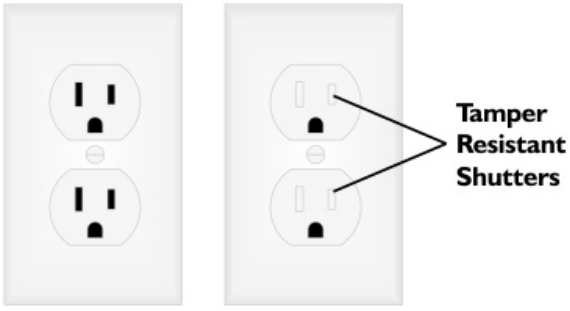
Plugs, Receptacles & Outlets

Most people refer to the wall unit that you plug something into as a plug. Interestingly enough they are not called plugs. It's a common placed mistake that isn't going to be corrected any time soon because, well lets face it, everyone knows what you mean when you say plug. Within the trade, plugs are referred to as receptacles because plugs are actually the part you put into the receptacle. Another term frequently used is outlet, which is technically correct but not commonly used within the electrical field. Receptacles come in a variety of kinds. There are tamper resistant, GFCI, AFCI, weather resistant, switched, USB and Smart. There are also a variety of specialized receptacles with different amperage and construction depending on the use.

Tamper Resistant Receptacles

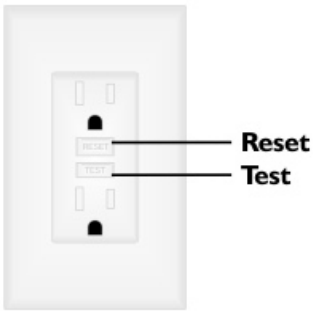
A tamper resistant receptacle, outlet, or plug, is a standard receptacle that has small internal shutters for added protection. These shutters block foreign objects from being inserted into the receptacle, which is great for protecting children from getting shocked.



Sometimes they can be frustrating when you try to get the plug them in, but just think of those little baby hands trying to do the same thing. These are pretty much standard now and required by the safety codes council.

GFCI Receptacles

GFCI stands for ground fault circuit interrupter, also sometimes referred to as GFI's. You'll find these in your bathrooms, kitchens, outdoor and laundry rooms or pretty much anywhere there may be risk of water coming in contact with the receptacle. Your electrical service panel already has circuit breakers installed to protect you when the electrical current becomes too high by shutting off the power or "tripping" the breaker. GFCI's are added to protect you from even the smallest imbalance which can be caused by short circuits or appliance malfunction. They are easy to identify due to the two buttons located in between the two outlets. One, reset and one, test. When it



detects any disruption it will trip and shut the power off, which can only be regained by pressing the reset button. It is good to periodically check these plugs by pressing the test button every once and a while to make sure it is functioning. These are mainly used to prevent the user from electrical shock.

AFCI Receptacles

AFCI stands for arc fault circuit interrupter. Until 2011 these were in the form of a breaker found in your electrical service panel, but this protection is now available in the actual receptacle. They are almost identical looking to a GFCI, except for a small indication on the face stating AFCI. These are used to prevent fires, not just protect the user from electrical shock.

Introducing the GFCI/AFCI combination receptacle!

Weather Resistant Receptacles

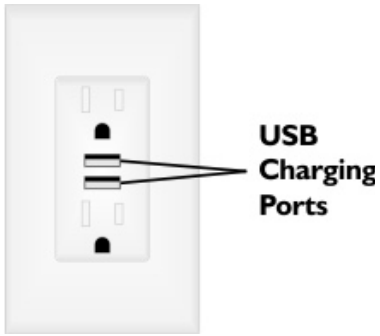
It is the law to have the proper receptacle in any outdoor location. It's quite simple, you have a GFCI in a weather proof box which is also know a s a While-In-Use cover or a bubble cover. These come in a variety of shapes, sizes and functions to choose from, some even with locking features! When you purchase a cover, just make sure they hold up the UL and CSA safety standards.

Switched Receptacles

A switched receptacle is just that, a receptacle that can be turned on or off by a switch on the wall. These are normally found in living rooms and are quite handy to turn on lamps with one flick, instead of going around to each lamp and finding their particular switch. You can choose to have both receptacles on a the same switch or you can split it. This would keep one with constant power (used for a TV, stereo etc.) and the other with switching capability. This is known as a switched split receptacle or a half-hot.

