

Power Protection Myths and Truths

MYTH	TRUTH
<p>Office equipment comes with adequate internal power protection, so there is no need for an external surge protector or line filter. FALSE!</p>	<p>The switched-mode Power Supply within office equipment offers no protection from common mode noise, and minimal protection against small surges, falling well short of the IEEE standards and the manufacturer's recommendations regarding surge protection.</p>
<p>A dedicated line (outlet) will prevent power problems from occurring. FALSE!</p>	<p>It is extremely unlikely your customer installed a dedicated line with an isolated ground. Without an isolated ground this line is not immune to noise disruptions and will not prevent against harmful surges.</p>
<p>Office equipment in new buildings is not susceptible to power problems. FALSE!</p>	<p>The majority of power problems are created internally – within a facility – by improper wiring, overloaded circuits, and other equipment being used in the building. <i>“Studies show that up to 80% of most...power quality problems are caused by disturbances created inside of a facility or business.” Arizona Power (www.aps.com)</i></p>
<p>The Cat5e network standard is not a recognized or credible standard for network connectivity and protection. FALSE!</p>	<p>Cat5e TIA/EIA 568-B.2 Standard is the official standard and the minimum requirement for network hardware.</p>
<p>Network and fax lines are not susceptible to power disruptions. FALSE!</p>	<p>Network and fax lines can carry harmful surges directly into equipment that is not properly protected. <i>“We see far more damage due to power surges on the data (phone & network) circuits than on the AC circuits.” John Meyer, Hytec Technical Manager</i></p>
<p>DSL and fax lines are not susceptible to noise. FALSE!</p>	<p>Fax lines can be adversely affected by DSL signals transmitted over the phone lines. Voice signals are carried in the 0 to 4 kHz band, while DSL signals are carried at higher frequencies on the same transmission line. Interference and noise from the DSL signal can disrupt fax transmissions unless a proper filter is installed.</p>
<p>Off the shelf power strips and other commonly used surge protectors are sufficient to protect our equipment. We don't need anything extra. FALSE!</p>	<p>Most power strip type surge suppressors offer very limited protection, and many are little more than a multi outlet extension cord.</p>
<p>High frequency voltage can be measured at the wall outlet using a meter or Sure Test device. FALSE!</p>	<p>It is impossible to measure this voltage without sophisticated high frequency laboratory equipment.</p>