

**California Residential Code (CRC)  
2016 Edition**

**California Building Code (CBC)  
2016 Edition – Section 420.6**

**CARBON MONOXIDE ALARMS  
(Section R315 CRC)**

**R315.2.1 Existing buildings and new construction.** Carbon monoxide alarms shall be provided in dwelling units where either or both of the following conditions exist:

1. The dwelling unit contains a fuel-fired appliance or fireplace.
2. The dwelling unit has an attached garage with an opening that communicates with the dwelling unit.

**R315.2.2 Alterations, repairs and additions.** *Where an addition is made to an existing dwelling, or a fuel-burning heater, appliance, or fireplace is added to an existing dwelling, not previously required to be provided with carbon monoxide alarms, new carbon monoxide alarms shall be installed in accordance with Section R315.*

**Multi-family Units**

**[F] 420.6 Fire alarm systems and smoke alarms.** Shall be provided in Group R-1, R-2, R-2.1 and R-4 occupancies in accordance with Sections 907.2.6, 907.2.8, 907.2.9 and 907.2.10, respectively. Single- or multiple- station smoke alarms shall be provided in Groups R-2, R-2.1, R-3 and R-4 in accordance with Section 907.2.11.

**R315.3 Location.** Carbon monoxide alarms in dwelling units shall be installed and maintained in accordance with the manufacturer's published instructions in the following locations:

1. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
2. On every occupiable level of a dwelling unit, including basements.
3. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed in the bedroom.

**R315.5 Power source.** Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery.

**Exceptions:**

1. Carbon monoxide alarms shall be permitted to be battery operated where installed in buildings without commercial power.
2. Carbon monoxide alarms installed in accordance with Section R315.2.2 shall be permitted to be battery powered.
3. Carbon monoxide alarms in Group R occupancies shall be permitted to receive their primary power from other power sources recognized for use by NFPA 720.
4. Carbon monoxide alarms in Group R occupancies shall be permitted to be battery-powered or plug-in with a battery backup in existing buildings built prior to January 1, 2011, under any of the following conditions:
  - 4.1 No construction is taking place.
  - 4.2 Repairs or alterations do not result in the removal of interior walls and ceiling finishes exposing the structure in areas/spaces where carbon monoxide alarms are required.
  - 4.3 Repairs or alterations are limited to the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck.
  - 4.4 Work is limited to the installation, alteration or repair of plumbing, mechanical or electrical systems, which do not result in the removal of interior wall or ceiling finishes exposing the structure in areas/spaces where carbon monoxide alarms are required.

**R315.7 Interconnection.** *Where more than one carbon monoxide alarm is required to be installed within a dwelling unit or within a sleeping unit in Group R occupancies, the alarms shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.*

**Exception:** *Interconnection is not required in existing buildings built prior to January 1, 2011, under any of the following conditions:*

1. Physical interconnection is not required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.
2. No construction is taking place.
3. Repairs or alterations do not result in the removal of interior wall and ceiling finishes exposing the structure in areas/spaces where carbon monoxide alarms are required.
4. Repairs or alterations are limited to the exterior surfaces of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck.
5. Work is limited to the installation, alteration or repair of plumbing, mechanical, or electrical systems, which do not result in the removal of interior wall or ceiling finishes exposing the structure in areas/spaces where carbon monoxide alarms are required.

**R315.4 Combination alarms.** Combination carbon monoxide and smoke alarms shall be permitted to be used in lieu of carbon monoxide alarms.

*Combination carbon monoxide/smoke alarms shall comply with Section R315 and all requirements for listing and approval by the Office of the State Fire Marshal for smoke alarms.*

**R315.1.1 Listings.** Carbon monoxide alarms shall be listed in accordance with UL 2034. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL217.

*No person shall install, market, distribute, offer for sale, or sell any carbon monoxide device in the State of California unless the device and instructions have been approved and listed by the Office of the State Fire Marshal.*

# SMOKE ALARMS

**R314.1 General.** Smoke alarms shall comply with NFPA 72 and Section R314.

**R314.2.1 New construction.** Smoke alarms shall be provided in dwelling units.

**R314.2.2 Alterations, repairs or additions.** Where alterations, repairs or additions requiring a permit occur, or where one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be equipped with smoke alarms located as required for new dwellings. **Exception:** See section R314.6.

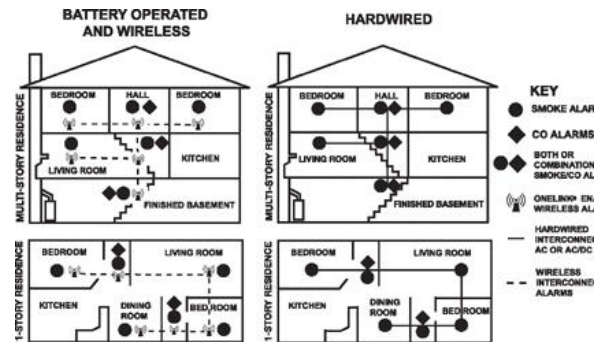
**R314.3 Location.** Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided the lower level is less than one full story below the upper level.
4. Smoke alarms shall be installed not less than 3 feet (914mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section R314.3.

**R314.6 Power source.** Smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

## Exceptions:

1. Interconnection is not required in buildings that are not undergoing alterations, repairs or construction of any kind.
2. Smoke alarms in existing areas are not required to be interconnected where alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes.
3. Smoke alarms are not required to be interconnected where repairs or alterations are limited to the exterior surface of dwellings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck.



**R3014.1.1 Listings.** Smoke alarms shall be listed in accordance with UL 217. Combination smoke and carbon monoxide alarms shall be listed in accordance with UL 2017 and UL2034. *Systems and components shall be California State Fire Marshal listed and approved in accordance with California Code of Regulations, Title 19, Division 1 for the purpose of which they are installed.*

# Guide and Information for Carbon Monoxide & Smoke Alarms



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