Surge Protection 101

By Abby Berry

A surge is an unexpected increase in voltage, and it can occur from a variety of sources. Regardless of the cause, power surges can majorly damage electronic devices and equipment in your home.

Let’s take a look at common causes of power surges and how you can protect your sensitive electronics.

Although not as common in our area, a common cause of a power surge is lightning. Many have experienced this during a severe thunderstorm. When lightning strikes an electrical system, the excess current must be channeled somewhere—unfortunately in many cases, it’s sent through a home. Your best bet is to unplug all unused devices and electronics during severe thunderstorms.

Another common cause of power surges is electrical overload. This happens when devices or appliances are plugged into an outlet that can’t handle the required amount of voltage, or if multiple devices are plugged into one outlet through an extension cord. If you’re experiencing power surges due to electrical overload, it’s time to call a qualified electrician to evaluate your home’s circuits and electrical needs.

Faulty wiring in a home can also cause power surges. Damaged or exposed wires can cause spikes in voltage, creating a potentially dangerous situation. If you notice signs of faulty wiring, like visible burns on outlets, buzzing sounds from outlets or frequently tripped circuit breakers, your home may be due for electrical wiring repairs and updates.

Surges can also occur after a power outage. When electricity is being restored and reconnected, it’s common to experience a quick surge in current. Similar to advice for a surge caused by lightning, it’s best to unplug sensitive electronics during the outage—then wait to plug them back in after power is fully restored.
Aside from unplugging devices when you suspect a power surge, there are two ways you can take additional precautions to protect electronics in your home.

Point-of-use surge protection devices, like power strips, can protect electronics during most surges. But remember, not all power strips include surge protection, so read the packaging label carefully before you buy, and don’t overload the power strip with too many devices. You can also install specialized electrical outlets that offer additional surge protection. Talk to a trusted electrician to learn more.

Another option is a whole-home surge protector, which can help protect your home from larger, more powerful surges. In most cases, whole-home suppressors are connected to your home’s service panel and include features like thermal fuses and notification capabilities that indicate when a device has been impacted by a surge. Whole-home surge protection prices vary based on the size of the home and suppressor. Whole-home suppressors should always be connected by a licensed electrician, so consider the cost of installation as well.

Occasional power surges are inevitable, but by unplugging devices when you think a surge may occur and using additional levels of protection like power strips or whole-home suppressors, you can better safeguard your sensitive electronics and devices.

Contact CVEA if you have additional questions about ways to protect your home from power surges.

Abby Berry writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56% of the nation’s landscape.