



**Boston Fire Department  
Fire Prevention Division  
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**Smoke Detectors**

- Can be either powered by battery or electrical with a back-up battery. (refer to MGL Ch. 148 §26e (a)(b))
- The use of battery operated smoke detectors is allowed only within each unit built prior to 1975 that have not had major renovations.

**Type of Smoke Detectors as required by: 780 CMR 5313.2.11**

- A smoke alarm should be installed in stairwells according to MGL 148 §26e
- Mount basement alarms at the bottom of the basement stairwell.
- Recommended placement is on the ceiling. Alternate location if needed is on the wall 6 – 12 inches below the ceiling.
- Smoke detectors do not work well in extreme heat or cold, and as such are not recommended for un-insulated attics and garages

**Location of Smoke Detectors in your Home**

- **Prior to 1975:** Placement and Type of smoke detectors as required by MGL CH 148 §26e (a)(b), 527 CMR 32
- **1975 to 1997:** Use of battery operated smoke detectors are **not allowed** as an option under MGL CH 148 §26e in Boston
- **After 1997:** Placement of smoke detectors as required by: 780 CMR 5313.2.9, 780 CMR 5313.2.10 & 780 CMR 5313.2.12 - see below for more information:

**780 CMR: BUILDING PLANNING FOR SINGLE- AND TWO-FAMILY DWELLINGS**

**5313.2.9 Smoke Detector Required Locations within the dwelling unit.**

Smoke detectors shall be installed in the following locations (also refer to Board of Building Regulations and Standards Official Interpretation No. 49-98):

1. In each bedroom (sleeping room).
2. Outside each separate bedroom (sleeping room) in the immediate vicinity of the bedroom (sleeping room).
3. Near the base of all stairs where such stairs lead to another occupied floor.
4. On each additional story of the dwelling, including basements and cellars but not including crawl spaces and unoccupied 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.
5. For each 1,200 square feet (111 m<sup>2</sup>) of area or part thereof.

**5313.2.10 Smoke Detector Required Locations in Common Areas of Two-family Dwellings.**

In addition to the requirements of 780 CMR 5313.1.9.1 through .4., two-family dwellings that contain common areas such as basements, hallways and/or interior stairways that serve both dwelling units, but are not within the dwelling units, shall also be provided with smoke detectors and/or heat detectors, as required, in the following locations:

1. Smoke detectors–In all common basements.
2. Smoke detectors–In all common hallways.
3. Smoke detectors–In all common stairways on each level outside the dwelling unit doorways.
4. When common area smoke detectors are of the single/multiple-station type they shall be interconnected with listed compatible heat detectors containing a sounding device within each dwelling unit. Said heat detectors shall be on every level within each dwelling unit and shall meet the audibility requirement of 780 CMR 5313.2 .4.
5. When common area smoke detectors are of the system type, there shall be at least one system-type alarm notification device that meets the requirements of 780 CMR 5313.2 .4 on each level within each dwelling unit
6. Dwelling unit smoke detectors shall only sound within the dwelling unit.

**5313.2.11 Photo-electric Smoke Detectors.**

Any smoke detector located within 20 feet (6096 mm) of a kitchen or a bathroom shall be a photo-electric type smoke detector. Photo-electric-type smoke detectors shall be allowed to be located closer than three feet (914mm) horizontally from a kitchen or a bathroom door when hallway or other room size restricts detector mounting options.

**Exception:** A bathroom not containing a tub, shower, jacuzzi or steam room.

**5313.2.12 Smoke Detector Placement.**

Photoelectric type smoke detectors and combination photo-electric/ionization type smoke detectors shall be installed in accordance with the manufacturer's specific installation requirements. In the absence of manufacturer's recommendations, smoke detectors shall be mounted on the ceiling at least four inches (102 mm) from a wall or on a wall with the top of the alarm not less than four inches (102 mm) nor more than 12 inches (305 mm) below the ceiling.

**Exception:** Smoke detector placement for solid joist or beam construction or for high, sloped, shed or peaked ceilings all shall be in accordance with manufacturer's recommendations and NFPA 72.

**5313.2.13 Smoke Detector Requirements in Existing Dwellings. See 780 CMR 93 One and Two Family Dwellings**