

DataShield™

Data Communication Line Surge Suppressors

The
DATASHIELD™
Difference

The Need For Dataline Surge Suppression

Data networks are increasingly susceptible to problems from dataline transients as transmission rates continue to rise and vital processing power is decentralized. Power line surge suppressors and UPS systems provide networks with much needed protection against AC disturbances, but still leave vulnerable network data ports unprotected against surges on the data line. Tripp Lite's DataShield dataline surge suppressors safely divert these damaging surges before they reach the critical network equipment you depend on.

The Source of the Surge Problem

While many surges on the dataline are products of nature, including lightning strikes, static build up, and cloud to cloud discharges, dataline surges are also man made. Faulty wiring, copier/laser printer cycling, ground loops and AC circuit variations across facilities and from building to building routinely produce dataline surges. Symptoms of these problems can appear as garbled data, system lock-ups, general protection faults, and slowed transmissions. But more serious damage includes failed or damaged network interface cards, serial ports, modem/fax cards and motherboards. These problems can be prevented by using DataShield surge suppressors in conjunction with a Tripp Lite UPS system

or ISOBAR surge suppressor.

DataShield's Balanced Protection

Data I/O ports depend on sensitive computer circuits which process voltages as low as four volts. Transmission voltages varying by a few volts can cause minor processing errors. But when these circuits are exposed to even small overvoltages in the tens of volts, I/O ports can fail. DataShield surge suppressors employ balanced arrays of high speed avalanche diodes to safely divert these excess energies away from your network components, ensuring reliable communications and hardware integrity.

The industry's most complete line of protection solutions, available for virtually every network interface

State of the art balanced array technology protects all common and transverse modes

Units automatically reset themselves after each use

SilentNode™ failure mode immediately alerts you that unit needs replacement

The industry's highest surge current handling—up to 300% more than Brand A

Ultra low line capacitance permits longer cable runs with faster data rates and less crosstalk

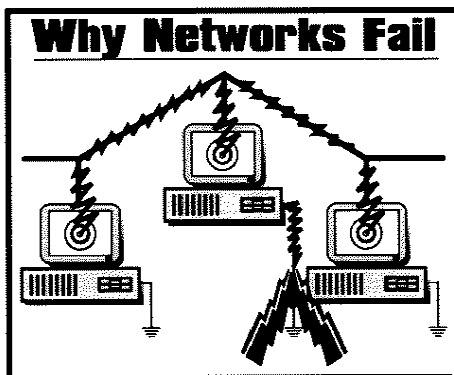
10" ground wires with soldered fork terminals deliver the most effective clamping levels — up to 33% more effective than 17" crimped units

Gold plated contacts provide superior conductivity for data integrity

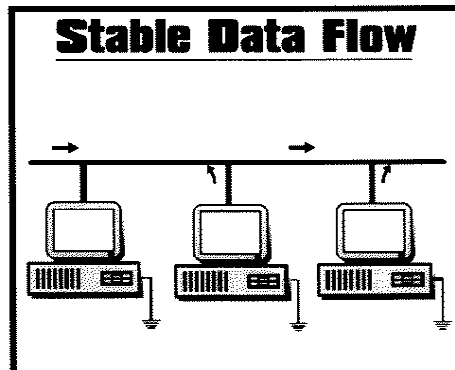
"At-the-port" placement yields the industry's most effective protector design

Comprehensive compatibility with the latest networking standards, including EIA/TIA 568 Category 5

Lifetime product warranty



- Surge energy is instantly conducted by chassis ground, "raising" the network component with respect to ground
- Suddenly, network cabling is a direct path to a "lower" ground reference. Like water flowing downhill, surge energy seeks out this path to get to earth
- First exiting through a vulnerable line driver chip, surge energy goes on to slam into receiver circuits of connected equipment until dissipated
- Line driver and receiver circuits fail, degrade or misinterpret data. You lose productivity



