

MASSACHUSETTS STATE BUILDING CODE 780 CMR 1 & 2

FAMILY RESIDENTIAL LIFE SAFETY SYSTEMS

SMOKE ALARMS AND HEAT DETECTORS

Required locations:

- In each bedroom
- Outside the bedroom (s) in the immediate vicinity of the bedrooms
- Near the base of all stairs where such stairs lead to another occupied floor
- On each additional story of the dwelling including basements
- For each 1,000 square feet of area
- A single heat detector is required to be installed in attached garages

Smoke alarm types:

- Photoelectric type (required type when detector is within 20' of a kitchen or bath)
- Dual sensing photoelectric/ionization type detector
- Combination smoke/carbon monoxide alarms are allowed as long as the smoke detector part of the alarm is the photoelectric type and the device has a voice feature to distinguish between smoke and carbon monoxide alarms.
- All alarms require secondary power (battery back-up)
- **Ionization-only type smoke alarms are not allowed**

System types:

- 120 volt interconnected, low voltage system or wireless system installed in accordance with manufacturer's listing requirements and limitations
- Where more than 12 alarms are installed, system type devices must be utilized. A system type device is designed to be connected to a fire alarm control unit (panel)
- All smoke alarms and heat detectors, whether 120 volt or low voltage system, shall be primary powered from either a dedicated locked branch circuit or from an unswitched portion of a branch circuit used for power and lighting of a habitable space. All smoke alarms and heat detectors shall be interconnected

CARBON MONOXIDE ALARMS:

- Shall be listed 120 volt devices or part of low voltage combination system. (Plugin or battery-only are not acceptable in new construction)
- A minimum of one carbon monoxide alarm shall be installed on each story including basements and cellars, but not including crawl spaces or uninhabited attics.
- On levels with bedrooms, carbon monoxide alarms shall be installed outside the bedrooms within 10 feet of any bedroom door.
- Required carbon monoxide alarms are required to be interconnected. In cases where interconnection to the fire warning system is desired, all such carbon monoxide alarms shall be compatible with the fire warning system and fire alarms shall have precedence over carbon monoxide alarms.
- Combination smoke/carbon monoxide alarms are allowed as long as they meet the above requirements for smoke detector type and have a voice feature to distinguish between smoke and carbon monoxide alarms.

RENOVATIONS/ADDITIONS

- When one or more bedrooms are added or created, the entire building shall be provided with smoke, heat and carbon monoxide alarms installed in accordance with the provisions for new construction.
- When a garage is created under or attached to an existing dwelling, a heat detector shall be installed in accordance with the provisions for new construction.
- If the dwelling undergoes complete reconstruction, the entire building shall comply with the requirements for new construction.

PERMITTING REQUIREMENTS

- Plans showing the location of all fire protection systems shall be submitted to the Building Department and the Fire Department for review and approval. Plans shall show in sufficient detail the type and location of all fire protection devices. Plans shall also show the type and location of heating appliances.
- Approval for the installation of smoke/heat/carbon monoxide systems is required by the Norfolk Fire Department. The permit application can be filed by the electrician or licensed fire alarm contractor at the fire department. There is a \$50.00 fee for the inspection.