



Indoor Tips

These hints from the experts at the Electrical Safety Foundation International may help you stay safe around indoor electrical equipment.

Appliances

- To make sure appliances are in good condition, look for breaks in power cords, plugs or connectors.
- An appliance which repeatedly blows a fuse or trips a circuit breaker could indicate a defect that may cause a fire or electrical shock. Unplug the appliance immediately and have it repaired or replace.
- Unplug any appliance that has given you an electrical shock and do not use it until it has been checked and repaired by a qualified technician.
- Remember, electricity and water don't mix. Keep all electrical cords and products such as radios, TVs, hairdryers and curling irons away from water in a sink or tub.
- If an appliance repeatedly blows a fuse, trips a circuit breaker or if it has given you a shock, unplug it and have it repaired or replaced.
- Keep appliance cords as short as possible to avoid accidents such as tripping or knocking the appliance over.

Fuses/Circuit Breakers

- To prevent future installation of fuses that allow currents too high for your wiring, your fuse panel should be converted to S-type sockets that accept only fuses of the correct amperage rating. If you have Edison-base fuse sockets, have them fitted with the S-type socket inserts.
- Before resetting a tripped circuit breaker, turn off or unplug appliances or lamps on the circuit to bring the demand back down to an acceptable level

Outlets & Switches

- Never remove the third prong of a three-prong plug. Convert two-pronged outlets using an adapter with a ground tab.
- Check to make sure outlet and switch plates are not unusually hot to the touch. If they are, immediately unplug cords from these outlets and do not use the switches. Have a qualified, licensed electrician check the wiring as soon as possible.
- Look for discoloration as another indication of potentially dangerous heat buildup at these connections. Stand across the room and look for a tear-drop shaped darkening around and above outlet and switch cover plates
- Check that all outlet and switch cover plates are in good condition so that no wiring is exposed. Replace any missing, cracked or broken cover plate.
- Be sure to use safety caps with unused outlets

Power Cords

- Turn off electrical products if a cord overheats.
- Check to make sure electrical cords are intact and in good condition, not frayed or cracked.
- Check to make sure lamp, extension, telephone and other cords are placed out of the flow of traffic. Cords stretched across walkways may cause someone to trip. If you must use an extension cord, place it on the floor against a wall where people cannot trip over it.
- Whenever possible, arrange furniture so that outlets are available for lamps, entertainment products, or appliances without the use of extension cords.
- Check to make sure furniture is not resting on cords.
- Check to make sure electrical cords do not run under furniture or carpeting, or behind baseboards.
- Check to make sure electrical cords are not attached to the walls, baseboards, etc. with nails or staples. Disconnect power before removing nails and staples from on or around electrical cords.
- Do not attempt to repair cords yourself. Take any item with a damaged power cord to an authorized repair center, or cut the cord, safely dispose of the item, and purchase a new one.

Extension Cords

- Do not substitute extension cords for permanent wiring.
- Do not run through walls, doorways, ceilings or floors. If cord is covered, heat cannot escape, which may result in a fire hazard.
- Do not use an extension cord for more than one appliance.
- A heavy reliance on extension cords is an indication that you have too few outlets to address your needs. Have additional outlets installed where you need them.
- Multiple plug outlets must be plugged directly into mounted electrical receptacles. They cannot be chained together.
- Make sure the extension cord or temporary power strip you use is rated for the products to be plugged in and is marked for either indoor or outdoor use.
- The appliance or tool that you are using the cord with will have a wattage rating on it. Match this up with your extension cord. Do not use a cord that has a lower rating.
- Replace No. 18 gauge cords with No. 16 gauge cords. Older extension cords using small (No. 18 gauge) wires will overheat at 15 amps or 20 amps.
- Never use a cord that feels hot or is damaged in any way. Touching even a single exposed strand can give you an electric shock or burn.
- Never use three-prong plugs with outlets that only have two slots for the plug. Don't cut off the ground pin to force a fit. This defeats the purpose of a three-prong plug and could lead to an electrical shock. Also, never force a plug into an outlet if it doesn't fit.
- Change the cord to a higher rated one or unplug some appliances, if the rating on the cord is exceeded because of the power requirements of one or more appliances being used on the cord.
- Use cords with polarized and/or three-prong plugs
- Buy only cords approved by an independent testing laboratory, such as Underwriters Laboratories (UL), ETL-SEMKO (ETL) or Canadian Standards Association (CSA).
- A ground fault circuit interrupter (GFCI) can be plugged or installed into an outlet to protect against electrical shock. GFCIs are products designed to prevent serious injury or death from electrical shock by detecting ground faults at very low levels.

