



## NOTICE TO INDUSTRY

### ADVISORY

**Electrical – It is the intent for clarity of the code relating to the requirements that kitchen islands and peninsulas have enough accessible receptacle outlets for safe and convenient use of portable appliances.**

#### 1. Core Intent

This section ensures that kitchen islands and peninsulas have enough accessible receptacle outlets for safe and convenient use of portable appliances, reducing the need for extension cords that could create hazards.

##### (a) Minimum outlet coverage – based on surface area

- First 9 sq. ft. (0.84 m<sup>2</sup>) → 1 receptacle required.
- Every additional 18 sq. ft. (1.7 m<sup>2</sup>) → add 1 more receptacle.

Example:

##### Countertop Area Minimum Receptacles Required

Up to 9 sq. ft. 1 outlet

10–27 sq. ft. 2 outlets

28–45 sq. ft. 3 outlets

This ensures that larger islands/peninsulas have enough outlets to serve the entire space.

##### (b) Location of outlets



- At least one outlet must be within 2 ft (600 mm) of the outer end of the island or peninsula.
- Other required outlets can be placed wherever practical, as long as they comply with 210.52(C)(3) for accessibility (e.g., not in a place that would require moving an appliance to use).

## 2. Practical Notes

- Outlets may be mounted:
  - o In the countertop (if listed for that use)
  - o On the side walls of the cabinet below
  - o Pop-up receptacles are acceptable if they meet UL standards.
- Designer, installer, or owner can decide the layout for additional outlets beyond the required end outlet.

**210.52(C)(2) Island and Peninsulars**

At least one receptacle outlet shall be provided for the **first 0.84 m<sup>2</sup> (9 ft<sup>2</sup>), or fraction thereof**, of the countertop or work surface

A receptacle outlet shall be provided for **every additional 1.7 m<sup>2</sup> (18 ft<sup>2</sup>), or fraction thereof**, of the countertop or work surface

7 ft by 4 ft = 28 ft<sup>2</sup>  
28 ft<sup>2</sup> - 9 ft<sup>2</sup> = 19 ft<sup>2</sup>

4 ft

7 ft

At least one receptacle outlet shall be located within **600 mm (2 ft)** of the outer end of a peninsular countertop or work surface

Ref.

Oven

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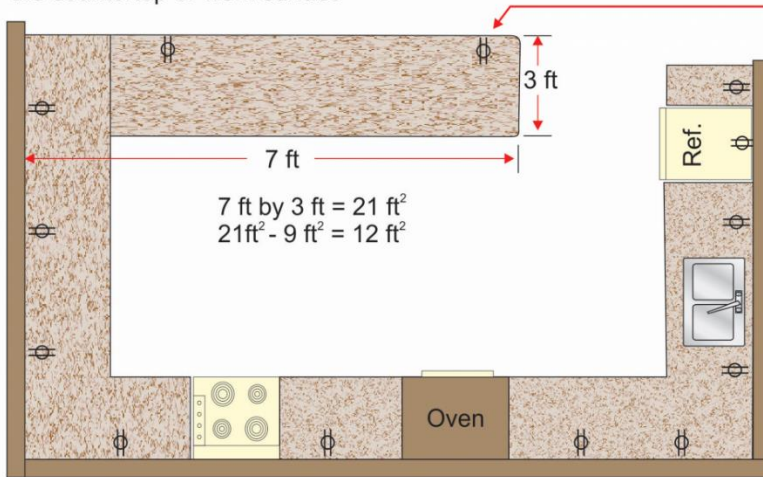


## 210.52(C)(2) Island and Peninsulars



At least one receptacle outlet shall be provided for the **first 0.84 m<sup>2</sup> (9 ft<sup>2</sup>), or fraction thereof**, of the countertop or work surface

A receptacle outlet shall be provided for **every additional 1.7 m<sup>2</sup> (18 ft<sup>2</sup>), or fraction thereof**, of the countertop or work surface



At least one receptacle outlet shall be located within **600 mm (2 ft)** of the outer end of a peninsular countertop or work surface

A peninsular countertop is to be measured from the connected perpendicular wall

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## 210.52(C)(2) Island and Peninsulas



### Examples of Minimum Number of Receptacle Outlets Required

Total Square Footage of Countertop	Minimum No. of Receptacle Outlets
8 sq. ft.	1
9 sq. ft.	1
More than 9 sq. ft. up to 27 sq. ft. [9 sq. ft. + 18 sq. ft. = 27 sq. ft.]	2
28 sq. ft. [first 9 sq. ft. (one), additional 18 sq. ft. (one) and addition fraction there of (1 sq. ft.) (one)]	3
48 sq. ft. [48 sq. ft. - 9 sq. ft. = 39 sq. ft.] [39 sq. ft. ÷ 18 sq. ft. = 2.17 sq. ft.]	4

### 210.52(C)(2)(a) Island and Peninsular Countertops and Work Surfaces

At least one receptacle outlet shall be provided for the **first 0.84 m<sup>2</sup> (9 ft<sup>2</sup>), or fraction thereof**, of the countertop or work surface.

