



Home Performance Group LLC

Making Everyday Life Affordable

The Home Performance Guide

Storm Preparedness Month - April Edition

The scary cost of Spring storms

More than 14,000 people experience water damage emergencies each day, and more than one third of all U.S. homeowners will suffer property loss due to flooding based on insurance industry research.

According to the ICLR (Institute for Catastrophic Loss Reduction), since the 1960s property damage from natural disasters has doubled every five to seven years. This alarming trend is no surprise given increases in the frequency of severe storms and changing weather patterns.

Those of us living in the Kansas City region contend with a variety of Spring related storm activity from high winds, heavy rains, and even tornados. Often overlooked, the Midwest receives some of the highest numbers of lightning strokes in the country. Indirect lightning accounts for a significant amount of electrical surges, and home damage and fires.

The III (Insurance Information Institute) reports that lightning related claims increased 45% over a five-year period with average claims now costing more than \$5,000. As homeowners purchase and use more electronics and smart devices in their homes, the probability increases for both damage and out of pocket expenses.

This month's newsletter, we discuss several ways to protect your biggest investment, your home. Also, we explore the advantages and disadvantages of two products that may offer additional peace of mind and prevent life disrupting inconvenience caused by catastrophic storm related water or fire damage.

To learn more about preparing your home for Spring storms, please contact our Senior Solutions Advisor at 816-635-2493 or advisor@ushpg.com.



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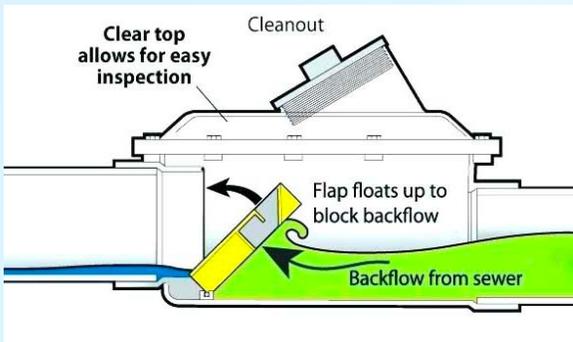
Four ways to protect your home electrical system

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Four ways to prevent basement flooding



- **Make sure water drains away from the home.** Water infiltration into a basement is exacerbated by saturated soil common during spring time. Cleaning gutters and ensuring the yard has positive slope away from the foundation are important first lines of defense.
- **Inspect the water heater temperature and pressure relief pipe.** Plumbing and mechanical codes require the installation of a relief valve on all tanked water heaters in the event of a malfunction of the water heater thermostat. The T&P valve opens in the event of overheating or high pressure. Once the valve has opened, it is notorious for future leaks.
- **Install a backwater valve.** Although less common, sewer back-ups are messy and unsanitary. Homes with sewers that are downstream and at a lower elevation are at a higher probability of backing up during high rain events or flooding. A backwater valve allows sewage to leave the home but not come back in.
- **Install a sump pump.** Water that builds up around foundation walls or under a floor create hydrostatic pressure that can cause cracks or create leakage into a basement. A sump pump helps relieve water pressure and provide a means to remove water out and away from a home. Multiple types and configurations of sump pumps are available. The most important considerations are the sump basin and proper sizing of the pump based on system capacity and total dynamic head.

Is a battery back-up sump pump right for me?

In the event of a power failure, the primary sump pump which is powered by the homes electrical supply will not function. A battery back-up senses when power is lost and provides temporary power to a second smaller sump pump. This system ensures your basement stays dry in the event of a power outage during a severe rain storm.

A battery back-up sump pump may be a wise investment if any of the following are true:

1. The basement is finished or used as a livable space?
2. The basement has a high-water table or prone to ground flooding.
3. The basement already has a moisture problem or a primary sump pump.
4. The basement is used to store valuables or material that is sensitive to moisture.
5. The home experiences frequent power outages or severe storms that could result in the loss of electricity.

Four ways to protect your electrical system

- **Ensure the electrical system is properly grounded.** The structures electrical system should be properly grounded in accordance with Article 250 of the NEC (National Electric Code). System grounding is the first line of defense and helps protect the entire electrical system from overvoltage caused by indirect lightning strokes, static, and utility switching. The system ground provides a shunt, or path, to the earth helping to limit damage.
- **Make sure all utilities are bonded to the same grounding point.** An intersystem bonding terminal provides a single point for all phone, internet, TV or other utilities to ground their respective equipment and service. The National Electric code requires an accessible terminal to be installed on the exterior of the home to provide a single bonding point.
- **Install arc-fault circuit interrupters.** The most common source of ignition in electrical home fires is arcing. An AFCI reduces the risk of fires by interrupting power when an arc is detected in the circuit. AFCI protection can be installed in the first receptacle in a circuit or as a circuit breaker in the main load-center.
- **Install a whole-house surge protector.** A surge protector senses voltage and ampere surges directing them through the electrical grounding system eventually to the earth. A whole home surge protector provides significantly higher protection rating than standard wall plug-in devices and serves to protect all electrical fixtures and devices in the home. Geographic locations identified by the NLDN (National Lightning Detection Network) with a high density of lightning strokes would be a good candidate for whole home surge protection.



Can a whole-home surge protector safeguard my appliances?

In the event of an electrical surge, excessive voltage and current can cause permanent damage to electronics. Nearly all modern appliances have printed circuit boards which are ultra-sensitive to electrical surges. So, yes, a whole home surge protector can provide appliances a defense to surge events caused by indirect lightning strikes, or utility overvoltage. The key is having a quality surge protector properly installed and with a high surge current rating. Most plug-in style surge devices are rated at scant 5kA rating where whole home surge protectors range from 60 to 100kA.

A whole-home surge protector may be a prudent purchase if any of the following are true.

1. The home experiences frequent power outages or severe storms that could result in the loss of electricity.
2. The home is located in a high lightning density area such as the Kansas City region.
3. The home contains sensitive electronics (computers, routers, printers, security systems, home automation).
4. The home has a lot of expensive appliances (televisions, double ranges, multiple refrigerators or freezers).
5. The homeowner's insurance excludes or does not offer coverage for power surges that are a direct result of lightning.
6. The homeowner's insurance deductible is \$1,000 or higher