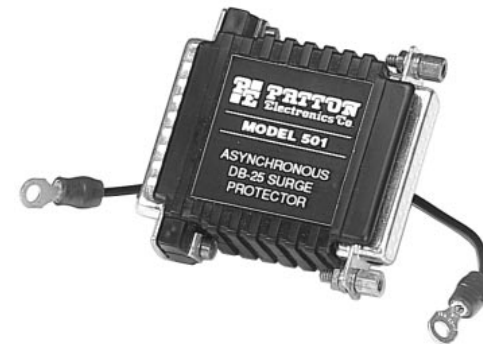


USER MANUAL

MODEL 500, 501 & 502 RS-232 Surge Protectors



PATTON
Electronics Co.

Part# 07M500/1/2-C
Doc# 074230UC
Revised 2/22/96

SALES OFFICE
(301) 975-1000
TECHNICAL SUPPORT
(301) 975-1007

APPENDIX A SPECIFICATIONS

Model 500

Connectors: DB-25, one male, one female

Pins Wired/Protected: 2, 3, 7 & 20

Surge Capacity: 1.5kW for 1 mS

Response Time: Clamped to + or - 27 volts after 0.5 μ S,
400 Amps with a 8/20 μ S pulse

Model 501

Connectors: DB-25, one male, one female

Pins Wired/Protected: 2, 3, 4, 5, 6, 7, 8 & 20

Surge Capacity: 1.5kW for 1 mS

Response Time: Clamped to + or - 27 volts after 0.5 μ S,
400 Amps with a 8/20 μ S pulse

Model 502

Connectors: DB-25, one male, one female

Pins Wired/Protected: 2, 3, 4, 5, 6, 7, 8, 15, 17, 20 & 24

Surge Capacity: 1.5kW for 1 mS

Response Time: Clamped to + or - 27 volts after 0.5 μ S,
400 Amps with a 8/20 μ S pulse

1.0 WARRANTY INFORMATION

Patton Electronics warrants all Model 500/501/502 components to be free from defects, and will—at our option—repair or replace the product should it fail within one year from the first date of shipment.

This warranty is limited to defects in workmanship or materials, and does not cover customer damage, abuse or unauthorized modification. If this product fails or does not perform as warranted, your sole recourse shall be repair or replacement as described above. Under no condition shall **Patton Electronics** be liable for any damages incurred by the use of this product. These damages include, but are not limited to, the following: lost profits, lost savings and incidental or consequential damages arising from the use of or inability to use this product. **Patton Electronics** specifically disclaims all other warranties, expressed or implied, and the installation or use of this product shall be deemed an acceptance of these terms by the user.

1.1 SERVICE

All warranty and non-warranty repairs must be returned freight prepaid and insured to Patton Electronics. All returns must have a Return Materials Authorization number on the outside of the shipping container. This number may be obtained from Patton Electronics Technical Service at **(301) 975-1007**. *Packages received without an RMA number will not be accepted.*

Patton Electronics' technical staff is also available to answer any questions that might arise concerning the installation or use of your Model 500/501/502. Technical Service hours: **8AM to 5PM EST, Monday through Friday.**

2.0 GENERAL INFORMATION

Thank you for your purchase of this Patton Electronics product. This product has been thoroughly inspected and tested and is warranted for One Year parts and labor. If any questions or problems arise during installation or use of this product, please do not hesitate to contact Patton Electronics Customer Service at (301) 975-1007.

2.1 FEATURES

- Can handle large surges caused by storms, power outages, etc.
- Power handling capacity, 1.5 kW at 1.0 mS
- Provides separate connection to chassis ground for surge handling
- Easy to install

2.2 DESCRIPTION

Transient overvoltages can be caused by lightning, coupling from power line surges and induction from nearby loads such as motors, factory equipment, etc. Data lines which are run near power, control or telephone cables are subject to short duration pulses which could reach several thousand volts. Patton Electronics RS-232 Surge Protectors use the latest in transient surge suppression technology to guard against potential damage.

The method of surge protection used in the 500/501/502 adds four benefits to your system: (1) High Surge Capability. The 500/501/502 dissipates up to 1.5 kW in 1.0 mS; (2) Quick Response. The 500/501/502 has a response time that is almost instantaneous at 0.5 μ s — transient surges are clamped at 27 volts; (3) Low Impedance. Connect the 500/501/502 directly to RS-232 ports with minimal load to your system — about the same as a gender changer; (4) Open Failure. Unlike some other surge suppressors, the 500/501/502 fails "open" if your system experiences an extreme transient or severe current overload. Therefore, even if the unit fails, it protects your equipment by shunting transient surges directly to ground.

The Model 500 protects pins 2, 3, 7 and 20 against transient overvoltages. The Model 501 protects pins 2, 3, 4, 5, 6, 7, 8 and 20. The Model 502 protects pins 2, 3, 4, 5, 6, 7, 8, 15, 17, 20 and 24. All three models can be connected directly to your equipment's RS-232 serial port, and guard against surges up to 1.5 kW.

Warning: This product will not provide complete protection should your equipment or building be subject to a direct lightning hit.

3.0 INSTALLATION

Patton's Model 500/501/502 units are easy to install and should give you years of trouble-free service. Here are a few simple instructions to help you get things hooked up right:

1. Unplug (disconnect) the existing connection between the RS-232 cable and the equipment's serial port.
2. Install the Model 500/501/502 between the incoming RS-232 line and the protected equipment (see below). Place the surge protector as close as possible to the device being protected.
3. Connect the braided ground strap directly to a frame ground connection on the protected device. If you are unsure where to locate a frame ground connection on your equipment, consult the equipment's user manual or contact the manufacturer—the ground connection is critical for proper operation of the Model 500/501/502.

