

# Smoke/CO Detection

Chatham Fire Prevention  
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## Residential Requirements

<b>Smoke Detectors.</b>	
Ionization or Photoelectric - click the video links to see the difference in performance.	
1997 Building Code - Photoelectric type required within 20' of kitchen or bath	<p><b>View Boston Fire &amp; Channel 4 news report:</b></p> <p><a href="http://www.wbztv.com/iteam/local_story_186210454.html">www.wbztv.com/iteam/local_story_186210454.html</a></p> <p><b>View Indianapolis Channel 13 news report: see aquarium test and/or other clips</b></p> <p><a href="http://www.wthr.com/Global/story.asp?s=6552929">www.wthr.com/Global/story.asp?s=6552929</a></p> 
2008 Building Code - Photoelectric type required. Dual sensor (ionization/photoelectric) may be used in locations more than 20' from kitchen or bath.	
2008 Code language says . . . do not allow smoke detectors to remain in service past 10 years. Older language recommended replacement after 10 years.	
<b>Carbon Monoxide (CO) Detectors. Fire Code 527 CMR 31 Building Code 780 CMR 5313, Gas Code 248 CMR.</b>	
2006 Nicole's Law requires CO detectors in most residences.	
Plumbing Codes requires CO detectors for direct vent heating equipment.	
Fire Codes require CO detection for vent free fireplaces and stoves.	
2008 - Building Code requires CO detection on each level except crawl spaces or uninhabitable attics.	
Combination Smoke/CO detectors must be photoelectric, have battery backup and have voice distinction designating type of alarm.	
New construction requires wired, interconnected detectors with battery backup.	CO poisoning mimics flu like symptoms without fever.
	For resale: detectors may be wired in w/battery backup, plug in w/battery backup, battery powered, or part of a low voltage protection system.
<b>Residential Sprinklers. 780 CMR 5313. Installation standard is NFPA 13D.</b>	
Smoke and Heat Detectors will detect fires. Sprinklers will confine or extinguish fires.	
Required in residences over 14000 square feet. Call or email for more information. Homeowners must ask for this safety equipment.	Follow link: <a href="http://www.homefiresprinkler.org/">www.homefiresprinkler.org/</a> Scottsdale AZ has had a sprinkler ordinance for twenty years and has a great success record.

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<b><i>I am selling my home.</i> What is needed? Inspection required by Ma. General Law Chapter 148.</b>	<b>Smoke Detectors are required. CO Detectors may be required.</b>
FD conducts a resale inspection and if compliant issues a certificate. (\$50 inspection fee). House numbers required.	
Compliance must be in accordance with the code requirements in place at the time of construction. Additions or renovations may require a higher compliance standard. See below.	
“Construction <u>prior</u> to 1975” Battery powered smoke detectors outside bedrooms and base of stairs.	
“Construction 1975-1997” Hard wired, interconnected, outside bedrooms and base of stairs. System additions or replacements must be permanently wired and interconnected. “Battery operated” Smoke detectors are <b><u>NOT APPROVED!</u></b>	
“Construction 02/28/97-present” 1. Hard wired with battery backup. Installed in the immediate vicinity of bedrooms and in all bedrooms. 2. In each story of a dwelling unit, Including basements and cellars, but not including (unheated) crawl spaces and uninhabitable attics. 3. One smoke detector for each 1200 sq. ft. or part thereof.	
CO detectors: within 10’ outside bedroom doors and on each level except crawl spaces and uninhabitable attics.	CO detectors not required if electric heat and no attached garage or fireplace.

<b><i>I am building a new home.</i> What are the requirements? See Building Code 780 CMR 5313.</b>	<b>Remodeling may require the home to be brought to current code requirements.</b>
FD reviews construction plans, conducts rough wire inspection before drywall and final compliance inspection before occupancy.	Fee of \$50 is collected at final inspection. If a re-inspection is required for non-compliance a \$15 additional fee will be collected.
Wired smoke alarms with battery backup or a low voltage system installed by an alarm contractor.	CO detectors, wired with battery backup, 1. outside bedrooms within 10’ of bedroom doors, 2. each level (except crawl space or attic).
Alarms in each bedroom, outside of sleeping areas, near the base of each set of stairs, each level (except crawl spaces and attics), one detector for each additional 1200 sq. ft.	Combination Photoelectric Smoke and Carbon Monoxide Detectors shall employ both simulated voice and tone alarms which distinguish between carbon monoxide and smoke notification.
A single heat detector is required in attached garages interconnected with smoke alarms.	A better choice: If you installing a security alarm system have the alarm company install your smoke detectors. These detectors will alert the occupants <u>and</u> summons the fire department.