# Smoke alarms installed in additions or alterations to existing dwellings

This Industry Bulletin outlines interconnection requirements for mains-powered smoke alarms installed as part of new building work, such as an addition or alteration, to existing dwellings. This information applies to the following residential dwellings as classified under the Building Code of Australia (BCA):

- a Class 1a building (e.g. house, town house, villa etc);
- a Class 1b building (e.g. small guest house, boarding house – less than 12 residents. Can also be four or more single dwellings, such as chalets, located on one allotment for short term holiday accommodation);
- a sole-occupancy unit in a Class 2 or 3 building; (e.g. apartment, flat or unit); and
- a Class 4 part of a building (e.g. a caretaker's residence).

The requirements will depend on whether the original dwelling had its building permit application submitted before 1 May 2015 or on or after 1 May 2015.

## Before 1 May 2015

The requirement for smoke alarms to be interconnected where there is more than one smoke alarm required, in accordance with the Deemed-to-Satisfy provisions of the BCA, generally does not apply to dwellings where the application for the building permit for that dwelling was made before 1 May 2015 (pre 1 May 2015 dwellings). However, if that dwelling is subject to future building work, such as an addition or alteration, where additional smoke alarms are required, then the interconnection requirements are as follows:

### Installing one new smoke alarm in an addition/alteration

The new mains-powered smoke alarm in the addition or alteration is generally not required to be interconnected to the existing smoke alarm(s) in other parts of the dwelling.

### Installing two or more new smoke alarms in an addition/alteration

The new mains-powered smoke alarms in the addition or alteration must be interconnected; however they generally don't need to be interconnected to the existing smoke alarm(s) in other parts of the dwelling.

**Please note:** The BCA introduced interconnection requirements under Deemed-to-Satisfy provisions on 1 May 2014. However, the Building Regulations 2012 in Western Australia allowed a 12 month transition. Therefore some pre 1 May 2015 dwellings with building permit applications submitted within the 12 month transition may have interconnected smoke alarms. In such cases the interconnection requirements would continue to apply to future alterations and additions.

INDUSTRY BULLETIN
IB 086/2017

There could be other circumstances where interconnection of smoke alarms may have been approved or installed in a pre 1 May 2015 dwelling such as under a performance (alternative) solution. In such scenarios the smoke alarms installed in a new addition or alteration must be assessed by the building surveyor to determine whether they need to be interconnected with the existing smoke alarm(s).

## On or after 1 May 2015

Where the building permit application for a dwelling was made on or after 1 May 2015 interconnection of all smoke alarms in the existing dwelling is required under the Deemed-to-Satisfy provisions of the BCA including any additional smoke alarms that are required as part of future building work, such as additions and alterations.

### Summary of interconnection requirements

The following table shows Deemed-to-Satisfy interconnection requirements for alterations and additions to existing dwellings at a glance:

| **Date of building permit application for existing dwelling** | **Installing ONE new smoke alarm** | **Installing TWO or more new smoke alarms** |
|---|---|---|
| **Before 1 May 2015** | Interconnection is generally **NOT required** with existing smoke alarm(s) | Interconnection **IS required** for new smoke alarms but is generally **NOT required** with existing smoke alarm(s) |
| **On or after 1 May 2015** | Interconnection **IS required** with existing smoke alarm(s) | Interconnection **IS required** for new smoke alarms and with existing smoke alarm(s) |

## How to test interconnected smoke alarms

Generally for most smoke alarms, the simplest way to check if they are interconnected or if the interconnection is working correctly, is to press and hold the “test” button on the first smoke alarm for as long as it takes for other interconnected smoke alarms to receive the interconnect signal and start to sound.

Depending on the make and model of the smoke alarms, the indicator light on the first alarm will start flashing and all the smoke alarms should sound within about five seconds of the first alarm sounding. Test all the other smoke alarms similarly. You may need assistance from someone else to confirm the other smoke alarms in the dwelling are also sounding.



May 2017

**Building Commission** | Department of Mines, Industry Regulation and Safety
Level 1, 303 Sevenoaks Street, Cannington WA 6107
P: Locked Bag 14, Cloisters Square WA 6850
T: 1300 489 099 | F: 08 6251 1501
E: BCinfo@dmirs.wa.gov.au
W: www.dmirs.wa.gov.au/building-commission

Building Commission