

Electrical Bulletin

INFORMATION FOR CONTRACTORS

Revised March 2025, the information contained in this bulletin supercedes the requirements of all previous bulletins.

Information contained in this bulletin does not negate the responsibility of the Electrical Contractor to comply with the Canadian Electrical Code, the Public Safety Act, the Electrical Regulations or the requirements of the supply authority.

1. An Electrical Permit must be purchased BEFORE electrical work is carried out. Permits are good for one year or two inspections, whichever comes first. (Rough-in/Service inspection and Final.) If additional visits are required the appropriate fee is to be paid. One additional inspection will be conducted if deficiencies are to be corrected from previous inspections. If additional visits are required, the appropriate fee is to be paid. Requested inspection permits are for one inspection only. Commercial permits may be extended to completion of large projects with permission of the Chief Electrical Inspector(CEI).
2. First inspection (all contractors) for new or residential rewire and upgrade, requires that rough wire and residential service be complete and that the second inspection is for the final. The third visit is reserved for verification of compliance with field orders (noted deficiencies).
3. Residential New (permit) - Services are not to be energized until all splices are complete, wiring 100% roughed in, and in all cases, the outside fixtures and receptacles must be installed, or outlet covers are to be utilized to cover any exposed wiring.
Additional permit may be purchased for a sheeting inspection if required.
4. Electrical contractors are required to submit Electrical Contractor Representative Inspection Reports and ensure that the reports are completed accurately, or such reports will be returned to the contractor resulting in connections or audit inspections being delayed.
5. In accordance with the Electrical Regulations, Part IV, Section 10(2), Code 1 Electrical Contractor Representative Inspection Reports will be required at the rough wire/service complete stage. Electrical work must remain accessible and not obstructed by any building construction for two working days to allow the audit inspections to be performed. Time frames for inspections in remote areas may be longer. The Technical Inspector II for the area may waive this requirement if it is requested and if the inspector cannot carry out the inspection in the time allotted. Final inspection reports must be submitted upon completion.
Code 2 electrical contractors will be asked to submit an Electrical Contractor Representative Inspection Report for connections processed without inspection (PWI). In these situations, the electrical contractor must arrange access for the inspector at a time convenient to the inspector or the authorization may be withdrawn.

INFORMATION FOR CONTRACTORS

6. All electrical permits that are issued to electrical contractors must be closed out (made "Final"). If contractors fail to close or Final all permits, then their file may be suspended until the Electrical Contractor Representative Inspection Report (Rep Report) has been received by the local Government Service Centre requesting an inspection. Non commercial permits expire after one year and the commercial permits will remain open(this does not mean that commercial permits can remain open, it only allows more time to make them Final).

To close out all electrical permits is a requirement for all electrical contractors (Codes 1, 2 and 3) The electrical regulations state the following:

Registered electrical contractors shall, upon completion of the electrical work, notify the Government Service Centre that the installation meets the requirements of the Canadian Electrical Code, Part 1 and is ready for inspection and certification by the Government Service Centre and the Government Service Centre shall inspect and certify the electrical work of the registered contractor.

7. Electrical contractors or the Journeyperson that is present on the site, must have a copy of the electrical permit on their person whether it is a hard copy or on a mobile device.
8. Safe access must be provided for inspectors. Permanently installed stairs, approved ladders or scaffolds only will be acceptable. Inspectors are not permitted to use makeshift ladders or planks in violation of Occupational Health and Safety Regulations.
9. Neutral service conductors shall be identified by approved UV marking tape properly wound on all exposed outdoor conductors and where visible in meter socket and service equipment.

Electrical Bulletin

UPGRADING SERVICE

Requirements for Upgrading of Electrical Service for a Single Family Dwelling

An "electrical upgrade" applies to any existing premises, trailer or relocated structure previously wired that had been connected to a power grid. Existing wiring in good condition may be reused with the approval of an inspector. New Construction includes any extension to an existing structure. For a rewire, the electrical service and all wiring shall meet the requirements of the current edition of the CEC. **Note:** any property that has never been connected to the Utility's Electrical Grid and was previously wired for generator or some other form of alternative energy will require a complete re-wire.

