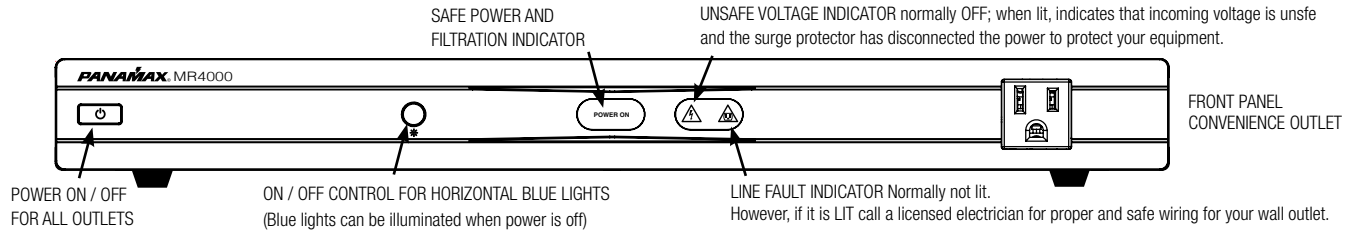
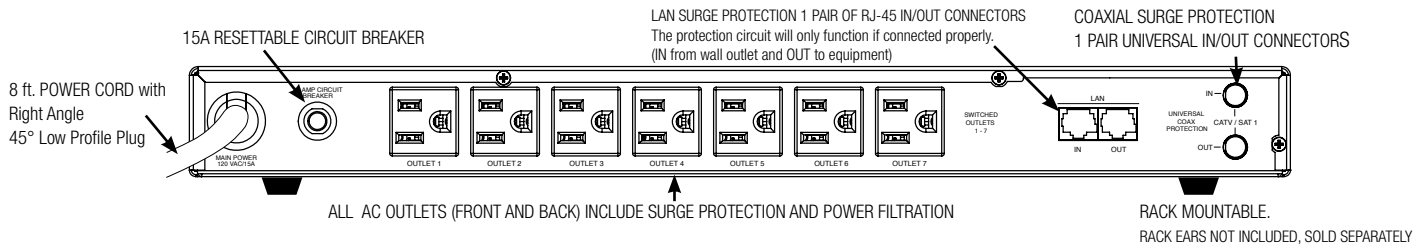


# Model MR4000 Reference Guide

## Front Panel Features



## Back Panel Features



## 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, its 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; for example near a bath tub, sink, pool basement floor, fish tank, etc. 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 wired and grounded 3-wire outlet. Additionally, building wiring and grounding must conform to applicable NEC (USA) or CEC (Canada) codes for the Panamax protection policy to be valid. Do not use 2-blade adapters or any other "power strips" with this product. Use only Panamax extension cord, or a UL / CSA recognized power cord.

## TO GET STARTED

1. Turn OFF the power to all equipment that will be plugged into the MR4000.
2. Plug the MR4000 into the wall outlet then turn it ON.
3. Verify that the LINE FAULT INDICATOR LED is NOT lit, indicating that the wall outlet is properly wired and grounded. (If it is LIT call a licensed electrician to inspect and implement proper and safe wiring).
4. Plug the equipment to be protected into the MR4000 AC outlets and leave everything off until after the TELEPHONE and COAX Lines are connected and then proceed to turn on your connected equipment.

## MR4000 Features and Specifications

### Key Features

#### Exclusive Automatic Voltage Monitoring (AVM)

Panamax's patent pending power monitoring circuitry constantly monitors the AC line voltage for unsafe voltage conditions such as momentary spikes, prolonged over-voltages and undervoltages (brownouts). These unsafe conditions pose a very dangerous threat to all electronic equipment within the home. If the MR4000 senses an unsafe power condition, it will automatically disconnect power from your equipment from the to protect equipment from damage. The front panel indicator will also alert users to the power condition. Once the voltage returns to a safe level, the MR4000 will automatically reconnect the power to the outlets.

#### Protect or Disconnect™ Technologies

In the event of a catastrophic surge such as lightning, it completely disconnects AC power to connected equipment.

