

Melrose Fire Department

Office of Fire Prevention

Guidelines for the Type and Placement of Smoke and Carbon Monoxide Detectors

Purpose of this guide is to help homeowners protect their homes and occupants from the dangers of fire and carbon monoxide (CO) poisoning.

This guide shall apply to ***one and two family*** homes.

Massachusetts General Law (MGL) Chapter 148 Section 26F & 26F½ requires that upon the sale of a residential building, it is equipped with smoke and carbon monoxide (CO) detectors. The Fire Department enforces this law. An appointment to inspect the home must be made with the Fire Department prior to the passing of papers. Upon ensuring compliance with the requirement the inspector will issue a certificate of compliance.

MGL Chapter 148 Section 26F mandates that upon the sale or transfer of certain homes, the seller must install approved smoke detectors. These requirements apply to residences that were built or modified prior to creation of the Massachusetts State Building Code (January 1, 1975). If a building has undergone renovation, addition or modification after January 1, 1975, the date of the building permit determines the smoke detector requirements of the building code.

Since March 31, 2006, carbon monoxide alarms have been required in all residences that have either fossil fuel burning equipment or an attached enclosed garage. This law applies to all such residences whether or not the residence is being sold or transferred.

Combination detectors (combination photoelectric smoke detector and carbon monoxide alarm), shall employ both simulated voice and tone alarm features which clearly distinguishes between carbon monoxide and smoke notification.

All detectors shall have a UL listing.

Typical one and two family residences built before January 1, 1975:

Smoke detectors are required as follows:

On every habitable level of the residence including the basement. If the basement does not have a finished ceiling the smoke detector must be mounted on the bottom of the floor joist.

On the ceiling at the base of each stairway. Meaning detector should be mounted on the ceiling before you take the first step up the stairs.

On the ceiling outside of each separate sleeping area.

The smoke detectors may either be battery powered or hardwired with battery backup.

Smoke detectors must be the photoelectric type.

Carbon monoxide alarms are required as follows:

On every level of the residence, including basements, habitable attics and must be located within 10 feet of each bedroom door.

Combination detectors (photoelectric smoke and carbon monoxide detector) must follow the mounting instructions of smoke detectors listed above.

May be either: battery powered, plug-in with battery backup, hardwired with battery backup, or system type.

Battery powered or plug in with battery backup CO detectors may be mounted on the walls.

Typical one and two family residences permitted* between 1975 and August 27, 1997:

Smoke detectors are required as follows:

One smoke detector on every habitable level of the residence including the basement. If the basement does not have a finished ceiling the smoke detector must be mounted on the bottom of the floor joist.

One smoke detector on the ceiling at the base of each stairway. Meaning detector should be mounted on the ceiling before you take the first step up the stairs.

One smoke detector on the ceiling outside of each separate sleeping area.

A minimum of one smoke detector must be installed for every 1,200 square feet of living space per level.

Must be hardwired, with battery backup, interconnected smoke detectors.

Smoke detectors must be the photoelectric type.

Carbon monoxide alarms are required as follows:

On every level of the residence, including basements, habitable attics and must be located within 10 feet of each bedroom door.

Combination detectors (photoelectric smoke and carbon monoxide detector) may be used anywhere a smoke detector is required. Must be hardwired with battery backup and mounted on ceiling.

CO detectors may be either: battery powered, plug-in with battery backup, hardwired with battery backup or system type and may be mounted on the walls.

- * Permitted means that a new house was built during this period and permitted under the MA Building Codes or a major renovation or a bedroom was added to an existing house for which a permit should have been issued under the MA Building Code.

Typical one and two family residences permitted after August 27, 1997:

Smoke detectors are required as follows:

One smoke detector on every habitable level of the residence including the basement. If the basement does not have a finished ceiling the smoke detector must be mounted on the bottom of the floor joist.

On the ceiling at the base of each stairway. Meaning detector should be mounted on the ceiling before you take the first step up the stairs.

One smoke detector on the ceiling outside of each separate sleeping area.

One smoke detector on the ceiling inside every bedroom.

A minimum of one smoke detector must be installed for every 1,200 square feet of living space per level.

Must be hardwired and interconnected smoke detectors with battery backup. Smoke detectors must be the photoelectric type.

Carbon monoxide alarms are required as follows:

On every level of the residence, including basements, habitable attics and must be located within 10 feet of each bedroom door.