SERVICE UPGRADE REQUIREMENTS:

The following requirements will be applied to service upgrades for domestic services and will also include any residence or structures not yet connected, which were previously wired for generators, alternative energy or pre-wired for power.

In the case of a residence or structure wired with a permit, which had not been connected to Utility power, rough wiring will be accepted upon confirmation of inspection.

Where sheeting is complete and no electrical inspection can be verified or was not carried out, the wiring may be accepted if it can be shown to the satisfactory of Technical Inspector II (Electrical) that installation of the wiring meets acceptable standards. (e.g.: type of conductor, boxes, bonding, grounding, minimum CEC requirements, as indicated below, and workmanship.)

All service entrance equipment shall be installed in accordance with the latest edition of the Canadian Electrical Code (CEC) Section 6-206, and the requirements of the supply authority. (see Page 7 of this document, "Service Equipment Location").

Grounding and bonding to be complete as per CEC Section 10

Smoke alarms to be installed in all bedrooms and within five meters of any bedroom as per the requirements of the NBC and Fire and Emergency Services (NL) and a minimum of one smoke alarm to be located on each level of a residence. All smoke alarms are to be interconnected and come with battery backup.

Wireless connectivity of smoke alarms, certified for use in Canada, will be accepted, in an upgrade only. The base of each unit must be hardwired into the dwellings electrical system while the interconnection of smoke/C02 alarms throughout the home can be wireless. The alarm system must come with battery backup and interconnectivity (one alarm sounds and they all sound).

If an existing circuit is to be extended (adding of additional devices) or additional circuits are to be installed, then both shall meet the requirements of the current edition of the CEC.

UPGRADING SERVICE

Requirements for Upgrading of Electrical Service for a Single Family Dwelling

Kitchen:

There shall be a sufficient number of kitchen counter receptacles as per Section 26 of the CEC, so that no point on a counter is more than 900 mm from a receptacle or 1.8 M apart.

The following changes have been implemented within this bulletin:

- Microwave range hood combination unit to be located on a dedicated 20 amp AFCI circuit
- GFCI protection will be required on any receptacle within 1.5 M of kitchen sink

Outdoors:

Install a separate GFCI/AFCI protected circuit for outside receptacles below 2.5 m. CEC 26-704, 26-656, 26-658.

An exterior lighting outlet with fixture controlled by a wall switch located within the *building* shall be provided at every entrance to *buildings of residential occupancy*.

See 9.34.2.1 of 2020 National Building Code of Canada

Bathroom:

Install a GFCI protected receptacle for each bathroom and washroom.

Bedrooms:

Adequate receptacles are to be provided (2 minimum).
If additional circuits are required they shall be AFCI protected.

Appliances:

Install range and dryer receptacles, and appliance cords if not so equipped. Rule 26-744 (Only required if there is an electric range or laundry room in the dwelling).

General:

A safety switch is required for fuel burning furnaces. Rule 26 - 806 (Switch to be installed between furnace and exit).

Correct any hazardous wiring present (the determination of "hazardous wiring" would be left to the discretion of the Technical Inspector II (Electrical)).

Existing wiring in good condition can be reused, (including knob and tube wiring that is properly installed in free air and not readily accessible), the requirements of Rule 26-702 requiring ground fault protection of ungrounded receptacles shall apply.

Bond metal systems and metal water lines to ground if there is no copper water main present. (See Section 10 of the CEC)

Electrical Bulletin

KITCHEN COUNTER RECEPTACLES

Summary of Canadian Electrical Code minimum requirements or kitchen outlets

26-704

Receptacles installed within 1.5m of sinks (wash basins complete with drainpipe), bathtubs or shower stalls be protected by a ground fault circuit interrupter of the Class A type.

