

# Protecting Digital Signage Systems from Power Problems

The Digital Signage market is growing with extraordinary speed. As buyers across a rapidly expanding range of industries invest massive sums of money in the content, source machinery and players which comprise these systems, the choice to keep them protected from power problems is crucial—and frequently, dangerously overlooked.



[www.tripplite.com](http://www.tripplite.com)

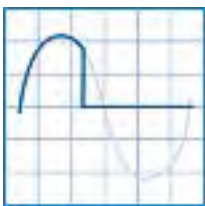
In today's expanding discussions surrounding Digital Signage, contributors are placing significant attention on the numerous ways in which Digital Signage can serve and increase revenue across a wide breadth of industries. In his January, 2010 article at Digital Signage Today.com, prominent independent consultant Lyle Bunn notes that forecasts by industry analysts place industry projections of spending on Digital Signage in excess of \$1.2 billion annually.

“So the question is not whether or not an end-user or supplier organization will engage with digital signage during 2010, but ‘how’... End-users will lose revenue and patrons to competitors that use the medium, or will enjoy the benefits of more effective communications spending, meeting the information needs of target audiences.... the effectiveness of digital signage as a communications device is being proven across a wide spectrum of projects.”

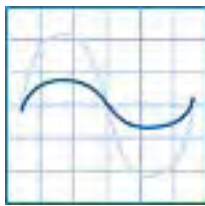
By leaving their Digital Signage players, displays and software vulnerable to power surges and outages, purchasers risk losing their entire investments in these systems.

The inherent opportunities in this industry-wide growth highlight an essential need: with more than one billion dollars being spent annually on Digital Signage devices, power protection for those devices is a crucial necessity. By leaving their Digital Signage source players, displays and software vulnerable to power surges and outages, purchasers risk losing their entire investments in these systems.

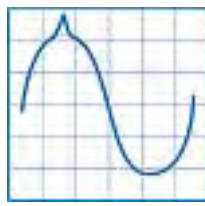
To appreciate the gravity of the risk involved, it is best to consider the fact that *all electronics are vulnerable to power problems*. Despite advances in technology, power grids across the country are struggling to supply reliable power to homes and businesses. The increasing occurrence of large natural disasters, such as hurricanes, and the growing demand for electricity have created a significant strain on power grids and an increase in damaging power problems. IBM estimates that, in any given month, a typical computer will be hit by 120 power problems: four power problems each day. As a result, computer systems and electronics are under siege by more frequent blackouts, brownouts, overvoltages, surges and other power anomalies, all of which can result in downtime or lockups, data loss, productivity loss, audio static, video snow, slow electronic degradation and, ultimately, catastrophic equipment damage.



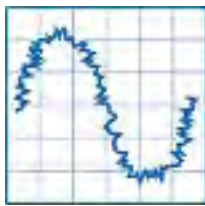
**PROBLEM:**  
Blackout (complete loss of power)



**PROBLEM:**  
Brownout (low voltage conditions)



**PROBLEM:**  
Surge/Spike (voltage increase from lightning, etc.)



**PROBLEM:**  
EMI/RFI (noise from appliances, etc.)

All electronics are vulnerable to power problems, and thus need power protection to remain fully functional.

Although individuals and businesses frequently protect their computers and other electronics, recent patterns in Digital Signage purchasing indicate that purchasers are omitting this necessary step in preparing for their installations. Although the costs of purchasing and installation are often borne by the content provider (usually an advertiser), buying decisions are most often made by the installer. The installer is contracted to connect the content source to the display, both of which are owned by the end-user. Protecting the end-user's equipment doesn't typically fall within the installer's or the advertiser's priorities.

Further, many people tend to regard Digital Signage as something passive and expendable, equivalent to wallpaper or a street sign. Because we encounter Digital Signage displays in a growing variety of locations, serving multiple functions, the displays quickly blend into the overall audio/visual landscape of daily life, and we – and those responsible for purchasing Digital Signage components – can easily forget that *all electronics are vulnerable to power problems*, and thus need power protection to remain fully functional.



Hardware functionality is not the only element at risk: A study by Contingency Planning and Management has found that power failures and surges account for over 45% of computer data loss—so clients who leave their Digital Signage systems vulnerable to power problems are gambling not only with their electronic equipment, but with the content it is intended to display. Without power protection, clients put the entire Digital Signage investments at risk, including the the monetary and productivity-related expenses of service calls and the costs of replacing the equipment and software. Compounding this gamble is the possible loss of the revenue which the Digital Signage system generates and services it provides—consider the monetary and/or human cost of being suddenly without:

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- Retail Sales Promotional Video / P.O.S. Displays (Retailer)



- Flight Status Information (Airport)



