

OUTLETS SPACING

GENERAL RULE:

In every kitchen, family room, dining room, living room, parlor, library, den, sunroom, bedroom, recreation room, or similar room or area of dwelling units, receptacle outlets shall be installed such that no point measured horizontally along the floor line of any wall space is more than 1.8 m (6 ft) from a receptacle outlet.

Wall space is defined as:

- Any space 2 ft or more in width (including space measured around corners), unbroken along the floor line by doorways and similar openings, fireplaces, and fixed cabinets,
- The space occupied by fixed panels in exterior walls,
- The space occupied by fixed room dividers, such as freestanding bar-type counters or guard rails.

Floor Receptacles: Floor receptacle outlets aren't counted as the required receptacle wall outlet if they are located more than 18 in. from the wall.

The rules above do not apply to countertop receptacles.

SMALL APPLIANCES.

Receptacle Outlets Served:

In the kitchen, pantry, breakfast room, dining room, or similar area of a dwelling unit, the two or more 20-ampere small-appliance branch circuits shall serve all wall, floor, countertop receptacle outlets and receptacle outlets for refrigeration equipment.

Exceptions:

- In addition to the required receptacles specified in general rule, switched receptacles supplied from a general-purpose branch circuit shall be permitted.
- The receptacle outlet for refrigeration equipment shall be permitted to be supplied from an individual branch circuit rated 15 amperes or greater.

No other outlets

The two or more small-appliance branch circuits specified above shall have no other outlets.

Exceptions:

- Exception No. 1: A receptacle installed solely for the electrical supply to and support of an electric clock in any of the kitchen, pantry, breakfast room, dining room, or similar area of a dwelling unit.
- Exception No.2: Receptacles installed to provide power for supplemental equipment and lighting on gas-fired ranges, ovens, or counter-mounted cooking units.

Kitchen Receptacle Requirements

Receptacles installed in a kitchen to serve countertop surfaces shall be supplied by not fewer than two small-appliance branch circuits, either or both of which shall also be permitted to supply receptacle outlets in the same kitchen, pantry, breakfast room, dining room, or similar area of a dwelling unit.

Additional small-appliance branch circuits shall be permitted to supply receptacle outlets in the kitchen, pantry, breakfast room, dining room, or similar area of a dwelling unit. No small appliance branch circuit shall serve more than one kitchen.

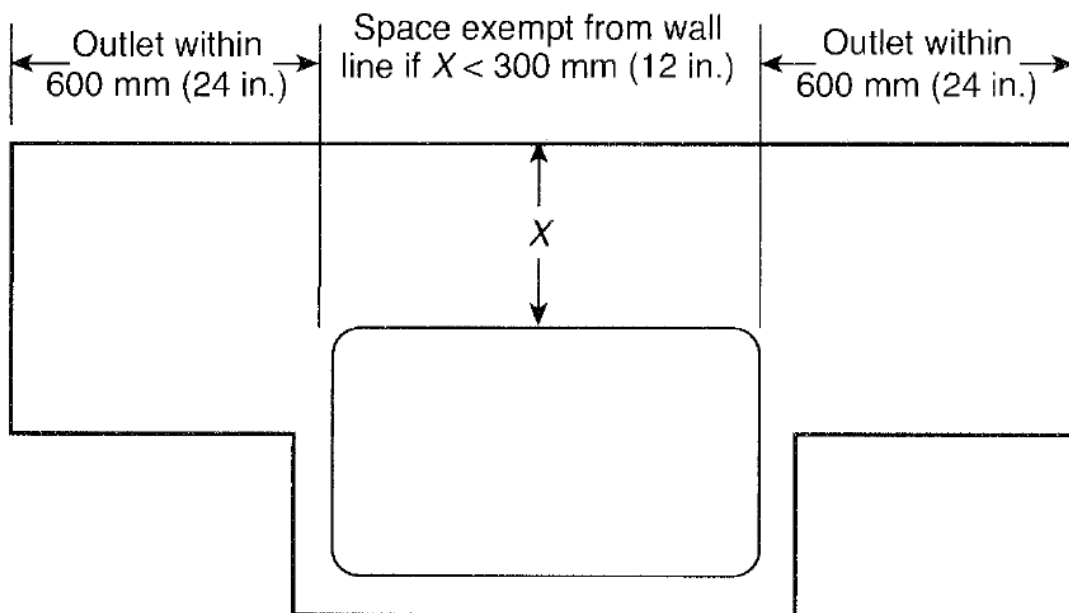
COUNTERTOPS.

