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Guidelines for Smoke and Carbon Monoxide Alarm Requirements – One and Two Family Dwellings

	Before 1975	1975- 8/27/1997	8/27/1997 – 2007	1/2008 – 2/2011	2/2011 – Present
Smoke Detector Powered by:					
Battery Operated	Allowed	Not Allowed	Not Allowed	Not Allowed	Note Allowed
Hardwired, Interconnected	Allowed	Required	Not Allowed	Not Allowed	Not Allowed
Hardwired, Interconnected w/ Battery Back – Up	Recommended	Recommended	Required	Required	Required
Type of Smoke Detector:					
Outside 20 feet of kitchen or full bathroom	Either one, photoelectric AND One Ionization OR a Dual Detector*	Photoelectric Or Ionization	Photoelectric Or ionization	Photoelectric or Dual Detector*	Photoelectric
Within 20 feet of a kitchen or full bathroom	Photoelectric	Photoelectric Or Ionization	Photoelectric	Photoelectric	Photoelectric
CO Detectors: MUST BE IN THE HALLWAY, OUTSIDE THE SLEEPING AREA, WITHIN 10 FT OF EACH BEDROOM DOOR					
Battery or Plug-In w/ Battery Back-up	Allowed	Allowed	Allowed	Not Allowed	Not Allowed
Hardwired, Interconnected w/ Battery Back-Up	Allowed	Allowed	Allowed	Required	Required
Locations Required: ALL SMOKE DETECTORS MUST BE CEILING MOUNTED					
Finished or Habitable basement	Smoke / CO	Smoke / CO	Smoke / CO	Smoke / CO	Smoke / Co
Every Habitable Level	Smoke / CO	Smoke / CO	Smoke / CO	Smoke / CO	Smoke / CO
Base of Stairs	Smoke	Smoke	Smoke	Smoke	Smoke
Outside each sleeping area (Hallway)	Smoke / CO	Smoke / CO	Smoke / CO	Smoke / CO	Smoke / CO
Inside Every Bedroom	Not required	Not required	Smoke	Smoke	Smoke
Finished Attic (Habitable)	Smoke / CO	Smoke / CO	Smoke / CO	Smoke / CO	Smoke / CO
Garage (Attached)	Not Required	Not Required	Not Required	Heat Detector	Heat Detector

Key Points

- A dual detector consists of one detector with both photoelectric and ionization technology
- Low Voltage fire warning systems are exempt from the dual detector technology requirement
- Combination Smoke and Carbon Monoxide Alarms MUST have voice features.

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Fire Inspection Information**

Some Examples of Types of Detectors

Photoelectric Smoke Detector



Ionization Smoke Detector



Heat Detector



Dual Smoke and Carbon Monoxide Detector



Useful Information to Keep In Mind:

- Garage heat detector: Must be hardwired and interconnected with or without battery backup.
- The use of Fake smoke during a test is not recommended.
- FMO recommends test smoke / CO monthly and replace batteries twice a year (Change the clocks)

Forms:

- FP-7c: Application for certificate of compliance for smoke detectors and carbon monoxide alarms.
- FP-6: Application for Permit

Definitions:

- Ionization: Use radiation to detect smoke. More effective in detecting flaming fires. Increased risk of nuisance alarms caused by steam or cooking smoke. (Will have Americium or the radiation symbol)
- Photoelectric: Use light to detect smoke. More effective in detecting smoldering fires, which have been attributed to more fires involving death.
- Heat Detector:
 - Fixed Temperature: Operate when the heat sensitive eutectic alloy reaches the eutectic point changing state from a solid to a liquid. Approx. 117° F – 136.4°F
 - Rate of rise: Operate on a rapid rise in element temperature of 120°F - 150°F increase per minute, irrespective of the starting temp.