by young children to the pool and its immediate surrounds.

The legislative framework that mandates this requirement in Western Australia comprises:

- the *Building Act 2011* (WA) (the Act);
- the *Building Regulations 2012* (WA) (the Regulations); and
- Australian Standard AS 1926.1-1993 Part 1: Fencing for swimming pools (incorporating Amendment No. 1 only) (the Standard).

What is required?

A building permit is required under the Act and the Regulations prior to installing, constructing or altering swimming and spa pool barriers, including windows, doors and gates that provide access to a swimming or spa pool area. A building permit is also required for the construction of swimming and spa pools.

The Standard describes the minimum technical requirements applicable to swimming and spa pool barriers.

Compliant safety barriers are required for in-ground, above-ground, and indoor swimming and spa pools that contain water that is more than 300mm deep. Spa pools can, by definition, include jacuzzis and outdoor hot tubs, however this does not include spa baths that are normally emptied after each use.

Whilst a portable wading pool that does not contain water that is more than 300mm deep does not require a mandatory child safety barrier, parents and carers need to be aware that these types of pools are still a constant source of danger to young children.

What is the role of local government?

Local government (as the permit authority) is responsible for issuing building permits for swimming and spa pools and their associated barriers. The approval process not only ensures that the building and barrier standards are satisfied, but that the structures are registered with the local government so that periodic inspections of the installed barrier can occur - generally once every four years.

Are there penalties for non-compliance?

Owners and occupiers are responsible for ensuring that any fence or barrier restricting access to a swimming or spa pool is maintained and operating effectively. If you do not comply with the Regulations and the Standard, you risk the lives of young children as well as facing substantial fines.

Section 3 - How do you comply?

Swimming and spa pool barrier regulations have changed over time, and depending on when your swimming or spa pool was constructed, installed or approved, different regulations may apply to the barrier requirements.

General barrier requirements (all swimming and spa pools)

A barrier enclosing a swimming or spa pool may consist of:

- A fence, wall, or other barrier, or a combination of them, that is in accordance with the requirements of the Standard.
- A gate that is in accordance with the requirements of the Standard, opens away from the swimming or spa pool and is self closing and self latching.
- A window if it is in accordance with the requirements of the Standard.

Post November 2001

Barriers for swimming and spa pools approved **after 5 November 2001** must not include as part of the barrier any wall that contains a door, unless this door is permanently sealed using a device other than a key locking mechanism.

Pre November 2001

A concession exists for swimming and spa pools that were constructed, installed or approved **prior to 5 November 2001**. In this instance, the barrier may include a wall that contains a door, providing that door complies with the Standard.



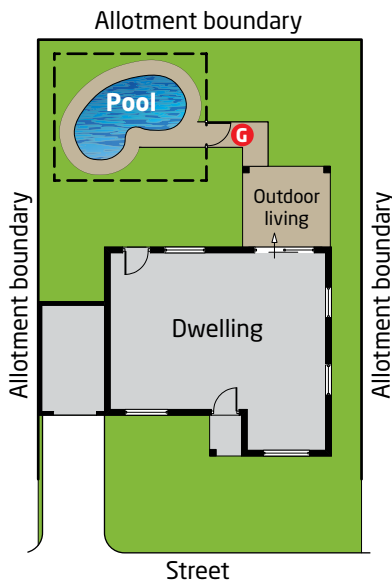
Where should barriers be located?

The following diagrams are graphical examples of where the barrier can be located around the swimming or spa pool. Examples 1, 2, 3, and 4 are the current requirements and refer to swimming and spa pools constructed or approved after 5 November 2001. Post November 2001 pools require an isolation barrier between the pool and the residence.

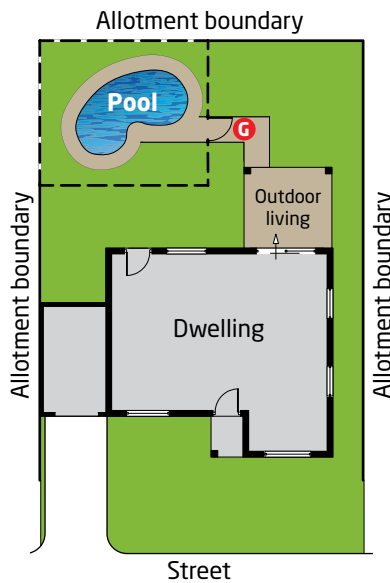
Examples 5, 6 and 7 refer to swimming and spa pools constructed or approved prior to 5 November 2001 only. A concession allows for a door opening directly into the pool area as long as that door complies with the Standard.

Post November 2001

Example 1



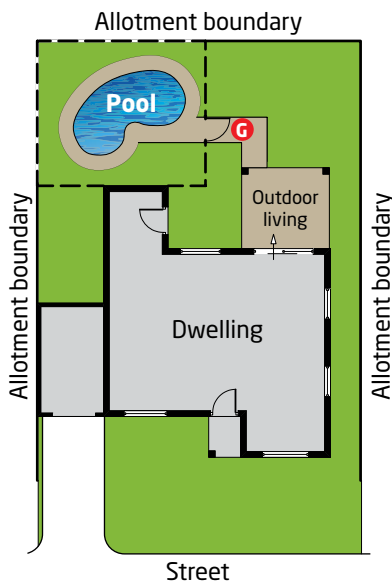
Example 2



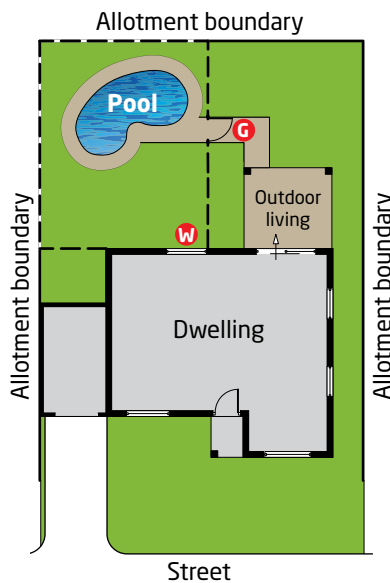
Legend

- G** Gate complying with AS 1926.1
- D** Child-resistant doorset complying with AS 1926.1
- W** Child-resistant openable window complying with AS 1926.1
- Openable window NOT complying with AS 1926.1
- Sliding door NOT complying with AS 1926.1
- - - Fence, retaining wall or other such barrier complying with AS 1926.1
- Wall of dwelling with no openings

