

# USER MANUAL

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## MODEL 540 3270 (BNC) Surge Protectors



**PE PATTON**  
**Electronics Co.**

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Part# 07M540-B  
Doc# 074011UB  
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## 1.0 WARRANTY INFORMATION

**Patton Electronics** warrants all Model 540 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 540. 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 warrantable 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 Technical Support at (301) 975-1007.

### 2.1 FEATURES

- Designed specifically for IBM 3270 environments
- Connects directly to IBM controllers, terminals, etc.
- Surge capacity of 5kA (8/20 $\mu$ S waveform)
- Protects against transients from either direction
- Provides separate connection to chassis ground
- Easy to install
- Made in USA

### 2.2 DESCRIPTION

The Model 540 is a primary surge protector designed specifically for IBM 3270 environments. The Model 540 provides a clamping voltage of 11 volts and a response time of less than 5 nanoseconds. To offer extra protection, the Model 540 utilizes a "two point" approach and guards against both positive and negative transients.

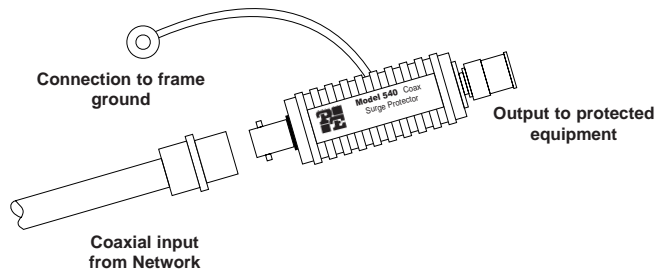
Connecting directly to your equipment, the Model 540 can handle repeated surges up to 5kA. If the Model 540 receives a surge, *all* voltages will be sent directly to ground through a heavy duty 6" braided metal strap and your hardware will be protected. The Model 540 is housed in an ABS plastic case and measures only 2.0" x 1.0".

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

### 3.0 INSTALLATION

The Patton Model 540 is easy to install. The following instructions clearly explain each step:

1. Unplug the existing connection between the coaxial cable and the equipment's I/O port.
2. Install the Model 540 between the incoming coax line and the protected equipment (see below). Place the surge protector as close as possible to the device being protected.
3. Connect the braided grounding strap directly to an earth ground connection on the protected device. If you are not sure where to locate an earth ground connection, consult the equipment's user manual or contact the manufacturer. This ground connection is critical for proper operation of the Model 540.



### APPENDIX A SPECIFICATIONS

**Interface:** IBM 3270 (BNC coaxial)

**Circuit:** Solid state primary surge protection, bi-directional protection on BNC connectors

**Response Time:** Less than 5 nanoseconds

**Maximum Operating Voltage:** +/- 5.6V

**Capacitance:** 5 pF (line-line or ground-line)

**Maximum Clamp Voltage:** 11 volts when subjected to a 6kV/3kA test transient

**Surge Capacity:** 5kA (8/20 $\mu$ S waveform)

**Bandwidth (3dB) in 50/50 ohm circuit:** 80MHz

**Series Resistance:** 4.3 ohms

**Operational/Storage Temperature:** -55 to +100°C (-67 to +212°F)

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

**Size:** 2.0" long x 1.0" diameter

**Case:** Molded ABS black plastic