USB Receptacles

USB receptacles are useful in this day and age, when everyone has a phone or device in their pocket. These are regular outlets that include one or more USB charging ports. There are many styles to choose from depending on your needs.

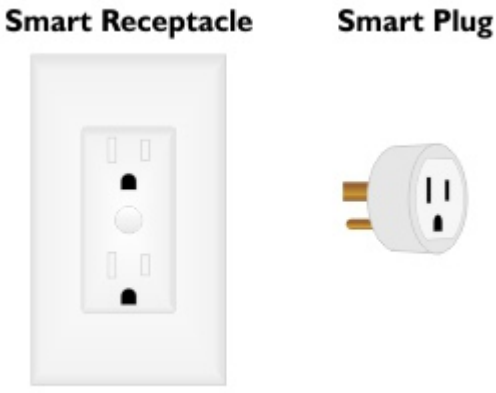


Smart Receptacles

These are my favourite receptacles! They have smart technology integrated right into them, so you can connect to the smart assistant or app of your choice and away you go.

Schedule when your lights, fans or any other fixtures turn on and off. Control them while your away to deter home invaders or just save a trip to the living room when you're already snuggled up in bed. You can monitor your energy savings and even plug your “dumb” appliances in to be extra cautious. Did I turn my curling iron off? Coffee maker? Iron? Waffle maker??!! By plugging these “dumb” appliances in your smart receptacles, you can also eliminate vampire loads, which is the amount of electricity your appliance draws when not in use.

You can choose to have them wired in or you can choose to purchase a smart plug, which can be plugged into your existing receptacle. These are relatively cheaper than the receptacles and can be moved to any location you choose, but can be bulky and less secure. Smart receptacles are wired directly into your wall which takes up less space and no one will accidentally bump them out of function.

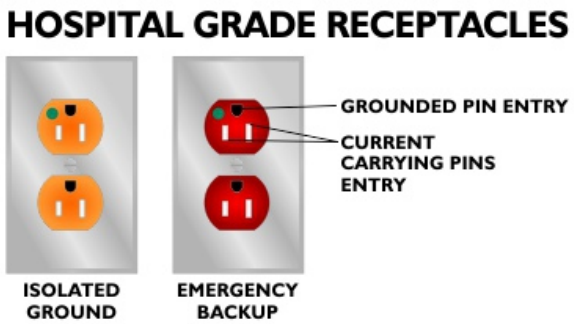


Specialty Receptacles

You are most likely familiar with the 110 volt receptacles scattered throughout your house and may have even noticed the larger ones in your laundry or mechanical room, maybe even the garage. The ones we've looked at so far are 110 volts, also known as 115, 120 and 125. Larger appliances like electric dryers, hot water tanks, furnaces and ranges need more power and require a 220 volt receptacle, also known as 230, 240 or 250.

The main difference between a 110 and a 220 is the number of hot wires running from the panel to the receptacle. 110 has one hot wire, one neutral and one ground, as opposed to the 220 which has two hot wires, one neutral and one ground. It is easy to differentiate the two by their size and number of pins. These specialty receptacles often need dedicated power so be sure to call us before you purchase an appliance to make sure it can go where you want it to.

Lastly, we have hospital grade receptacles or patient-care receptacles, which can be recognized by the green dot located on its face. These are very expensive and are methodically tested for a good reason. They support life saving equipment and are constructed so strongly that no one would be able to trip over the cord and accidentally unplug someone on life support. They are usually found in, you guessed it, hospitals, but are also found in all kinds of medical related centres. The red ones are on emergency backup, the orange ones have an isolated ground and interestingly enough, usually all installed upside down. This is done as an extra precaution. Lets say someone didn't fully secure the plug into the receptacle leaving the pins exposed. If someone just happened to drop something, say a scalpel or any other metal tool, it would in fact, be safer for it to fall onto the grounded pin instead of the current carrying pin potentially causing a short.



So there you have it, the low down on plugs...receptacles. Now you can take this information and bore someone enough to have to use one of those fancy red ones.

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Master Electrician Code of Ethics

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