



# Smoke 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

## **9.10.19.1. Required Smoke Alarms (See Note A-9.10.19.1. and A-9.10.19.3.)**

(1) Except as permitted by Article 9.10.19.8. smoke alarms conforming to CAN/ULC-S531, “Standard for Smoke Alarms”, shall be installed in

- (a) each dwelling unit,
- (b) each sleeping room not within a dwelling unit, and
- (c) ancillary spaces and common spaces not in dwelling units in a house with a secondary suite.

(2) Smoke alarms required in sentence (1) 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 Signaling Code”.

## **9.10.19.2. Sound Patterns of Smoke Alarm**

(1) The sound patterns of smoke alarm shall

- (a) meet the temporal patterns of alarm signals, or (See Note A-3.2.4.18.(2))
- (b) be a combination of temporal pattern and voice relay.

## **9.10.19.3. Location of Smoke Alarms (See Note A-9.10.19.1. and A-9.10.19.3.)**

(1) Except as permitted in article 9.10.19.8. within dwelling units, sufficient smoke alarms shall be installed so that,

- (a) there is at least one smoke alarm installed on each storey, including basements, and
- (b) on any storey of a dwelling unit containing sleeping rooms, a smoke alarm is installed,



- (i) in each sleeping room, and
- (ii) in a location between the sleeping rooms and the remainder of the storey, and if the sleeping rooms are served by a hallway, the smoke alarm shall be located in the hallway. (See Note A-9.10.19.3.(1))

(1.1) Except as permitted in Article 9.10.19.8., within a house with a secondary suite that contains an interior share means of egress or common area, a smoke alarm shall be installed in each shared means of egress and common area.

(2) A smoke alarm required in sentence (1) and (1.1) shall be installed in conformance with CAN/ULC-S553, “Standard for Installation of Smoke Alarms”.

(3) Smoke alarm required in Article 9.10.19.1. and Sentence (1) and (1.1) shall be installed on or near the ceiling.

(4) A smoke alarm required in Sentences (1) and (1.1) 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 Signalling Code”.

(5) The visual signalling component required in sentence (4) need not,

- (a) be integrated with the smoke alarm provided it is interconnected to it
- (b) be on battery backup, or
- (c) have synchronized flash rates, when installed in a house with a secondary suite or an individual dwelling unit.

(6) The luminous intensity for visual signalling components required in sentence (4) that are installed in sleeping rooms shall be a minimum of 175 cd.

#### **9.10.19.4. Power Supply**

(1) Except as provided in Sentences (2) and (3) smoke alarm described in Sentence 9.10.19.1 (1) and 9.10.19.3.(1.1) shall

- (a) be installed with permanent connections to an electrical circuit, (See Note A-3.2.4.20.(9)(a))
- (b) have no disconnect switch between the overcurrent device and the smoke alarm, and



(c) in case the regular power supply to the smoke alarm is interrupted, be provided with a battery as an alternative power source that can continue to provide power to the smoke alarm for a period of not less than 7 days in the normal condition, followed by 4 minutes of alarm.

#### **9.10.19.5. Interconnection of Smoke Alarms**

(1) Where more than one smoke alarm is required in a dwelling unit, the smoke alarms shall be wired so that the activation of one alarm will cause all alarms within the dwelling unit to sound.

