

What's the Risk?

Electrical Surges



THE ISSUE

Electrical surges are brief overvoltage spikes that can damage, destroy, or degrade electronic equipment. Surges, created by lightning or equipment failure, can be a fire hazard and lead to property loss. According to the Ontario Electrical Safety Authority (ESA), damage caused by electrical surges is one of the leading sources of electrical equipment failure.



WHAT'S THE RISK?

Following a surge, electrical equipment (televisions, computers, refrigerator, dishwasher, etc.) may not operate properly or at all. Signs of a surge include equipment not working, a burnt wire smell near the device, or surge protectors that have tripped and cannot be reset. Although commonly overlooked, safety equipment attached to an electrical system in a building can also be damaged by an electrical surge. Examples are ground fault circuit interrupters (GFCI's), arc fault circuit interrupters (AFCI's) and, hard-wired smoke and carbon monoxide detectors. A visual inspection of these devices may not show any damage.



WHAT CAN BE DONE?

In the event of an electrical surge and to help protect your property against them, consider the following:

- Have an electrician install a whole home surge protector at your electrical panel. These devices provide the greatest level of protection for electrical equipment in a building.
- All electronic equipment should be protected with a surge protection device. Do not exceed the rated ampacity of the circuit or the surge protection device.
- Never plug one surge protection device into another one. This is called daisy chaining. When surge protectors are daisy chained, you decrease the surge protection capabilities and overload the initial circuits.
- When installing surge protectors, ensure the device is equipped with an indicator to show the circuit is grounded and operating properly. The indicator allows for easy inspection of the device following an electrical surge.
- If you think there was a surge, check all electrical equipment for visible damage and for equipment that is no longer operating. Have all damaged equipment checked by a qualified individual to determine the cause and extent of the damage.
- Following a surge, ensure all hard-wired equipment is functioning; the test button on GFCI's, AFCI's and smoke/carbon monoxide detectors can be used to determine if the device is still working properly.