Combination detectors (photoelectric smoke and carbon monoxide detector) may be used anywhere a smoke detector is required. Must be hardwired with battery backup.

CO detectors may be either: battery powered, plug-in with battery backup, hardwired with battery backup or system type and may be mounted on the walls.

Typical one and two family residences permitted on or after January 1, 2008:

Smoke detectors are required as follows:

One smoke detector on every habitable level of the residence including the basement. If the basement does not have a finished ceiling the smoke detector must be mounted on the bottom of the floor joist.
One smoke detector at the base of each stairway. Meaning detector should be mounted on the ceiling before you take the first step up the stairs.
One smoke detector on the ceiling outside of each separate sleeping area.
One smoke detector on the ceiling inside every bedroom.
A minimum of one smoke detector must be installed for every 1,200 square feet of living space per level.
Must be hardwired and interconnected smoke detectors with battery backup.
All smoke detector must be photoelectric.

Carbon monoxide alarms are required as follows:

On every level of the residence, including basements and habitable portions of attics and must be located within 10 feet of each bedroom door.
Combination detectors (photoelectric smoke and carbon monoxide detector) may be used.
Must be hardwired and interconnected with battery backup. (May be separately wired from the existing smoke detection system.)

Heat detectors are required as follows:

Must have a single heat detector in any garage attached to or under the residence.
Must be hardwired and interconnected with or without battery backup to the existing smoke detection system.
Heat detectors are not required in older homes unless renovation, addition or modification occurs after Jan. 1, 2008.

Typical one and two family residences permitted on or after February 4, 2011:

Smoke detectors are required as follows:

One smoke detector on every habitable level of the residence including the basement. If the basement does not have a finished ceiling the smoke detector must be mounted on the bottom of the floor joist.
One smoke detector at the base of each stairway. Meaning detector should be mounted on the ceiling before you take the first step up the stairs.
One smoke detector on the ceiling outside of each separate sleeping area.
One smoke detector on the ceiling inside every sleeping area.
A minimum of one smoke detector must be installed for every 1,200 square feet of area or part thereof.
Must be hardwired and interconnected smoke detector with battery backup.
All smoke detector must be photoelectric.

Heat detectors are required as follows:

A single heat detector must be installed on the ceiling in an integral or attached garage.

Carbon monoxide alarms are required as follows:

On every level of the residence, including basements and habitable portions of attics and must be located within 10 feet of each bedroom door.

Combination alarms (photoelectric smoke and carbon monoxide alarm) may be used and mounted on ceilings.

Must be hardwired and interconnected with battery backup. (May be separately wired from the existing smoke detection system.)

Can I Use New Wireless Technology?

Yes you can use new wireless technology.

- In homes built before 1975, alarms can be wirelessly interconnected and powered (battery).
- In homes built or modified after 1975, they may be wirelessly interconnected, but cannot be wirelessly powered; they must be hard-wired per the State Building Code.
- Wireless devices are always allowed with household fire alarm systems.

How Will I Get a Certificate of Compliance?

After you have a closing date:

Contact the Melrose Fire Department, Fire Prevention Office to schedule an inspection of your smoke and carbon monoxide detectors right away. Don't wait until the last minute! (781) 979-4405.
Fee is \$50.00 for a single family and \$100.00 for a two family.

Prior to the arrival of the fire department:

Make sure that your posted street number is visible from the street (MGL c.148 § 59);

Make sure that you have the proper type of detectors.

The Melrose Fire Department may require that they be taken down for compliance verification.

Make sure all smoke detectors are the photoelectric type. If the house has an attached garage a CO detector must be installed in every habitable room that shares a wall, floor or ceiling with the garage.

Make sure that all detectors are installed in the proper locations.

Combination carbon monoxide and smoke detectors are permitted.

They must have both a tone and simulated voice alarm to distinguish the type of emergency. Carbon monoxide detectors are required regardless of a sale or transfer.

Make sure that all detectors are working properly.

Unless otherwise recommended by the manufacturer's published instructions, no smoke detectors (battery operated or hard-wired) shall remain in service after 10 years from the date of manufacture.

After passing the inspection:

The Melrose Fire Department will issue your Certificate of Compliance.

This document will probably be required at the closing and is only valid for 60 days.

Test your smoke and CO detectors monthly and replace the batteries twice a year.

REMEMBER, when you change the clocks, change the batteries.