Example 3

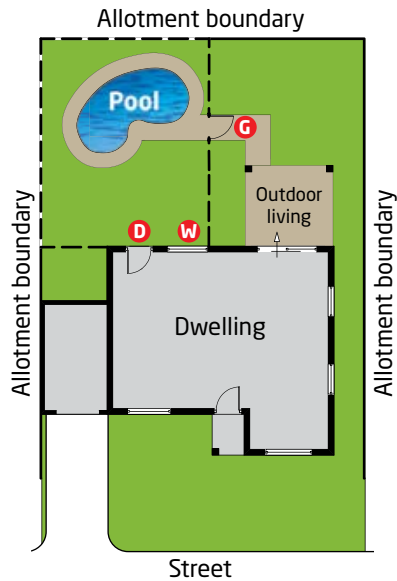


Example 4

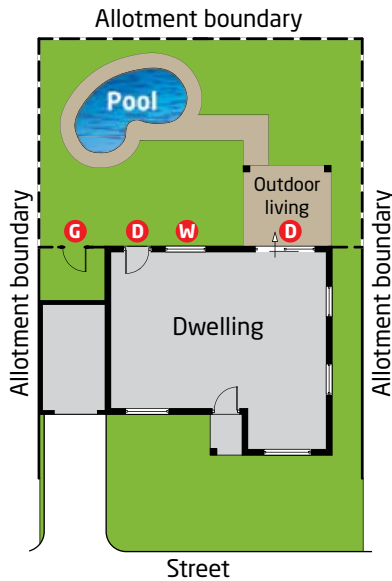


Pre-November 2001

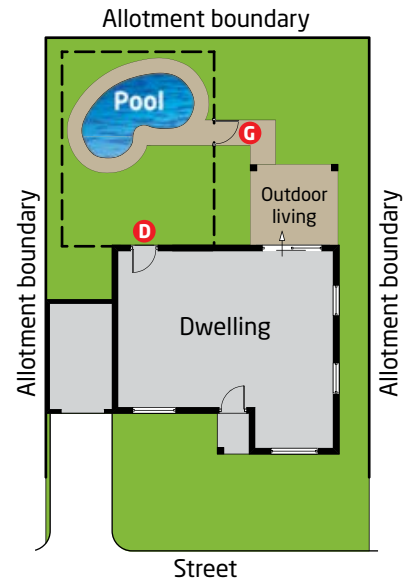
Example 5



Example 6



Example 7



Barrier design and construction

Barrier standards are set out in Australian Standard AS 1926.1-1993 Part 1: Fencing for swimming pools (incorporating Amendment No. 1 only) and the *Building Regulations 2012*. The information in this section should not be seen as a replacement for referring to the Standard and the Regulations.

Although AS 1926.1-1993 has been superseded by AS 1926.1-2007, the Government of Western Australia has not yet endorsed the newer version. For this reason, the 1993 version of the Standard continues to apply to private swimming pools in Western Australia.

The design and construction of barriers must be such that they comply with the requirements of the Standard and the barriers must be maintained so they comply with the Standard at all times. It is important to be aware that all dimensions provided are maximum or minimum dimensions that must not be either exceeded or reduced respectively.

These are also important considerations for designing a new swimming or spa pool or where parts of an existing barrier design are to change substantially.

Types of materials

The barrier may be made of any materials providing they are of a durable nature and the components that make up the barrier, when finished, comply with the requirements contained within the Standard, in particular strength and rigidity of openings.

Barrier height

All parts of a barrier must have an effective height not less than 1200mm from the top of the barrier to the finished ground surface (Diagram 1).

This is measured on the outside of the pool or spa enclosure. Where the barrier has horizontal members, the highest of the low members must be at least 1100mm from the top of the barrier.

Barriers must be designed to be near vertical and where this cannot be achieved, they must not lean towards the swimming or spa pool by more than 15° to the vertical.

Effective barrier height

DIMENSIONS IN MILLIMETRES

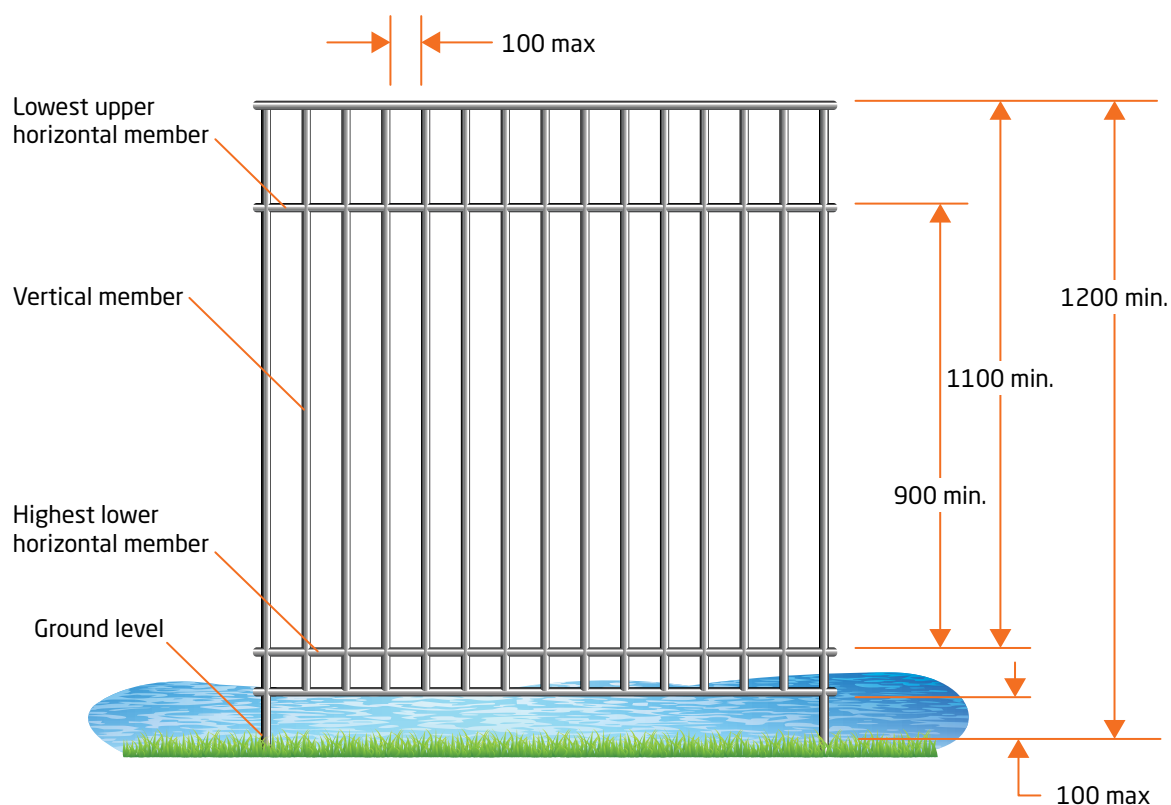


Diagram 1

Perforated materials or mesh

Any barrier that uses a material made of mesh or other perforated material (rather than vertical uprights or solid infill panels) that has holes or gaps that exceed 13mm, but that are not more than 100mm, must have a barrier height not less than 2400mm from the finished ground surface.

