

USER MANUAL

MODEL 530 Ethernet (ThickNet) Surge Protector



PA PATTON
Electronics Co.

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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.

FEATURES

- Guards N-type Ethernet ports against transient surges
- Provides 1.5 Kilowatts of surge handling capacity
- Conforms to the IEEE 802.3 specification
- Operates at data rates to 10 Mbps
- Provides separate connection to chassis ground for surge handling
- Easy to install

DESCRIPTION

The Patton Model 530 thick Ethernet surge protector guards N-type Ethernet ports and connected equipment against data loss and hardware damage due to transient surges. Providing 1.8 Kilowatts of clamping transient protection, the Model 530 is easy to install and won't slow network performance.

The Model 530 connects directly between incoming ThickNet data cables and LAN I/O ports. Damaging transients are shunted to chassis ground through a braided metal strap before they can impact expensive network hardware. The Model 530 guards against transients generated by lightning, electric motors, florescent lights, static discharge and numerous other environmental hazards.

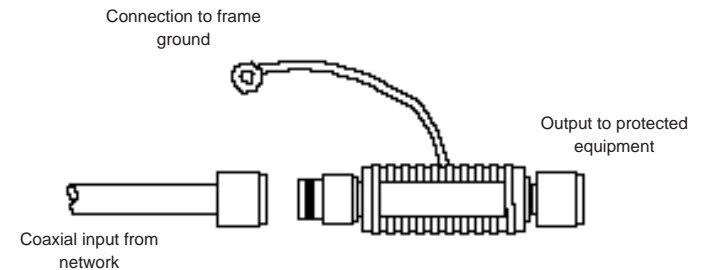
Using a hybrid circuit that incorporates Silicon Avalanche Diodes, the Model 530 can take repeated "hits" up to its rated capacity without degrading in performance. If the Model 530 should encounter a severe transient above its voltage rating, it will fail "open" to protect the connected hardware from damage. In this case, all signals (including data) are sent directly to ground, indicating to you that the Model 530 has "sacrificed itself" for your system and needs to be replaced.

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

INSTALLATION INSTRUCTIONS

Patton's Model 530 is 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 coaxial cable and the equipment's I/O port.
2. Install the Model 530 between the incoming coax cable 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. **Note:** 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 530.



SPECIFICATIONS

Interface: Ethernet (IEEE 802.3, Thicknet), N-type coaxial

Size: 2.0" long x 1.0" diameter

Circuit: Bipolar, solid state, bi-directional protection on N-type connectors

Response Time: Less than 5 nanoseconds

Input Capacitance: 18 pF

Clamp Voltage: 25 volts at 100A (8/20 μ waveform)

Surge Current: 400A (8/20 μ waveform)

Energy Handling: 1500 Watts per wire

Transfer Loss: -.05dB at 100 MHz

Group Delay: None, 1 MHz to 100 MHz

Series Resistance: None

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

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