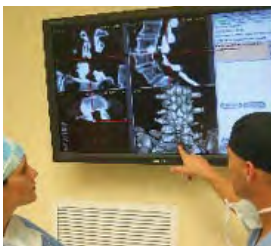
- Trade Show Presentations (Automobile / Equipment Manufacturer, Event Promoter)



- Quick-Service Menus (Restaurant)



- Medical Records / Surgical Monitors / Directions to the Emergency Room / Triage Center (Hospital)



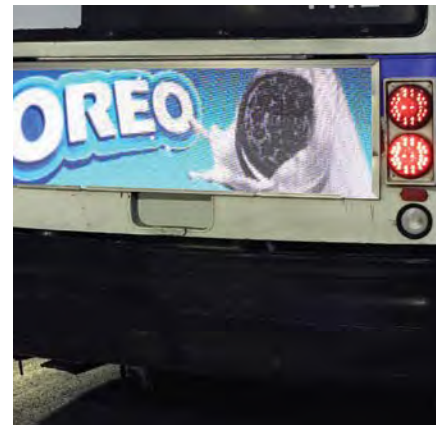
- Educational / Training Materials (University / Corporate Development Site)



In addition, a Digital Signage installation requires independent protection, separate from other systems at its location. If, due to an overtaxed power protection system, a retailer should experience the failure of the computer network controlling its cash registers and the digital displays advertising its new products, not only are all current sales brought to an immediate halt, but future sales revenues are significantly hurt because customers no longer receive promotional information. With the two systems protected independently of each other, however, each can continue to operate even if the other experiences an outage.

With the separate electronics systems protected independently of each other, each can continue to operate even if the other experiences an outage.

The exact equipment and protection requirements of Digital Signage displays are as varied as the customers who utilize them. From national retail and restaurant chains to individual small businesses, corporate campuses to emergency medical and public service facilities, the specific needs will vary, but the overall essentials are the same: top-quality, independent power protection for all Digital Signage components.



**Tripp Lite** power protection is essential to protecting your Digital Signage investment. From the public display panels to the back room content sources, from the single-display installation in a neighborhood restaurant to the near-countless units used in an international airport, Tripp Lite meets the protection and networking needs of today's growing Digital Signage market:

## At the Front End: Protect Your Display Panel with Surge Suppressors.

Whether your installation requires one screen or many, Tripp Lite surge suppressors help ensure clear, reliable delivery of your message by safeguarding monitors from damaging power surges and line noise. They enable you to power multiple devices from a single AC power outlet, easing installation in many locations.

### Single-Display Installations

**Retailers** often need power protection installed at individual locations such as **registers, demonstration sites and information displays.**

#### Tripp Lite Solutions Include:



Each flat-panel display, as used in **trade shows, training rooms, educational sites, auditoria and service centers,** needs a single surge suppressor mounted directly behind the panel.

#### Tripp Lite Solutions Include:



Tripp Lite surge suppressors help ensure clear, reliable delivery of your message.



**Healthcare applications** often require surge suppressors equipped with hospital-grade plugs and receptacles that meet specifications for use in **hospitals, doctor's offices, clinics and waiting rooms.**

**Tripp Lite Solutions Include:**



**SPS-615-HG**



**ISOBAR6ULTRAHG**

### Multiple-Display Installations

Multi-display panel installations, such as **quick-service menus, flight status boards and stock exchange displays,** are usually controlled from central points in a back room, service closet or data center. Rackmounted solutions are often the best choice in these instances, as they protect multiple display within a single location.

**Tripp Lite Solutions Include:**



**ISOBAR12ULTRA**



**IBAR12-20ULTRA**



**HT1210ISOCTR**



**DRS-1215**

For Critical/Emergency Systems, Tripp Lite recommends further Display Panel backup with the **SMART750RML2U UPS System, or larger.**



**SMART750RML2U or Larger**



*The Tripp Lite Solutions listed here are among many possible options. To see our full line of Surge Suppressors, go to [www.tripplite.com/selector/surge](http://www.tripplite.com/selector/surge).*

## At the Back End: Protect Your Content Source and Content with Uninterruptible Power Supply (UPS) Systems.

All electronics need power protection, and here it is: comprehensive protection for computer data and for all electronics—high-definition content sources, servers, computers, DVD players, etc.—against all power problems. Tripp Lite UPS Systems allow you to base your installation on a strong foundation: they prevent power anomalies from destroying programming content, reduce the need for costly service calls and enable outlet-bank reboots in any source that freezes up. With designs encompassing flat-pack compact and tower models for stealth/specialty applications, rackmount models for head-end distribution applications and cabinet-sized units to protect large-scale installations, Tripp Lite UPS Systems provide continuous power and battery backup for any Digital Signage requirement.



Tripp Lite UPS Systems provide continuous power and battery backup for Digital Signage requirements of any size.