Where a crank is provided on top of the fence (common for cyclone wire fencing) an effective vertical height of 1800mm up to the crank must be observed.

This type of fence must include a strainer wire or rail at the top and bottom of the vertical section of the fence.

Climbable objects

To maintain compliance of the barrier and an effective minimum height of 1200mm, the following conditions must be observed on the inside and outside of the barrier:

Outside of the barrier (non-pool side)

When measured from the top of the barrier, objects that may create a foothold for young children to climb over, must not be within 1200mm of the barrier (Diagram 2).

Objects like BBQs, garden retaining walls, garden furniture, water features/ornaments, and trees/shrubs can provide footholds.

Climbable objects

DIMENSIONS IN MILLIMETRES

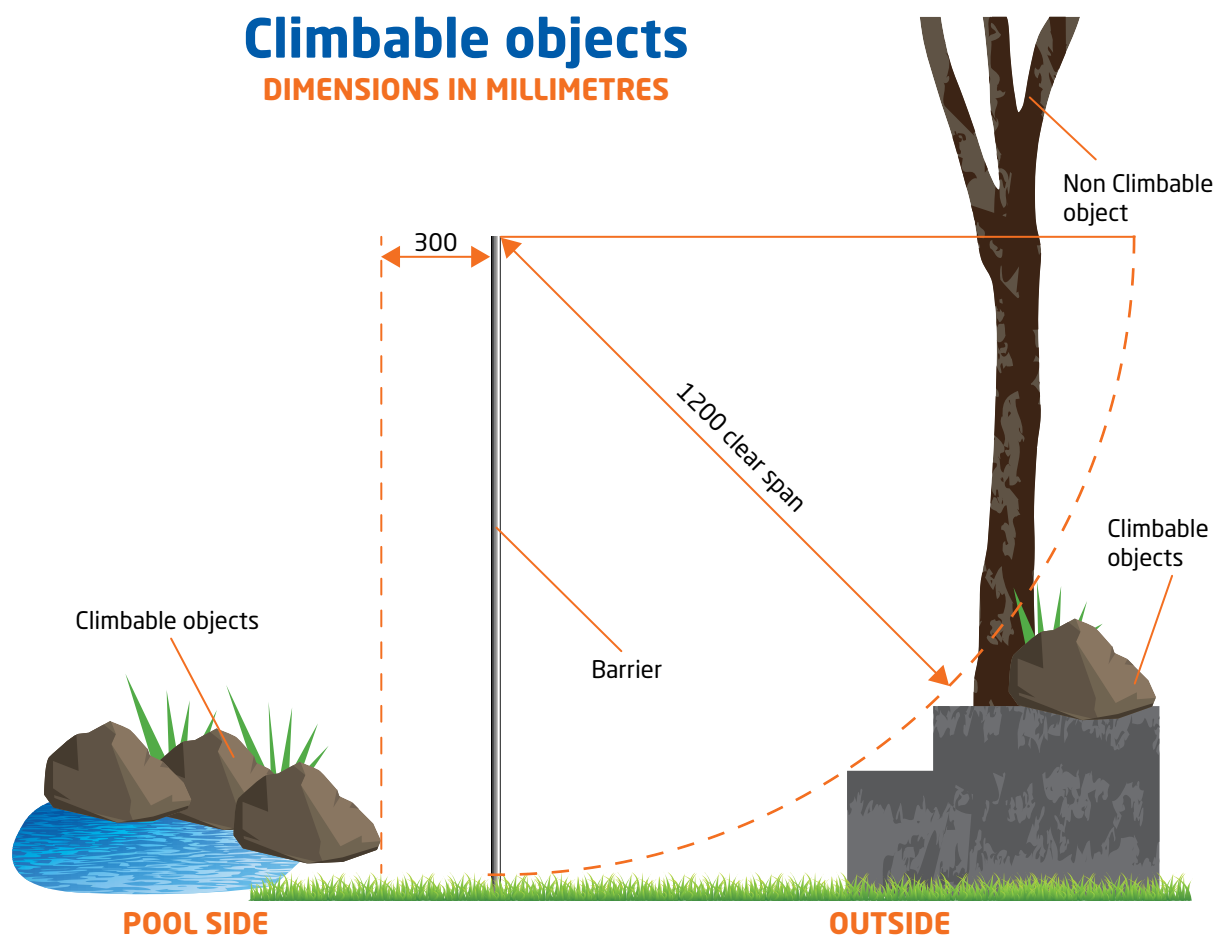


Diagram 2

Inside the fence (pool side)

For barriers that are designed with vertical openings that exceed 10mm, but that are not more than 100mm, substantial horizontal surfaces on the inside of the barrier must be located no closer than 300mm (Diagram 2). This design requirement is to ensure that horizontal surfaces on the inside of the barrier cannot be used to aid climbing of the barrier.

Boundary or dividing fences

The Standard requires that where fences are used to form part of the barrier, the effective height of 1200mm should be maintained on the outside of the barrier. However in the case of boundary or dividing fences it is common to have objects positioned against them on the neighbour's side of the fence (non-pool side) that would be considered climbable. In these cases it is very difficult for the swimming or spa

pool owner to have any influence over what a neighbour does within the confines of their property that may impact on the compliance of the barrier.

This situation has been recognised by the Regulations whereby a boundary/dividing fence is considered to comply if the requirements are satisfied in relation to either side of the fence.

Swimming and spa pool owners and occupiers are encouraged to discuss with neighbours any barrier requirements so that all parties are aware that any modifications they may make to or near their side of the dividing fence may have an impact on the compliance of the barrier.

