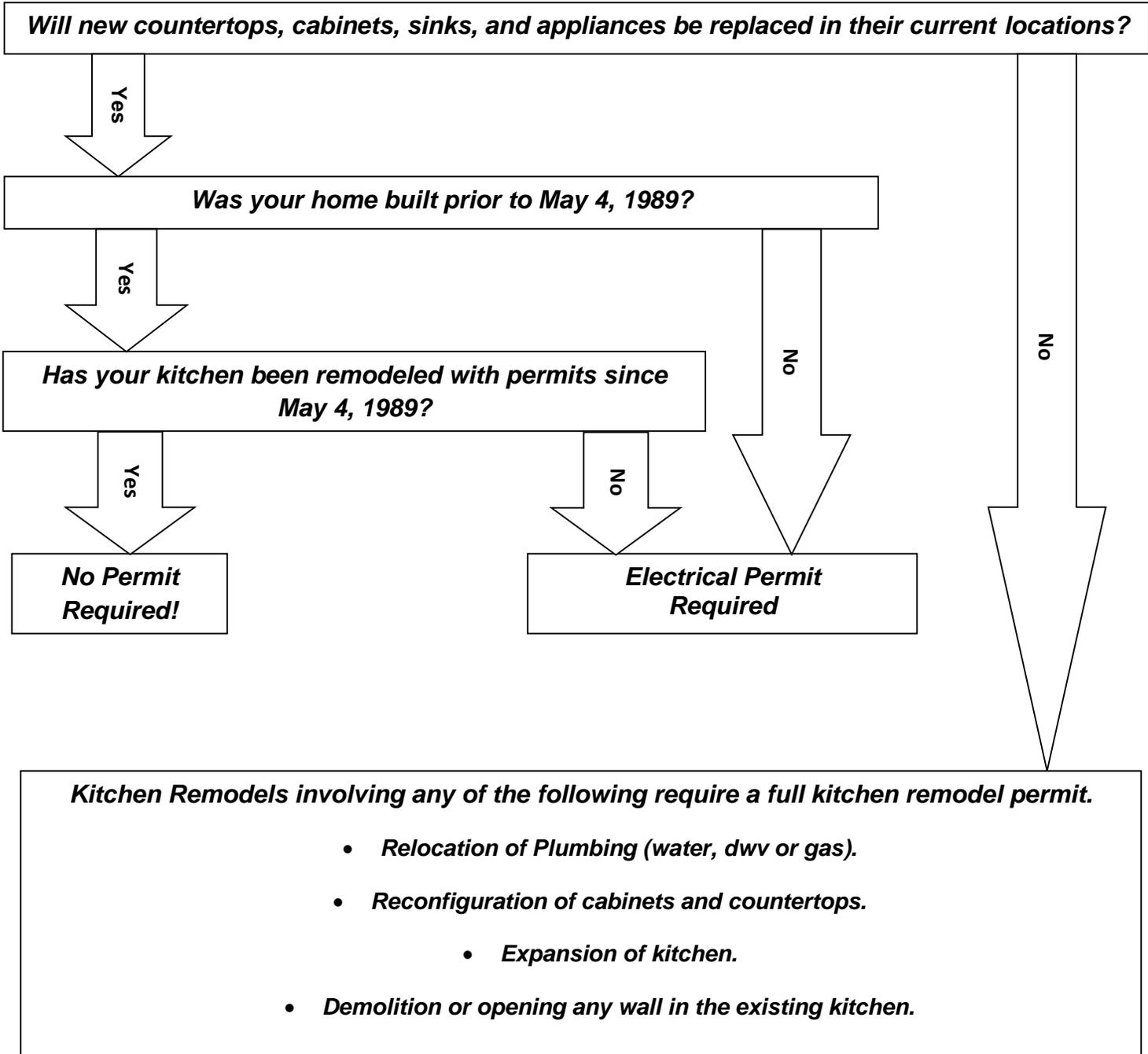


KITCHEN REMODEL PERMIT REQUIREMENTS



ELECTRICAL REQUIREMENTS FOR KITCHENS

2013 California Electrical Code (CEC) Articles 210.8 (A), 210.52 (B) and 210.11 (C)(1)

When any kitchen addition or remodeling involves the alteration, repair, move, demolition, or replacement of the countertop, cabinets, electrical, gas, mechanical or plumbing system (excluding the replacement of kitchen appliances and fixtures), the new and/or existing electrical system shall be brought to full compliance with the current electrical code pertaining to kitchen electrical requirements.