In kitchens, pantries, breakfast rooms, dining rooms, and similar areas of dwelling units, receptacle outlets for countertop spaces shall be installed as described below

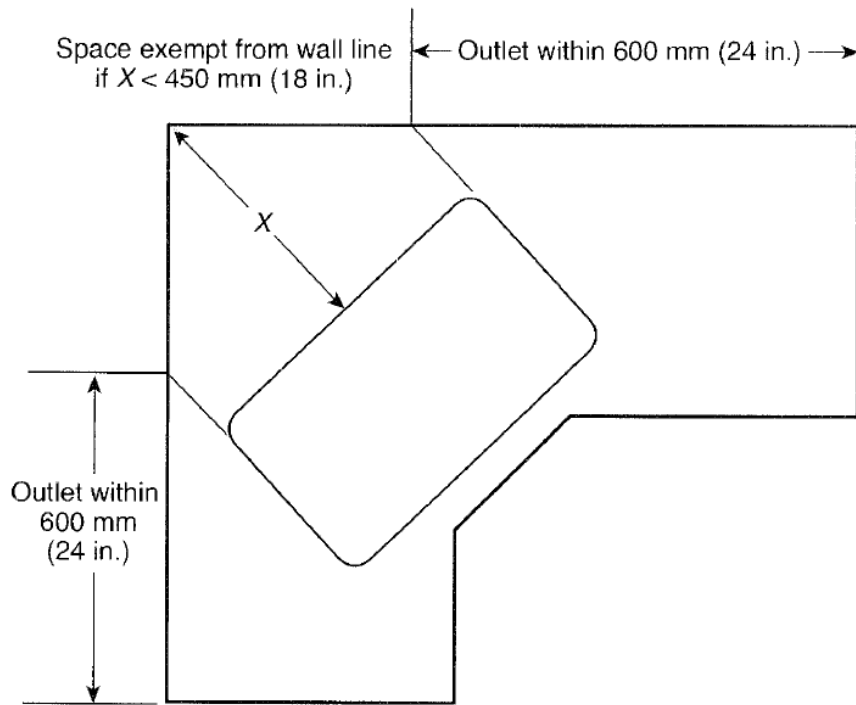
Wall Countertop Spaces.

A receptacle outlet shall be installed at each wall countertop space that is 300 mm (12 in.) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 600 mm (24 in.) measured horizontally from a receptacle outlet in that space.

Exception: Receptacle outlets shall not be required on a wall directly behind a range, counter-mounted cooking unit, or sink in the installation described in figure below



Range, counter-mounted cooking unit extending from face of counter



Range, counter-mounted cooking unit mounted in corner

Island Countertop Spaces.

At least one receptacle shall be installed at each island countertop space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater.

Peninsular Countertop Spaces

At least one receptacle outlet shall be installed at each peninsular countertop space with a long dimension of 600 mm (24 in.) or greater and a short dimension of 300 mm (12 in.) or greater. A peninsular countertop is measured from the connecting edge.

Separate Spaces.