#### Front Panel Outlet

MR4000 features a protected and noise filtered convenience outlet located on the front panel. Perfect for temporary gaming systems, portable electronics (such as music players or smart phones), or other personal electronics.

#### Front Panel Lights

Blue decorative lights add an attractive look at feel to your equipment rack or TV cabinet.

#### Antenna, Cable, Sat and LAN Signal protection

Coaxial protection circuits prevent damaging surges from entering through signal paths and have the smallest signal loss on the market - less than 0.5 db of attenuation from 0Hz to 2.2GHz. Our coaxial protection has been specifically designed to virtually eliminate signal loss. The clamping level of 75V will meet and exceed the demands of both cable and satellite voltages while minimizing exposure to damaging spikes and surges. LAN protection allows for 10/100 base-T Ethernet equipment to integrate into an audio/video system without the risk of upstream surge damage from a gateway, switch, router or other network device.

#### Eight Protected and Filtered Power Outlets (see specifications)

#### Eight Foot Power Cable with Low Profile Plug

This 45° angle low profile plug allows your equipment to be as close as it can get to the wall outlet while not blocking an adjacent outlets. The 8' power cord means your installation location isn't restricted by wall outlet location. Don't let your electronics control your lifestyle.

#### Note to CATV Installers:

This reminder is provided to call attention to Article 820-40 of the NEC. That article provides specific guidelines for proper grounding. It specifies that the cable ground shall be connected to the grounding system of the building and as close to the point of entry as practical.

### AC PROTECTION

Protect or Disconnect Circuitry	Yes
Patented Power Management Circuit	Yes
Overvoltage Shutoff	140V ±4
Undervoltage Shutoff	95V ±3V
Thermal Fusing	Yes
Line Voltage	120VAC, 50/60HZ
Initial Clamping Level	200V Peak, 141VRMS
Voltage Protection Rating (UL 1449 3rd Edition, 3,000A)	400V
Protection Modes	L-N, L-G, N-G
Maximum Current Rating	15A (1800W)
EMI/RFI Noise Filtration	Panamax Level 2 Noise Filtration*
Response Time	< 1ns
Single Pulse Energy Dissipation	1350 Joules
Peak Impulse Current	52,000 A

### LAN PROTECTION

Clamping Level	50V
Compatibility	10/100bT
Wires Protected	8-Wires
Connectors	RJ-45

### UNIVERSAL COAX PROTECTION

HD 1080 i/p Ready	Yes
Bidirectional	Yes
Shielded	Yes
Clamping Level	75V
Frequency Range	0MHz - 2.2 GHz
Insertion Loss	<0.5 dB
Connections	Female "F", Gold Plated

Español - Para la versión en español de este documento, vaya a [www.panamax.com/products](http://www.panamax.com/products)

Français - Pour la version espagnole de ce document, allez à [www.panamax.com/products](http://www.panamax.com/products)

Specifications subject to change due to product upgrades and improvements.

\*Go to [www.panamax.com](http://www.panamax.com) for detailed noise filtering information.

**PANAMAX**

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DIN-00011 - REV. B

# MR4000 Limited Product Warranty and Connected Equipment Policy Information

## CAUTION!

All Panamax Warranties and Connected Equipment Policies are valid only in the United States and Canada.

## CAUTION!

Audio/Video, computer and/or telephone system installations can be very complex systems, consisting of many interconnected components.

Due to the nature of electricity and surges, a single protector may not be able to completely protect complex installations. In those cases, a systematic approach using multiple protectors must be employed. Systematic protection requires professional design. AC power, satellite cables, CATV cables, telephone/network lines, signal lines or any other electrical conductors, entering the system that do not pass through this surge protector may invalidate the Panamax Connected Equipment Protection Policy. For additional information on how to protect your system, please contact Panamax before connecting your equipment to the surge protector.

