

Electrical Basics: A Beginner's Reference

Electrical work can be intimidating for the beginner, but there are a number of projects that are easy to do, even if this is your first time replacing an electrical device. For instructions on specific projects, please visit K2W's library of electrical articles. Following is reference information that is useful for beginners to understand prior to starting any electrical project.

Electrical basics you should know:

1. Always turn off power at your electrical panel to the device you are replacing. Verify that the power is no longer supplied to the device with a circuit tester.
2. Following are typical for household wiring, but occasionally you will find that wiring insulation with different color coding. A good rule of thumb is to carefully diagram which wires are attached to which terminals and duplicate this when you install your new fixture, outlet or switch.
 - Black wire = Hot (supplies power)
 - White wire = Neutral (returns power to the electrical panel)
 - Bare Copper = Ground wire
 - Red wire (or other color) = Hot (supplies power, typically to a 3-way or 4-way light switch)
3. There are a few different ways that your home's electrical wiring is connected to outlets, switches and fixtures. Shown below are some of the most common connections.



Terminal Screws



Back Stab



Decora Connection



Decora Dimmer