

### Lightning And Surge Protection

#### Just A reminder!

It's always a good idea to have a good surge protector connected to any electronic devices. Lightning produces a very high-voltage, short-duration spike that is incredibly destructive to electronics: the voltage can reach 50,000,000 (fifty million!!) volts. The best Surge Protectors are made by companies who specialize in this technology, such as Panamax, APC and Tripp Lite. They are typically a bit more expensive than other brands, but isn't your computer worth it?

The average lightning bolt is 6-8 miles long and can easily travel 25 to 40 miles horizontally prior to turning downward toward the ground. In October 2001, the visual lightning detection system measured a single bolt that traveled from Waco to Fort Worth and then Dallas, Texas - a total distance of more than 110 miles.

Lightning strikes somewhere on the surface of the earth about 100 times every second. There are at least 100,000 thunderstorms a year across the United States.

The temperature of lightning's return stroke is (5) five times hotter than the surface of the sun. It can reach about 55,000 degrees Fahrenheit in contrast to about 10,000 degrees Fahrenheit for the surface of the sun.

You probably don't think about connecting your notebook to a surge protector; after all, one of the notebook's best features is that you can use it without bulky wires; but if you're using your AC (alternating current) adapter, you should protect the notebook by connecting it through a surge protector.

Realistically, if you spent less than twenty dollars on a surge protector, it is probably inadequate. Surge Protectors that work in places like California (where they have little or no lightning) simply don't protect you here in the Land of Enchantment. True electrical 'surges' where the

voltage rarely exceeds 25,000 volts, are much simpler to protect against. Lightning produces a very high-voltage, short-duration spike that is incredibly destructive to electronics: the voltage can reach 50,000,000 (fifty million!!) volts. The best Surge Protectors are made by companies who specialize in this technology, such as Panamax, APC and Tripp Lite. They are typically a bit more expensive than other brands, but isn't your computer worth it?

Since the prices have dropped significantly, it is generally a good idea to have a Battery Backup (Uninterruptible Power Supply - UPS) on any system where the loss of your data would be a major inconvenience. Does having a UPS eliminate the need for a Surge Protector? Not in my office -- and home. I prefer to have a good Surge Protector plugged into the wall with the UPS plugged into the Surge Protector. Components that do not require battery backup can be plugged into the Surge Protector and still be protected from lightning damage. This affords maximum protection for your valuable hardware. When you invest in a UPS - again - invest in one produced by a company that specializes in this technology like APC.

Even a power loss of a few milliseconds can power off your computer and corrupt whatever documents are open at the time. Accordingly, the only components you need to connect to the UPS are your computer and monitor. Everything else can be plugged into the Surge Protector, as you only need to keep the computer and monitor running long enough to shut down the computer properly in the event of a power failure. How big a UPS should you buy? That depends on three things: Your monitor, how long you want the system to run in the absence of power - and your budget. The larger your monitor, the bigger your UPS needs to be, as the monitor pulls a

great deal of current and will deplete the reserves of the UPS quickly. Choose a UPS that fits your requirements accordingly.



### A good surge protector should offer these features:

- The surge protector should cover lightning strikes. Some do not.
- The surge protector should offer insurance to cover the loss of properly attached equipment. All warranties are not created equal, however, and you need to make sure you know what a warranty covers. Some warranties will replace the associated surge protector, but they won't replace a PC if a surge protector's failure led to the PC's demise. It won't much matter to you if you receive a free, \$25 replacement surge protector if your \$1,000 PC is toast. In general, the more expensive surge protectors include more comprehensive warranties.
- If you have a regular modem or DSL modem, your surge protector should have an R-11 telephone jack where you can hook up your telephone line.
- You also want to make sure the suppressor you choose meets the UL 1449 specifications (this will be listed on the box). Look for a UL label on the device package that states "UL Listed Transient Voltage Surge Suppressor," which will tell you that it's a surge protector and not merely a multiple-outlet power strip. Then, check for "UL Code 1449," which indicates that the product is safe for home use. If you don't see both of these indications, we don't recommend that you purchase the item for your PC.
- Good surge protectors typically include an indicator light or series of lights that shows the MOV is still working. Unfortunately, these lights aren't standardized, and the mere presence of a light may not indicate whether a device is no longer operational. Be sure to read the product box to make sure that the product has a light to indicate it's working properly, and consult the instruction manual to find out exactly what the light (or lights) means.

It is also important to remember that while a surge protector helps, it is not a guarantee against a direct lightning strike. Powering down and unplugging the system is the sure way to protect against lightning strikes.



Buying a surge protector is like buying a computer. You need to consider each unit's features, performance, longevity, manufacturer's reputation, and, of course, price.

Setting up a surge protector is typically a fairly simple process. You plug your PC and its components into the surge protector, plug the surge protector into a properly grounded outlet, and then turn on the surge protector. But if you use a dial-up modem to connect to the Internet, you'll want to make sure you protect your phone line, as well. To do so, plug a standard phone cord from the telephone wall connector into the input jack of the surge protector and plug one end of a second phone cord into the modem and the other end into the output jack.

### CUBS (Central Utility Backup Service)



Don't wait to start a data backup and recovery plan till it's too late to. All your hard work, photos and music could vanish in a blink of an eye. Backup services aren't just for

desktop systems or networks anymore; your laptop has all the latest features like computer tracking software, and finger print recognition etc., but if your system is lost or stolen how will you recover hours or even years of important data?

With CUBS! CUBS is a safe and easy to navigate, encrypted online back-up service. CUBS is our new Central Utility Backup Service that will give you piece of mind knowing your files are safe, secure, and easily retrievable from our remote location.

It only takes a few minutes to get started. Call us and get set up today!

505-832-4444

Home owners insurance may cover your equipment losses, but it doesn't help in retrieving your lost files, and no excuse will ease the pain of trying to recover your data. Don't let a fire, equipment failure, or a virus ruin your day. Keep your files safe with our CUBS. CUBS works with Windows, Mac, and Linux platforms quickly and easily.

- Automate your backup
- No more CDs to burn
- Secure off-site location
- Encrypted and secure files
- Starting at only \$12.50/month!
- Free test account for 30 days!