



# Carbon Monoxide Alarms

The Building Standards Department issues Builder Tips as part of our customer service program. They are designed to provide an improved understanding of the Building Code and to reduce the costs associated with correcting infractions. Please contact your area building inspector for further information or call the Building Standards Department at 905.475.4848 extension 2189

## **9.32.3.9. Application of Carbon Monoxide Alarms (See Note A-9.32.3.9.)**

- (1) Article 9.32.3.9A. applies to every building that
  - (a) contains a residential occupancy, and contains a fuel-burning appliance or a storage garage, or
  - (b) contains a residential occupancy and is served by a force-air fuel-burning appliance not contained within the building.
- (2) Articles 9.32.3.9B. and 9.32.3.9C. apply to every building.

## **9.32.3.9A. Location of Carbon Monoxide Alarms**

- (1) A carbon monoxide alarm shall be installed in a suite of residential occupancy where
  - (a) a fuel-burning appliance or a flue is installed in the suite,
  - (b) a forced-air fuel-burning appliance provides heated air directly to the suite,
  - (c) a fuel-burning appliance or a flue is located in a room, suite or area that shares a common wall or floor or ceiling assembly with a suite, or
  - (d) a storage garage shares a common wall or floor or ceiling assembly with the suite
- (2) Where a carbon monoxide alarm is required in Sentence (1) to be installed in a suite of residential occupancy, other than a suite that consists of a combined living and sleeping area, a carbon monoxide alarm shall be installed
  - (a) adjacent to each sleeping area in the suite, and
  - (b) on each storey without a sleeping room in the suite
- (3) Where a carbon monoxide alarm is required in Sentence (1) to be installed in a suite of residential occupancy that consists of a combined living and sleeping area, a carbon monoxide alarm shall be installed in the combined living and sleeping area.



(4) In addition to the carbon monoxide alarms required to be installed in a suite of residential occupancy in accordance with Sentence (2), a carbon monoxide alarm shall be installed in each sleeping room within the suite where the sleeping room

- (a) Contains a fuel-burning appliance or a flue, or
- (b) Shares a common wall or floor or ceiling assembly
  - (i) with a room, suite or area that is located outside the suite and contains a fuel-burning appliance or a flue
  - (ii) with a storage garage, or
  - (iii) that is adjacent to an attic or crawl space to which the storage garage is also adjacent.

(5) Carbon monoxide alarm shall be installed in public corridors serving suites of residential occupancy where the corridor is directly heated by a forced-air fuel-burning appliance.

(6) Where carbon monoxide alarms are required in Sentence (5) to be installed in a public corridor, the carbon monoxide alarms shall be installed such that

- (a) there is at least one carbon monoxide alarm in each portion of a divided corridor, and
- (b) each carbon monoxide alarm in an undivided portion of a corridor is spaced not more than 25 m apart.

#### **9.32.3.9B. Location of Carbon Monoxide Alarms in All Buildings**

(1) A carbon monoxide alarm shall be installed in service rooms or other areas of a building where the service room or other area

- (a) contains a fuel-burning appliance used for building services or laundry equipment, and
- (b) is located within a suite of residential occupancy.

#### **9.32.3.9C. Installation and Conformance to Standards**

(1) The carbon monoxide alarms required by Articles 9.32.3.9A. and 9.32.3.9B. shall

- (a) except as permitted by sentence (2), be permanently connected to an electrical circuit and shall have no disconnect switch between the overcurrent device and the carbon monoxide alarm,



(b) in case the regular power supply to the carbon monoxide alarm is interrupted, be provided with a battery as an alternative power source that can continue to provide power to the carbon monoxide alarm for a period of not less than 8 h in the standby condition, followed by the operation of the carbon monoxide alarm for an alarm signal for at least 12 h,

(c) be wired so that

- (i) activation of one carbon monoxide alarm within a suite of residential occupancy will activate all carbon monoxide alarms within the suite,
- (ii) activation of one carbon monoxide alarm within a house with a secondary suite will activate all carbon monoxide alarms within the house with a secondary suite including their common spaces, and
- (iii) activation of one carbon monoxide alarm in a public corridor serving suites of residential occupancy will activate all carbon monoxide alarms within the corridor.

(d) be audible within sleeping rooms when the intervening doors are closed, where located adjacent to a sleeping room in a suite of residential occupancy, and,

(e) conform to

- (i) CAN/CSA-6.19, “Residential Carbon Monoxide Alarming Devices,” or
- (ii) UL 2034, “Single and Multiple Station Carbon Monoxide Alarms.”

