USER MANUAL

MODEL 515

DB-15 Surge Protector

PATTON Electronics Co.

Part# 07M515-A
Doc# 074220UA
Revised 11/22/96

SALES OFFICE
(301) 975-1000
TECHNICAL SUPPORT
(301) 975-1007
http://www.patton.com

1.0 WARRANTY

Patton Electronics warrants all Model 515 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 AND SUPPORT

All warranty and nonwarranty 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 Support: **(301) 975-1007**; **http://www.patton.com**; or, **support@patton.com**.**Notice**: 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 Patton Model 515. Technical Service hours are **8AM to 5PM EST, Monday through Friday.**

1.2 CE NOTICE

The CE symbol on your Patton Electronics equipment indicates that it is in compliance with the Electromagnetic Compatibility (EMC) directive and the Low Voltage Directive (LVD) of the Union European (EU). A Certificate of Compliance is available by contacting Technical Support.

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 arise during installation or use of the unit, contact Patton Electronics Technical Support: **(301) 975-1007**; **http://www.patton.com**; or, **support@patton.com**.

3.0 PRODUCT DESCRIPTION

The Patton Model 515 DB-15 Surge Protector employs a solid state hybrid network to guard DB-15 data ports against data loss and hardware damage due to transient surges. Equipped with one male and one female DB-15 connector, the Model 515 inserts between the data cable and DB-15 port. The Model 515 intercepts data line transients and sends them directly to chassis ground through the metal D-shell.

Three versions of the Model 515 are available: The Model 515/25 clamps at 18 volts, protects all 15 pins, and is designed for use with RS-232 interfaces. The Model 515/6 clamps at 7.5 volts, protects all 15 pins, and is designed for use with RS-422, RS-423 and RS-485 interfaces. The Model 515/T1 clamps at 7.5 volts, protects pins 1, 3, 9 and 11, and is designed for use with T1 equipment. All three versions provide up to 1500 Watts of transient protection.

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

4.0 SURGE PROTECTION BENEFITS

The method of surge protection used in the Model 515 adds four benefits to your system:

High Surge Capacity The Model 515 handles up to 1500 Watts of surge energy without failure.

Quick Response The Model 515 has fast response times (1 pS at the component level; 0.5 µS installed). Transient surges are clamped at 18V for RS-232 and 7.5V for RS-422/423/485, and 7.5V for T1 equipment.

Low Impedance The Model 515 adds minimal load to your system. It is about the same as a gender changer.

Open Failure The Model 515 fails “open” if your system experiences a severe transient or power fault above the rated voltage of the protector. This means that data and surge energy is shunted directly to chassis ground, rather than being allowed to flow throughout the system.

5.0 INSTALLATION

The Patton Model 515 is simple to install and requires no user configuration. Follow these installation steps.

1. Disconnect the DB-15 data cable from the device you are protecting in a manner consistent with the manufacturer's installation instructions.

2. Be sure the metal D-15 connector on the device you are protecting is connected to frame ground. If not, contact Patton Technical Support for further instructions.

3. Plug the DB-15 connector of the Model 515 **directly** into the DB-15 Serial port of the device you are protecting. Use of a serial cable reduces the effectiveness of the protection you would otherwise receive.

4. Re-attach the DB-15 cable to the available DB-15 connector on the Model 515. The Model 515 is now inserted between the data port and the data cable, and will provide up to 1500 Watts of protection to the data port.

   Note: We recommend that a Patton surge protector be connected to the other end of the data cable as well.

APPENDIX A

PATTON MODEL 515 SPECIFICATIONS

General

Standards:	RS-232, RS-422/423/485, T1
Surge Capacity:	1500 Watts for 1 mS
Connectors:	One male and one female DB-15
Compliance:	CE marked for EMC directive 89\336\EEC (ESD/EFT); Compliant with IEC 801-5 (surge)

Model 515/25

Pins Protected:	All 15 pins on the RS-232 interface
Response Time:	Clamped to + or - 18 volts after 0.5 µS, 400 Amps with a 8/20 µS pulse

Model 515/6

Pins Protected:	All 15 pins on the RS-422/423/485 interface
Response Time:	Clamped to + or - 7.5 volts after 0.5 µS, 400 Amps with a 8/20 µS pulse

Model 515/T1

Pins Protected:	Pins 1, 3, 9 & 11 on the T1 interface
Response Time:	Clamped to + or - 7.5 volts after 0.5 µS, 400 Amps with a 8/20 µS pulse

Dear Valued Customer,

Thank you for purchasing Patton Electronics products! We do appreciate your business. I trust that you find this user manual helpful.

We manufacture one of the widest selections of data communications products in the world including CSU/DSU's, network termination units, powered and self-powered short range modems, fiber optic modems, interface converters, baluns, electronic data switches, data-line surge protectors, multiplexers, transceivers, hubs, print servers and much more. We produce these products at our Gaithersburg, MD, USA, facility, and can custom manufacture products for your unique needs.

We would like to hear from you. Please contact us in any of the following ways to tell us how you like this product and how we can meet your product needs today and in the future.

Web:	http:www.patton.com
Sales E-mail:	sales@patton.com
Support E-mail:	support@patton.com
Phone - Sales	(301) 975-1000
Phone - Support	(301) 975-1007
Fax:	(301) 869-9293
Mail:	Patton Electronics Company 7622 Rickenbacker Drive Gaithersburg, MD 20879 USA

We are committed to a quality product at a quality price. Patton Electronics is BABT and ISO 9001 certified. We meet and exceed the highest standards in the industry (CE, UL, etc.).

Please contact us and let us know how we may provide you with the answers to your needs.

Thank you.

Burton A.Patton
Vice President

P.S. Please tell us where you purchased this product.

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