Power Strips & Surge Protection

- Be sure you are not overloading the circuit. Know capacity of the circuit and the power requirements of all the electrical items plugged into the power strip and into all the other outlets on the circuit as well as the light fixtures on the circuit.
- A heavy reliance on power strips is an indication that you have too few outlets to address your needs. Have additional outlets installed where you need them.
- Understand that surge suppressors only protect the items plugged into it, not back along the circuit into which it is connected.
- In the event of a large surge or spike, such as a lightning strike, the surge suppressor is a one-time-use protector and will likely have to be replaced.
- Consider purchasing surge suppressors with cable and phone jacks to provide the same protection to your phone, fax, computer modem and television.
- Not all power strips are surge suppressors, not all surge suppressors can handle the same load and events. Be sure the equipment you buy matches your needs.
- For homes in areas with a high incidence of lightning, consider having a surge arrestor installed at the fuse box or breaker panel for whole house protection.

Light Bulbs

- Use a bulb of the correct type and wattage. If you do not know the correct wattage, contact the manufacturer of the lamp or fixture.
- Read and follow light bulb manufacturers' safety instruction.
- Make sure bulbs are screwed in securely – loose bulbs may overheat.
- Place halogen floor lamps (torchieres) away from curtains, buds, rugs or other furnishings. These lamps can become very hot and can cause a fire hazard. Consider replacing halogen torchiere lamps with models that use cooler, more efficient fluorescent bulbs.



Portable Space Heaters

- Plug portable space heaters directly into an outlet; do not use an extension cord.
- Make certain the circuit into which you plug a space heater can adequately and safely handle the added demand.
- Never remove the grounding feature on a plug by clipping or grinding off the third prong.
- Use an adapter to connect the heater's 3-prong plug, if you do not have a 3-hole outlet. Make sure the adapter ground wire or tab is attached to the outlet ground.
- Relocate heaters away from passageways and keep all flammable materials such as curtain, rugs, furniture or newspaper at least three feet away.
- Read the manufacturer's instruction manual before using any space heater. Check to make sure the heater bears the mark of a certified testing organization.
- Keep space heaters at least 3 ft. away from any combustible materials such as bedding, clothing, draperies, furniture and rugs.
- Keep space heaters away from areas with water. Check your manual to be sure the heater is intended to be used in locations such as bathrooms.
- Don't use space heaters in rooms where children are unsupervised. Children may stick their fingers or other objects through the protective guards, causing burns or chock.
- Portable heaters have hot parts that can cause sparking. Do not use them in areas where flammable liquids such as gasoline or kerosene are used or stores.
- Space heaters are meant to supply supplemental heat. Do not use them to warm bedding, cook food, dry clothing or thaw pipes.
- Unplug and safely store portable space heaters when not in use.

