

USER MANUAL

MODEL 545 & MODEL 545 MFF AS/400 (Twinax) Surge Protectors



PI PRITON
E Electronics Co.

Part# 07M545-B
Doc# 074035UB
Revised 2/22/96

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

1.0 WARRANTY INFORMATION

Patton Electronics warrants all Model 545 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 545. 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.
- Designed specifically for the AS/400 and 3X environments
- Provides separate connection to chassis ground for surge handling
- Easy to install

2.2 DESCRIPTION

Install these twinax surge protectors on your system cables to protect IBM 3X and AS/400 devices from harmful electrical damage. These units are easily installed by direct connection to twinax cables or devices. The Model 545 uses completely solid state design and multistage hybrid circuits to shunt all harmful surges to ground. A separate ground path is provided via a heavy braided wire, which is connected to the chassis ground of your equipment.

By shunting all threatening voltages to the chassis ground, the Model 545 ensures the integrity of the data in your network and protects connected equipment from lightning induced energies, AC power induction, electrostatic discharges etc. We recommend that these surge protectors be used for all twinax cable runs that exceed 500 feet. In particularly susceptible environments, we advise using these on all cable runs, regardless of length.

The Model 545 MF connects directly between an incoming twinaxial data cable and a workstation's I/O port. The Model 545 MFF acts as a "T" splitter and provides connections for both incoming and outgoing twinax cables, as well as the I/O port.

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 545 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 twinaxial cable and the equipment I/O port.
2. Install the Model **545 MF** between the incoming coax line and the protected* equipment (see Figure 1, below). Install the Model **545 MFF** between the incoming and outgoing coax lines and connect the "T" to the protected equipment (see Figure 2, below). In both cases, you should 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 545.

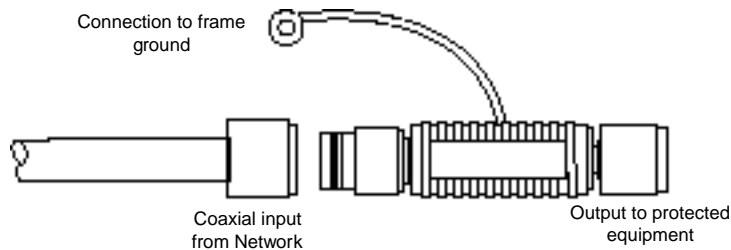


Figure 1. Model 545 MF connection

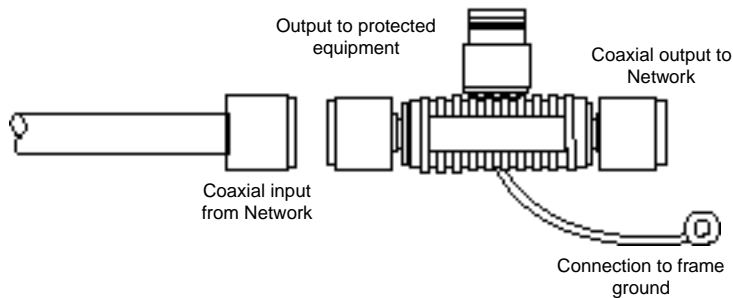


Figure 2. Model 545 MFF connection

***Note:** The Model 545 provides bi-directional protection on all (2 or 3) twinax connectors, therefore it does not matter which connector(s) attach(es) to the equipment, and which to the network.

APPENDIX A SPECIFICATIONS

Interface: IBM AS/400, 3X (twinaxial)

Size: 2.0" long x 1.0" diameter (without connectors)

Circuit: Bipolar, solid state protection on twinax connectors

Energy Handling: Line to signal ground - 1.5 KW for 1 mS

Response Time: clamped to + or - 20 volts after 0.5 μ S

Input Capacitance: 45 pF

Series Resistance: None

Isolation: 75V shield ground to signal ground

Grounding: External connection provides separate unit-ground to chassis-ground contact

Operational/Storage Temperature: -55 to +100°C