Small Appliances

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

Exception No. 1: In addition to the required receptacles specified by CEC 210.52, switched receptacles supplied from general-purpose 15 ampere branch circuits are permitted to be located in kitchens, pantries, breakfast rooms, and similar areas.

Exception No. 2: The receptacle outlet for refrigeration equipment may be served by an individual 15-ampere or larger branch circuit, or it may be included in the 20-ampere small-appliance branch circuit. Refrigeration equipment is also exempted from the GFCI requirements.

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

Exception No 1: A receptacle installed solely for the electrical supply to and support of an electric clock in any of the rooms specified above.

Exception No 2: Receptacles installed to provide power for supplemental equipment and lighting on gas-fired ranges, ovens, or counter-mounted cooking units.

3. Additional small-appliance branch circuits shall be permitted to supply receptacle outlets in the kitchen and other rooms specified above. No small-appliance branch circuit shall serve more than one kitchen.

Countertops

1. Wall Counter Spaces: a receptacle outlet shall be installed at each wall counter space that is 12 inches or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 inches measured horizontally from a receptacle outlet in that space.

Exception: Receptacle outlets shall not be required on a wall directly behind a range or sink.

2. Island Counter Spaces: at least one receptacle shall be installed at each island counter space with a long dimension of 24 inches or greater and a short dimension of 12 inches or greater. Where a range top or sink is installed in an island counter and the width of the counter behind the range top or sink is less than 12 inches the range top or sink is considered to divide the island into two separate countertop spaces.
3. Peninsula Counter Spaces: at least one receptacle outlet shall be installed at each peninsular counter space with a long dimension of 24 inches or greater and a short dimension of 12 inches or greater. A peninsular countertop is measured from the connecting edge.
4. Separate Space: countertop spaces separated by range tops, refrigerators, or sinks shall be considered as separate countertop spaces in applying the requirements above.

5. Receptacle Outlet Location: receptacle outlets shall be located above, but not more than 20 inches above the countertop. Receptacle outlets rendered not readily accessible by appliances fastened in place, appliance garages, sinks, range tops, or appliances occupying dedicated space shall not be considered as these required outlets.

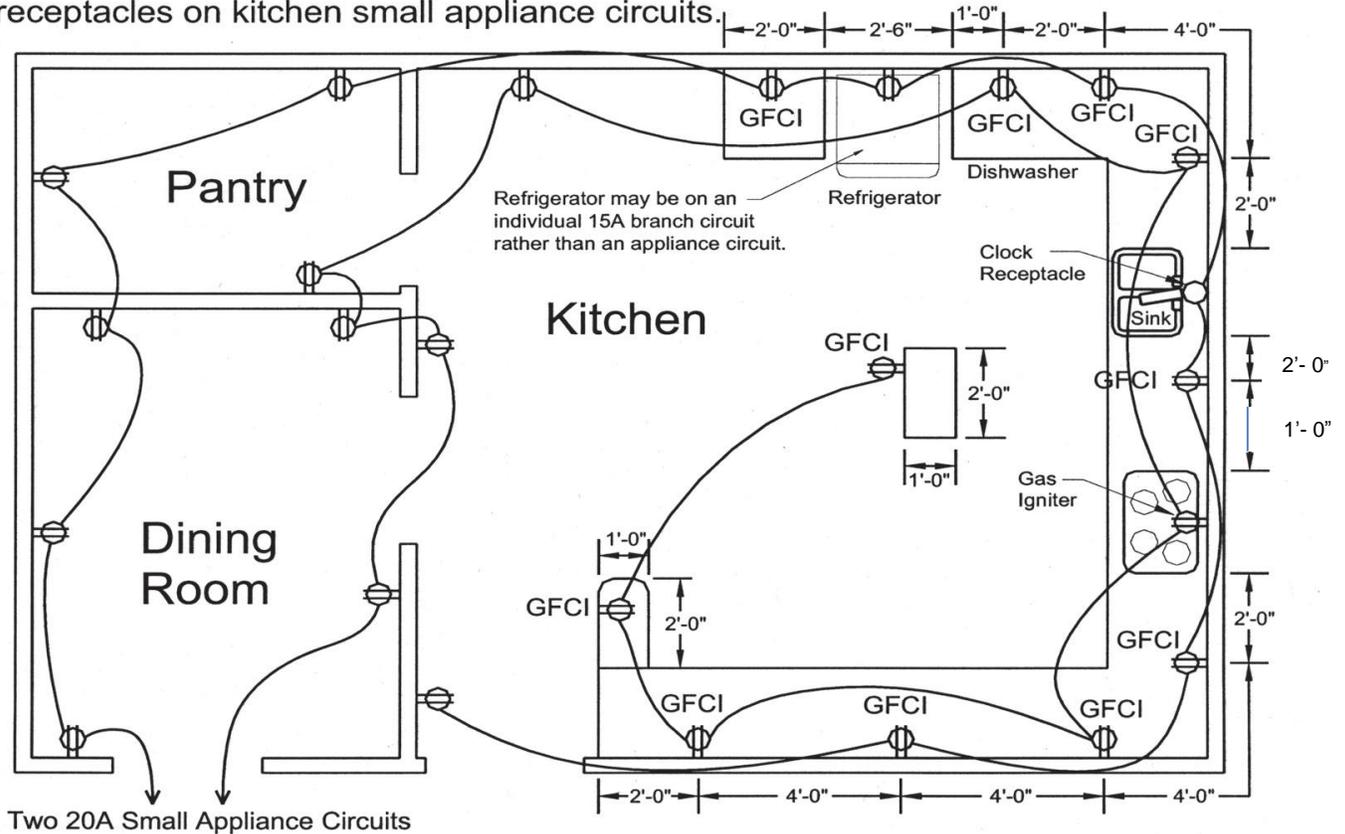
Exception: To comply with the conditions specified in 1 or 2 receptacle outlets shall be permitted to be mounted not more than 12 inches below the countertop. Receptacles mounted below a countertop in accordance with this exception shall not be located where the countertop extends more than 6 inches beyond its support base.

