

Protecting Electronics during a Storm

Electrical items are vulnerable during storms as their electronics are sensitive to variations in electricity supply. Spike and surges are a rise in voltage in an electrical circuit above the electrical device's normal operating voltage. Spikes and surges can be caused by lightning strikes, power outages and short circuits. Spikes only last for milliseconds and as a result sometimes only fuses are blown. A surge can last for several seconds, meaning they often cause more damage than spikes.

During a thunder and lightning storm, like we have experienced in recent weeks, most people are unaware that high voltage may carry into equipment connected to the phone line such as phones, faxes and computers. If there is a surge or spike in the electricity supply, modems and phones are often the first pieces of electronic equipment affected. This is because of their very fragile components. Surges and spikes can travel down the power line and directly into electronics plugged into the power point. Sometimes you will be lucky and avoid damage however large surges can destroy computers, TV's and other electrical devices plugged into the power point. When electronics are damaged it will often end up being cheaper to replace the whole device rather than just the broken components. This means spikes and surges can not only be an expensive but also an inconvenient accident, causing the potential loss of important personal or business data stored on your computer.

If a storm is coming the best way to prevent your computer from electrical spikes is to shut it down, then unplug your computer, modem and monitor from the power points and the phone line. If you have an external modem, unplug it from the power point and the phone line. A couple of common mistakes people make is to only turn the power off at the switch rather than unplug the power cords or to only unplug the power cord and not the phone line.

If you're not home when the storm hits, or if the storm is unexpected, an Uninterruptable Power Supply (UPS) with built in surge protector will minimise the influence of spikes and surges and keep your computer operating when the power is off. After a long black out, a UPS will allow the computer to shut down properly minimising the chances of losing data. UPS start at about a hundred dollars depending on how long you want the computer to run for during a black out, and the level of surge protection you require. Some UPS provide surge protection for phone lines and ethernet cables which gives added surge protection. Many power boards are available with built in surge protection and they start at about \$10 each. Power boards can help protect from surges but a

UPS with surge protection gives the best protection during a storm, and can help protect your data by allowing you to shut down your computer correctly.

If you need to use a laptop during a storm remove any cables that are plugged into it and be sure to unplug the power adapter from the wall. Depending on the type of battery your laptop has you will have between 1 hour and 8 hours of use.

To minimise the impact of spikes and surges, in addition to a UPS I recommend external hard drive back ups and regular backups to CDs or DVDs. This means you always have a recent backup of your data just in case the UPS isn't able to stop a large surge and your computer is destroyed.

I do not recommend talking on the phone during a storm. Many people have been electrocuted from a surge down the phone line. If you need to make a call during a storm it is safer on a mobile phone or a cordless phone where there is no physical connection between you and the phone line. Cordless phone base stations can explode during a storm, so avoid standing too close when making your call.

Storms are not the only time when electronic equipments are subjected to power variations. Even a normal electricity supply will experience some normal variations. People who produce power with generators will experience voltage fluctuations and in these situations a UPS provides important protection to electronic devices even when there are no storms. The UPS keeps the voltage constant which protects your computer and therefore any important data stored on the computer. You can use a UPS on electronic equipment other than computers. The specifications required in the UPS and therefore the price will depend on how much power the devices requiring protection draw.

UPS are a worthy investment and could save you thousands of dollars in the long run. If you want to know more about purchasing a UPS or an external hard drive drop in and see Josh at the Internet Centre or give me a call on 6343 1720.