

Risk Solutions Series:

Protect your home from electrical loss and surges

Today more than ever, households rely on electricity to keep their devices and appliances up and running. Unfortunately, a dependable supply of electricity is not always guaranteed, so power outages are not uncommon. Several events can trigger a power outage including extreme weather, power line and equipment damage, certain utility practices, a spike in the demand for power, or short-circuiting. In 2019, power customers in the United States experienced an average of nearly 5 hours of interruptions to their electricity service.¹

A power surge is an unexpected and sudden increase in voltage. It can be caused by downed power lines, faulty wiring, high power demand, appliances switching on and off and, in rare and extreme cases, lightning. Although these events may last only a microsecond, they can be harmful because they push too much electricity through the system, including all the appliances and devices that are connected to it.²

When it comes to electrical loss and surges, there is no good time for the disruption and potential damage that can occur. It's good to know that the precautionary measures outlined below can help provide long-term protection for your home and everything in it.

Schedule regular wiring inspections and maintenance

Faulty wiring may be the culprit for power surges and a host of other problems ranging from high electricity bills to fires. Because potential problems are not always visible, it's well worth the investment to regularly inspect the wiring in your home. In the meantime, if you notice burn marks or a burning smell that comes from an electrical outlet, take action immediately. Unplug any electrical devices and appliances, turn off power to the area and contact an electrician.³

Avoid overloading circuits

Too much simultaneous demand on your electrical system can result in an overload, which causes the system to automatically shut off the overloaded circuit to prevent damage. To avoid this problem, redistribute electrical loads to other circuits or run new circuits as needed. This can be as simple as moving plug-in devices, but it could require studying the main panel and testing outlets throughout your home to map out the circuits and calculate the loads. Once this is done, you can determine whether you need to redistribute the loads, add a new circuit or install an additional outlet to get the power where you need it.⁴

¹ "U.S. power customers experienced an average of nearly five hours of interruptions in 2019," U.S. Energy Information Administration, [eia.gov/todayinenergy/detail.php?id=45796#](https://www.eia.gov/todayinenergy/detail.php?id=45796#) (Nov. 6, 2020).

² "How to Protect Against Power Surges at Home," Constellation, blog.constellation.com/2020/10/02/how-to-protect-your-home-from-a-power-surge (updated Sept. 24, 2021).

³ "Power Surge: How They Happen and What to Do About Them," Tara Energy, taraenergy.com/blog/power-surge-how-they-happen (accessed Oct. 1, 2021).

⁴ "Preventing Electrical Overloads," Matt Boley, familyhandyman.com/article/preventing-electrical-overloads (updated Aug. 18, 2021).

Use surge protectors

Unplugging your devices and appliances during storms and power outages is recommended, but it's not always easy or possible at the time. A quick fix to protect your devices and appliances from damage caused by frequent lower-voltage surges is to plug them into specialized power strips, commonly known as surge protectors. Surge protectors are equipped with a shorting mechanism and a ground line to physically block excess electrical energy.

Similarly, whole-home surge protection systems are designed to safeguard your entire home by directing bursts of electricity into the ground, where they can harmlessly dissipate.² To provide the highest level of protection, use meter-mounted surge protection to reduce extra voltage from the power grid before it reaches your home.⁵

Add more protection

While these options are sufficient for most households, additional layers of protection are available. An uninterruptable power supply (UPS) provides surge protection and a battery for backup power to keep plugged-in devices running when the power goes out. The UPS instantly switches over to internal power, so you won't have to worry about mishaps such as losing unsaved work on your computer.

It's important to note that a consumer-grade UPS is designed to run a device for only a short period of time until the primary source of electricity is restored.⁶ Smart home devices can provide even further peace of mind by detecting electrical issues and fire hazards in your home before they cause a problem.⁷

Consider a home generator

A home generator offers added convenience and peace of mind because it can keep your power running during an outage. A fully-automated generator starts producing power as soon as the outage occurs and turns off automatically when it's over. Because the generator is hard-wired into your home's electrical system, you can count on a safe, consistent and stable power supply throughout the duration of the blackout – even when you're away from home.

Whatever steps you take to protect your home from power outages and surges, remember to make safety a priority. When electrical work exceeds your expertise or comfort level, rely on a trained professional to ensure that everything is done right.

Visit [Nationwide.com/solutionseries](https://www.nationwide.com/solutionseries) to learn more.



⁵ "How to Protect Your Appliances during a Power Outage," Hardcore Electric, hardcore-electric.com/protect-appliances-power-outage (accessed Oct. 4, 2021).

⁶ "Surge Protectors vs. UPS: Do You Really Need a Battery Backup for Your PC?" Michael Crider, howtogeek.com/314482/surge-protectors-vs-ups-do-you-really-need-a-battery-backup-for-your-pc (Aug. 16, 2017).

⁷ "How Ting Works," Ting, tingfire.com/how-ting-works (accessed Oct. 4, 2021).