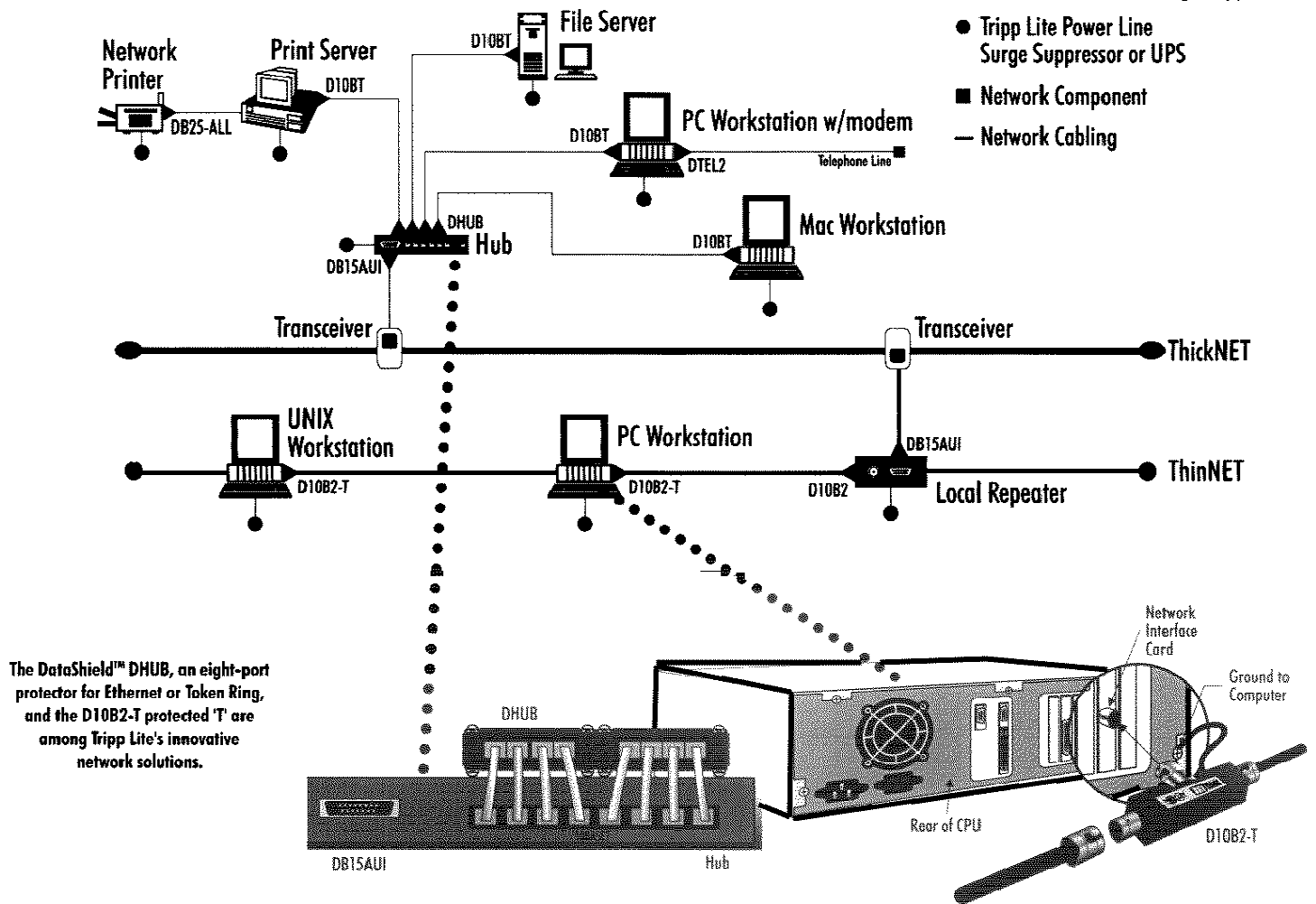
- Transmission voltages with respect to ground are equivalent across the network



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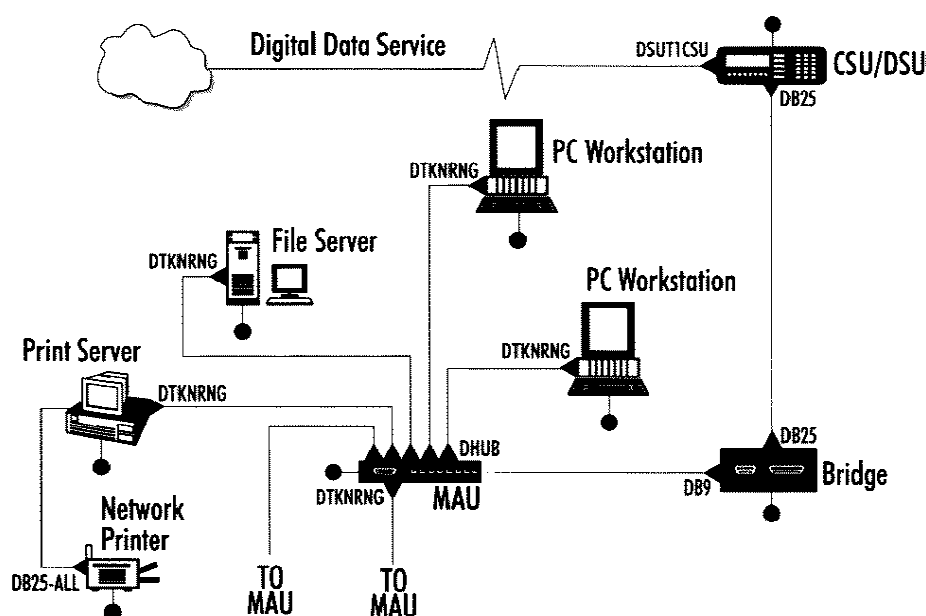
Ethernet Application

