

FIRE ALARM EXAMPLE IN R-2 OCCUPANCY

2021 International Building Code (IBC) - Chapter 9 - Fire Protection and Life Safety Systems

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907.2.1 Smoke alarms.
Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

907.2.2 Group R-2.
Fire alarm systems and smoke alarms shall be installed in Group R-2 occupancies as required in Sections 907.2.3 through 907.2.5.3.

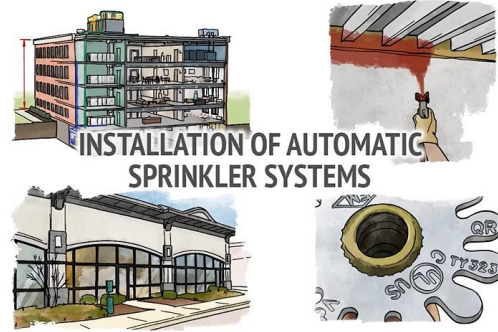
907.2.3 Manual fire alarm system.
Exception for alarm system: An automatic fire alarm system that activates the occupant notification system in accordance with Section 907.3 shall be installed in Group R-2 occupancies where any of the following conditions apply:
1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit and discharge.
2. Any dwelling unit or sleeping unit is located more than one floor below the highest level of exit and discharge.
3. The building contains more than 16 dwelling units or sleeping units.

Exceptions:
1. A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and cover spaces are separated from each other and public or common areas by fire-rated walls, fire partitions and each dwelling unit or sleeping unit has an exit directly to a public-way, egress door or exit.
2. Instead of alarm tones are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.1.1 or 903.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.
3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.1.1 or 903.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1027.6, Exception 3.

907.2.4 Smoke alarms.
Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

907.2.5 Group R-2 college and university buildings.
An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.3 shall be installed in Group R-2 occupancies operated by a college or university for student or staff housing in all of the following locations:
1. Common spaces outside of dwelling units and sleeping units.
2. Laundry rooms, mechanical equipment rooms and storage rooms.
3. All exterior corridors serving sleeping units or dwelling units.
Exception: An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units or dwelling units and where each sleeping unit or dwelling unit either has a means of egress door opening directly to an exterior exit access that leads directly to an exit or a means of egress door opening directly to an exit.
Required smoke alarms in dwelling units and sleeping units in Group R-2 occupancies operated by a college or university for student or staff housing shall be interconnected with the fire alarm system in accordance with NFPA 72.

907.2.6 Group 5.
A manual fire alarm system that activates the occupant notification system in accordance with Section 907.3 shall be installed in Group 5 public and self-storage occupancies three stories or greater in height for interior corridors and where common areas. Inside notification appliances are not required within storage units.



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907.3.1.2. provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section 1027.6, Exception 3.

907.3.1 Smoke alarms.
Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

907.3.2 Group R-2 college and university buildings.
An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.3 shall be installed in Group R-2 occupancies operated by a college or university for student or staff housing in all of the following locations:
1. Common spaces outside of dwelling units and sleeping units.
2. Laundry rooms, mechanical equipment rooms and storage rooms.
3. All exterior corridors serving sleeping units or dwelling units.
Exception: An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units or dwelling units and where each sleeping unit or dwelling unit either has a means of egress door opening directly to an exterior exit access that leads directly to an exit or a means of egress door opening directly to an exit.
Required smoke alarms in dwelling units and sleeping units in Group R-2 occupancies operated by a college or university for student or staff housing shall be interconnected with the fire alarm system in accordance with NFPA 72.

907.3.3 Group 5.
A manual fire alarm system that activates the occupant notification system in accordance with Section 907.3 shall be installed in Group 5 public and self-storage occupancies three stories or greater in height for interior corridors and where common areas. Inside notification appliances are not required within storage units.
Exception: Manual fire alarm tones are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.1.1, and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

907.3.4 Single- and multiple-station smoke alarms.
Listed single- and multiple-station smoke alarms complying with UL 217 shall be installed in accordance with Sections 907.2.11.1 through 907.2.11.7 and NFPA 72.

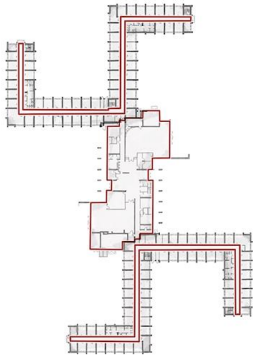
907.3.5 Group R-1.
Single- and multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:
1. In sleeping areas.
2. In every room in the path of the means of egress from the sleeping area to the door leading from the sleeping unit.
3. In each story within the sleeping unit, including basements. For sleeping units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level adjacent to the level provided that the lower level is less than one full story below the upper level.

907.3.6 Group R-2, R-3, R-4 and R-5.
Single- and multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and R-5 regardless of occupant load in all of the following locations:



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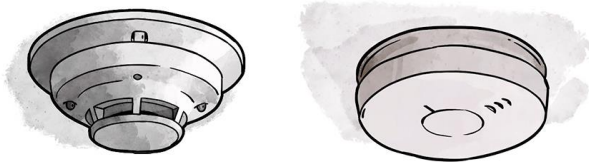
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