Select Extension Cords to Meet Your Needs

Extension cords make it far easier to use electricity where it's needed. But knowing which cord best meets your needs given the range of electrical products can be confusing. Using the wrong cord can be dangerous; using the right cord in the wrong way can also pose shock and fire hazards.

The Electrical Safety Foundation International offers the following safety tips to help you select the right cord for your needs and avoid common mistakes that can become electrical hazards.

First, determine your needs. Check the total wattage of electrical devices you will plug into the cord. Divide that total by 120 to calculate the total number of amps you will need. Then check the rating, or the gauge, on the cord. The gauge is shown on the cord as a number, followed by the letters "AWG." AWG is the abbreviation for American Wire Gauge used by the electrical industry as a standard measurement of electrical wiring. If the total amps is equal to or greater than the maximum rating of the cord, you must use a higher rated extension cord.

For example, typical house wiring is 12 AWG. Lamp cords are usually 16 AWG. Thicker wire will have lower numbers. Thinner wire is used for lamps and appliances that don't draw much current. Thicker wire is used for power tools and appliances with heavier electrical demands. If you use a thin cord with an appliance that draws a lot of current, the cord could overheat and cause an electrical fire.

Be sure to look for an extension cord with the same number of conductors as the one being replaced. Smaller electronic devices typically use cords with two conductors. Larger appliances, power tools and electronic devices that require more power use cords with three conductors, one of which is the ground wire.

Cords have different types of insulation. Electric space heaters are required to use cords with thermosetting insulation, which prevents the cord from melting. Look for the letter "H" on the cord, or simply ask the salesperson for special heater cord.

Pay attention to the construction of the cord. Lamp cords are usually flat, with the individual conductors parallel to each other. This type of cord is limited to indoor use and light duty. Appliance cords are usually round with larger diameters. The have two layers of insulation over the copper conductors. One layer insulates the individual conductors and a second layer of insulation, called a jacket, is also applied.

For more on electrical safety tips, visit www.electrical-safety.org.