# Electrical Receptacle and Switch Installation Requirements

Electrical receptacles, switches, and similar devices in commercial and industrial buildings must conform to these requirements:

### Height requirements for:
- receptacles
- switches
- card readers
- thermostats
- alarm controls
- similar devices

**MUST MEET ACCESSIBILITY STANDARDS**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum height:</strong></td>
<td>15 inches from floor to the bottom of the outlet box</td>
</tr>
<tr>
<td><strong>Maximum height:</strong></td>
<td>48 inches from floor to the top of the outlet box. If the reach is over an obstruction, such as a kitchen base cabinet with a depth of 20 to 25 inches, the maximum height is reduced to 44 inches for forward approach and 46 inches for side approach.</td>
</tr>
</tbody>
</table>

Outlets that do not satisfy these specifications are acceptable only if comparable outlets that meet the specifications are provided within the same area and are accessible.

### Circuit control requirements for 120 volt receptacles

**Automatic controls:** Automatic controls of receptacles must be provided in each private office, open office, reception lobby, conference room, kitchenettes and copy rooms. At least one controlled receptacle must be installed within 6 feet from each uncontrolled receptacle, or install a split wired duplex receptacle with one controlled and one uncontrolled receptacle.

**Identification:** Each cover plate must be permanently marked.

### Ground fault circuit interrupter (GFCI) protection required locations for 15 and 20 amp receptacles

GFCI protection must be installed in a readily accessible location in the following areas: kitchens, bathrooms, indoor wet locations, locker rooms with showers, outdoor areas, garages, rooftops, and within 6 feet of the outside edge of any sink.

**Replacements:** A GFCI or AFCI device must be used when replacing receptacles in locations that are required to be GFCI or AFCI controlled.

### Heating, air-conditioning and refrigeration equipment receptacles

**Distance to receptacle:** A receptacle must be located on the same level and within 25 feet of the equipment.

**Replacements:** A GFCI or AFCI device must be used when replacing receptacles in locations that are required to be GFCI or AFCI controlled.

**Suitability:** Exterior receptacles, electrical devices and their cover plates must be suitable for the environment in which they are installed. When exposed to rain or water conditions, electrical devices must be listed for “wet-location.”

### Switches

Switches serving light fixtures require a neutral conductor to be brought the outlet box.