- a. Construction for the physically impaired.
- b. On 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 20 inches above the countertop, such as an overhead cabinet.

6. All outlet receptacles installed in kitchen serving the countertop surfaces shall have ground-fault circuit-interrupter protection for personnel. CEC 210.8 (6)
7. Receptacles shall be tamper-resistant per CEC 406.12

KITCHEN COUNTERTOP RECEPTACLES

An acceptable wiring method and placement of receptacles and GFCI protected receptacles on kitchen small appliance circuits.



Lighting

1. **At least 50% high-efficacy (controls optional):** High-efficacy luminaires must constitute at least 50% of the total rated lighting power in kitchens. Because high - efficacy luminaires typically consume less power than other luminaires, about three-quarters of the luminaires in the kitchen are likely to be high efficacy. When switched separately from kitchen lighting, the lighting for dining areas, breakfast nooks or other adjacent spaces is not included in the 50% high-efficacy calculation.

For both low-efficacy and high-efficacy luminaires, the installed lighting power is the maximum rated power (watts) of the luminaire, including power used by ballasts. This rating must be listed on the luminaire following UL standards.

Under-cabinet or cabinet lighting that projects light primarily outside the cabinetry is considered permanently installed lighting and counts toward the 50% high-efficacy requirement. This includes permanently installed, high-efficacy under-cabinet luminaires that are not hard-wired but plug in to kitchen wall outlets. Lighting that is internal to the cabinets, for the purpose of illuminating only the inside of the cabinets, does not apply. Max 20 watts per linear foot of illuminated cabinet.

Blank electrical boxes for future installations: Each electrical box with a blank cover or where no luminaire, surface-mounted ceiling fan or other electrical equipment has been installed, is counted as 180 watts of low-efficacy lighting power.

2. **Earn more low-efficacy lighting:** Up to 50 watts for dwelling units less than or equal to 2,500 sq ft or 100 watts for dwelling units larger than 2,500 sq ft may be exempt from the 50% high efficacy requirement when all lighting in the kitchen is controlled in accordance with the applicable provisions in California Energy Code Section 150 (k) 2 and is also controlled by vacancy sensors or dimmers.
3. **Manual control:** All lighting must have readily accessible manual controls, allowing occupants easy control of lighting in the space.
4. **Separate control of high-efficacy and low-efficacy lighting:** All high-efficacy luminaries must be controlled separately from all low-efficacy luminaires. Additionally, each lighting layer that serves a unique function should operate independently.