### Standard Systems (Good Protection and Good Availability)

Frequent applications include **campus information display systems, restaurant menu displays, point-of-sale promotional systems and digital billboards.**

#### Tripp Lite Solutions Include:

Single Computer Source



SMART750RM1U or Larger

Multiple Computer Sources



SMART1500RM2U or Larger

### High-Priority Systems (Better Protection and Better Availability)

Frequent applications include **point-of-sale checkout systems, training systems and presentation systems.**

#### Tripp Lite Solutions Include:

Single Computer Source



SU750RTXL2U or Larger

Multiple Computer Sources



SU1500RTXL2Ua or Larger





## Critical/Emergency Systems (Best Protection, Best Availability, Extended Runtime and Display Panel Battery Backup)

Frequent applications include **emergency information systems, transportation schedules, event information systems, security systems and medical information systems.**

### Tripp Lite Solutions Include:

Single Computer Source



SU1500RTXL2Ua or Larger

Multiple Computer Sources



SU5000RT4U or Larger

For back-end **systems larger than 20kVA**, Tripp Lite recommends **SmartOnline™ 3-Phase UPS Systems.**



SU10KRT3/1X



SU60K

If your content source is a **digital media player**, Tripp Lite recommends the **HT2210ISOCTR Low-Profile Power Center** to protect it.



HT2210ISOCTR



*To find the ideal UPS battery backup solution for your application, go to Tripp Lite's dynamic UPS Selector Guide at [www.tripplite.com/selector/ups](http://www.tripplite.com/selector/ups). For installations larger than 10kVA, contact Tripp Lite's Application Specialists at 773.869.1236.*

## Once Your Display Panel, Source and Content are Protected, Rely on Tripp Lite to Connect Your Entire Network.

Tripp Lite offers a wealth of cabling options for all Digital Signage applications, from retrofitting early-model equipment to meeting the needs of ongoing technological developments:

- Standard VGA, DVI and HDMI cable with lengths up to 100 ft.
- Cat5 cable, for increased flexibility. Tripp Lite has a larger selection of Over Cat5 solutions than its competitors, including individual cable lengths up to 1000 ft.
- Plenum-rated cable, for applications requiring passage through air ducts
- Digital (DVI/HDMI) and Analog (VGA) cable



To see our full line of Cables and Connectivity solutions, go to [www.tripplite.com/selector/cables](http://www.tripplite.com/selector/cables)

## Need More AC Outlets?

Tripp Lite's highly reliable, multiple-outlet Power Distribution Units (PDU) deliver power to mission-critical display panels, servers, computers, media players, etc.; switched models enable individual-outlet reboot in the event that a source freezes up.



To see our full line of PDUs, go to [www.tripplite.com/selector/pdu](http://www.tripplite.com/selector/pdu)

## Eliminate Expensive Service Calls!

DBS receivers/HD sources suddenly not getting the signal? Media server freeze up? Reboot from anywhere in the world with Tripp Lite's IP Console Servers: they are ideal for applications requiring the highest availability, the ability to solve complex problems remotely and the ability to manage large, complex equipment installations through a single IP address. They give you secure remote access to your system, even in the event of network outage or equipment malfunction, so you can get operations back up and get on with your life...no service call necessary.

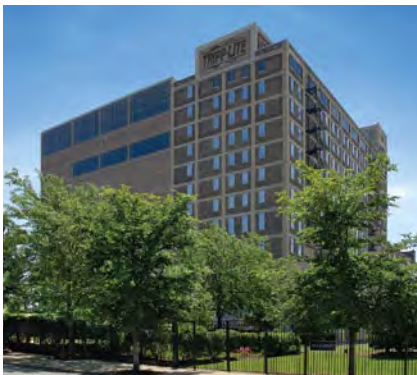


To see our full line of IP Console Servers, go to [www.tripplite.com/consoleservers](http://www.tripplite.com/consoleservers)

## CONCLUSION

The Digital Signage market is growing with dramatic speed. As businesses across an expanding range of industries invest staggering sums of money in the content, source players and displays which comprise these systems, the choice to protect from power problems is essential. More than anyone else in the industry, Tripp Lite provides the breadth of top-quality products, as well as the service, pricing and environmentally friendly solutions necessary to meet this need in all Digital Signage applications.

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Tripp Lite is a leading manufacturer of products that power, connect and protect computers and other electronics. Founded in 1922, it is best known for its Uninterruptible Power Supply (UPS) systems and Isobar® Surge Suppressors (with over 16 million sold). The company manufactures over 1000 products, serving the IT, medical, audio/video, telecommunications, industrial, government and education sectors worldwide. Tripp Lite serves a customer base in over 80 countries and is an industry leader in environmental initiatives. Headquartered in Chicago, IL, it maintains offices in Mexico City, Dubai and Moscow, multiple regional distribution centers around the world and hundreds of local service centers and sales offices.



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