

New construction

Single and multiple-station smoke detectors shall be installed:

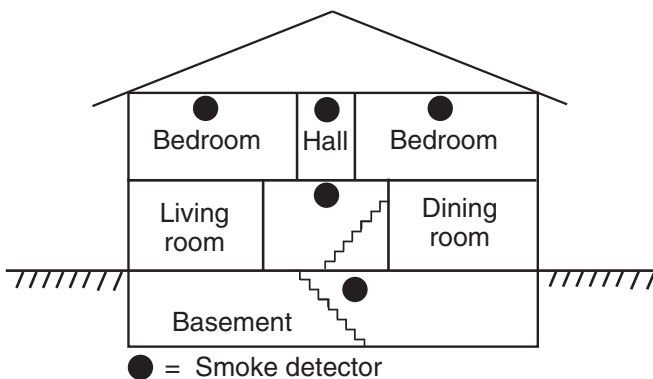
1. In each sleeping room.
2. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and cellars, but not crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke detector installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke detector is required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the unit. **Manufacturer's instructions must be followed for proper location.**

Power source

In new construction, the required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source. When primary power is interrupted, it shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over-current protection. Smoke detectors may be battery-operated when installed in buildings without commercial power or in existing areas of buildings where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure per *R314.6 of the 2020 MNRC*.

Single-family home detector placement



Alterations, repairs or additions

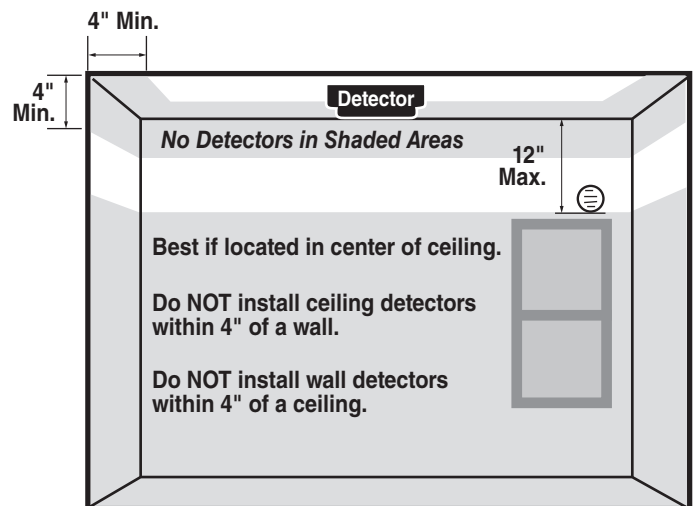
When interior alterations, repairs or additions require a permit (including installation or replacement of windows or exterior doors), or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be provided with smoke detectors located as required for new dwellings. The smoke detectors shall be interconnected and hardwired.

Exceptions:

1. Smoke detectors in existing areas shall not be required to be interconnected and hardwired where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure.
2. Work on the exterior which does not require entry into the interior for inspection; such as roofing, siding, chimney repairs, decks, open porch additions and detached buildings.
3. Installation, alterations or repairs of plumbing, electrical, or mechanical systems that do not also require a building permit.

Installation in existing homes

Smoke detector placement in sleeping room



- Smoke detectors must be mounted on the ceiling at least four inches from a wall or on a wall with the top of the detector not less than four inches, or more than 12 inches, below the ceiling.
- Smoke detectors should not be located within kitchens, garages or in other spaces where temperatures can fall below 32° F or exceed 100° F.

- Smoke detectors shall not be installed within 3' of the door to a bathroom that contains a shower or bathtub unless this would prevent a smoke detector to be installed in a required location.
- Installation near cooking appliances is to be avoided unless it prevents installation in a required location. Photoelectric type sensor alarms are less prone to nuisance alarms from cooking and can be installed closer to stoves when needed. *See 2020 MNRC R314.3.1 for specifics.*
- Smoke detectors should not be located within three feet of supply registers for a forced air heating or cooling system and doors to a kitchen or bathroom with tub or shower because these conditions cause excessive, erratic and unreliable operations.
- Smoke detectors in rooms with ceiling slopes greater than 1-foot rise per 8 feet horizontally shall be located at the high side of the room.
- A smoke detector installed in a stairwell should be located to ensure that smoke rising in the stairwell cannot be prevented from reaching the detector by an intervening door or obstruction.
- If there are no bedrooms in the basement, the recommended location of the detector is then in close proximity to the stairway leading to the floor above.
- Smoke detectors should not be located within 36 inches horizontally of ceiling fan blades.
- Life expectancy of smoke detectors is about 10 years. When replacing a hardwired smoke detector the replacement must also be hardwired.
- Smoke detectors must be adequately secured.
- In all cases install smoke detectors according to the manufacturer's instructions.

Time of Sale Homes

Smoke detectors shall be installed:

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See drawings on previous page.

All added or replaced smoke detectors may be battery operated.

Exception: *If the home was built with hardwired detectors any detectors that are not functioning and must be replaced shall be hardwired like the originals.*