



FIREPAK

QBSA Licence No. 1124616

FPCRBQ Licence No. 774

ABN: 81 381 209 452

Fire Equipment Inspection, Testing and Maintenance

NEW QUEENSLAND SMOKE ALARM LEGISLATION

From the 1st of January 2017 in Queensland for building applications for new dwellings and substantial renovations to residential buildings (Class 1a and Class 2), smoke alarms are to be installed in all bedrooms and areas between bedrooms and living areas.

Dwellings being SOLD, LEASED, OR WHEN A LEASE IS RENEWED must comply with the legislation by 1 January 2022.

New installations must conform as follows;

A smoke alarm must be installed in each bedroom of the domestic dwelling. Each smoke alarm must;

- Comply with AS3786-2014; and
- Contain a photoelectric sensor; and
- Not also contain an ionization sensor; and
- Be hardwired to the domestic dwellings electricity supply; and
- Be interconnected to every other smoke alarm installed in the dwelling. A smoke alarm

(the first smoke alarm) is interconnected to another smoke alarm if;

- (a) The first alarm sounds an alert if the other smoke alarm is activated because its sensor detects smoke; and
- (b) The other smoke alarm sounds an alert if the first smoke alarm is activated because its sensor detects smoke.

The place a smoke alarm is installed;

- (a) Must be on;
 - (i) If it is practicable to mount a smoke alarm on a ceiling – the ceiling; or
 - (ii) If subparagraph (i) does not apply and an exposed joist or beam has a depth of no more than 300mm when measured from the ceiling – the underside of the exposed joist or beam; or
 - (iii) Otherwise – a wall in an area that is between 100mm and 300mm from the ceiling and more than 300mm from the corner of 2 walls; and
- (b) If the smoke alarm is installed on a ceiling that slopes – must be in area of the ceiling that is between 500mm and 1500mm from the apex of the ceiling; and
- (c) Must not be;
 - Within 300mm of a light fitting; and
 - If the smoke alarm is installed on a ceiling – within 300mm of a corner of the ceiling and a wall; and
 - If the smoke alarm is installed in a stairwell – where the smoke rising in the stairwell will not reach the smoke alarm because of an obstruction; and
 - Within 400mm of an opening from which air is supplied from an air conditioner or forced air ventilation; and
 - Within 400mm of the blades of a ceiling fan.

QFES Exemption when a Fire Indicator panel (FIP) exists:

For Class 2 buildings (A building containing two or more sole occupancy units each being a separate dwelling) there is an exemption under the following conditions:-

When a **Class 2 building** has a system of **smoke detectors** installed in individual units connected to a Fire Indicator Panel (System referred to as a Fire Detection Alarm System - FDAS), they are not obligated to also install **smoke alarms** within each unit.

Smoke Alarm – refers to a device that will detect smoke within a compartment and sound an audible alarm from within the device.

Smoke Detector – refers to a device that will detect smoke within a compartment and signal back to an alarm panel to sound an audible alarm throughout the building. (FDAS – Fire Detection and Alarm System)

Please note that the legislation refers to a system of smoke detection. Class 2 buildings with a system of **only thermal detectors connected** to a Fire Detection and Alarm System do not meet the criteria for this exemption. (so smoke alarms will have to be installed)

Acceptable Solutions being offered by Firepak:

PLEASE NOTE this section is for guidance only.

Each dwelling/premise will have to be assessed to ensure full compliance with the legislation.

Scenario A. Unit with some/no smoke alarms (no FIP)

Replace all alarms with complying smoke alarms (interconnected radio/Bluetooth) within each unit only. All can be 10 year lithium battery type, 240v connection not essential.

Scenario B. Unit with at least one thermal detector connected to an FIP (no smoke detection)

Option 1. Leave one thermal connected to the FIP. Replace all other thermals with complying smoke alarms (interconnected radio/Bluetooth) within each unit only. NOT interconnected with FIP.

Option 2. Best when each unit has (only) thermal detectors.

Replace all thermal detectors with Multi-criteria devices. These have a sounder base, smoke alarm & thermal detector in 1 device. With these devices, the smoke alarm section acts independently of the thermal section. When the alarm detects smoke, it sounds all alarms within the unit. Only when the thermal detects heat, will the full building alarm sound and call the QFES to attend. This is the best method to reduce false/unwanted alarm activations.

NEW SMOKE ALARM LEGISLATION

Ver 08/2018

Glossary of Terms*

Dwellings - houses, townhouses (Class 1A) and units (Class 2).

Photoelectric - the method the device uses to detect smoke.

Hardwired - connected to the domestic dwelling's electricity supply.