- ▲ DataShield Dataline Surge Suppressor
- Tripp Lite Power Line Surge Suppressor or UPS
- Network Component
- Network Cabling



Token Ring Application

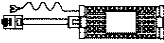

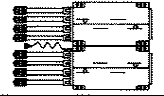

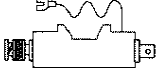





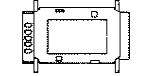





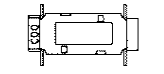

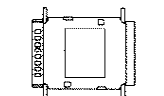

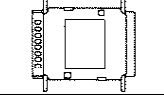



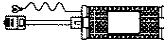

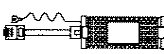

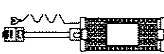

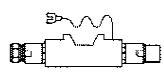

- ▲ DataShield Dataline Surge Suppressor
- Tripp Lite Power Line Surge Suppressor or UPS
- Network Component
- Network Cabling



EXCLUSIVE:

DataShield is available for virtually any network interconnection. If yours is not listed here call Tripp Lite Customer Support at (312) 755-5401.

DataShield Specifications

Model		Application	Lines Protected	Interface Type	Clamping Voltage	Peak Pulse Current 8/20 μ s waveform	Maximum Shunt Cap.
D10BT		Protects 10Base-T ethernet network interface cards, bridges, routers, etc.	1,2,3,6	RJ45 	7.5V	750 amps	<40pF
DHUB		8 port ethernet, token ring and RS422/423/485 protector with a single grounding point. Ideal for hubs, repeaters, terminal servers, MUXs, MAUs, etc.	1-8	RJ45 	7.5V	750 amps	<40pF
D10B2		Protects 10Base-2 (thin coax) ethernet network interface cards, bridges, routers, etc. Also protects IBM 3270 and CCTV lines.	Center, Shield & Chassis	BNC coax 	7.5V	750 amps	<30pF
D10B2-T		Above in convenient T version (jack/plug/jack) for clean, low loss, 10Base-2 ethernet. Also protects IBM 3270 and CCTV lines.	Center, Shield & Chassis	BNC coax 	7.5V	750 amps	<30pF
D10B5		Protects 10Base-5 (thick coax) ethernet network interface cards, bridges, routers, etc.	Center, Shield & Chassis	Type N coax 	7.5V	750 amps	<30pF
DB15AUI		Protects ethernet AUI ports on all types of network equipment.	IEEE 802.3 pins	DB15 	7.5V & 18V	750 amps	<15pF
DTKNRNG		Protects token ring network interface cards, MAUs, repeaters, etc.	3,4,5,6	RJ45 	7.5V	750 amps	<40pF
DTWINAX		Twinaxial AS400/Sys3x protector (male/female).	Both wires, Shield & Chassis	Twinax 	10V	500 amps	<30pF
DB9		Protects RS-232 DB9 serial ports of data terminal and data communication equipment including PCs, printers, fax/modems, etc. User configurable for either male or female captive ports.	1-9, and Chassis	DB9 	18V	340 amps	<30pF
DB25		Protects many RS-232 DB25 serial ports of data terminal and data communication equipment including PCs, printers, fax/modems, etc. User configurable for either male or female captive ports.	1-8, 20, and Chassis	DB25 	18V	340 amps	<30pF
DB25-ALL		Protects any RS-232 serial DB25 regardless of cable configuration. Self-programming to your application. User configurable for male or female captive ports.	1-25, and Chassis	DB25 	18V	340 amps	<30pF
DHUB-18V		8 port ethernet, token ring and RS422/423/485 protector with a single grounding point. Ideal for multiport serial devices (Digiboards®, etc.)	1-8	RJ45 	18V	340 amps	<40pF
DRS232		Protects all RS-232 ports running on unshielded twisted pair, and ISDN S/T interfaces.	1-8	RJ45 	18V	340 amps	<40pF
DSUT1CSU		Protects nonspan powered T-1 equipment, digital data service CSU/DSUs, and ISDN U interfaces.	1-8	RJ45 	60V	200 amps	30pF
DTEL2		Protects both single and two line telephone equipment including internal and external modems, fax machines, answering machines, etc.	4,5 & 3,6 pairs on RJ45	RJ11/RJ45 	260V	250 amps	40pF
DCATV		Protects coaxial cable lines at TV, VCR or satellite receiver connection point.	Center & Shield Conductors	Type F coax 	7.5V	750 amps	<30pF

All products: +/- 6000V peak clamping and <1 picosecond component response time.
DTEL2 and DSUT1CSU meet or exceed UL 497A.