



**EXHIBIT 406.1** A receptacle mounted on a raised cover secured with three screws.

*Exception: Listed kits or assemblies encompassing receptacles and nonmetallic faceplates that cover the receptacle face, where the plate cannot be installed on any other receptacle, shall be permitted.*

This exception allows the use of listed kits, which include the receptacle and a nonmetallic faceplate, that have been evaluated to ensure sufficient blade contact by the attachment plug when inserted in the receptacle. The kit's nonmetallic faceplate cannot fit standard-style receptacles.

**(E) Receptacles in Countertops.** Receptacle assemblies for installation in countertop surfaces shall be listed for countertop applications. Where receptacle assemblies for countertop applications are required to provide ground-fault circuit-interrupter protection for personnel in accordance with 210.8, such assemblies shall be permitted to be listed as GFCI receptacle assemblies for countertop applications.

**(F) Receptacles in Work Surfaces.** Receptacle assemblies and GFCI receptacle assemblies listed for work surface or countertop applications shall be permitted to be installed in work surfaces.

**(G) Receptacle Orientation.**

**(1) Countertop and Work Surfaces.** Receptacles shall not be installed in a face-up position in or on countertop surfaces or work surfaces unless listed for countertop or work surface applications.

**(2) Under Sinks.** Receptacles shall not be installed in a face-up position in the area below a sink.

**(H) Receptacles in Seating Areas and Other Similar Surfaces.** In seating areas or similar surfaces, receptacles shall not be installed in a face-up position unless the receptacle is any of the following:

- (1) Part of an assembly listed as a furniture power distribution unit
- (2) Part of an assembly listed either as household furnishings or as commercial furnishings
- (3) Listed either as a receptacle assembly for countertop applications or as a GFCI receptacle assembly for countertop applications
- (4) Installed in a listed floor box

**(I) Exposed Terminals.** Receptacles shall be enclosed so that live wiring terminals are not exposed to contact.

**(J) Voltage Between Adjacent Devices.** A receptacle shall not be grouped or ganged in enclosures with other receptacles, snap switches, or similar devices, unless they are arranged so that the voltage between adjacent devices does not exceed 300 volts, or unless they are installed in enclosures equipped with identified, securely installed barriers between adjacent devices.

**406.6 Receptacle Faceplates (Cover Plates).** Receptacle faceplates shall be installed so as to completely cover the opening and seat against the mounting surface.

Receptacle faceplates mounted inside a box having a recess-mounted receptacle shall effectively close the opening and seat against the mounting surface.

The faceplates/cover plates for recessed receptacles must fit the inside dimensions of the box. A small tolerance, typically  $\frac{1}{32}$  inch or less, is required to facilitate installation of the cover plate. The recessed design and the very small opening provide the necessary protection against access to live parts. That the receptacle is required to be "effectively" closed allows some tolerance in application of the requirement.

**(A) Thickness of Metal Faceplates.** Metal faceplates shall be of ferrous metal not less than 0.76 mm (0.030 in.) in thickness or of nonferrous metal not less than 1.02 mm (0.040 in.) in thickness.

**(B) Grounding.** Metal faceplates shall be grounded.

Generally, this requirement is met by grounding the metal box. However, isolated ground receptacles installed in nonmetallic boxes are problematic because grounding the receptacle in this case does not ground the faceplate. Section 406.3(E)(2) contains two solutions concerning the receptacle faceplate. The first solution is to use only nonmetallic faceplates. The second solution, in the exception to 406.3(E)(2), allows a nonmetallic box manufacturer to add a feature or accessory to accomplish effective grounding of a metal faceplate.

**(C) Faceplates of Insulating Material.** Faceplates of insulating material shall be noncombustible and not less than 2.54 mm (0.10 in.) in thickness but shall be permitted to be less than 2.54 mm (0.10 in.) in thickness if formed or reinforced to provide adequate mechanical strength.

**(D) Receptacle Faceplate (Cover Plates) with Integral Night Light and/or USB Charger.** A flush device cover plate