(2) Where the building is not supplied with electrical power, carbon monoxide alarms are

- (a) are permitted to be battery operated, and
- (b) not have visual signaling component.

(3) Except as permitted in Sentence (2) the carbon monoxide alarms required by Articles 9.32.3.9A. and 9.32.3.9B. shall have a visual signalling component conforming to the requirements in 18.5.3. (Light, Color and Pulse Characteristics) of NFPA 72, “National Fire Alarm and Signaling Code”.



## OBJECTIVE

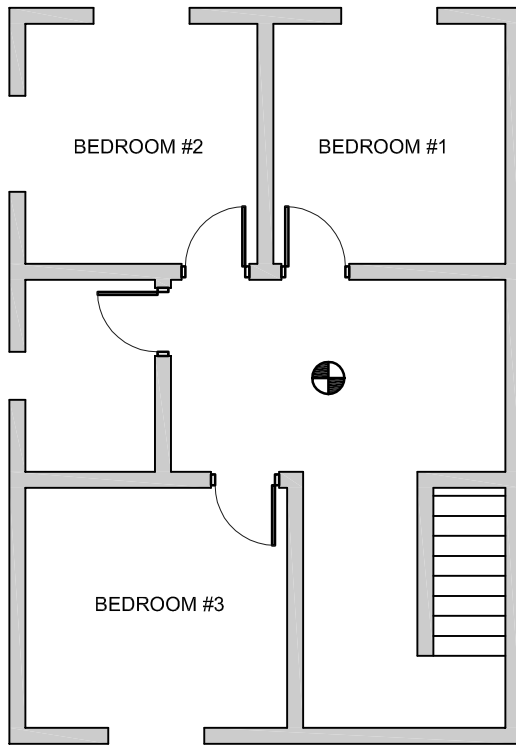
The regulations require the installation of carbon monoxide alarms where a fuel burning appliance, including a gas appliance (ie. Heating furnaces, fireplaces etc.)

- is installed in a suite of residential occupancy or
- is installed in a service room that is not in a suite of residential occupancy or,

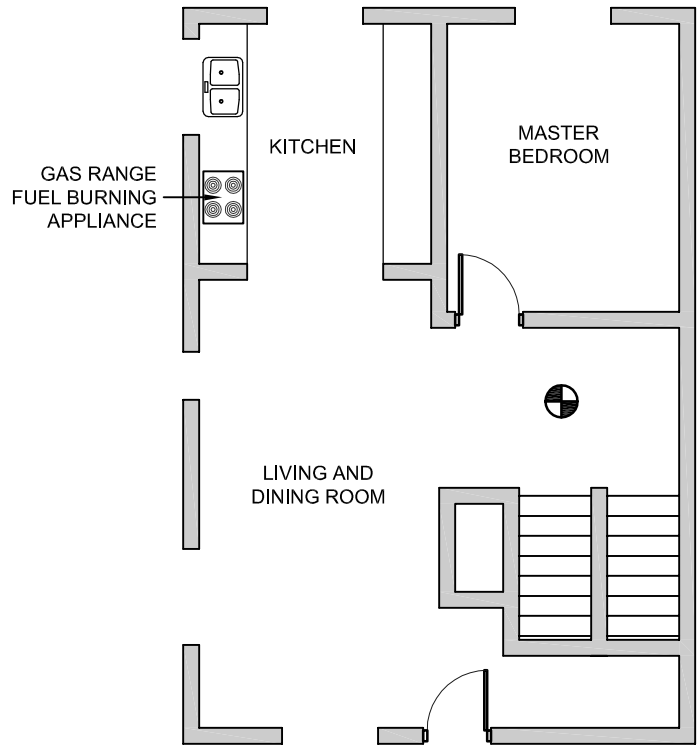
a storage garage that:

- is located in a building containing a residential occupancy or
- is attached and serves only the dwelling.

Where a fuel burning appliance is installed in a residential building, the carbon monoxide alarm must be installed adjacent to each sleeping area and if the fuel burning appliance is installed in a service room, an additional carbon monoxide alarm must be installed in that room. When an attached garage is present in a building of residential occupancy or a dwelling unit, the carbon monoxide alarm must be installed adjacent to each sleeping area in a suite and adjacent to a sleeping area in a dwelling unit. Carbon monoxide alarms shall be permanently connected to an electric circuit and activate an audible alarm. Carbon monoxide alarms shall be certified and conform with the applicable building code standard.




**SECOND FLOOR**



**FIRST FLOOR**

**LEGEND**

-  CARBON MONOXIDE ALARM ADJACENT TO SLEEPING AREA