Substantial horizontal surface in a barrier

A substantial horizontal surface is any horizontal or near horizontal surface that is greater than 10mm either in depth or protrusion (such as steps, pot plants, trees/shrubs with low branches, brickwork, render and window sills). Any substantial horizontal surface(s) on the outside of the barrier must be spaced not less than 900mm apart. The highest of the low projection/indentation must be a minimum of 1100mm below the top of the barrier (Diagram 3).

Barrier with projections and indentations

DIMENSIONS IN MILLIMETRES

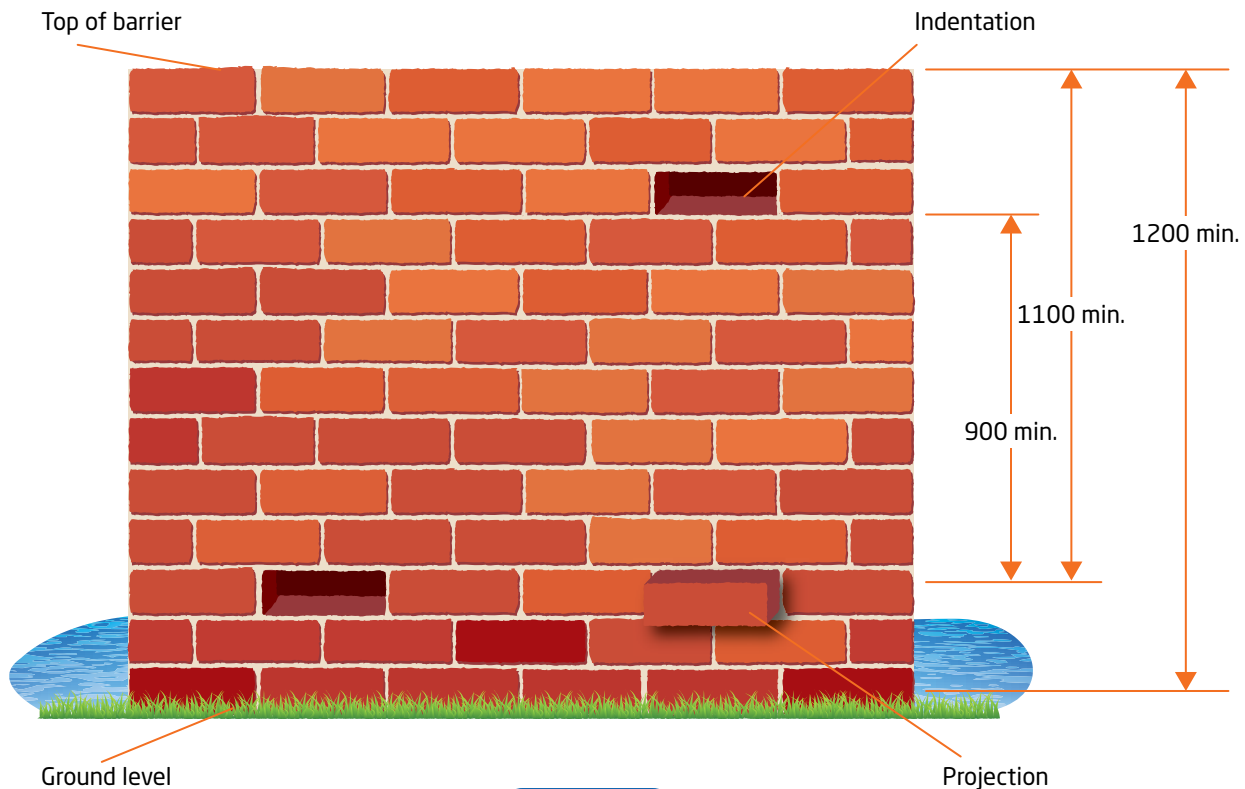


Diagram 3

Horizontal members

If the barrier has been designed so that horizontal members brace the barrier (such as rails, rods, wires and bracing) on the outside of the fence, or where vertical members have openings greater than 10mm, but not more than 100mm, then the following conditions must be maintained:

- The horizontal members must not be less than 900mm apart. Measurements are to be taken from the top surface of the highest of the low members to the top surface of the lowest of the high members.
- If the barrier or sections of it are on sloping land then these measurements must be maintained when taken perpendicular from the ground.
- The top surface of the highest of the low members must be at least 1100mm from the top of the barrier (Diagram 4).

