

USER MANUAL

MODEL 505M-CHC Surge Protected DB-25 to RJ-45 Modular Adapter



PE PATTON
IE Electronics Co.



An ISO-9001
Certified Company

Part# 07M505MCHC-A
Doc# 074281U,
Rev. B
Revised 1/21/08

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

1.0 WARRANTY INFORMATION

Patton Electronics warrants all Model 505M-CHC 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 RADIO AND TV INTERFERENCE

The Model 505M-CHC does not generate or use radio frequency energy. However, when used together with other devices that generate or use radio frequencies, improper installation may interfere with radio and television reception. They have been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection from such interference in a commercial installation. However, there is no guarantee that interference will not occur in a particular installation. If these products do cause interference to radio or television reception, which can be determined by turning off the unit, the user is encouraged to try to correct the interference by one or more of the following measures: moving the computing equipment away from the receiver, re-orienting the receiving antenna and/or plugging the receiving equipment into a different AC outlet (such that the computing equipment and receiver are on different branches).

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.

1.3 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 Support: **(301) 975-1007**; <http://www.patton.com>; or, **support@patton.com**.

NOTE: 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 505M-CHC. 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 arise during installation or use of the unit, contact Patton Electronics Technical Support at (301)975-1007.

2.1 PRODUCT DESCRIPTION

The Patton Model 505M-CHC Surge Protected DB-25 to RJ-45 Modular Adapter allows you to simplify cabling connections and protect your RS-232 DB-25 equipment at the same time. Using 39 Volt clamping Silicon Avalanche Diodes (SADs), the 505M-CHC provides up to 1500 Watts of surge protection per pin. The 505 protects pins 2 (TD), 3 (RD) and 7 (SG) using a modular RJ-45 jack. Surges are shunted safely to chassis ground through the D-shell connector.

WARNING!!: These products will not provide complete protection should your equipment be subject to a direct lightning hit.

2.2 SURGE PROTECTION BENEFITS

The method of surge protection used in the Model 505M-CHC adds four benefits to your system:

- 1) **High Surge Capacity.** The Model 505M-CHC dissipates up to 1500 Watts per wire in 1.0 millisecond.
- 2) **Quick Response.** The Model 505M-CHC has a fast response time (1 pS at the component level; 0.5 μ S installed). Transient surges are clamped at 39V.
- 3) **Low Impedance.** The Model 505M-CHC adds minimal load to your system--about the same as a gender changer.
- 4) **Shorting Failure.** The Model 505M-CHC fails into a short circuit if your system experiences a severe transient or power fault above the rated voltage of the protector. Data and surge energy is shunted directly to chassis ground through the shorted SAD, and will not disrupt the system.

3.0 MODEL 505M-CHC INSTALLATION

The Patton Model 505M-CHC is simple to install and requires no user configuration. Follow these installation steps:

- 1) Be sure the metal D-sub connector on the device you are protecting is connected to frame ground. If not, see step 4, below.
- 2) Plug the DB-25 connector of the Model 505M-CHC *directly* into the DB-25 serial port of the device you are protecting. Avoid using additional cables between the device and the Model 505M-CHC because a serial cable reduces the effectiveness of the protection you would otherwise receive.
- 3) Plug your modular cable into the jack on the Model 505M-CHC. The cable must be terminated with an RJ-45 plug.
- 4) To provide an alternate ground connection, use the short strap supplied with the unit. Connect one loop to the device chassis (or other chassis ground) and the other loop to the Model 505M-CHC as shown below.

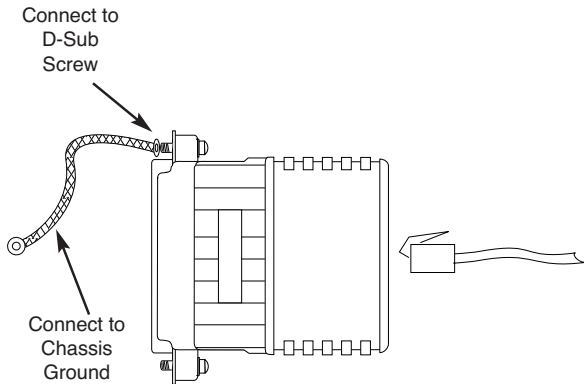


Figure 1. How to Connect the Patton Model 505M-CHC to Your PC, Modem or Printer

APPENDIX A

PATTON MODEL 505M-CHC SPECIFICATIONS

Connectors:	DB-25 male, RJ-45 jack
Pins Wired:	Pin 2, Transmitted Data; Pin 3, Received Data; Pin 7, Signal Ground.
Surge Capacity:	1.5 kW (10 x 1000 μ Sec) in Compliance with IEC 801-5 Level 3, 2kV
Breakover Voltage:	27V (Nominal)
Response Time:	0.5 μ S
Clamp Voltage:	39V
Let-through Energy:	Less than 75mJ
Capacitance:	less than 500pF
Cable Length Burden:	less than 9.1' (2.8m)
Weight:	1.5oz.

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 ISO 9001 certified. We meet and exceed the highest standards in the industry (CE, UL, etc.).

It is our business to serve you. If you are not satisfied with any aspect of this product or the service provided from Patton Electronics or its distributors, please let us know.

Thank you.

Burton A. Patton
Vice President

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