



**“How can we accomplish this in a faster time, with better results, for less cost?”**

*By asking these questions, technology has continued to advance. One example of this is the Programmable Logic Controller (PLC).*

## WHAT EXACTLY IS A PLC?

It is a digital computer used for automation of typically industrial electromechanical processes, such as control of machinery on factory assembly lines, amusement rides, or light fixtures. It is the brain that keeps the systems running smoothly.

The PLC aided tremendously in the early development of high run rate manufacturing. It allowed for the control of several process from one, programmed location, saving time and effort in running assembly lines.

## PLCs are the brains of the operation!

As with most electronic processing equipment, the capabilities and complexities of the PLC are matched by the delicate treatment needed to protect the device. The reality is that a PLC is in fact a computer, meaning there are a whole range of issues with the electrical environment in which these small wonders are now being placed.

It is commonplace for PLC manufacturers and system integrators to communicate to their clients that the systems they install are ruggedized and designed for the harshest of industrial environments. While at the same time, they include fine print recommending proper surge protection devices and that the operating environment is the responsibility of the user. This is where SineTamer® comes into the picture.

## Why SineTamer®?

The typical SPD (Surge Protective Device) is voltage triggered only. The clamping operation of the SPD will occur at a set point above/below the sinewave. These operations, while successful in mitigating the damaging impacts of lightning or utility company events, are useless when dealing with the real source of the problem. It is not just the voltage events to worry about; it's the frequency change events as well! The high inductive load transient events occur in such a manner as to create false zero crossings that create false triggering of diodes, timing issues, errors, and resets.

In every known instance of applying SineTamer® to existing issues related to power, all have been eliminated and the return on investment has been 10 months or less.



# THERE IS FINALLY A SOLUTION.

The unique Frequency Attenuation Network™ contained in SineTamer® circuitry provides the security and reliability demanded of by today's electronic infrastructure. Where other technologies are ineffective and give credence to the adage, "surge protectors just don't work," they do not operate like SineTamer®.

## RESULTS IN ACTION!

SevenUp Bottling Company Plc. out of Nigeria was experiencing continuous resets on bottle filling machines until SineTamer® was finally installed. Resets reduced over 90% and uptime increased dramatically.

Maintenance technicians in Bogota Colombia had come to accept the periodic failures and disruptions in the traffic light control boxes. That is until SineTamer® found its way into the cabinets reducing failures and disruptions by 85%.

A Plant manager for a packaging company decided to implement SineTamer® to increase production and get a quick return on investment. Electrical failures in each of the seven plant areas related to PLC's and power supplies decreased from an average of 55% to 0%. Since implementation the plant has saved over \$3 million dollars in reduction of machine shut downs and improved production availability.

A cigarette manufacturing location in Paraguay was experiencing 2-3 stoppages per month in the filling machines due to confusion in the PLC's resulting in a stoppage time of at least 1 hour per shift. During the 2 years since installing our product, only one stoppage on that line has occurred, and it was determined that it was NOT electrically related. The return on investment which took into account the lost production opportunity was a mere 28 days!



**"We ARE the Standard!"®**

These stories come to us virtually every month from one of our clients or distributors in more than 40 countries around the world. We no longer hear that "surge protectors don't work;" it has now changed to "Surge protectors don't work, but SineTamer® certainly does."

Join the growing list of satisfied clients who are insuring the uptime of their electronic infrastructure and improving their lives! SineTamer®, We ARE the Standard!®

call ECS: 817.483.8497 • visit us online: [www.sinetamer.com](http://www.sinetamer.com)

