

BULLETIN 2022-002 BU

May 6, 2022

## INSTALLATION OF AUDIBLE SIGNAL DEVICES FOR PURPOSE OF SENTENCE 3.2.4.18.(7), (8) AND (11) OF THE VBBL

This bulletin clarifies the requirements of Sentence 3.2.4.18.(7), (8) and (11) of the VBBL with respect to the installation of audible signal devices installed within dwelling units or suites of residential or care occupancy. This bulletin replaces Bulletin 2001-010-BU/EL.

Sentence 3.2.4.18.(8) of the VBBL states that audible signal devices within a dwelling unit or a suite of residential or care occupancy shall be connected to the fire alarm system:

- a) in a manner such that a single **open circuit or short circuit** at one device will not impair the operation of other audible signal devices on that same circuit that serve the other dwelling units or suites of residential or care occupancy, or
- b) on separate signal circuits that are not connected to the devices in any other dwelling unit, public corridor or suite of residential or care occupancy. (See Note A-3.2.4.18.(8) and (9).)

Impairment or damage to an audible signal device may occur as a result of tampering with the device or with the wiring that provides power supply to the device located in a dwelling unit. When damage to a device or associated wiring results in an **open circuit**, the criteria of Clause 3.2.4.18.(8)(a) “not impair operation of other audible signal devices” may be achieved by utilizing Class A wiring.

However, when damage to a device or associated wiring results in a **short circuit**, in order to meet the requirement of Clause 3.2.4.18.(8)(a) of the VBBL “not to impair the operation of other audible signal devices on that same circuit”, audible signal devices within a dwelling unit or a suite of residential or care occupancy must be provided with Class B wiring and installation of a suite fault isolator.

Sentence 3.2.4.18.(9) of the VBBL has been deleted to avoid any confusion in respect to the suite fault isolators required in Vancouver for audible signal devices installed within dwelling units. As each such suite fault isolator is a device used for wire to wire **short circuit** protection for the wiring to an audible signal

device located within a dwelling unit, every audible signal device installed in the dwelling unit and connected to the suite fault isolator is deemed to be in conformance with Clause 3.2.4.18.(8)(a) of the VBBL.

However, for the purpose of Sentence 3.2.4.18.(11) which permits omission of means for manual silencing of an audible signal device within a dwelling unit under specific conditions, strict compliance with Clause 3.2.4.18.(8)(b) of the VBBL must be achieved. (See **Note 6** below)

### Notes:

- 1) Some suite fault isolators for audible signal devices within a dwelling unit may not allow a fire alarm signal to sound if the alarm is activated subsequent to the short or open circuit (trouble signal) on the isolator. This condition is not acceptable as it conflicts with the intent of the Building By-law and CAN/ULC-S524. Clause 4.3.1.5. of CAN/ULC-S524 specifically states that any open