26-720

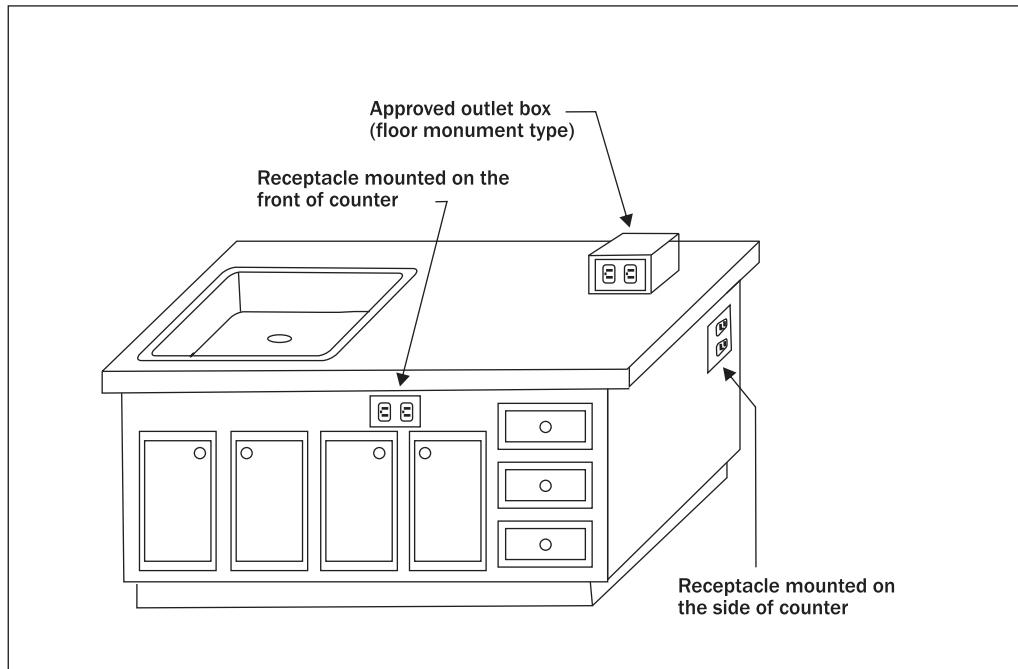
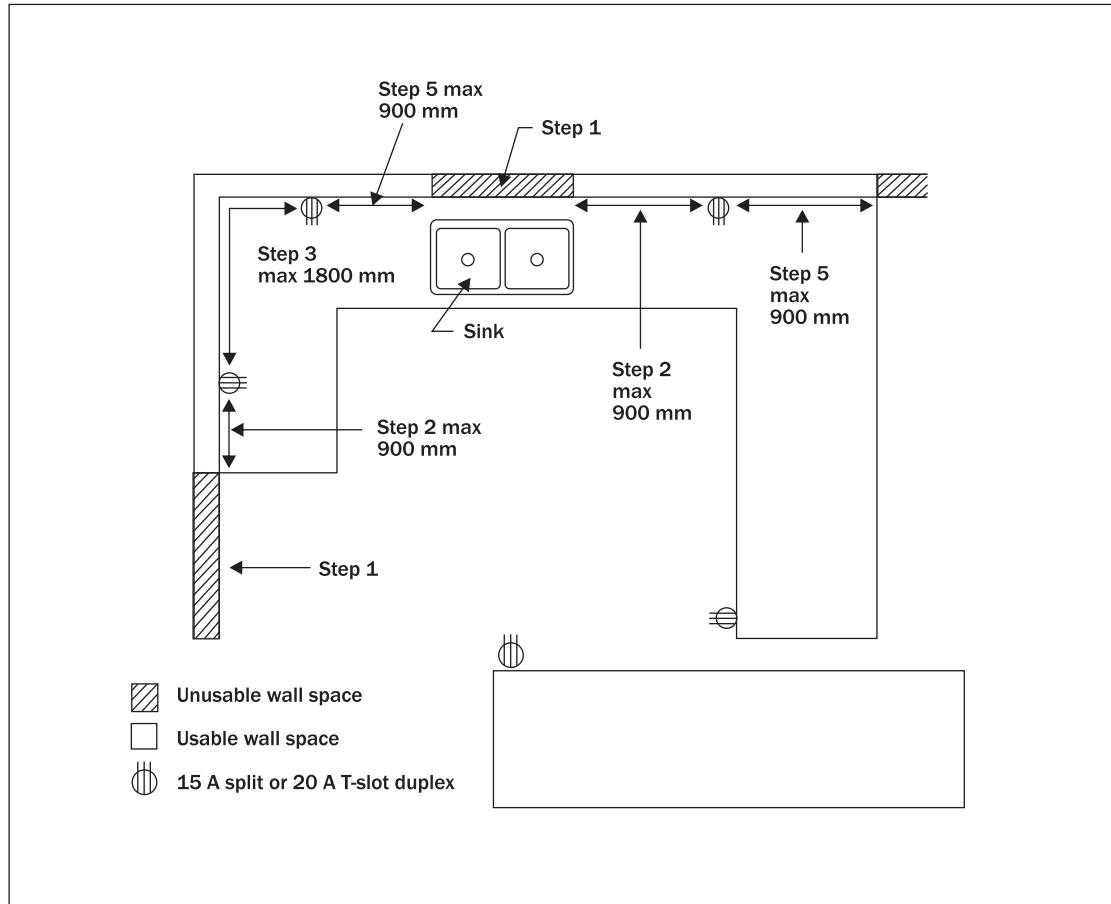
Receptacles shall not be mounted facing up in the work surfaces or counters in the kitchen or dining room.