## CAUTION!

### WARRANTY LIMITATION FOR INTERNET PURCHASERS

Panamax products purchased through the Internet do not carry a valid Product Warranty or Connected Equipment Protection Policy unless purchased from an Authorized Panamax Internet Dealer and the original factory serial numbers are intact (they must not have been removed, defaced or replaced in any way). Purchasing from an Authorized Panamax Internet Dealer insures that the product was intended for consumer use, has passed all quality inspections and is safe. Buying through auction sites or unauthorized dealers may result in the purchase of salvaged, failed and/or products not intended for use in the US. In addition, Authorized Panamax Internet dealers have demonstrated sufficient expertise to insure warranty compliant installations. For a list of Authorized Panamax Internet Dealers go to [www.panamax.com](http://www.panamax.com). If you have any questions regarding these requirements, please contact Panamax Customer Relations.

## Product Upgrade Program

If your Panamax power conditioner sacrifices itself while protecting your connected equipment, you have an option to upgrade to the latest technology. Please go to our web site [www.panamax.com](http://www.panamax.com) or contact Panamax Customer Relations at 800-472-5555 for details.

## Panamax Power Conditioner Limited Product Warranty

Panamax warrants to the purchaser of this Panamax audio/video component style power conditioner, for a period of three (3) years from the date of purchase, that the unit shall be free of defects in design, material or workmanship, and Panamax will repair or replace any defective unit. For product replacement see "NOTIFICATION" section (3).

## Panamax Power Conditioner Limited Connected Equipment Protection Policy

It is the policy of Panamax that it will, at its election, either replace, pay to replace at fair market value, or pay to repair, up to the dollar amount specified below, equipment that is damaged by an AC power, cable, telephone, or lightning surge while connected to a properly installed Panamax power conditioner. To be eligible for compensation, repair and/or replacement, the power conditioner must show signs of surge damage or that it is operating outside of design specifications, relative to its surge protection capability, and under all of the circumstances failed to protect your connected equipment.

MR4000: \$5,000,000

### THE CONNECTED EQUIPMENT POLICY IS SUBJECT TO THE FOLLOWING CONDITIONS AND LIMITATIONS

#### 1. ORIGINAL OWNERSHIP REQUIREMENT:

Panamax's connected equipment policy extends to the original purchaser of the Panamax product only and is non-transferable. Original purchase receipts must accompany any product return or claim for connected equipment damage.

**2. PROPER INSTALLATION:** Panamax AC protectors must be directly plugged into a properly grounded 3-wire AC outlet. Extension cords\*, non-grounded two prong adapters, or other non-Panamax surge products must not be used. Building wiring and other connections to protected equipment must conform to applicable codes (NEC or CEC). No other ground wires or ground connections may be used. All wires (including, e.g., AC power lines, telephone lines, signal/data lines, coaxial cable, antenna lead-ins) leading into the protected equipment must first pass through a single Panamax protector designed for the particular application. The protector and the equipment to be protected must be indoors in a dry location, and in the same building. Panamax installation instructions and diagrams must be followed

**3. NOTIFICATION:** You must notify Panamax within ten days of any event precipitating request for product replacement or payment for connected equipment damage. A return authorization (RA) number must first be obtained from the Panamax Customer Relations Department at [www.panamax.com](http://www.panamax.com)\*\* before returning the protector Panamax. At this time, you must notify Panamax if you believe you have a claim for damaged connected equipment. Once you obtain an RA number, please mark the number on the bottom of the unit and pack it in a shipping carton/box with enough packing material to protect it during transit. The RA number must also be clearly marked on the outside of the carton. Ship the unit Panamax. Please note that you are responsible for any and all charges related to shipping the unit to Panamax. If connected equipment damage was indicated on your RA request, Panamax will mail you claim kit to be completed and returned within 30 days. A connection diagram of your system will be required as part of the claim kit. Be sure to note its configuration before disconnecting your equipment.