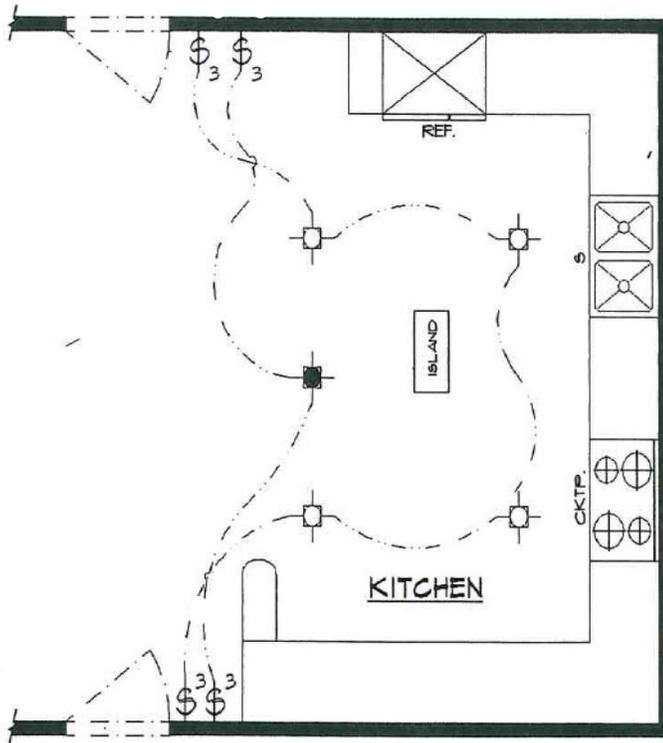
**TABLE 150.0-A
CLASSIFICATION OF HIGH-EFFICACY AND LOW-EFFICACY LIGHT SOURCES**

HIGH-EFFICACY LIGHT SOURCES	LOW-EFFICACY LIGHT SOURCES
Luminaires manufactured, designed and rated for use with only lighting technologies in this column shall be classified as high efficacy:	Luminaires manufactured, designed or rated for use with any of the lighting technologies in this column shall be classified as low efficacy.
<ol style="list-style-type: none"> 1. Pin-based linear or compact fluorescent lamps with electronic ballasts. Compact fluorescent lamps = 13 watts shall have 4 pins for compliance with the electronic ballast requirements in Section 150.0(k)1D. 2. Pulse-start metal halide lamps. 3. High pressure sodium lamps. 4. GU-24 sockets rated for LED lamps. 5. GU-24 sockets rated for compact fluorescent lamps. 6. Luminaires using LED light sources which have been certified to the Commission as high efficacy in accordance with Reference Joint Appendix JA8. 7. Luminaire housings rated by the manufacturer for use with only LED light engines. 8. Induction lamps. <p>Note: Adaptors which convert an incandescent lamp holder to a high-efficacy luminaire shall not be used to classify a luminaire as high efficacy.</p>	<ol style="list-style-type: none"> 1. Line-voltage lamp holders (sockets) capable of operating incandescent lamps of any type. 2. Low-voltage lamp holders capable of operating incandescent lamps of any type. 3. High-efficacy lamps installed in low-efficacy luminaires, including screw base compact fluorescent and screw base LED lamps. 4. Mercury vapor lamps. 5. Track lighting or other flexible lighting system that allows the addition or relocation of luminaires without altering the wiring of the system. 6. Luminaires using LED light sources that have not been certified to the Commission as high efficacy. 7. Lighting systems that have modular components that allow conversion between high-efficacy and low-efficacy lighting without changing the luminaires' housing or wiring. 8. Electrical boxes finished with a blank cover or where no electrical equipment has been installed, and where the electrical box can be used for a luminaire or a surface mounted ceiling fan.

**TABLE 150.0-B
MINIMUM REQUIREMENTS FOR OTHER LIGHT SOURCES TO QUALIFY AS HIGH EFFICACY**

USE THIS TABLE TO DETERMINE LUMINAIRE EFFICACY ONLY FOR LIGHTING SYSTEMS NOT LISTED IN TABLE 150.0-A	
Luminaire Power Rating	Minimum Luminaire Efficacy to Qualify as High Efficacy
5 watts or less	30 lumens per watt
Over 5 watts to 15 watts	45 lumens per watt
Over 15 watts to 40 watts	60 lumens per watt
Over 40 watts	90 lumens per watt

Note: Determine minimum luminaire efficacy using the system initial rated lumens divided by the luminaire total rated system input power.



LEGEND

-  2 X STUD WALL
-  CABINET LINE
-  26 WATT HIGH EFFICACY FLUORESCENT
-  100 WATT INCANDESCENT
-  3-WAY SWITCH

ABBREVIATION

- REF REFRIGERATOR
- CKTP. COOK TOP
- S SINK

SAMPLE LIGHTING FLOOR PLAN