Interconnected - if one smoke alarm sounds all the other smoke alarms will also sound. Interconnection can be wired or wireless.

Substantial - work carried out under a building development approval and the total building works equals 50% of the dwelling over 3 years.

Storey - a space within a building which is situated between one floor level and the floor level or roof above.

* Refer to specific legislation for full definitions.

If you have a specific question or require further clarification, please email SmokeAlarms@gfes.qld.gov.au.

Source documents

- Fire and Emergency Services Act 1990
- Building Fire Safety Regulation 2008
- Building Regulation 2006
- National Construction Code 2016
- Australian Standard (AS) 3786-2014
- Land Title Act 1994

FOR EXISTING DWELLINGS

From 1 January 2017

When replacing smoke alarms, they must be of a *photoelectric* type which complies with Australian Standard (AS) 3786-2014.

Replacing smoke alarms

Existing smoke alarms manufactured more than ten years ago must be replaced. (Note: Smoke alarms should have the date of manufacture stamped on them.)

Smoke alarms that do not operate when tested must be replaced immediately.

Existing *hardwired* smoke alarms that need replacement must be replaced with a *hardwired* smoke alarm.

From 1 January 2027

Smoke alarms in all *dwellings* must:

- be *photoelectric* (AS 3786-2014); and
- not also contain an ionisation sensor; and
- be less than 10 years old; and
- operate when tested; and
- be *interconnected* with every other smoke alarm in the *dwelling* so all activate together.

Smoke alarms must be installed on each *storey*:

- in each bedroom; and
- in hallways which connect bedrooms and the rest of the *dwelling*; or
- if there is no hallway, between the bedrooms and other parts of the *storey*; and
- if there are no bedrooms on a *storey* at least one smoke alarm must be installed in the most likely path of travel to exit the *dwelling*.

Smoke alarms must be either hardwired or powered by a non-removable 10-year battery.



DWELLINGS BEING SOLD, LEASED OR AN EXISTING LEASE IS RENEWED

From 1 January 2017

Requirements as for existing *dwellings*.

Existing landlord's and tenant's obligations regarding the installation and testing of smoke alarms continue.

Property sellers must continue to lodge a Form 24 with the Queensland Land Registry Office stating the requirements of the smoke alarm legislation have been met.

From 1 January 2022

Smoke alarms in the *dwelling* must:

- i) be *photoelectric* (AS 3786-2014); and
- ii) not also contain an ionisation sensor; and
- iii) be less than 10 years old; and
- iv) operate when tested; and
- v) be *interconnected* with every other smoke alarm in the *dwelling* so all activate together.

Smoke alarms must be installed on each *storey*:

- i) in each bedroom; and
- ii) in hallways which connect bedrooms and the rest of the *dwelling*; or
- iii) if there is no hallway, between the bedrooms and other parts of the *storey*; and
- iv) if there are no bedrooms on a *storey* at least one smoke alarm must be installed in the most likely path of travel to exit the *dwelling*.

Smoke alarms must be *hardwired* or powered by a non-removable 10-year battery.

NEW DWELLINGS AND DWELLINGS BEING SUBSTANTIALLY RENOVATED

From 1 January 2017

The development approval process for new *dwellings* and *substantial* renovations will ensure that building approvals received on or after this date will bring *dwellings* into compliance with the new laws.

Smoke alarms in the *dwelling* must:

- i) be *photoelectric* (AS 3786-2014); and
- ii) not also contain an ionisation sensor; and
- iii) be *hardwired* to the mains power supply with a secondary power source (i.e. battery); and
- iv) be *interconnected* with every other smoke alarm in the *dwelling* so all activate together.

Smoke alarms must be installed on each *storey*:

- i) in each bedroom; and
- ii) in hallways which connect bedrooms and the rest of the *dwelling*; or
- iii) if there is no hallway, between the bedrooms and other parts of the *storey*; and
- iv) if there are no bedrooms on a *storey* at least one smoke alarm must be installed in the most likely path of travel to exit the *dwelling*.

PRESCRIBED LOCATIONS FOR INSTALLING SMOKE ALARMS

Where practicable smoke alarms must be placed on the ceiling. Smoke alarms must not be placed:

- i) within 300mm of a corner of a ceiling and a wall;
- ii) within 300mm of a light fitting;
- iii) within 400mm of an air-conditioning vent;
- iv) within 400mm of the blades of a ceiling fan.

There are special requirements for stairways, sloping ceilings, and ceilings with exposed beams. Specific requirements will be explained in the *Building Fire Safety Regulation 2008*.

If impractical for the prescribed location requirements to be met (e.g. may be affected by steam from shower or fumes from cooking), the owner may put the alarm at another location that will provide a warning to occupants of the *dwelling*.