University of Washington
Facilities Services Safety

Extension Cord DO'S and DON'TS

DO:

- ✓ Inspect the cord for damage before you use it
- ✓ Unwind the extension cord completely during use to avoid overheating
- ✓ Make sure the wattage marked on the extension cord is adequate for the equipment you will be using it with
- ✓ Turn off tools and appliances BEFORE you plug them into the cord
- ✓ Remove the cord from the outlet using the plug (not the cord)
- ✓ Only use cords marked for outdoor use outside
- ✓ Unplug cords when not in use
- ✓ Store cords indoors

DON'T:

- ✖ Run extension cords through doorways, or holes in ceilings, floors or walls
- ✖ Remove, bend, or modify any metal parts of the cord's plug
- ✖ Plug a three-prong plug into a two-hole cord
- ✖ Use a cord when it is wet (in damp environments use a GFCI)
- ✖ Plug extension cords into each other
- ✖ Overheat the cord
- ✖ Drive over the cord, walk on it, drag things over it, or lay anything on it
- ✖ Plug a power strip into an extension cord

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Extension Cords

"Better a thousand times careful than once dead"

-Proverb

Extension Cords

Before using an extension cord, ask yourself these three questions:

1. Will I use the cord indoors or outdoors?
Extension cords that can be used outdoors will be clearly marked "Suitable for Use with Outdoor Appliances." Never use an indoor extension cord outdoors; it could result in an electric shock or fire hazard.

2. What is the total wattage rating of the appliances I'll use with the cord?
All appliances indicate how much wattage is consumed when operated; that rating can be found on the appliance itself and often within the manual that accompanies the product.
Extension cords are labeled with valuable information as to the use, size and wattage rating of the cord. Cords are offered in many lengths and are marked with a size or "gauge." The gauge is based on the American Wire Gauge (AWG) System, in which the larger the wire, the smaller the AWG number. For example, a 12 gauge wire would be larger and can power larger wattage appliances than a 14 gauge wire.

Could you plug a 150 watt lamp, a 60 watt lamp, and an appliance which uses 10 amps at 125 volts into an extension cord rated **15 amps/1875** watts? Let's do the math: 10 amps x 125 volts = 1250 watts. Add the wattage of all the appliances together:
150 watts + 60 watts + 1250 watts = 1460 watts. Since the cord is rated to 1875 watts, it is safe to use. A good rule of thumb is not to exceed 80% of the rating since that is when the cord can start heating up.

3. How far is the nearest outlet from where I'll be working?
As the cord gets longer, the current carrying capacity of the cord gets lower. Use the following chart to help select the proper length cord:

Maximum Distances	**up to 10 amps**	**up to 15 amps**
0'-25'	16 gauge	14 gauge
25'-50'	16 gauge	14 gauge
50'-75'	14 gauge	12 gauge
75'-100'	14 gauge	12 gauge

Some quick tips from the Underwriters Laboratory:
Look for the UL Mark on extension cords. The UL Mark means that representative samples of the cord have been tested for foreseeable safety hazards. Use extension cords only when electrical power is needed in a remote location for a short time period.

Extension cords are intended to supply power temporarily. Do not use extension cords permanently to power appliances or equipment such as printers, computers, lamps, portable heaters, fans, coffee makers, etc.
If additional outlets are needed, submit a service request through the FS-WORKS system at http://www.washington.edu/admin/facserv/workrequest.html.

INSPECTING AN EXTENSION CORD

- ✓ Check prongs to assure they are intact
- ✓ Visually inspect cord for signs of cracking, deterioration, or cuts in the insulation
- ✓ Visually inspect cord for signs of crimping or crushing (pinched or flat areas)

If any of these problems are found, tag the extension cord as damaged and properly dispose of it.

Since extension cords are not part of permanent wiring, **any electrical tools or equipment plugged into extension cords must be protected by a GFCI**.