Horizontal members spacing

DIMENSIONS IN MILLIMETRES

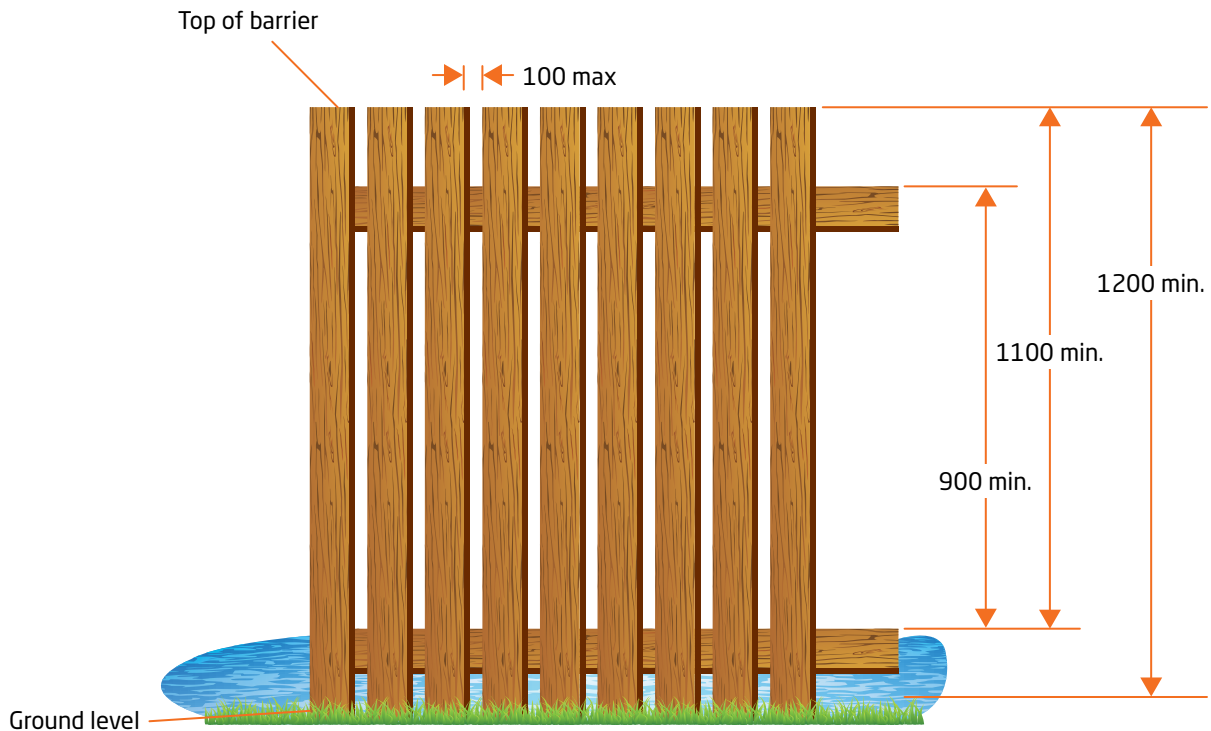


Diagram 4

Possible treatment of horizontal surfaces

Where horizontal rails are located on the outside and are spaced less than 900mm apart and they have a horizontal surface greater than 10mm, modifications can be made directly to the surface to ensure it is no longer capable of being used to aid climbing. Modification involves creating a sloped surface so it is greater than 60° from horizontal (Diagram 5).

The gap between the vertical members must not be greater than 10mm to use this treatment.

Modifying substantial horizontal surface/members

DIMENSIONS IN MILLIMETRES

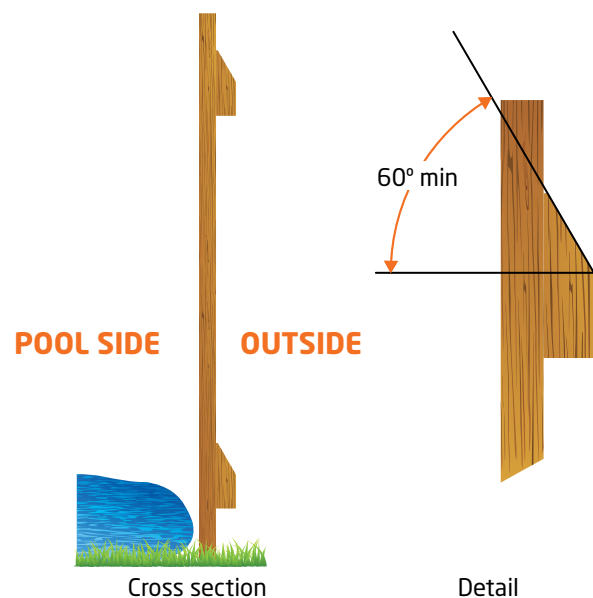


Diagram 5

Vertical members

Any barrier that is designed with vertical uprights must not have a clear space between them that is greater than 100mm.

Ground clearance

The bottom of the pool barrier cannot be more than 100mm from the finished and stabilised ground surface.

Stabilised ground surface

The surface directly beneath the pool barrier must be stable and not able to be eroded by weather, children or animals. Examples of suitable materials include pavers, concrete, wood sleepers, garden rocks/stones or grass.

Retaining walls

If the swimming or spa pool is located on either side of a retaining wall this wall may form part of a barrier.

High side

A retaining wall or other such barrier on the high side of the pool must not be less than 2400mm to the finished ground surface on the inside of the pool enclosure. The outside surface of the wall must meet the design requirements of the Standard, and the retaining wall must not slope away from the pool by more than 15° to the vertical.

Low side

A retaining wall or other such barrier on the low side of the pool must not be less than 1200mm high. The outside surface of the wall must meet the design requirements of the Standard unless it is not less than 2400mm in height.

The retaining wall must not slope toward the pool by more than 15° to the vertical.

Where a fence sits atop and intersects a retaining wall, the fence must extend to the outer edge retaining wall and return 900mm along the retaining wall in either direction. The outside surface of the fence must not allow a child to scale along the top surface of the retaining wall and the outside of the fence and then into the pool area. Shielding on the outside of the fence may need to be considered to prevent climbing/scaling.

Gates and fittings

Direction of opening

Gates must be hung so that they swing away from the swimming or spa pool area because children can use their weight to push a gate forward.

Automatic self closing device

All gates must be fitted with a device that will return the gate to the closed position without the use of manual force. The self-closing function must operate from any position that the gate is capable of opening, including when resting on the latch. The self-closing function should not allow the gate to inadvertently bounce back open.

When selecting and installing a gate it should be noted that the effectiveness of self-closing devices can be reduced as a result of prevailing wind direction and loads. This wind may prevent the gate closing as it moves through its arc of operation. Care should be taken when selecting the gate type and position within the barrier to ensure the wind does not impact on the self closing and latching operations.

Gate clearance

The bottom of the gate cannot be more than 100mm from the finished and stabilised ground surface. When installing the gate, the need for sufficient clearance to enable it to swing freely through its arc of operation must be considered.

It is recommended that all surfaces beneath the gate be hard-stand and not grass, as grass can quickly overgrow and reduce the self closing and latching functionality of the gate.

Gate hinges

Traditional self-closing techniques have been to affix a tension spring to the gate and barrier frame.

Hinges that perform a self closing function should not project more than 10mm from the gate or frame because such projections may create a foothold or hand grip for young children to climb over. Where hinges do project more than 10mm from the gate or frame, they must be spaced to ensure that the top surfaces of the hinges are more than 900mm apart.

Latching device

A latching device must be fitted to the gate that will secure the gate closed unassisted. The latching device must not allow the gate to re-open without the proper use of the latch.

When in the closed position, the gate must not have any gaps that exceed 10mm at the latching device.

This is to prevent the insertion of an implement by a child that is capable of fitting in between the gap and releasing the latch device. In some cases the point at which the gate latch operates may need to be shielded to prevent opening with the aid of an implement.

Latch release mechanism

The mechanism that releases the latch must be located not less than 1500mm above the finished ground level when measured on the outside of the pool enclosure.

The release mechanism must not be less than 1400mm above the highest of any low horizontal members that may be part of the barrier design (Diagram 6).

