How to choose a surge protector

9 April 2009, By Anne Krishnan

Question: The consensus is that it's proper to insert surge protectors between the power source and the computer. The question is, how big? How many joules? Is it true that they "wear out" in a year or so?

Answer: Surge protectors are designed to absorb surges or spikes in electrical current and keep them from damaging your sensitive electronic equipment.

They're important because microprocessors, an integral part of all computers and many household appliances, are particularly sensitive to surges and function properly only when they receive stable current at the right voltage.

According to the Web site, you should keep several things in mind when shopping for a surge protector:

Price: Assume that you'll have to pay at least $10 for a surge protector that will protect your system against bigger surges or spikes.

UL rating: Make sure it is labeled as a transient voltage surge suppressor, meaning it meets the Underwriters Laboratories 1449 criteria, the organization's minimum performance standard for surge suppressors.

Clamping voltage: This tells you how much voltage will trigger the surge protector; look for something under 400 V.

Energy absorption/dissipation: This rating tells you how much energy the surge protector can absorb before it fails. Look for a surge protector rated 600 joules or more.

Response time: This determines the length of time your computer is exposed to the surge. Look for a surge protector that responds in less than one nanosecond.

Indicator light: Surge protectors can wear out,

although when it happens depends more on the cumulative surges the protector has absorbed than any specific amount of time. An indicator light will let you know whether your surge protector is still able to protect the electronics plugged into it.

But while these factors are worth considering, you shouldn't have to spend a fortune on your surge protector, PC World wrote in "Busting the Biggest PC Myths." Energy dissipation and response time aren't a reliable indication of quality, the magazine said, suggesting that shoppers rely primarily on the UL rating.

Q: I have my computer set up for auto updates and recently downloaded a very long update. (I have a dial-up connection.) The next time I started the computer, I received a message that said "default bios settings have been loaded due to bios update or checksum issue." Every time I start up my computer now, the clock starts at 12 a.m. and everything else shows the date of 1-1-02. I also noticed that I now have Service Pack 3. How can I get my computer back to the present time?

A: The long update was the result of downloading Service Pack 3 for Windows XP, confirms Joe Vohwinkel, president of Raleigh, N.C.,-based Agave Partners Consulting.

However, the BIOS issue is one he hasn't seen before. He wouldn't expect a Windows update to change the BIOS; that's generally left to the computer manufacturer. For instance, Dell issues BIOS updates for its systems.

Vohwinkel did a quick Google search and found a number of matches online for the exact message you received. He suggests finding a BIOS update on your computer manufacturer's Web site and following the directions exactly.

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(Think you can stump the geeks? Send your high-tech question to stumpthegeeks at

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