Countertop spaces separated by rangetops, refrigerators, or sinks shall be considered as separate countertop spaces in applying the requirements of Wall countertop paragraph. If a range, counter-mounted cooking unit, or sink is installed in an island or peninsular countertop and the depth of the countertop behind the range, counter-mounted cooking unit, or sink is less than 300 mm (12 in.), the range, counter-mounted cooking unit, or sink shall be considered to divide the countertop space into two separate countertop spaces. Each separate countertop space shall comply with the applicable requirements in this countertop section

Receptacle Outlet Location

Receptacle outlets shall be located on or above, but not more than 500 mm (20 in.) above, the countertop. Receptacle outlet assemblies listed for the application shall be permitted to be installed in countertops. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in **Wall Countertop Spaces** paragraph (above) exception, or appliances occupying dedicated space shall not be considered as these required outlets.

Informational Note: See 406.5(8) for requirements for installation of receptacles in countertops.

Exception:

To comply with the conditions of:

- A construction for the physically impaired,
- An island and peninsular countertops where the countertop is flat across its entire surface (no backsplashes, dividers, etc.) and there are no means to mount a receptacle within 500 mm (20 in.) above the countertop, such as an overhead cabinet,

receptacle outlets shall be permitted to be mounted not more than 300 mm (12 in.) below the countertop. Receptacles mounted below a countertop in accordance with this exception shall not be located where the countertop extends more than 150 mm (6 in.) beyond its support base.

BATHROOMS.

In dwelling units, at least one receptacle outlet shall be installed in bathrooms within 900 mm (3 ft) of the outside edge of each basin. The receptacle outlet shall be located on a wall or partition that is adjacent to the basin or basin countertop, located on the countertop, or installed on the side or face of the basin cabinet. In no case shall the receptacle be located more than 300 mm (12 in.) below the top of the basin. Receptacle outlet assemblies listed for the application shall be permitted to be installed in the countertop.

Informational Note: See 406.5(8) for requirements for installation of receptacles in countertops.

OUTDOOR OUTLETS.

One-Family and Two-Family Dwellings.

For a one family dwelling and each unit of a two-family dwelling that is at grade level, at least one receptacle outlet readily accessible from grade and not more than 2.0 m (6 1/2 ft) above grade level shall be installed at the front and back of the dwelling.

Multifamily Dwellings.

For each dwelling unit of a multifamily dwelling where the dwelling unit is located at grade level and provided with individual exterior entrance/egress, at least one receptacle outlet readily accessible from grade and not more than 2.0 m (6 1/2 ft) above grade level shall be installed.

Balconies, Decks, and Porches.

Balconies, decks, and porches that are attached to the dwelling unit and are accessible from inside the dwelling unit shall have at least one receptacle outlet accessible from the balcony, deck, or porch. The receptacle outlet shall not be located more than 2.0 m (6 1/2 ft) above the balcony, deck, or porch-walking surface.

LAUNDRY AREAS.

In dwelling units, at least one receptacle outlet shall be installed in areas designated for the installation of laundry equipment.

Exceptions:

- A receptacle for laundry equipment shall not be required in a dwelling unit of a multifamily building where laundry facilities are provided on the premises for use by all building occupants.
- A receptacle for laundry equipment shall not be required in other than one-family dwellings where laundry facilities are not to be installed or permitted.

BASEMENTS, GARAGES, AND ACCESSORY BUILDINGS

For a one-family dwelling, at least one receptacle outlet shall be installed:

- **Garage:** In each attached garage and in each detached garage with electric power. The branch circuit supplying this receptacle(s) shall not supply outlets outside of the garage. At least one receptacle outlet shall be installed for each car space
- **Accessory Buildings:** In each accessory building with electric power.
- **Basements:** In each separate unfinished portion of a basement.

These receptacles shall be in addition to receptacles required for specific equipment.

HALLWAYS.

In dwelling units, hallways of 3.0 m (10ft) or more in length shall have at least one receptacle outlet. As used in this subsection, the hallway length shall be considered the length along the centerline of the hallway without passing through a doorway.

FOYERS.

Foyers that are not part of a hallway in accordance with the "Hallway" paragraph above and that have an area that is greater than 5.6 m² (60 ft²) shall have a receptacle(s) located in each wall space 900 mm (3 ft) or more in width. Doorways, door-side windows that extend to the floor, and similar openings shall not be considered wall space.