INSTRUCTIONS - MIP-20LT

Important Safety Points

Panamax surge protectors and the connected equipment must be indoors in a dry location and in the same building. Although your Panamax protector is very durable, the internal components are not isolated from the environment. Do not install any Panamax product near heat emitting appliances such as a radiator or heat register. Do not install this product where excessive moisture is present.

It is not uncommon for a building to be improperly grounded. In order to protect your equipment, Panamax products must be plugged into a properly grounded 3-wire outlet. Additionally, building wiring and grounding must conform to applicable NEC (USA) or CEC (Canada) codes for the Panamax warranty to be valid.

Do not use 2-blade ground adapters with this product. Avoid using extension cords. If used, the extension cord must be UL or CSA Listed, minimum 12 AWG, 3-wire grounded, and rated for 20 Amps.

If your surge protector indicates a Line Fault, do not use the product. Call your electrician to correct the building's wiring.

Power Filtration and Surge Protection for Digital Office-Equipment

Filtration Circuitry– This technology provides enhanced Neutral-to-Ground Noise Filtration for your digital office equipment. EMI/RFI noise can contaminate the equipment safety ground, which in turn will contaminate the connected digital equipment, and prevent it from operating at peak performance levels.

GFCI Compatibility
This circuit features an improved 2-stage common-mode architecture that provides compatibility for GFCIs per NEC article 250.6.

Noise Filtration -
Circuitry prevents EMI/RFI noise from contaminating the connected digital equipment through the ground wiring.

Automatic Voltage Monitoring (AVM)
This power monitoring system acts as a gate to prevent unsafe voltages from damaging sensitive electronic equipment. It automatically detects a prolonged over-voltage or under-voltage and disconnects the power to the connected equipment, then reconnects it when the power returns to a safe level. It even protects the MIP-20LT unit.

Wiring Fault Safety Shutoff
This technology will detect a miswired wall receptacle or an open-ground by monitoring the voltage between neutral and ground. If an unsafe condition exists, the MIP-20LT will disconnect the power from the connected equipment.

SignalPerfect™ Telephone Line Protection
RJ-11 phone jacks are available to protect a single-line telephone modem (pins 4,5 protected) with fuseless Auto-Resetting technology and optimized circuitry to ensure a clean, clear signal.

Ethernet LAN Protection
RJ-45 jacks are available to protect one Ethernet 10/100/1000BASE-T network connection (all pins protected).

Diagnostic lights

UNSAFE POWER
(red) normally OFF – When lit, indicates that incoming voltages are unsafe and the surge protector has disconnected the power to protect your equipment.
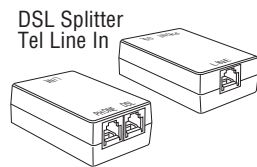
LINE FAULT
(red) normally OFF - When lit, indicates that the wall outlet is improperly wired.

GROUND OK
(green) normally ON - Indicates that the wall outlet is properly grounded.

POWER ON/PROTEDTION OK-
(green) normally ON - Indicates that the surge protector is functioning properly, power is on, and it is protecting all connected equipment.

DSL Splitter Tel Line In

DSL & Tel Lines Out

Telephone Protection In/Out RJ-11 In/Out connectors

LAN Protection In/Out RJ-45 bi-directional connectors

UNSAFE POWER Indicator light

LINE FAULT Indicator light

GROUND OK Indicator light

POWER/FILTRATION OK Indicator light

Eight foot power cord

Separate protection circuits for 10/100/1000BASE-T Ethernet and Telephone

Two Always-ON AC outlets 20 Amp

Three-stage, GFCI-Compatible filter circuit provides high levels of Normal and Common mode EMI/RFI noise filtration

Two rubber strips running the length on bottom provide a non-slip grip and prevent marring surface.

Properly Connecting Your Surge Protector

To completely protect your equipment from power surges, every wire leading into or out of the equipment you want to protect must be connected to the appropriate Panamax surge protector. Damaging lightning and power surges can get into your system through any AC power or signal line (phone lines, grounding wires, LAN cables, modem cables, etc.) connected to your electrical equipment.

Installation Procedures

1. Turn OFF the power to all equipment that will be plugged into the unit.

2. Plug the protector into a properly grounded AC outlet.

3. Once proper AC wiring and grounding has been established via a green "GROUND OK" light, plug the equipment to be protected into the AC outlets on the unit.

4. Note the position of the IN and OUT jack on the MIP-20LT unit. The IN jacks are for the line connections that come from the wall or floor

jack. The OUT jacks are the line connections to your connected equipment.

5. Plug the incoming LAN and/or telephone line into the appropriate IN jack. The line should now be connected between the wall and the unit.

6. Plug the LAN and/or phone cord into the appropriate OUT jack. Plug the other end into the equipment to be protected.

7. One at a time, turn each piece of connected equipment ON and check for power and correct operation.

CAUTION: Do not install this device if there is not at least 10 meters (30 feet) or more of wire between the electrical outlet and electrical service panel.

AC SURGE PROTECTION

Line Voltage…………….............120VAC, 50/60Hz	
Maximum Current Rating………..................20A	
EMI/RFI Noise Filtration…. 65 dB (100KHz - 1 MHz)	
Thermal Fusing……………..................……Yes	
AVM (Automatic Voltage Monitoring) Circuitry... Yes	
Overvoltage Shutoff…………….......….. 138V ± 8V	
Undervoltage Shutoff………....…........... 86V ± 6V	

Protect or Disconnect™ Circuitry…...................Yes	
Single Pulse Energy Dissipation……..1650 Joules	
Peak Impulse Current………………52,000 Amps	
UL 1449 3rd EditionProtection Rating..…... 400V	
Protection Modes…………..…...... L-N, L-G, N-G	
Initial Clamping Level…………………. 200 Volts	
Surge Response Time…………....<1 nanosecond	

Specifications due to change without notice due to product upgrades and improvements.

TELEPHONE PROTECTION

Pins Protected………........…....……RJ-11, pins 4,5	
Protection Modes…………..Metallic & Longitudinal	
Clamping Level………….......…....…………….260V	
Capacitance…………………….......…...30pf (approx.)	

10/100/1000BASE-T LAN PROTECTION

Pins Protected………........….......…..RJ-45, pins 1-8	
Protection Modes……......…........All pins to ground	
Clamping Level…………....................…….....…….62V	