



# Home electrical systems

## 12 simple loss-prevention tips

HSB, a Munich Re company, is a technology-driven company built on a foundation of specialty insurance, engineering and technology, all working together to drive innovation in a modern world.

When it comes to home electrical systems, do you usually wait until something fails and then call for service? Maybe the plugs in the kitchen tripped out right before a holiday party or a family member is getting a shock every time they use the electric hedge clipper.

Here is a list of 12 easy, loss-prevention tips that will help avoid some of the most common electrical failures. Taking care of these items now, before they become an actual failure, will help keep the house running smoothly, reduce the repairs budget, and greatly enhance life and fire safety for the entire family.

### **1. Identify the location of the main electrical shutoff switch.**

In an emergency, quickly turn off all power until the problem is identified and corrected.

This includes suspicion of an electrical fire, smoke observation, arcing or sparking in any electrical equipment, or if someone is being shocked from live electrical wiring.

### **2. Look for signs of corrosion on any electrical equipment.**

Most people see the early signs of corrosion and do nothing about it because it is not causing any immediate problems. Ignoring corrosion can lead to rust-through conditions that allow water to enter critical electrical equipment and cause a loss of power.

### 3. Install a whole-house surge-protection device.

An electrician can install a surge-protection device at the main power panel to protect the entire home. A surge-protection device can help to protect valuable electronic appliances and devices from the destructive damages and replacement costs resulting from internal and external surges. These are now code-required for all new home construction.

### 4. Test the ground fault circuit interrupters.

The manufacturer recommends that the GFCIs be tested monthly. The GFCI is installed to help prevent electrocution. Regardless of testing frequency, make sure to push the test and reset button before using the GFCI receptacle.

### 5. Check receptacles for strong plug holding friction.

Wall receptacles should all hold the plug blades very tightly. When the receptacle contacts lose their holding power, excessive heat develops at the connections. The loose connections can cause arcing and sparking that can ignite nearby combustibles such as drapes or bedding materials.



### 6. Replace worn-out light switches.

The switch should feel tight and switch on and off without flashing, arcing, or sparking. All these issues are signs that it is time for a repair or replacement.

### 7. Check all electrical cords for cuts, brittleness, or damaged ends.

Make sure to check the cords on electrical equipment for signs of deterioration such as cracking, brittleness, fraying, cuts, crushed insulation, and exposed copper wires or strands. Excessive heat, abrasion, animal or rodent chewing, physical abuse, excessive movement, and loose connections can all play a role in reducing the cord capabilities.

### 8. Don't use plug strips for large loads such as kitchen appliances.

Plug strips are intended for small loads such as computers, computer peripheral equipment, and small office usage. Since the home is wired with a few wall receptacles, each having only two places for a plug, the plug strip serves a great purpose in setting up a modern "home office" location.



### 9. Only use extension cords for temporary use.

Extension cords are intended for temporary use. They should never be used as a substitute for proper or adequate permanent wiring of the home. Long-term use of extension cords suggest that you need to have your electrician add additional permanent receptacle locations.

## 10. Install additional fire and carbon monoxide detectors.

Add more smoke and carbon monoxide detectors to provide enhanced safety for older homes. It's a great idea to have a combination, smoke/carbon monoxide detector in each sleeping room of the house and in the hallway outside of the sleeping rooms.



## 11. Replace batteries before they leak.

A device not often used creates a perfect environment for batteries to rupture and leak corrosive chemicals into the battery compartment. The corrosion eats away the plating on the battery contacts and springs, which can ruin the device.

## 12. Know when to call an electrician.

Working on house wiring is best left to the licensed electricians properly trained in this field and knowledgeable of all the local, state, and federal regulations for safe electrical installations. Electrical work by unqualified persons will greatly increase the risk of shock, electrocution, and fire.

There is no reason to wait until an outage before calling an electrician. These tips will help identify electrical conditions that precede a dangerous and expensive electrical loss event. Knowing the warning signs of imminent electrical device failures and taking preemptive actions now can help avoid the inconvenience, and collateral damages, that usually occur during actual failures.