- A sufficient number of receptacles (15 A split or 20 A T-slot) installed at each permanently fixed island counter space with a long dimension of 600 mm or greater and a short dimension of 300 mm or greater. 26-722(d)(iv)
- At least one receptacle (15 A split or 20 A T-slot) installed at each peninsular counter space with a long dimension of 600 mm or greater and a short dimension of 300 mm or greater. 26-722(d)(v)

NOTE: If the island counter or the peninsular are long enough, or the island is divided by a sink creating two isolated surfaces over 300 mm, two receptacles may be required to meet the requirements indicated.



KITCHEN COUNTER RECEPTACLES



Electrical Bulletin

SERVICE EQUIPMENT LOCATION

2024 Canadian Electrical Code

Canadian Electrical Code (CEC) - 6-206

Service boxes or other consumer's service equipment shall be located:

- (e) as close as practical to the point where the consumer's service conductors enter the building. For the purpose of enforcing this rule a maximum of 3m of conduit may enter the building.

This rule will be strictly enforced. Only conduits for conductors as indicated in Rule 6-208 (those conductors considered outside the building) will be permitted on or under a building.

Consumer service conductors in conduit, that are un-fused, are unprotected until they enter the main service box. Since unprotected conductors can be the cause of a fire or shock hazard, the distance between the outside wall and the service box must be kept as short as possible.

The location of the service box must meet the supply authority's requirements, be readily accessible and not located in undesirable locations.

Undesirable locations include, but are not limited to:

- i) coal bins, clothes closets, bathrooms, and stairways;
- ii) rooms where the ambient temperature exceeds 30 °C under normal conditions;
- iii) dangerous or hazardous locations;
- iv) locations where the headroom clearance is less than 2 m;
- v) areas below the flood elevation; or
- vi) any similar undesirable places.

Service Entrance

Service location, drop wire heights, service head and meter location shall be in accordance with the Canadian Electrical Code 6-116 "To the requirements of the supply authority."

INFORMATION FOR CONTRACTORS

NOTE:

Contractors/owners requiring a service disconnect must make arrangements with the power company in the area.

If a reconnect is required, and electrical work is being carried out, an electrical permit must be in place and previous arrangements have to be made with the Power Company and GSC electrical inspection. (The GSC does not request or approve disconnects.)

Only Technical Inspector II's (Electrical) employed by Digital Government and Service NL and appointed by the Minister are authorized to carry out and issue reports on electrical inspections.

Code 1 contractors may certify their own work. Electrical contractors and consultants can issue condition reports on any installation in the normal course of business, but are not authorized to carry out electrical inspections.

It is an offence for any unauthorized person to interfere with an electrical installation in violation of the Public Safety Act and the Electrical Regulations.

Electrical Contractors, who feel they have any problems/concerns complying with these requirements, or any particular installation, should consult with the Technical Inspector II (Electrical) in the area for further advice before proceeding with the job.

Contractors may also send a detailed drawing, together with an explanation, to the Chief Electrical Inspector at the address below if they wish to apply for a deviation in accordance with the Canadian Electrical Code Section 2, Rule 2-030.

DAVID MAYNE

Manager of Electrical Safety Services
Chief Electrical Inspector
Digital Government and Service NL
Program and Support Services Division
Mount Pearl, NL
Telephone: (709) 729-3517
Email: davidmayne@gov.nl.ca