Location of latch

DIMENSIONS IN MILLIMETRES

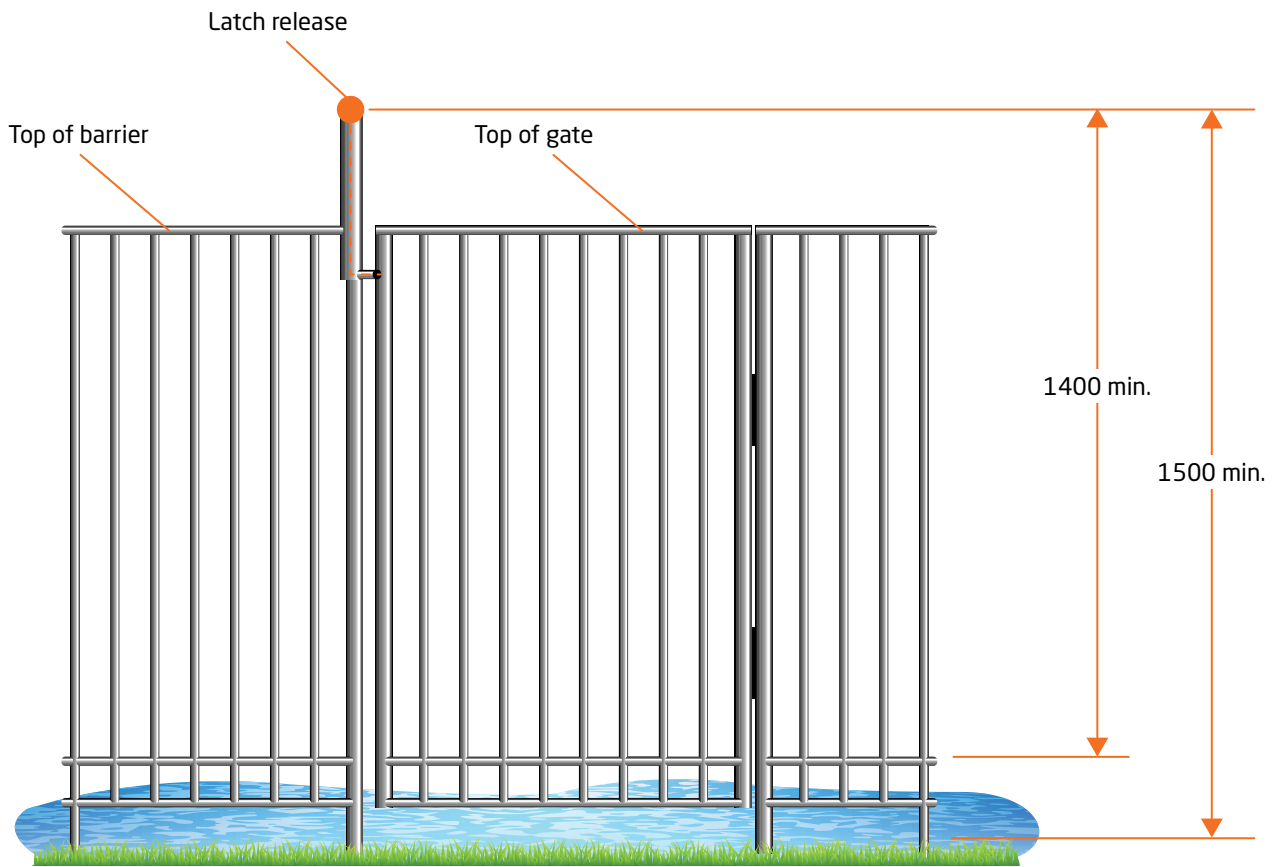


Diagram 6

In some instances the latching device and release mechanism are the same. Where the release mechanism is not located as described above, the gate will still comply if:

- The mechanism to release the latch is on the inside of the pool enclosure.
- The release mechanism is positioned so that releasing the latch device would require a young child to reach over or through the gate at a height not less than 1200mm.
- A height not less than 1100mm above the highest of the low horizontal members is maintained (Diagram 7).
- The latch release mechanism is not less than 150mm below the top of the gate or away from the edge of the handhold where one has been installed (Diagram 7).

Shielding of latches for open design gates

Where the gate is designed so that vertical members are spaced more than 10mm apart and the latch release mechanism less than 1500mm above the finished ground level then:

- The mechanism that releases the latch device must be shielded to restrict the opening of a gate by a young child by reaching up and through the gate, either by hand or with the aid of an implement.
- The latch and release mechanism must be shielded with material that has an effective radius not less than 450mm when measured from the latch release mechanism. Within the shielded area no gaps of more than 10mm are permissible (Diagram 7).

