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Power surges: How can I protect my equipment? - by John Sloane

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In last month's column, we discussed what can cause power surges and how they can affect your equipment. Today, we'll address how you can protect your equipment and avoid the damage from an unexpected power surge.

One of the best lines of protection is a Uninterruptible Power Supply (UPS), which maintains your power at a continuous 120 volts by drawing from batteries. If, for example, electricity comes from the street at 110 volts, the UPS will add 10 volts from the battery to correct that and supply you with 120 volts. Likewise, if electricity comes in from the street at 130 volts, the UPS takes off the 10 volts and sends it to the capacitors so you stay consistent at 120 volts.

For someone working in an office, a UPS protects the computer components from frying, meaning that their hard drive isn't going to hiccup and die, and that the electronic equipment that you rely on every day is going to function properly and last longer.

At Interstate, we have computers that are plugged into outlets that are attached to a UPS, and the UPS is backed up by our generator. When we lose power for the ninety seconds that it takes for our commercial generator to start, the UPS maintains 120 volts by drawing on the battery, and the generator starts and sends the power back to the UPS.

We also install UPS units for our customers quite often, especially for those with vital equipment that must be constantly online. Outages for important equipment—from data servers to HVAC units to individual workstations—can be astronomically costly. Installing a UPS system can pay for itself after just one service interruption.

Any time you switch from one power source to another - from the street to the generator, and the generator back to the street, for example - there are surges, there are lags, and there are all kinds of spikes. The UPS filters all that out, so what's flowing to the equipment is a smooth 120 volts, powering computers, servers, the data room, and all of the expensive electronics used for production. At Interstate, we rely on costly electronic printing equipment for printing large blueprints, and all of this equipment needs to be protected by clean power.

Nobody is immune to power surges that can be damaging to equipment. A UPS provides you with clean power - it's one of the best investments a business with vital electronic equipment can make. Bottom line - it's simply a matter of protecting your equipment and basic common sense.

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