A receptacle outlet shall be provided for **every additional 1.7 m<sup>2</sup> (18 ft<sup>2</sup>), or fraction thereof**, of the countertop or work surface.

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## NEC 70 (2020) Code Reference Material

Dwelling unit receptacles that serve countertop spaces in kitchens, dining areas, and similar rooms are required to be installed as follows:

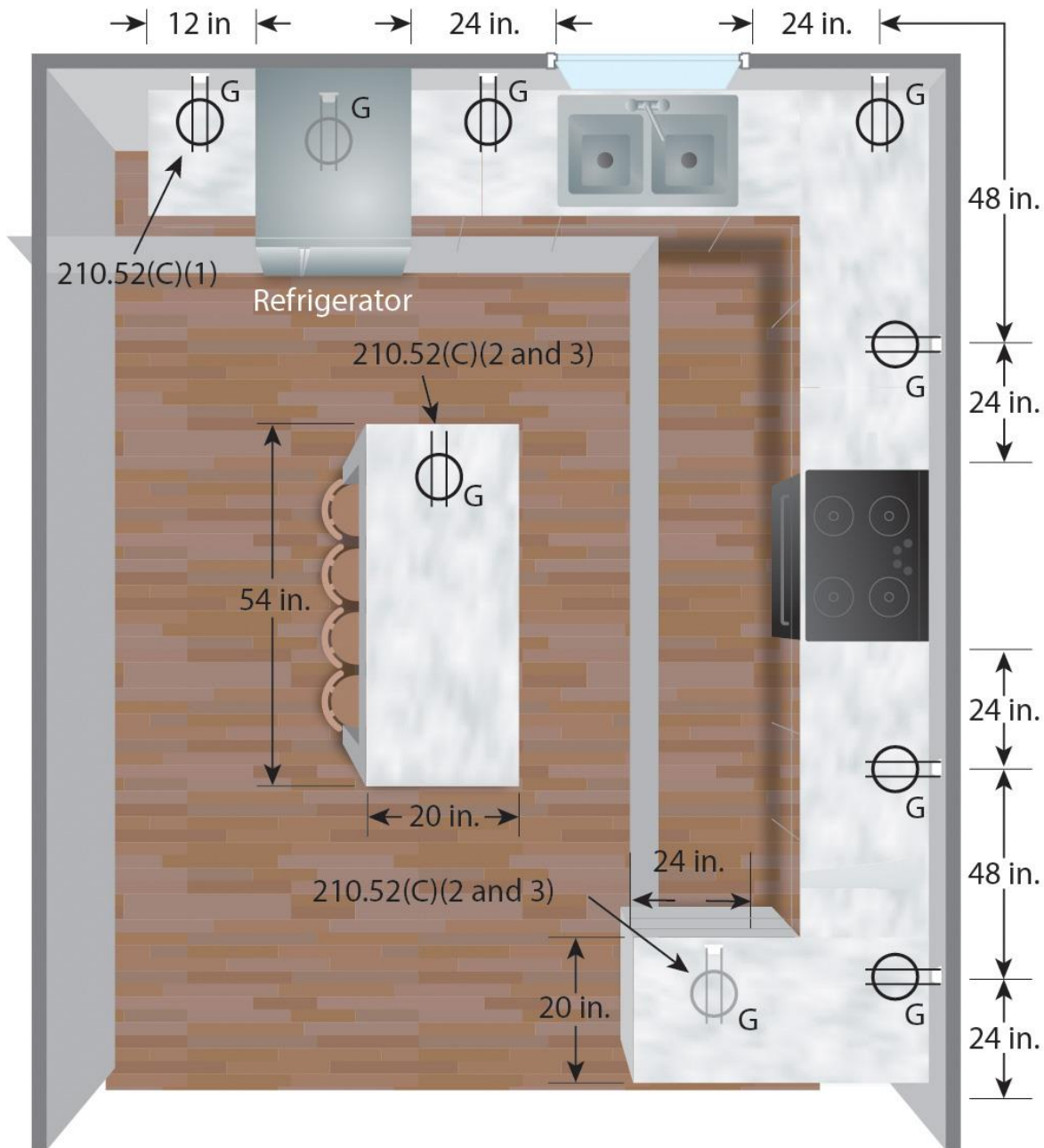
1. In each wall space wider than 12 inches and spaced so that no point along the wall line is more than 24 inches from a receptacle
2. For countertop islands and peninsular countertops, according to **210.52(C)(2)**
3. Accessible for use and not blocked by appliances occupying dedicated space or fastened in place
4. Supplied by the two (more are permitted) required 20-ampere small-appliance branch circuits and GFCI protected according to item (6) of **210.8(A)**.
5. Not more than 20 inches above the countertop (According to 406.5, receptacles cannot be installed in a face-up position, unless in specifically listed countertop or work surface applications. Receptacles installed in a face-up position in a countertop could collect crumbs, liquids, and other debris, resulting in a potential fire or shock hazard.)
6. Not more than 12 inches below the countertop (Receptacles must not be installed below the countertop if the countertop extends more than 6 inches beyond the support base. Standard practice is to install a cabinet 18 inches above the countertop; 20 inches allows for this requirement to be met by installation of multioutlet assemblies on the bottom of the upper cabinets).