Latch location where shield is required

DIMENSIONS IN MILLIMETRES

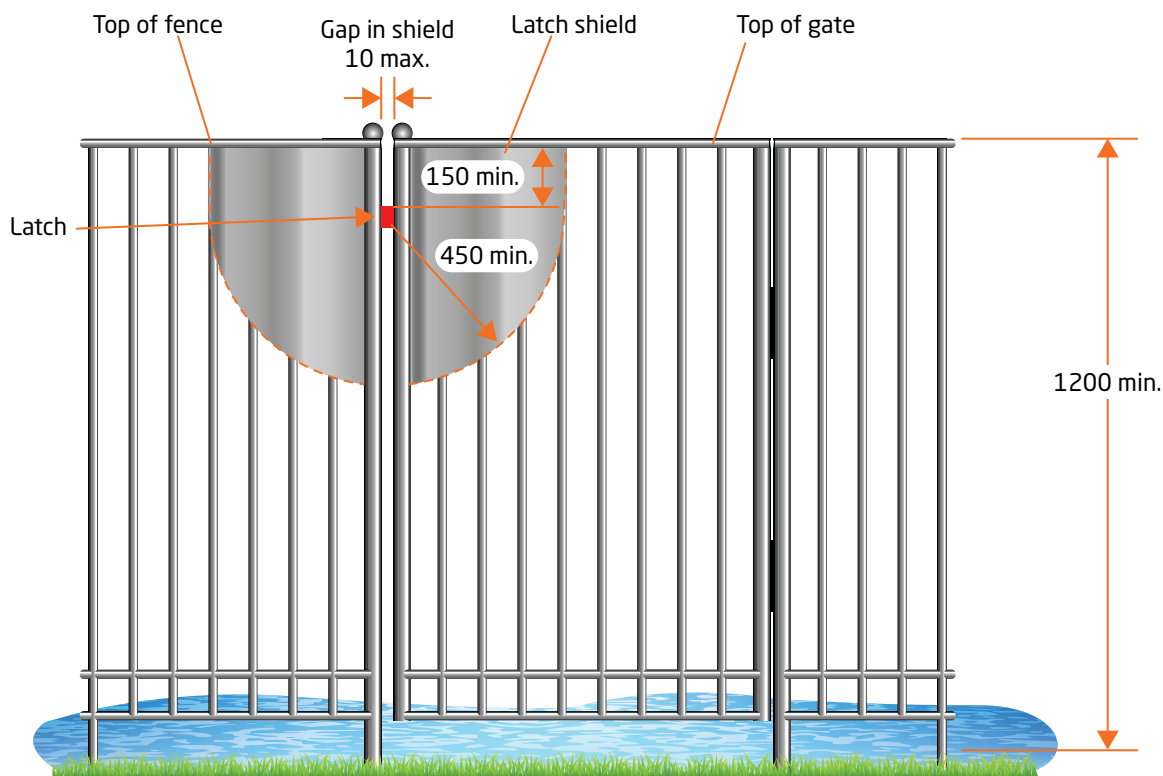


Diagram 7

Above-ground swimming or spa pools

Above-ground swimming or spa pools that have side walls not less than 1200mm from the finished ground surface may not require a barrier to create an enclosure if it is free of:

- bracing with horizontal surfaces;
- substantial horizontal surfaces; or
- climbable objects.

Where bracing is required to support the swimming or spa pool and the bracing angles out from the pool wall to the finished ground surface, the top surface of the supports must be greater than 60° from the horizontal.

However, any features that constitute a climbable object, such as entry/exit ladders or steps, or pool pumps, require a barrier with a self closing and self latching gate. Removal of the

ladders or steps after each use is not an option for compliance.

All owners or occupiers with above-ground swimming or spa pools are recommended to install an appropriate barrier regardless of the design of the walls. Lockable swimming or spa pool covers do not meet the requirements of the Regulations.

Portable and climbable objects in and around the property remain a constant danger.

Balcony

If the height of a balcony is less than 2400mm to the finished ground surface and projects into the inside of a swimming pool or spa enclosure, then either of the following modifications to a balcony access must be made:

- the doors and windows that lead directly to the balcony area must meet the requirements as described in the following sections 'Windows' and 'Doors'; or
- if the doors and windows do not comply then a barrier that meets the design and construction requirements as described in this section must be installed and maintained on the balcony.

Windows

A window may form part of the barrier as long as it is modified so that it meets the requirements of the Standard.

Opening windows

If the lowest panel of a window that is capable of opening is less than 2400mm to the finished ground surface when measured from inside the pool enclosure, then one of the following options must be completed:

Sill height less than 900mm

- a) If the sill height is less than 900mm above the finished floor surface when measured from inside the building, the window must have **one** of the following modifications:
 - be covered by bars or mesh screens that are fixed into position with fasteners that require the use of a hand tool to remove (such as an Allen key, spanner, or screwdriver). Key locking devices are not acceptable; or
 - be fixed in such a way that the window is not capable of opening more than 100mm. This 100mm clearance applies to windows that open in either a horizontal or vertical plane. Key locking devices are not acceptable and the stopping device must be permanently fixed.

Sill height between 900mm and 1200mm

- b) If the sill height is between 900mm and 1200mm above the floor, the window must comply with either of the requirements described in (a) or be fitted with a securely fixed fly screen frame that has a screen fixed to it and is in good condition. The screen fitted to the frame must be either powder coated aluminium or stainless steel. Nylon based fly wire is not of acceptable strength.

Sill height between 1200mm or greater

- c) Any window that has a finished sill height of 1200mm or greater above the floor does not require treatment.

While option (c) does not require a treatment, it is recommended that treatment options as described above in (a) or (b) are considered. Many objects in a room can provide a young child with a climbable object to reach the 1200mm window sill and access the swimming or spa pool area through the window.

Doors

A wall of a building that is used as part of the barrier may contain a door that complies with the Standard, only if the swimming or spa pool was given building approval before 5 November 2001.

Opening doors

Where a sliding or hinged door contained in a wall that is permitted by the Regulations to be used as part of the barrier, it must have the following characteristics:

- Be fitted with a self-closing device that will automatically return the door to the closed position. It must allow the self-latching device to operate without the application of manual force from any position that the door is capable of opening, including when resting on the latch.
- Be fitted with an automated self-latching device that will prevent the door from being re-opened without the application of manual force on the latch release mechanism.
- The operating part of the latch release mechanism must not be less than 1500mm above the floor.

- Not contain footholds protruding more than 10mm on the door or its frame. This is to restrict the opportunity for a young child using the foothold to climb the door and release the latching device. This must be observed in between the release of the latching device to 100mm above the floor.

Owners and occupiers must remain aware that young children are resourceful and are capable of using a climbable object found within the house to reach up and release the latching mechanism of the door. Great care should be taken not to leave objects lying around that may be attractive to a young child or easy for them to use.

Garage doors

Automated garage or perimeter gates do not comply with the requirements of the Regulations. It should not be taken for granted that these can be used as part of the barrier and any consideration to their use must be authorised by the local government prior to swimming or spa pool installation.

Section 4 - Frequently asked questions

Does my spa pool require a barrier?

Yes. A spa pool, whether portable or fixed, comes under the definition of a 'swimming pool' in the Regulations and must have a compliant barrier.

Who is responsible for ensuring the swimming or spa pool has a compliant barrier?

Each owner and occupier of a property on which there is a private swimming or spa pool containing water that is more than 300mm deep must ensure that a compliant barrier is installed and maintained so that it is compliant with the Regulations and the Standard at all times.

What is my local shire's role in relation to my swimming pool?

Under the Regulations, your local government is responsible for monitoring compliance with the requirements that apply to your swimming or spa pool barrier by:

- receiving and issuing building permits for swimming and spa pools and their associated barriers;
- arranging inspections of barriers at least once every four years; and
- issuing infringement notices or commencing legal proceedings if a barrier is found to be non-compliant.

Local governments can provide help to a new pool owner to select the most appropriate barrier location and design based on the features of the pool or spa prior to its installation.



Is a building permit required to construct a pool or fence?

Yes. The Act and Regulations require an owner to obtain a building permit for the construction or installation of swimming or spa pools that are capable of containing water to a depth greater than 300mm.

A building permit is also required for the construction or installation of safety barriers for swimming or spa pools. It is possible for one building permit to cover both the swimming or spa pool and the barrier.