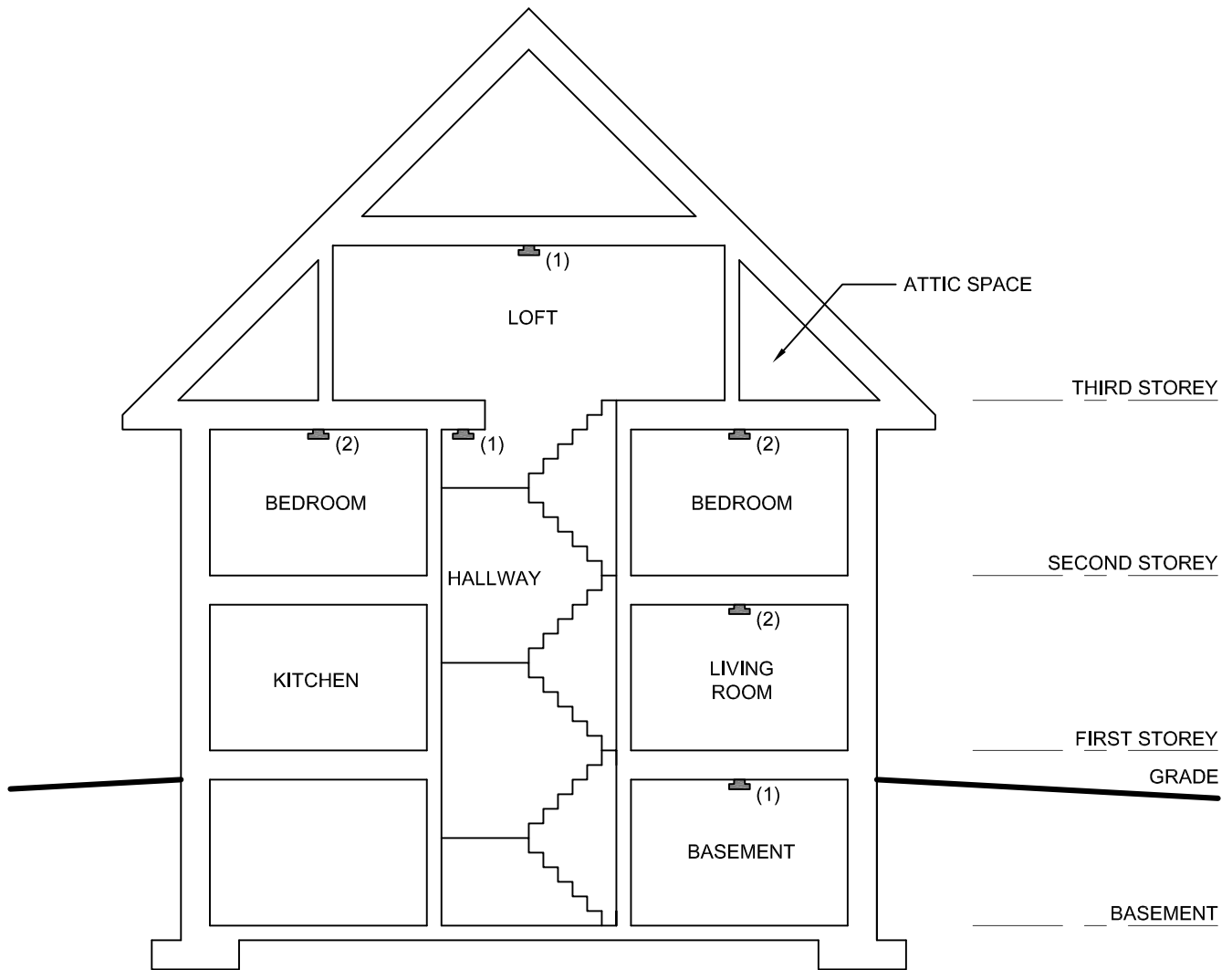
#### **9.10.19.6. Silencing of Smoke Alarms**

(1) Except as permitted in Sentence (2), a manually operated device shall be incorporated within the circuitry of a smoke alarm installed in a dwelling unit so that the signal emitted by the smoke alarm can be silenced for a period of not more than 10 min, after which the smoke alarm will reset and sound again if the level of smoke in the vicinity is sufficient to re-actuate it.


(2) Suites of residential occupancy equipped with smoke detectors installed to CAN/ULC-S524, "Standard for Installation of Fire Alarm Systems", which are part of the fire alarm system in lieu of smoke alarms as permitted in Sentence 9.10.19.4.(3), need not incorporate the manually operated device required in Sentence (1).

### **OBJECTIVE**

To detect the presence of smoke and initiate an audible alarm and visual signal warning for occupants to take the appropriate action to secure their safety. Please refer to CAN/ULC-S553 standard and manufacture specifications for proper installation requirements.



## LEGEND

-  SMOKE ALARM
- (1) ONE SMOKE ALARM ON EACH STOREY, INCLUDING BASEMENTS AND WHEN SLEEPING ROOMS ARE SERVED BY A HALLWAY, THE SMOKE ALARM SHALL BE LOCATED IN THE HALLWAY.
- (2) SMOKE ALARM IN EACH SLEEPING ROOM.
- (3) SMOKE ALARMS ARE NOT PERMITTED TO OPERATE WITH WIRELESS INTERCONNECT.

**NOTE:** INSTALLED ON OR NEAR THE CEILING AND INTERCONNECTED SMOKE ALARMS.