

BULLETIN 2000-042-BU/EL

Revised September 23, 2015

PANELBOARDS AND CIRCUITS IN DWELLING UNITS WITH SECONDARY SUITES OR LOCK-OFF UNITS

The intent of this bulletin is to provide clarification and to establish a consistent and uniform enforcement approach for the installation requirements of the panelboards and circuits in dwelling units with secondary suites or lock-off units.

BACKGROUND

The construction of a secondary suite or a lock-off unit within a one-family dwelling; the construction of a secondary suite or a lock-off unit within one or both of the dwelling units in a two-family dwelling; and the construction of a lock-off unit within a residential suite in an apartment building must meet the requirements of Section 9.37 of Division B of the Vancouver Building By-Law (VBBL). Where portion of an existing one or two family dwelling is converted into a secondary suite or lock-off unit, the existing building and the alternation must meet the requirements of Subsection 11.4.3. of the VBBL. These VBBL requirements mean the electrical installation and electrical equipment for the foregoing constructions and conversions must be installed in conformance with the Canadian Electrical Code, Part I (CEC). Also, a building containing only one dwelling unit as that term is defined in the VBBL, is converted to include a secondary suite must meet the applicable requirements of Section 7.3.5 of the Vancouver Electrical By-Law No. 5563.

INSTALLATION REQUIREMENTS OF PANELBOARDS AND CIRCUITS FOR CONSTRUCTION OF ONE-FAMILY DWELLINGS OR TWO-FAMILY DWELLINGS WITH SECONDARY SUITES OR LOCK-OFF UNITS

1. Where the principal dwelling unit(s) and smaller dwelling unit(s) are individually metered for electrical power consumption, a separate combination panelboard must be installed in each dwelling unit with separation of all wiring between the dwelling units in conformance with CEC Rules 26-400 and 26-722(a). (See Figure 1 of the attachment)
2. Where the principal dwelling unit(s) and smaller dwelling unit(s) are not individually metered for electrical power consumption, the main combination panelboard that supplies circuits in the principal dwelling unit and smaller dwelling unit must be located within the building in a common area accessible to both suites. The common area is the part of a building that is accessible to all occupants of both dwelling units. Branch circuits for one dwelling unit from the panelboard must not be connected to outlets or electrical equipment in the other dwelling unit. Installation of receptacles and branch circuits for each dwelling unit must comply with CEC Rules 26-712 and 26-722. (See Figure 2 of the attachment)
3. Notwithstanding a single panelboard requirement of item 2 above for the principal dwelling unit and smaller dwelling unit that are not individually metered for electrical power consumption, a combination panelboard may be installed in each dwelling unit, branch circuits for one dwelling unit from its panelboard must not be connected to outlets or electrical equipment in the other

dwelling unit. The main service combination panelboard may be located in the principal dwelling unit, smaller dwelling unit or garage; and the combination sub-panelboard may be installed in the principal dwelling unit or smaller dwelling unit and the combination sub-panelboard must be supplied from the main service combination panelboard. (See Figure 3 of the attachment)

4. Hardwired smoke alarms conforming to CAN/ULC-S531 that each smoke alarm equipped with a manually operated silencing device and a backup battery must be interconnected throughout and between the principal dwelling unit and smaller dwelling unit. Notwithstanding requirements of items 1, 2 and 3 above to provide separate branch circuits for the loads between the dwelling units, smoke alarms located in the smaller dwelling unit shall be permitted to be connected to a branch circuit that supplies smoke alarms located in the principal dwelling unit. (Refer to CEC Rule 32-110, Bulletin 2000-035-EL/SP, Subsections 9.10.19. and 9.37.3. of Division B of the VBBL for more information)

INSTALLATION REQUIREMENTS OF PANELBOARDS AND CIRCUITS FOR LOCK-OFF UNITS WITHIN RESIDENTIAL SUITES IN NEW APARTMENT BUILDINGS

- I. Whether the principal dwelling unit and smaller dwelling unit are individually metered for electrical power consumption or not, a combination panelboard must be installed in each dwelling unit, branch circuits for one dwelling unit from its panelboard must not be connected to outlets or electrical equipment in the other dwelling unit in conformance with CEC Rule 26-722(a). Installation of receptacles and branch circuits for each dwelling unit must comply with CEC Rules 26-712 and 26-722.
- II. Hardwired smoke alarms conforming to CAN/ULC-S531 that each smoke alarm equipped with a manually operated silencing device and a backup battery must be interconnected throughout and between the principal dwelling unit and smaller dwelling unit. (Refer to CEC Rule 32-110, Article 3.2.4.21., Subsection 9.10.19. of Division B of the VBBL and item 4 above for more information)

INSTALLATION REQUIREMENTS OF PANELBOARDS AND CIRCUITS FOR THE EXISTING ONE-FAMILY DWELLINGS OR TWO-FAMILY DWELLINGS ALTERED TO INCLUDE SECONDARY SUITES OR LOCK-OFF UNITS

- A. Where a portion of an existing one-family or two-family dwelling is altered to include a secondary suite or lock-off unit, circuits and receptacles in the secondary suite or lock-off unit shall have a minimum of two kitchen counter duplex receptacles supplied by two appliance circuits wired on the single circuits or a split circuit for both; two duplex receptacles located on different walls in each bedroom and three duplex receptacles located on different walls in the living area, additional receptacles shall be provided as necessary to preclude the use of any extension cords. A single existing panelboard shall be permitted to supply electrical loads in the principal dwelling unit and the secondary suite or lock-off unit. General circuit branch wiring may be interconnected between the dwelling units. Receptacles having CSA configuration 5-15R or 5-20R installed within 1.5 m of sinks, bathtubs, or shower stalls of the secondary suite or lock-off unit shall be of the Class A ground fault circuit interrupter type.
- B. Where an existing one-family or two-family dwelling is altered to include an addition for a secondary suite or lock-off unit, circuits and receptacles in the secondary suite or lock-off unit shall be installed in conformance with the applicable CEC requirements, a single existing panelboard may supply electrical loads in the principal dwelling unit and the secondary suite or lock-off unit provided it is located within the building and in a common area accessible to both suites. Branch circuits for one dwelling unit from the panelboard must not be connected to outlets or electrical equipment in the other dwelling unit. (See items 1, 2 & 3 above for additional requirements)

- C. Hardwired smoke alarms conforming to CAN/ULC-S531 that each smoke alarm equipped with a manually operated silencing device and a backup battery must be interconnected throughout and between the principal dwelling unit and smaller dwelling unit in conformance with Article 11.4.3.1. of Division B of the VBBL. (See item 4 above for additional information)

(Original signed by)

W. White
MANAGER, TRADES INSPECTION

(Original signed by)

P. Ryan, M.Sc., P.Eng.
CHIEF BUILDING OFFICIAL
DIRECTOR, BUILDING CODE & POLICY

Attachment

ATTACHMENT TO BULLETIN 2000-042-BU/EL

September 23, 2015

PANELBOARDS AND CIRCUITS IN DWELLING UNITS WITH SECONDARY SUITES OR LOCK-OFF UNITS

EXAMPLES OF PANELBOARDS INSTALLATIONS IN DWELLING UNITS WITH SECONDARY SUITES OR LOCK-OFF UNITS