INSTALLATION OF AUDIBLE SIGNAL DEVICES FOR  
PURPOSE OF SENTENCE 3.2.4.18.(7), (8) AND (11) OF THE VBBL

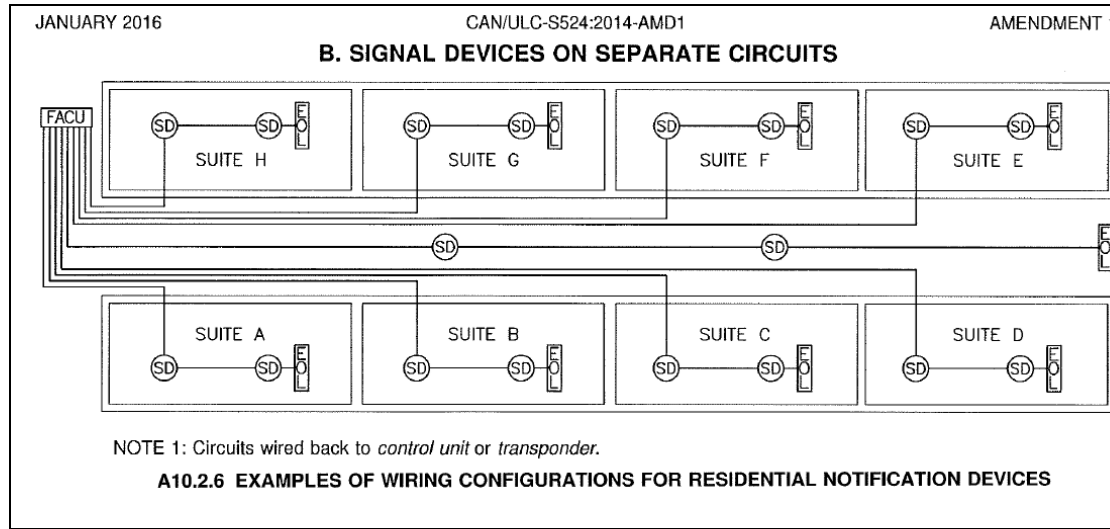
---

circuits or ground faults in the system shall not interfere with the operation of other circuits on the system.

Thus, for instance, a suite that contains a short circuit must be isolated from the rest of the wiring in each possible mode [trouble (supervisory) mode and/or alarm mode]. If there is only a trouble mode in the system (a short circuit in the wiring to a suite audible device), the suite fault isolator must allow the amplifier to be turned on and to provide a required alarm or alert signal to sound when a fire alarm initiating device is actuated subsequent to the trouble signal. If the short circuit on the wiring to the audible device in the suite has occurred during an alarm condition, the suite fault isolator must provide a trouble indication on the annunciator and to allow an alarm or alert signal to sound on other audible devices of the circuit. When the trouble signal is reset (short circuit condition is cleared) the suite fault isolator should be operational.

- 2) It is not intended by this requirement to provide a suite fault isolator for audible signal devices located within a sleeping room of a hotel or motel suite that does not have a kitchen. A standard industry practice of utilizing Class B wiring without fault isolators for the audible signal devices located in hotel/motel suites without kitchens is deemed to be sufficient for the purpose of this bulletin.
- 3) The requirements of Sentence 3.2.4.18.(7) of the VBBL are not intended for an audible signal device located within a sleeping room of a hotel or motel to include a manual silencing means.
- 4) For the purpose of Clause 3.2.4.18.(8)(a) of the VBBL, Class A signal circuits shall not be used in lieu of suite fault isolators for the audible signal devices within dwelling units or suites of residential or care occupancy.
- 5) The audible signal devices within dwelling units on a floor area are permitted to be wired on one separate signal circuit from those not within dwelling units provided that the audible signal devices located within each dwelling unit must include a manual silencing means in accordance with Sentence 3.2.4.18.(7) of the VBBL (See **Note 4** above).
- 6) When all conditions of Sentence 3.2.4.18.(11) of the VBBL are met, the omission of in-suite manual silencing means is permitted, provided
  - a) a separate signal circuit is provided to the audible signal devices in each dwelling unit in accordance with Clause 3.2.4.18.(8)(b) of the VBBL (see the **wiring configuration below from the CAN/ULC-S524**), and
  - b) all other signaling circuits that serve common area shall not be automatically silenced, except as permitted by Article 3.2.4.6.

INSTALLATION OF AUDIBLE SIGNAL DEVICES FOR  
PURPOSE OF SENTENCE 3.2.4.18.(7), (8) AND (11) OF THE VBBL



- 7) The suite fault isolators, audible signal devices, silencing means or in-suite signalling devices with integral silencing means must be installed in conformance with the CAN/ULC-S524.

Review the [VBBL](#) (Article 3.2.4.18.):

<https://free.bcpublications.ca/civix/document/id/public/vbbl2019/59509560>

(Original signed by)

\_\_\_\_\_  
S. Schwebs, Architect AIBC  
Chief Building Official  
Director, Building Policy, Inspections, and By-law  
Services

(Original signed by)

\_\_\_\_\_  
K. Lau, P.Eng., CP  
Manager, Building Policy Branch