Small Appliances and Tools

- Make certain all small appliances and tools are approved by an independent testing laboratory, such as Underwriters Laboratories (UL), ETL-SEMKO (ETL) or Canadian Standards Association (CSA).
- Use small appliances and power tools according to the manufacturer's instructions.
- Unplug all small electrical appliances, such as hair dryers, shavers, curling irons, clothes irons, and toasters, when not in use.
- Be sure you have ground fault circuit interrupter (GFCI) protection anywhere electricity and water are within six feet of each other, such as in your kitchen, bathroom and outdoors, to protect against electric shock.
- Take any damaged electrical appliance or tool to an authorized repair center, or cut the cord, safely dispose of the item, and purchase a new one.
- Never reach into water to get an appliance that has fallen in without being sure the appliance is unplugged or the circuit is shut off.
- Do not tuck in electric blankets.
- Don't allow anything on top of the blanket while it is in use. This includes other blankets or comforters and even pets sleeping on top of the blanket.
- Do not use electric blankets on children.
- Never go to sleep with a heating pad that is turned on. It can burn you. Newer heating pads have an automatic cut off switch.
- Check to make sure power tools have a 3-prong plug or double-insulated cords, and consider replacing old tools that have neither.
- Use properly grounded 3-prong adapter for connecting a 3-prong to a 2-hole receptacle.
- Consider using a portable GFCI when using power tools.
- Replace guards that have been removed from power tools.
- There have been many recalls of power tools due to problems with the safety guard sticking. Be sure your model has not been recalled, as this hazard poses a serious risk of injury. Check online at www.recalls.gov
- Check power tools before each use for frayed cords, broken plugs or cracked housing.

Ground Fault Circuit Interrupters (GFCIs)

- Put a ground fault circuit interrupter (GFCI) between your electric power source and your electric product.
- Test your GFCI monthly and after every major electrical storm.
- If you have a home without GFCIs, consult a qualified, licensed electrician about adding this important protection, purchase plug-in units or a portable GFCI to provide individual receptacle or load protection



- GFCIs are products designed to prevent serious injury or death from electrical shock by detecting ground faults at very low levels.
- A GFCI should be used in any area where water may come in contact with electrical products. GFCIs are now required by code in certain areas of the home, including unfinished basements, kitchens, bathrooms, bedrooms, garages, crawl spaces and around swimming pools.
- If a GFCI senses minimal current leakage to ground in an electrical circuit, it assumes a ground fault has occurred. It then interrupts power fast enough to prevent serious injury from electrical shock.
- Three types of GFCIs are designed for home use-wall receptacle, circuit breaker and portable plug-in. All three are readily available, inexpensive and fairly simple to install.

Arc Fault Circuit Interrupters (AFCIs)

- If you have a home without AFCIs, consult a qualified, licensed electrician about adding this important protection.
- Have AFCIs installed on all general purpose circuits throughout the home, particularly in older homes where arcing hazards could have developed over several years.

Counterfeit Goods:

- Only purchase electrical products directly from the manufacturer, a reputable distributor or retailer
- Look for the CSA, UL or ETL-SEMKO Certification marks. If you have concerns about the marks, contact the certifier.
- Buyers should beware of bargains that seem too good to be true. Products may be cheap because they are counterfeit or defective.
- Check the warning label. It should be free of grammatical errors and not conflict with information elsewhere on the package.
- Look for the name and contact information of the manufacturer.
- Avoid no-name products or products sold at "bargain centers."

Generators and Carbon Monoxide Safety:

- Check smoke detectors and carbon monoxide detectors monthly.
- Do not connect generators directly to household wiring without an appropriate transfer switch installed. Power from generators connected directly to household wiring can backfeed along power lines and electrocute anyone coming in contact with them, including lineworkers making repairs.
- Make sure your generator is properly grounded.
- Keep the generator dry.
- Make sure extension cords used with generators are rated for the load, and are free of cuts, worn insulation, and have three-pronged plugs.
- Do not overload the generator. A portable generator should be used only when necessary, and only to power essential equipment or appliances.
- Never operate the generator in enclosed or partially enclosed spaces. Use carbon monoxide detectors in nearby enclosed spaces to monitor levels. Generators can produce high levels of carbon monoxide very quickly, which can be deadly.
- Use a ground fault circuit interrupter (GFCI) to help prevent electrocutions and electrical shock injuries.
- Make sure fuel for the generator is stored safely, away from living areas, in properly labeled containers, and away from fuel-burning appliances. Before re-fueling, always turn the generator off and let it cool down.
- Turn off all appliances powered by the generator before shutting down the generator.
- Keep children away from portable generators at all times.

Ladder Safety:

- Inspect ladders for loose or missing screws, hinges, bolts and nuts.
- Use the right height ladder; ensuring ladders extend at least three feet past the edge of the roof.
- Use wooden or fiberglass ladders when near electrical wiring. Metal ladders conduct electricity.