**4. DETERMINATION OF FAILURE:** Panamax will evaluate the protector for surge damage. The Panamax protector must show signs of surge damage or must be performing outside (>10%) of design specifications relative to its surge protection capability. Opening the enclosure, tampering with, or modifying the unit in any way shall be grounds for an automatic denial your request for payment. Panamax, after evaluating all information provided, will determine whether or not your request is eligible for payment. If the surge protector shows no signs of AC power or signal line surge damage and is working within design specifications, Panamax will return the unit to you with a letter explaining the test results

Exceptions: If a dealer or installer replaces the protector for the customer, replacement will be returned to the dealer installer; or if the protector is a pre-1996 model, it will be replaced; or, for a Canadian customer, the protector will be replaced. Panamax reserves the right to inspect the damaged connected equipment, parts, or circuit boards. Please note that you are responsible for any and all charges related to shipping the damaged equipment to Panamax. Panamax also reserves the right to inspect the customer's facility. Damaged equipment deemed uneconomical to repair must remain available for inspection by Panamax until the claim is finalized.

**5. REQUEST PAYMENTS:** Once Panamax has determined that you are entitled to compensation, Panamax will, at its election, either pay you the present fair market value of the damaged equipment, or pay for the cost of the repair, or send you replacement equipment, or pay the equivalence of replacement equipment.

**6. OTHER INSURANCE/WARRANTIES:** This coverage is secondary to any existing manufacturer's warranty, implied or expressed, or any insurance and/or service contract that may cover the loss.

**7. EXCLUSIONS: THE PANAMAX CONNECTED EQUIPMENT PROTECTION POLICY DOES NOT APPLY TO:** Service charges, installation costs, reinstallation costs; setup cost; diagnostic charges; periodic checkups; routine maintenance; loss of use of the product; costs or expenses arising out of reprogramming or loss of programming and/or data; shipping charges or fees; service calls; loss or damage occasioned by fire, theft, flood, wind, accident, abuse or misuse, and products subject to manufacturer's recall or similar event.

**8. DISPUTE RESOLUTION:** Any controversy or claim arising out of or relating to Panamax's Connected Equipment Protection Policy, or the alleged breach thereof, shall be settled by arbitration administered by the American Arbitration Association under its Commercial Arbitration Rules. You may file for arbitration at any AAA location in the United States upon the payment of the applicable filing fee. The arbitration will be conducted before a single arbitrator, and will be limited solely to the dispute or controversy between you and Panamax. The arbitration shall be held in any mutually agreed upon location in person, by telephone, or online. Any decision rendered in such arbitration proceedings will be final and binding on each of the parties, and judgment may be entered thereon in a court of competent jurisdiction. The arbitrator shall not award either party special, exemplary, consequential, puni-

tive, incidental or indirect damages, or attorney's fees. The parties will share the costs of arbitration (including the arbitrator's fees, if any) in the proportion that the final award bears to the amount of the initial claim.

**9. GENERAL:** If you have any questions regarding the product warranty or the connected equipment protection policy, please contact the Panamax Customer Relations Department at [www.panamax.com](http://www.panamax.com). The Limited Product Warranty and Connected Equipment Policy herein supersede all previous warranties and/or Connected Equipment repair/replacement policies.

**THE LIMITED PRODUCT WARRANTY IS THE ONLY WARRANTY PROVIDED WITH THIS PANAMAX PRODUCT AND ANY OTHER IMPLIED OR EXPRESSED WARRANTIES ARE NON-EXISTENT.**

This warranty may not be modified except in writing, signed by an officer of the Panamax Corporation.

\* The use of a Panamax extension cord or equivalent (UL or CSA listed, minimum 14AWG, 3-wire grounded) will not invalidate the warranty.

\*\* Forms are available on the Panamax web site for requesting RAs and opening a claim for connected equipment damage.

## Contacting Panamax

Panamax, Inc.  
1690 Corporate Circle  
Petaluma, CA 94954  
Phone - 707-283-5900 or 800-472-5555  
Fax - 707-283-5901  
Web - [www.panamax.com](http://www.panamax.com)

Customer Relations  
7:30 AM - 4:30 PM, M-F  
Email - [custrelations@panamax.com](mailto:custrelations@panamax.com)

**PANAMAX**  
[www.panamax.com](http://www.panamax.com)

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