## Exception

This exception and **Figure 210.52(C)(1)** define the wall space behind a sink, range, or counter-mounted cooking unit that is not required to be provided with a receptacle outlet. Figure 210.52(C)(1) shows the wall space behind the sink or range that is exempt from the wall line measurement. Where the space behind a sink, range, or counter-mounted cooking unit is 12 inches or more (or



18 inches for corner-mounted configurations), the space must be included in measuring the wall counter space. Receptacle outlets are not prohibited from being installed in this space.



G = GFCI protection required





## (2) Island and Peninsular Countertops and Work Surfaces.

Receptacle outlets shall be installed in accordance with **210.52(C)(2)(a)** and (C)(2)(b).

- (a)

At least one receptacle outlet shall be provided for the first 0.84 m<sup>2</sup> (9 ft<sup>2</sup>), or fraction thereof, of the countertop or work surface. A receptacle outlet shall be provided for every additional 1.7 m<sup>2</sup> (18 ft<sup>2</sup>), or fraction thereof, of the countertop or work surface.

- (b)

At least one receptacle outlet shall be located within 600 mm (2 ft) of the outer end of a peninsular countertop or work surface. Additional required receptacle outlets shall be permitted to be located as determined by the installer, designer, or building owner. The location of the receptacle outlets shall be in accordance with **210.52(C)(3)**.

A peninsular countertop shall be measured from the connected perpendicular wall.

### ENHANCED CONTENT

#### Collapse

The general receptacle outlet requirement for qualifying island and peninsula countertop spaces in 210.52(C)(2) and (C)(3) calls for one receptacle outlet for the first 9 square feet, or 1296 square inches of countertop space. If the countertop is larger than 9 square feet, a second receptacle would be required for the next 18 square feet or 2592 square inches of the countertop space. If the countertop is larger, an additional receptacle would be required for every



additional 18 square feet, or 2592 square inches, of countertop space. If the island or peninsula countertop is separated into two or more spaces, such as by a cooktop or a sink, and each space is at least 12 inches wide, the spaces would be treated as separate countertops and receptacle placement would be based on 210.52(C)(2). The receptacle outlet for a peninsula countertop is required to be located not further than 2 feet from the outer (the edge furthest from the connecting edge) edge of the peninsula countertop. Additional receptacles can be located at the discretion of the owner, installer, or designer. Unlike peninsula countertops, island countertops do not have a mandatory receptacle outlet placement requirement, and the minimum number of outlet(s) determined in accordance with 210.52(C)(2)(a) can all be located as desired by the owner, installer, or designer.

### **(3) Receptacle Outlet Location.**

Receptacle outlets shall be located in one or more of the following:

- (1)

On or above countertop or work surfaces: On or above, but not more than 500 mm (20 in.) above, the countertop or work surface.

- (2)

In countertop or work surfaces: Receptacle outlet assemblies listed for use in countertops or work surfaces shall be permitted to be installed in countertops or work surfaces.

- (3)

Below countertop or work surfaces: Not more than 300 mm (12 in.) below the countertop or work surface. Receptacles installed below a countertop or work surface shall not be located where the countertop or work surface extends more than 150 mm (6 in.) beyond its support base.



Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, or rangetops as covered in **210.52(C)(1)**, Exception, or appliances occupying assigned spaces shall not be considered as these required outlets.

Informational Note No. 1:

See **406.5(E)** and **406.5(G)** for installation of receptacles in countertops and **406.5(F)** and **406.5(G)** for installation of receptacles in work surfaces. See **380.10** for installation of multioutlet assemblies.

Informational Note No. 2:

See Annex J and ANSI/ICC A117.1-2009, *Standard on Accessible and Usable Buildings and Facilities*.