On completion of works, the person named as the builder on the building permit (approval) must obtain an inspection certificate and submit it along with a Notice of Completion to the local government.

Contact your local government authority, or the pool manufacturer for further information about obtaining a building permit for the swimming or spa pool and their associated barriers.

What can be used as a barrier?

A fence, wall, or other barrier, or a combination of them that is in accordance with the requirements of the Standard can be used; a gate that is in accordance with the requirements of the Standard and that opens away from the swimming or spa pool and is self closing and self latching; and a window if it is in accordance with the requirements of the Standard.

The barrier can be purpose built pool fencing, brickwork, limestone, glass, metal, fibro-cement and even brushwood as long as they meet the requirements of the Standard.

Do I need a barrier all the way round my swimming or spa pool?

This depends on when your pool or spa was approved by your local government. Please contact your local government to determine the date of approval. They can also guide you through the requirements.

Can I use my boundary/dividing fence as part of the barrier?

Yes. You must ensure that a height not less than 1200mm is maintained on either side of the barrier. As far as practical, climbable objects on the neighbour's side are not to be within 1200mm of the top of the barrier line. You may have little influence over what your neighbour does to their side of the barrier, therefore if 1200mm cannot be maintained on the neighbour's side, the measurement is to be taken from the inside (pool side).

Where climbable objects are within 1200mm from the top of the inside of the barrier then it is the owner and occupier's responsibility to ensure that the objects are moved away from the inside of the barrier or the height of the barrier is increased.

Where boundary fences are used as part of the barrier it is recommended that consultation with your affected neighbour occurs to ensure they are aware of the impact any changes to their side may have on the compliance of the barrier. In this case it may not always be practical to use boundary fences as part of the barrier.

If I use a wall of the building as part of the barrier can it contain a window?

Yes. As long as the window is child resistant in accordance with the Standard, it can be contained within a wall that is part of the barrier.

Can I use a door as part of my barrier?

Only if the swimming or spa pool was given approval for building by the local government before 5 November, 2001. Swimming and spa pools approved after this date may not use a wall of a building that contains a door unless approved by the local government.

Is a deadlock, key lock or pad lock suitable to limit or permanently secure gates, doors and windows?

No. A device that limits or permanently secures these parts of a barrier can only be removed by the use of a tool. Such tools may include Allen keys, pliers, spanners and screw drivers.

I want to erect a swimming pool fence at my property; the pool is currently being constructed replacing an old one but in a different position. Can I have a pool that uses the house line as the boundary?

The Regulations require that all pools or spas installed on or after 5 November 2001 have an isolation fence between the pool and the residence. While a wall that contains a window complying with the requirements of the Standard may form part of the swimming pool barrier, doors leading from the residence into the pool enclosure cannot, unless approved by the local government.

Under what circumstances can an exemption be granted for having a door within a barrier around a pool that was approved after 5 November 2001?

While a door from a residence cannot generally open directly into the swimming or spa pool enclosure (such as where the door forms part of the barrier), there are certain circumstances where a local government may approve such a door.

Local governments may only consider the approval of doors where:

- It is the opinion of the local government that to install a barrier between the premises and the pool would create a structural problem that cannot be controlled by the owner or occupier of the property.
- The pool is totally enclosed by a building.
- It is the opinion of the local government that a separate barrier between the premises and pool would create a sufficient problem for a person with a disability who is a resident at the premises and wishes to have access to the pool.

For the purposes of approving the use of a door for a person with a disability, that person needs to produce a certificate that has been issued by the National Disability Services (ACN 008445485), certifying that the person has a disability that makes it difficult for the person to use a gate of the kind that would be required by the regulations in a swimming pool fence.

Prior to deciding whether to give approval for the use of a door, the local government must have regard as to whether or not a young child resides at the premises. Where a local government does approve the use of a door it must comply with the requirements of the Standard.

If my pool was built prior to 5 November 2001, am I permitted to use bi-fold doors or French Doors as part of the barrier?

No. Bi-fold doors are not permitted as they do not meet the requirements of the Standard. French Doors may only be used if one side is permanently fixed closed and the other side complies with the Standard such as a self closing with a child resistant door set that meets the requirements of the Standard.

I have an existing pre-November 2001 swimming pool and I want to install a new spa pool. Part of the barrier is a wall with a compliant door. Do I need a separate safety barrier for the new spa pool?

Yes. Whilst the barrier to your existing swimming pool is permitted to include a child resistant door because of the concession for swimming pools installed prior to 5 November 2001, your new spa must comply with the current post-November 2001 requirements. The post-November 2001 requirement does not permit doors to form part of the barrier unless approved by the local government.

Does my above-ground pool require a barrier?

Yes. Unless the walls of the pool are not less than 1200mm high and no climbable objects appear on the outside of the pool, then a barrier is required. For above-ground pools the filtration, pumps and entry ladders will generally require a barrier and gate, even though the height and outside surface of the pool walls may comply.

I have recently purchased a cover for both my swimming and spa pool. Is this sufficient to comply with the barrier requirements?

No. Placing a cover over a swimming or spa pool does not meet the barrier requirements under the Regulations. When the cover is off there is no barrier. Your statutory obligations are to provide a compliant barrier to restrict access to the swimming or spa pool area by young children at all times.

Section 5 - Further information

Local government

For information on the compliance of your swimming or spa pool barrier, please contact your local government.

www.walga.asn.au

Royal Life Saving Society Western Australia

www.lifesavingwa.com.au

www.poolsafety.com.au

www.keepwatch.com.au

The Keep Watch program is funded by the Department of Health, Western Australia.

www.swimandsurvive.com.au

Kidsafe

www.kidsafe.com.au

SAI Global

To obtain copies of Australian Standard AS 1926.1-1993

www.saiglobal.com



**Department of Commerce
Building Commission**

Level 1, 303 Sevenoaks Street
Cannington, WA 6107

Postal address:
Locked Bag 14

Cloisters Square, WA 6850

Phone: 1300 489 099

Facsimile: (08) 6251 1501

National Relay Service: 13 36 77

Website: www.commerce.wa.gov.au/building-commission

Email: bcinfo@commerce.wa.gov.au

Great Southern (08) 9842 8366

South-West (08) 9722 2888

Mid-West (08) 9920 9800

Goldfields (08) 9026 3250

North-West (08) 9185 0900

Kimberley (08) 9191 8400

This publication is available on request in other formats
to assist people with special needs.