

## ■ Why Surge Suppression?



### **Transient disturbances can disrupt or cripple equipment, causing loss of data, productivity and money.**

Just when did the power we've used for years get to be so dirty? The answer is that it's always been that way. But in the past, machines weren't quite so sensitive. A surge may have gone un-noticed. Electric motors were simple and rugged enough to run almost endlessly. Electric typewriters could work night and day, unfettered by surges or other changes in voltage. Electric equipment—from lights to heavy machinery—was unfazed by EMI, short for electromagnetic interference.

Today, the devices we take for granted—from PCs, mainframes, FAX machines, and PBX terminals to complex facilities with robotic equipment and more—have become increasingly sophisticated. In addition, new types of electronic products operate at very low voltages and amperage levels. As a result, machines that contain modern, electronic printed circuit boards are very sensitive to power source changes and disturbances like a surge. What's more, there are very few electrically based products nowadays that are not controlled by new electronic microchips and circuit boards.

The nature of electric power, on the other hand, has changed very little in the past few decades. Words like surge, spike, transient suppressing, and fluctuations now pepper our everyday language. But for a user of sensitive computer equipment, for example, any one of these electrical abnormalities can cause disaster. Hard drives can crash from an unexpected voltage surge. Circuits can be damaged. Equipment can go down. The list goes on and on.

Another nemesis to modern electronic equipment is lightning strikes. These strikes occur worldwide with staggering frequency. In all, there are an average of 1,900 thunderstorms in progress around the world at any given moment. And the impact from lightning can be catastrophic, causing an estimated \$200 million in property damage, companies need lightning protection.

Other sources of power fluctuations can be just as harmful and can occur even more frequently than lightning. These power problems are most noted with equipment that runs in cycles, or has numerous on-off stages. Examples include air conditioners, refrigerators, and other high-amperage drawing equipment.

But there is a way to clean up the electricity you use—before it can cause damage. The key is to eliminate the disturbances at the source. Sola's broad range of surge suppression products makes it easy and cost-effective to safeguard electronic equipment from a majority of malfunctions, downtime, or failure. We lead the way in innovative surge protection solutions and are one of the largest, trusted names in the industry.