



February 15, 2008

Why Surge Protection is necessary in today's electrical systems

1. **Lightning Damage** - Lightning damages all electrical equipment and especially electronics. IEEE recommends installing surge suppression in multiple layers to reduce Lightning damage. See attached IEEE recommendations.
2. **Ringling Transients** - According to studies, 80+ % of all surge damage is caused by other electrical Equipment or electronics, inside the facility. See IEE recommendations attached.
3. **Sensitive Equipment** - Electrical equipment manufacturers are producing more equipment with electronic components, which are more susceptible to surge damage or can have errors in their operation due to surges on the system. Most circuit board failures are caused by surges.
4. **Downtime Can Be Expensive** - Downtime due to equipment failure, which can be for an extended period, can be very expensive. Surge protection is much less expensive than the alternative.
5. **Improve Efficiency** - Overall company efficiency is improved when a system wide surge prevention strategy is implemented.
 - a. Many companies are installing UPS systems to avoid extended downtime, with good reason, and yet surge suppression may be overlooked in the process. In reality the UPS equipment needs surge protection at least as much as the rest of the facility and in itself is not a solution for surges.
 - b. Maintenance Free - Unlike the UPS, TPS Joslyn Surge Track product, when sized properly and installed correctly, will operate for many years without any maintenance whatsoever. With a 30 Year replacement warranty, this equipment will require approximately one man-hour to install and may never require any additional attention.
 - c. Cost of replacement Lamps and Ballasts will be reduced greatly with the proper surge protection strategy.
6. **ROI** is important to most companies.
 - a. Return on Investment, for companies that install surge protection from TPS Joslyn, is less than 3 years. In many cases the return on investment is less than 1 year.
7. **Life Cycle Savings** – when an effective strategy is implemented with TPS Joslyn Surge Track products, the return on investment is repeated for at least 30 years. When you spend \$ 10,000 to install surge protection for one system and realize a 2 year ROI – You will save approximately \$10,000 every 2 years for the next 28 years. $14 \times \$10,000 =$ **\$140,000 Life Cycle savings after the investment is returned.**

We will be happy to assist in developing a strategy for your facility.

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