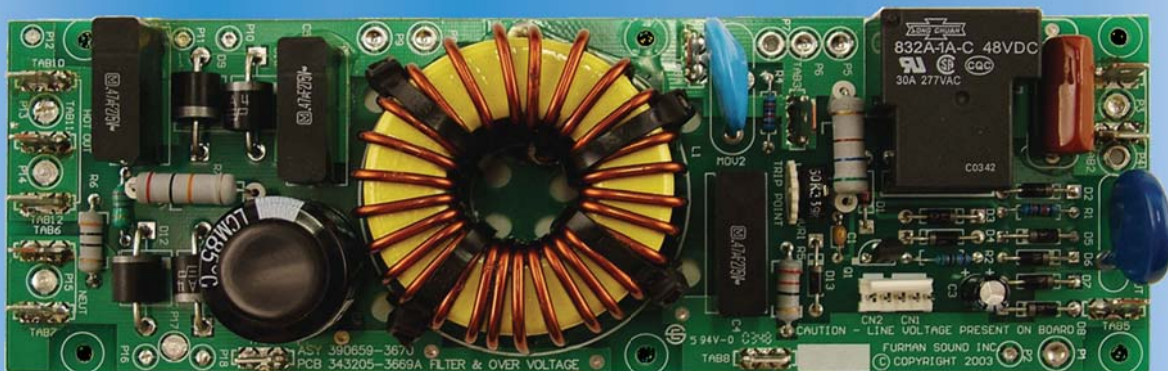


FURMAN



SMP (Series Multi-Stage Protection Plus)

Audio/video professionals can never accept down time, corrupted data, or unreliability. It is for this reason that a robust, professional level transient voltage surge suppression system, such as SMP, is the best choice for critical applications. With SMP, there is virtually no downtime. In fact, the circuit is tested to handle multiple 6000 volt or 3000 amp pulses without sustaining any damage. This is far beyond the demands placed on typical surge suppressors. But because of the extreme conditions and critical applications faced by Furman's clients, the SMP circuit has been designed to pass this severe test and ensure that equipment damage or maintenance is extremely unlikely.



Furman's SMP relies on a network of components to slow down the impact of a potentially catastrophic surge by capturing it, dissipating it in the form of heat, and absorbing the remaining excess energy. When tested with multiple 6,000V/3,000A surges, the SMP circuit's maximum let-through voltage is only 376V Pk / 266V RMS on a 230V line. Due to the design of the circuit, it will not degrade over time (unlike most standard surge suppressors) and show minimal increase in line impedance (unlike many advanced surge suppressors). The SMP circuit is not simply designed to protect from a catastrophic surge, such as a lightning strike - it is engineered to provide maximum life to connected equipment. This means it not only protects from devastating spikes and surges, but also offers protection from the dozens to hundreds of small spikes and surges your equipment is exposed to on a daily basis. These common voltage fluctuations, although small, can have a serious adverse effect over the long-term. Even when protected by a standard surge protector, digital circuits can see long-term damage due to exposure of voltage on the ground line, causing intermittent behavior, equipment lock-ups, and data loss. By absorbing these everyday surges without deterioration of the circuit or contamination of the ground line, Furman's SMP maximizes the longevity of connected equipment and minimizes the risk of downtime or failure in mission-critical applications.

FURMAN

LiFT (Linear Filtering Technology)



While delivering your power, your AC tap also delivers a significant amount of line noise. This is due to many reasons: the widening popularity of switching power supplies and the harmonics they backfeed into our AC power mains, the deterioration of our power grid from age and use, and the noise pollution generated from the massive amounts of electronic devices on our grid at any given time, among others. When this AC noise couples into critical circuits, it will distort and mask low-level signal information. This information is vital to today's high-performance, high-definition video and audio.

Furman's LiFT employs a finely tuned low-pass filter to reduce the differential AC noise coming through your line. What is significant about Furman's filtering is that it reduces the AC noise in a linear fashion across a very wide bandwidth. Prior filtering schemes (such as those found in most AC conditioners and in Furman's own conditioners prior to developing LiFT) reduce noise unevenly, creating a noise attenuation curve that resembles a roller coaster. This is akin to a poor job of equalizing a recording. With Furman's LiFT, differential AC noise is reduced linearly, across a very wide bandwidth, even extending into the video frequencies. This results in a lower noise floor for your audio system, improved picture on your video display, and protection from possible data corruption and losses caused by low-level differential AC noise fed into digital systems.



EVS (Extreme Voltage Shutdown)

Transient spikes and ground contamination are not the only problems faced by today's sensitive electronics. There are also sustained over voltage conditions, sometimes called extreme voltages. Many surge suppression devices will not be able to protect equipment from sustained over voltages. These conditions can occur for multiple reasons: wiring faults, storms and traffic accidents, and accidental connections can result in delivery of over 400V to your connected equipment. Many surge suppression devices are not equipped to handle these kind of conditions. Without proper protection, the end result is destroyed equipment, or at best, a destroyed surge suppression system. Furman's EVS constantly monitors incoming voltage, and once any overvoltage condition over 275 volts AC is detected, a relay opens which immediately shuts down the unit and all connected equipment. An indicator light informs the user there is a problem, and once the condition has been corrected, the unit may be reset and will operate normally.