

July 2006 Newsletter

Well, it has been a while since my last newsletter. I became so busy that I planned to skip just one month and you can see how that worked out. Anyway, now that summer is into full swing, I am servicing many lightning related problems and figured it would be a good time to discuss this issue. Our homes are now filled with many electronic devices that are all susceptible to power surges, power outages and lightning strikes. Televisions, VCR's, DVD Players and Computers are just a few of the microprocessor based items commonly found in today's homes. Even common household items such as refrigerators, washing machines and coffee makers can contain microprocessor controlled functions.

How Many Microprocessors are in your Home?

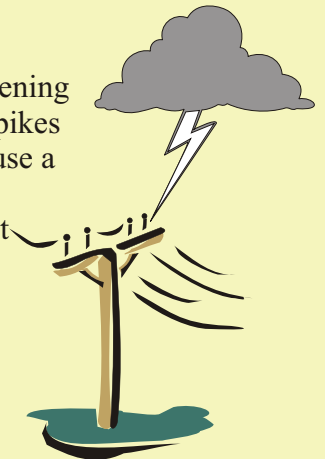


Almost every electrical appliance in the home now contains at least one microprocessor. I counted over 40 electronic devices in my house (my wife swears it's more like 400) and a single lightning strike could take out any one of them. I know by now that most everyone has one of those surge protected power strips on their computer, but what about that new flat screen TV you just purchased or that home entertainment unit? Here is a quick list of common items that could be susceptible to a lightning strike:

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|-------------------|--------------------------|------------------|-------------------------|
| TV's | Telephones | Fax Machine | Modems |
| VCR's | Answering Machines | Dishwashers | Routers |
| DVD Players | Clocks & Clock Radios | Washing Machines | Coffee Makers |
| Cable Boxes | Cell Phones (plugged in) | Clothes Dryer | Programable thermostats |
| TiVo or Replay TV | Computers | Stove/Oven | Air Conditioners |
| Game Consoles | Monitors | Microwave Oven | Programable Fans |
| Stereo systems | Printers | Mp3 players | |

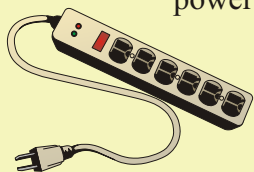
How do the effects of lightning get into your home?

It does not have to be a direct lightning hit to your house to cause damage. A lightning strike to a nearby utility pole, a neighbors home or even a tree can induce damaging spikes on your power lines, telephone lines and cable TV line. These spikes can not only cause a complete failure of electronic components but may also cause what is known as latent failures. This is where an electronic component is stressed and weakened and may not show up immediately, but may fail a few weeks or months later.



How to Protect your valuable equipment

There is no better protection than shutting off and unplugging all your electronics when you have notice of an impending thunderstorm. Unplugging means; **unplugging everything including power, phone, network and cable connections to all equipment.** But this is not always practical or even possible, especially if you are not even home at the time. The next best line of defense is the common Surge Protected power strip which can be purchased for about \$10. These strips protect against power spikes only but not against power failures. But keep in mind that you also need surge protection for phone, network and cable connections. For added protection against both power surges as well as power failures, the popular UPS (uninterruptible power supply) contains a battery to power your equipment during short term power outages. A UPS will cost you anywhere from \$50-\$200 depending on how much power you need. With so many products in the home that should have protection, a great addition is to have your local electrician install a Whole House Surge Protector. These devices are installed at your



electrical panel and help protect everything in your house. The typical cost can run from \$300-\$700 to have this installed. For the best protection, I recommend having the whole house surge protector installed as well as using a surge protected power strip or UPS on critical equipment such as Computers. ***Don't forget to protect your router, modem and phone and network cables as well.***



UPS

New Computer Running slower than expected?

It is not your imagination. Many manufacturers are preinstalling so many trial software packages that your brand new computer could actually seem like it is running slower than your old computer. It has gotten so bad that some retailers are actually offering cleaning services for brand new computers before you even take them home. I have recently suggested to customers to purchase business grade computers instead of retail or consumer brands, because business computers don't usually have all this extra junk. For those of you who are familiar with background processes, I have found some brand new computers with over 75 background processes running right out of the box. Processes are all the little programs that are loaded when the computer first starts and can include things like Required Windows components, Antivirus software, Firewalls, instant messenger, backup software and drivers/control panels for printers, touch pads and networking. To determine how many processes are running on your computer, hold down the Ctrl and ALT keys and tap the Del key. This will bring up your task manager that if you look in the bottom left of the window you will see the number of processes currently running. You can click on the Process tab at the top of the window to view the list of processes running, but most of them will not make any sense to you unless you are familiar with the program names. Your computer requires some processes to even run, but a finely tuned computer will usually have somewhere between 23 and 35 processes running. If you have a fully loaded computer you might approach 50-55 and maybe even 70 for some multi-media models. It all depends on your specific configuration and installation, but in the end, the more processes that have the longer it will take for your computer to boot and the slower it will run.

Tips for Buying a New Computer

As the price for laptop computers has dropped, many users are deciding to replace their desktop computers with laptops, but there are a few things you should keep in mind. The main thing that you should be aware of is that dollar for dollar, you get more for your money with a desktop computer. You are paying extra for the small size of a laptop. You will also pay extra for laptop repairs, should you need service after the warranty period. Laptops computers are a lot more difficult to work on and most all the replacement parts tend to be custom and must be ordered from the manufacturer which also means repairs will take longer.

General Computer Buying Tips

Buy early, before the back to school rush

If you wait too long, all the popular models will be out of stock.

Order recovery/reinstallation CD's from the manufacturer

Most computers do not come with reinstallation Cd's any more. I highly recommend calling the manufacturer and ordering these while they are still available. If your hard drive ever fails, you will need them to reinstall Windows.

Purchase all accessories and upgrades with the computer

If you are thinking about extra memory, extended battery or that docking station, don't wait, purchase these items with your computer. Models change so quickly that accessories may not be available at a later date. This is especially true with laptops.

Cooling Pads for Laptops

Heavy usage of your laptop can lead to overheating and premature failure. I suggest purchasing a laptop Cooling pad for stationary laptop usage.

Laptop Locks

Investing in a good laptop lock can help deter theft, especially for students going away to school.

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