

Existing One and Two Family Dwelling

Smoke and Carbon Monoxide Alarm Requirements

One and Two Family Dwellings built prior to January 1, 2013; only page 1-3 shall be required. Pages 4, 5, and 6 "Specific Locations" are recommended to prevent false alarms but not required for this time period.

(*Newly constructed or converted bedrooms or sleeping areas: shall comply with the requirements for new construction at the time of construction or conversion. In this case pages 2 and 3 would apply.)

Homes built in 1976 or prior:

- (1) Smoke Alarms shall be installed within 21 feet outside sleeping areas and on each level of the dwelling unit(s) (including basements).
- (2) Smoke Alarms shall be permitted to be battery operated.
- (3) Smoke Alarms are not required to be interconnected.
- (4) Carbon Monoxide Alarms or Detectors shall be installed within 21 feet outside sleeping areas.
- (5) Carbon Monoxide Alarms or Detectors shall be permitted to be battery operated.
- (6) Carbon Monoxide Alarms or Detectors are not required to be interconnected.

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Homes built on and after January 1, 1977 through December 31, 2001:

- (1) Smoke Alarms shall be installed within 21 feet outside sleeping areas and on each level of the dwelling unit(s) (including basements).
- (2) Smoke Alarms shall be hard-wired with battery backup.
- (3) Smoke Alarms shall be required to be interconnected.
- (4) Carbon Monoxide Alarms or Detectors shall be installed within 21 feet outside sleeping areas.
- (5) Carbon Monoxide Alarms or Detectors shall be permitted to be battery operated.
- (6) Carbon Monoxide Alarms or Detectors are not required to be interconnected

(May use battery operated and wireless interconnected devices listed at NOTES on page 4)

Homes built on and after January 1, 2002 through February 19, 2004:

- (1) Smoke Alarms shall be installed within 21 feet outside sleeping areas and on each level of the dwelling unit(s) (including basements).
- (2) Smoke Alarms shall be hard-wired with battery backup.
- (3) Smoke Alarms shall be required to be interconnected.
- (4) Carbon Monoxide Alarms or Detectors shall be installed within 21 feet outside sleeping area.
- (5) Carbon Monoxide Alarms or Detectors shall be hard-wired with battery backup.
- (6) Carbon Monoxide Alarms or Detectors shall be required to be interconnected.

(May use battery operated and wireless interconnected devices listed at NOTES on page 4)

Homes built on and after February 20, 2004 through December 31, 2012:

- (1) Smoke Alarms shall be installed inside each bedroom, within 21 feet outside sleeping areas and on each level of the dwelling unit(s) (including basements)
 - (2) Smoke Alarms shall be hard-wired with battery backup.
 - (3) Smoke Alarms shall be required to be interconnected.
 - (4) Carbon Monoxide Alarms or Detectors shall be installed within 21 feet outside each sleeping area.
 - (5) Carbon Monoxide Alarms or Detectors shall be hard-wired with battery backup.
 - (6) Carbon Monoxide Alarms or Detectors shall be required to be interconnected.

(May use battery operated and wireless interconnected devices listed at NOTES on page 4)

One and Two Family Dwellings built on or after January 1, 2013; pages 3, 4, and 5 shall be required.

Homes built on and after January 1, 2013 through September 30, 2016:

- (1) Smoke Alarms shall be installed inside each bedroom, outside sleeping areas within 21 ft of bedroom door and on each level of the dwelling unit(s) (including basements)
- (2) Smoke Alarms shall be hard-wired with battery backup.
- (3) Smoke Alarms shall be required to be interconnected.
- (4) Carbon Monoxide Alarms or Detectors shall be installed within 21 ft of bedroom door outside each sleeping area.
- (5) Carbon Monoxide Alarms or Detectors shall be hard-wired with battery backup.
- (6) Carbon Monoxide Alarms or Detectors shall be required to be interconnected.
- (7) When floor area of a given level of a dwelling unit exceeds 1000 square feet, smoke alarms shall be installed for every 30 foot travel distance or 1 smoke alarm for every 500 square feet of floor area.

(May use battery operated and wireless interconnected devices listed at NOTES on page 4)

Homes built on and after October 1, 2016:

- (1) Smoke Alarms shall be installed inside each bedroom, outside sleeping areas within 21 ft of bedroom door and on each level of the dwelling unit(s) (including basements)
- (2) Smoke Alarms shall be hard-wired with battery backup.
- (3) Smoke Alarms shall be required to be interconnected.
- (4) Carbon Monoxide Alarms or Detectors shall be installed within 21 ft of bedroom door outside each

sleeping area.

- (5) Carbon Monoxide Alarms or Detectors shall be hard-wired with battery backup.
- (6) Carbon Monoxide Alarms or Detectors shall be required to be interconnected.
- (7) When floor area of a given level of a dwelling unit exceeds 1000 square feet, smoke alarms shall be installed for every 30 ft travel distance or 1 smoke alarm for every 500 square feet of floor area.

