

# Lewis Electric Update



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## **May: National Electrical Safety Month**

### *Spotlight on Electrical Safety*

The month of May has been designated by the National Electrical Safety Foundation as Electrical Safety month. Despite all that has been done, statistics show that one person is electrocuted in the home every 36 hours and one person is electrocuted in the workplace every day; an estimated annual average of 155,000 Electrical fires occur, claiming more than 700 lives, 6,800 injuries, and \$1.4 billion in personal property damage each year; and millions of dollars lost in corporate and personal productivity and assets because of litigation. According to the experts, two of the chief reasons are that products are not installed properly and are not used for the applications intended. And, far too often, electricity and electrical safety are taken for granted.

#### **Here are a few Electrical Questions and Answers:**

**How can consumers help protect themselves from electricity related injuries?**

Consumers should check for problems in their home electrical system. Check outlets and extension cords to make sure they aren't overloaded. Examine electrical cords to make sure they aren't frayed, damaged, or placed under rugs or carpets. Make sure that the proper wattage

light bulbs are being used in light fixtures and lamps. Consider installing ground fault interrupters (GFCI). One of the most important precautions consumers can take is to test their smoke detectors and replace the batteries annually. Consumers should always follow appropriate safety precautions and manufacturers instructions and use appliances as they were intended.

**If you have an old house-with old wiring- how do you know if repairs are necessary?**

Electrical systems age and can become overloaded, particularly in older homes. Over the years as more lighting, appliances, and equipment are added, the electrical system becomes overburdened, and problems can develop. If fuses or circuit breakers protecting branch circuits blow or trip frequently, new branch circuits may need to be added to distribute load more adequately. Depending on the condition of the equipment and the extent of the repairs the costs may be nominal or could be much higher. A qualified licensed electrician can determine if the repairs are necessary and can estimate these costs for you.

#### **Plugs:**

**How does a three-prong plug work and what is the benefit of using it?**

The third prong on a three wired cord set provides a path to ground for electricity that is straying or leaking from a product. This helps protect the equipment and can help prevent electrical shock.

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***Happy***  
***Memorial***  
***Day !!!***

# “Current” Events

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- Fire Alarm Systems
- Closed Circuit TV
- Telephone Systems
- Home Automation
- Surge Suppression
- Design and Build
- UPS Systems
- Commercial Electric
- Packing Houses
- Nurseries and Farms
- Electric Motors
- Automatic Gate Openers

## How does a polarized plug work and what is the benefit of using it?

A polarized plug is a plug with one large or wide prong and one narrow prong. This ensures that the plug is inserted correctly in a socket and reduces the risk of electrical shock.

### What is a GFCI?

A GFCI (ground fault circuit interrupter) is an electronic device to prevent people from serious injury due to electric shock.

### How does a GFCI work?

GFCI's constantly monitor electricity flowing into a circuit. If the electricity flowing into the circuit differs by even a slight amount from that returning, the GFCI will quickly shut off the current flowing through that circuit. The advantage of using GFCI's is that they can detect even small variations in the amount of leakage current, even amounts too small to activate a fuse or circuit breaker. GFCI's work quickly, so they can help protect consumers from severe electric shocks and possible electrocution.

### Do all GFCI's work in the same manner?

All GFCI's work in the same manner to protect people against ground faults. However, unlike the receptacle GFCI, the breaker type of GFCI, also provides overload protection for electrical branch circuit.

### What is the big plug now found on such appliances as hair dryers?

The large box-like device found on the ends of some appliance cords can be either an appliance leakage circuit interrupter (ALCI), an immersion detection circuit interrupter (IDIC), or a ground fault circuit interrupter (GFCI). They work in different ways, but they are all intended to shut off

power to an appliance in liquid. Just because you have one of these devices, it doesn't mean that it is okay to drop the appliance in water and retrieve it while it is still plugged in. The rule that "electricity and water don't mix" still applies.

### If the appliance has a built-in shock protector, is an additional GFCI necessary?

Appliances that have built-in shock protectors, as now required for hair dryers, may not need additional GFCI protection. However, other unprotected appliances still need GFCI protection.

### Can consumers install GFCI's?

Consumers are encouraged to use a qualified electrician to install circuit breaker type GFCI's. Individuals familiar with wiring practices, who can follow the instructions accompanying the device, may be able to install receptacle-type GFCI's. Otherwise these devices should be installed by an electrician or other knowledgeable person. The portable GFCI requires no special knowledge or equipment to install.

### Extension Cords

#### What size extension cords should a consumer use?

Before purchasing an extension cord, consumers should consider how and what the cord will be used for. Make sure the rating on the cord is the same as or higher than the number of watts needed by the product that will be plugged into the cord. Extension cords should never be used as a substitute for permanent wiring. Always check flexible cords and cables for physical damage. Keep slack in flexible cords to prevent tension on electrical terminals. Never splice cords, use proper terminations and connection devices.

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*A Home Electrical Safety Check Booklet is available: 55 cents, self addressed #10 envelope, stamped from: National Electrical Safety Foundation: 1300 N. 17th St., Suite 1847, Rosslyn, Va. 22209*