

# Frequently Asked Questions About Surge Protective Devices (SPDs)

## What is a voltage surge?

A voltage surge is when the voltage coming into your Ac service rises and puts an overvoltage throughout the electrical services inside your home or business

## What are some examples of voltage surge related problems?

Some types of voltage surge related problems include: short life cycles of light bulbs, digits missing off of LED displays, computer blue screens, computer data loss, loss of appliances, TV signal disruption, and flickering lights.

## What is a surge protective device (SPD), and what does it actually do?

A surge protective device (SPD) protects against a short-term fast rise increase in voltage from damage. A surge protective device (SPD) will limit the amount of voltage permitted to pass-through to the equipment ensuring your safety and protecting your equipment. Typically the better the surge protective device (SPD) the faster it will react to the voltage event and the lower pass-through voltage to the equipment.

## Why should I buy a surge protective device (SPD)?

The number one reason for purchasing a surge protective device (SPD) is always personnel safety. Personnel safety is for both shock hazards and fire protection. Many people fail to understand that a shock hazard ranges from a very mild tickling sensation up to and including electrocution. In addition, surge protective devices (SPD) increase the life cycles of the equipment it protects. Voltage surges will degrade the susceptible electronic circuits in your equipment and eventually lead to failure of the equipment. As a home/business owner installing surge protective devices (SPD) will save you costs in the short and long term by protecting equipment against surge events and allowing your electronics to reach their expected life cycle preventing spending money on unexpected replacement costs.

## I don't live in a lightning area, why do I need any surge protective devices (SPD)?

Lightning isn't the only type of event that introduces a surge into your home or business. The public utility serving your electrical services generates power surges of some magnitude to occur every hour of every day. These over voltages could enter your home and business from something as simple as a factory down the road turning on their machines at the beginning of a shift. Though these over voltages can be small, they still have the potential to degrade your equipment over the course of time. A simple surge protective device (SPD) can remedy this problem by eliminating these over voltages before they reach your electronics in your home or business.

## **Nothing has ever happened to my electrical equipment and I don't have a surge protective device (SPD), why do I need one?**

Are you sure nothing has happened to your equipment? Have all of your electrical devices lasted their entire lifecycle? Although nothing may be apparent on the surface when looking deeper some equipment failures that you have experienced at your home or business may be surge related. Have you been experiencing problems such as: short life cycles of light bulbs, digits missing off of LED displays, computer blue screens, computer data loss, and loss of appliances? If you have, chances are you could be experiencing surge related problems.

## **What types of surge protective devices (SPD) should I have?**

For holistic protective surge protective devices (SPD) must be on the three main services that can bring a surge into your home or business, these are AC electric service, cable/satellite TV, service/closed circuit TV, and telephone and/or internet service. When these services are protected with the proper surge protective devices (SPD) and bonding/grounding, your home or business is less likely to be damaged by a surge or other voltage related event.

## **I have surge protective power strips and they offer a money back warranty if damage is done to my equipment, isn't that enough?**

No, it isn't enough. Read the fine print on the warranty on your surge protective power strips, it is only guaranteed if surge protective devices (SPD) are installed where AC power enters your home. When used alone, surge protective power strips are a fire hazard and offer little to no protection at all to your equipment.

## **How expensive are surge protective devices (SPD)?**

The costs of surge protective devices (SPD) vary from one vendor to another. Cost can also be associated directly to value just like insurance costs vary by the coverage that a person selects. Surge protective devices (SPD) can offer many different levels of protection. Usually the more the surge protective device (SPD) costs, the higher quality and performance you will receive in return. When it comes to surge protective devices (SPD) you get what you pay for.

## **How can a surge protective device (SPD) save money?**

A surge protective device (SPD) can save money by protecting your electronics in your home or business. It can help these electronics achieve their expected life cycle, and preventing the home/business owner from the high cost of early replacement. In many cases saving the cost of having to replace fluorescent lights and ballasts before their expected life cycle ends can pay for the surge protective devices (SPD) and more. White papers on the internet claim in many cases that 85% of all lighting devices fail before the end of their projected live cycle. Some insurance companies also offer a deduction on your insurance premiums if you have a surge protective device (SPD) installed.

### **My local electrician says the electric in my house/business is fine, what can be wrong with it?**

Surge protective devices (SPD) are an add-on feature to your electrical system. Not one location in the world that we know of requires anyone to purchase surge protective devices (SPD). Local electricians are not always experts on equipment protection. Electricians are only required to follow the bare minimum safety standards of the National Electrical Code (NEC) and other local regulations. SPGS America are experts in the electrical safety codes. Our electrical designs go above and beyond those codes to offer the maximum equipment protection by suggesting the proper surge protective device (SPD) and implementing proper grounding/bonding standards.

### **My home or business was just built from the ground up, what could be wrong with the electrical service?**

Most newly built homes and business' electrical service is only installed using the National Electrical Code (NEC), and possibly other local electrical regulations. The National Electrical Code (NEC) and other local regulations are safety codes implemented to prevent serious death or injury to people in your home or business. The National Electrical Code (NEC) and other local regulations are not equipment performance codes and will protect your electronics and other appliances against damage from lightning strikes and other voltage surges.

### **My light bulbs don't last very long, what is happening to them?**

More than likely your home or business has been having some voltage related events and/or your bonding/grounding is inadequate. Installing surge protective devices (SPD) and implementing proper bonding/grounding could lengthen the life cycle of your light bulbs.