(May use battery operated and wireless interconnected devices listed at NOTES on page 4)

<u>Newly constructed or converted bedrooms or sleeping areas:</u> shall comply with the requirements for new construction at the time of construction or conversion.

NOTES

Wireless Smoke and Carbon Monoxide Alarms (NFPA 72:29.9.1)

- 1) 10 Year Sealed Battery
- 2) Listed and Approved Device
- 3) Visible "power on" indicator is provided (may be intermittent)

Non-Supervised Wireless Interconnected Devices (NFPA 72: 29.10.8.2)

- 1) Shall be capable of reliably communicating at a distance of 100ft indoors
- 2) Listed and Approved Device

Maximum # of Devices (NFPA 72: 29.11.2.1)

- 1) Maximum number of single station unsupervised interconnected devices is 18 of which a maximum of 12 can be smoke alarms.
- 2) Maximum number of supervised interconnected devices is 64 of which a maximum of 42 can be smoke alarms.

ADDITIONAL NOTES

The above smoke and carbon monoxide alarms may be installed as follows:

- (1) Where the above provisions require both smoke alarms and carbon monoxide alarms or detectors, combination devices shall be permitted and deemed acceptable.
- (2) Where smoke alarms are required, household fire alarm systems, in accordance with NFPA 72 (2019 Edition), shall be permitted and deemed to be acceptable

Specific Locations

Kitchens and Cooking Appliances

- 1) Smoke alarms and detectors shall not be installed within a **10ft** radial distance along a horizontal flow path from stationary or fixed cooking appliance unless listed for installation in close proximity.
- 2) All detectors and alarms installed between 10ft and 20ft of horizontal flow path from stationary or fixed cooking appliance shall be equipped with an alarm-silencing means or use photoelectric detection.
- 3) Effective January 1, 2022, smoke alarms and smoke detectors installed between 6ft (1.8 m) and 20ft (6.1 m) along a horizontal flow path from a stationary or fixed cooking appliance shall be listed for resistance to common nuisance sources from cooking.

Bathrooms

1) Smoke alarms and detectors shall not be installed within a **36 in.** horizontal path from a door to a bathroom containing a shower or tub **unless** listed for installation in close proximity to such locations.

Forced Air

1) Smoke alarms and smoke detectors shall not be installed within a **36 in**. (910 mm) horizontal path from the supply registers of a forced air heating or cooling system and shall be installed outside of the direct airflow from those registers.

Ceiling Fans

Smoke alarms and smoke detectors shall not be installed within a **36 in.** (910 mm) horizontal path from the tip of the blade of a ceiling-suspended (paddle) fan **unless** the room configuration restricts meeting this requirement.

Stairways

- 1) Where stairs lead to other occupiable levels, a smoke alarm or smoke detector shall be located so that smoke rising in the stairway cannot be prevented from reaching the smoke alarm or smoke detector by an intervening door or obstruction.
- 2) For stairways leading up from a basement, smoke alarms or smoke detectors shall be located on the basement ceiling **near** the entry to the stairs.

Environment Code Considerations

- 1) Smoke alarms and smoke detectors shall not be located where ambient conditions, including humidity and temperature, are outside the limits specified by the manufacturer's published instructions.
- 2) Smoke alarms and smoke detectors shall not be located within unfinished attics or garages or in other spaces where temperatures can fall below 40 F (4.4 C) or exceed 100 F (38 C).

Walls

1) Smoke alarms or smoke detectors mounted on walls shall be located **not farther than 12** in. from the adjoining ceiling surface (measured from the top of the detector).

<u>Ceilings</u> (For beam and joists ceilings please contact fire prevention office for assistance)

- 1) For tray-shaped ceilings (coffered ceilings), smoke alarms and smoke detectors shall be installed on the highest portion of the ceiling or on the sloped portion of the ceiling within 12 in. (300 mm) vertically down from the highest point.
- 2) FOR PEAKED OR SLOPED CEILINGS PLEASE SEE PAGE 6 ENTITLED SPECIFIC CEILING LOCATION REQUIREMENTS

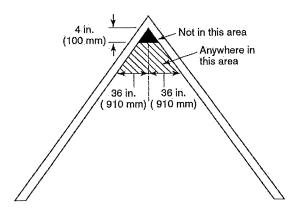
Other

1) Where a sleeping area is separated from the adjacent living areas by multiple doors, a smoke alarm shall be installed in the area between the door and the sleeping rooms, and additional alarms shall be installed on the living area side of the door (NFPA 72:29.8.1.2)

SMOKE ALARM & SMOKE DETECTOR CEILING INSTALLATION REQUIREMENTS

Peaked Ceilings

1) Smoke alarms or smoke detectors mounted on a peaked ceiling shall be located within 36 in. horizontally of the peak, but not closer than 4 in



Sloped Ceilings

1) Smoke alarms or smoke detectors mounted on a sloped ceiling having a rise greater than 1 ft in 8 ft shall be located within 36 in. of the high side of the ceiling, but not closer than 4 in. from the adjoining wall surface.

