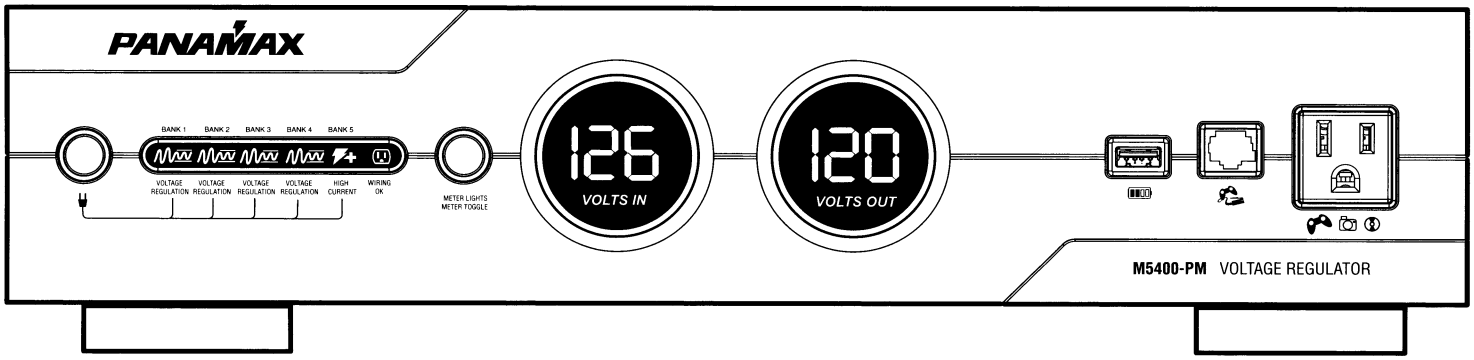
Model: **M5400-PM**



Key Features
Voltage Regulation

Regulates the output voltage on Banks 1-4 to 120 VAC ± 5 VAC. This is accomplished through two boost stages and one buck stage of voltage regulation. In Boost Stage 1 the voltage is boosted in the 109-119V range, while Boost Stage 2 boosts the voltage in the 100-109V range. The Buck Stage acts to reduce voltage in the 125-136V range.

LiFT Technology EMI/RFI Noise Filtration :
Your audio/video components are constantly being bombarded by electromagnetic interference (EMI) and radio frequency interference (RFI) through their AC power source. This contaminated power can affect audio/video equipment and will degrade the overall performance of your entire system. Common symptoms of contaminated power include loss of picture detail, dull colors, pops, hisses, hums and visual artifacts.

Automatic Over & Under Voltage Protection (AVM):
Panamax's patent pending power monitoring circuitry constantly monitors the AC line voltage for unsafe voltage conditions such as momentary spikes or prolonged over-voltages and under-voltages (brownouts). These unsafe conditions pose a very dangerous threat to all electronic equipment within the home. If the MAX® 5400-PM senses an unsafe power condition, it will automatically disconnect your equipment from the power to protect equipment from damage.Once the voltage returns to a safe level, the M5400-PM will automatically reconnect the power.

• When subjected to a 6,000V (open circuit voltage) / 500A (short circuit current) surge, the M5400-PM limits its voltage output to less than 330V peak, UL's best rating.

• If the magnitude of the surge is greater than the capacity of the surge protection components, the M5400-PM's Protect or Disconnect Circuitry will disconnect your equipment in order to protect it. The M5400-PM will need to be repaired or replaced by Panamax if this occurs within the product's 3 year warranty.

5 Isolated Outlet Banks
The M5400-PM is designed to provide noise isolation between the outlet banks so that any noise created by A/V components plugged into the M5400-PM cannot contaminate the power going to equipment plugged into the other outlet banks of the M5400-PM.

Sequential Startup/Shutdown:
Complex audio/video systems may be susceptible to voltage transients generated internally at start-up/shutdown if all of the equipment is powered on or off at the same time. This can cause speaker "thumps" which are not only annoying but can also damage the speakers and/or trip product circuit breakers. The M5400-PM is designed to eliminate these transients by providing a "start-up" delay for the High-Current outlets and a "shutdown" delay for the Switched Outlet Banks. This minimizes in-rush current issues by allowing the components plugged into the Switched Outlet Banks to power-up and stabilize before any amplifiers and powered sub-woofers are turned on. This sequence is reversed during shutdown. The amplifiers and powered sub-woofers turn off, their power supplies drain, and then the equipment plugged into the Switched Outlet Banks are turned off.

USB Charger:
The M5400-PM features a front panel convenience charger for mp3 players, cell phones, video game controllers, and other small electronics. NOTE: Some devices may not be compatible with this USB charger.

Gaming LAN Port:
The M5400-PM features an easy-to-access LAN port pass-thru from the rear panel to the front panel. Perfect for online gaming.

Gaming Outlet:
The M5400-PM features a convenience outlet located on the front panel. Perfect for gaming systems and other electronics. 120VAC ± 6VAC

Voltage Sense Trigger: The M5400-PM voltage sense trigger input uses a standard 3.5mm (1/8") mini-mono plug.
This feature provides an ON/OFF trigger for the M5400-PM using a Direct Current voltage signal. Many components such as pre-amplifiers and receivers have a DC trigger built in, and will transmit a constant power signal when turned on and in use. The presence of this power signal will turn on the M5400-PM's switched outlets. When the source component is turned off, the voltage trigger signal is also turned off and the M5400-PM's shutdown sequence is initiated. An AC Adapter of the appropriate voltage plugged into a switched outlet may also be used if a DC trigger is not built in.

Cable/Satellite/Antenna TV signal protection
Coaxial protection circuits achieve optimum signal quality from our new coaxial protectors that have the smallest signal loss on the market - less than 0.5 db of attenuation from 0 MHz to 2.2 GHz. Our upgraded coaxial protection has been specifically designed to virtually eliminate signal loss. The clamping level of 75V will meet the demands of both cable and satellite voltage while minimizing exposure to damaging spikes and surges.

Telephone Line Protection:
Digital video recorders and satellite TV receivers require a telephone line connection for TV show scheduling and/or Pay-Per-View services. The M5400-PM also provides surge protection for this line. One pair of RJ-11 telephone jacks is provided for this. The circuitry utilizes auto-resetting PTCRs and solidstate SIDACtors for reliability and unsurpassed protection. The clamping level of the M5400-PM's telephone protector is 260 volts. This will allow typical ring voltage (90-130VAC) and operating battery voltage (-48DC) to pass through the circuit and still protect the modem in your satellite receiver from damage.

LAN Protection:
Protection circuits for 10/100 baseT Ethernet lines. Incoming LAN line MUST be plugged into the LINE jack. Patch cord to the equipment MUST be plugged into the EQUIP jacks. 1 LAN jack goes to the front panel output jack. 8 wire protection, 52V clamping.

M5400-PM Front Panel Features

Power Button
Press and hold for one second to turn Bank 3, 4, and 5 outlets ON or OFF.

Power Indicators
Indicates the status of the rear panel outlets. The LED outlet bank icon will be lit when the corresponding outlets are turned ON. They will flash during the startup and shutdown process.

Wiring OK LED
Normally On. Indicates that the wall outlet is properly grounded and Line/Neutral polarity is correct.

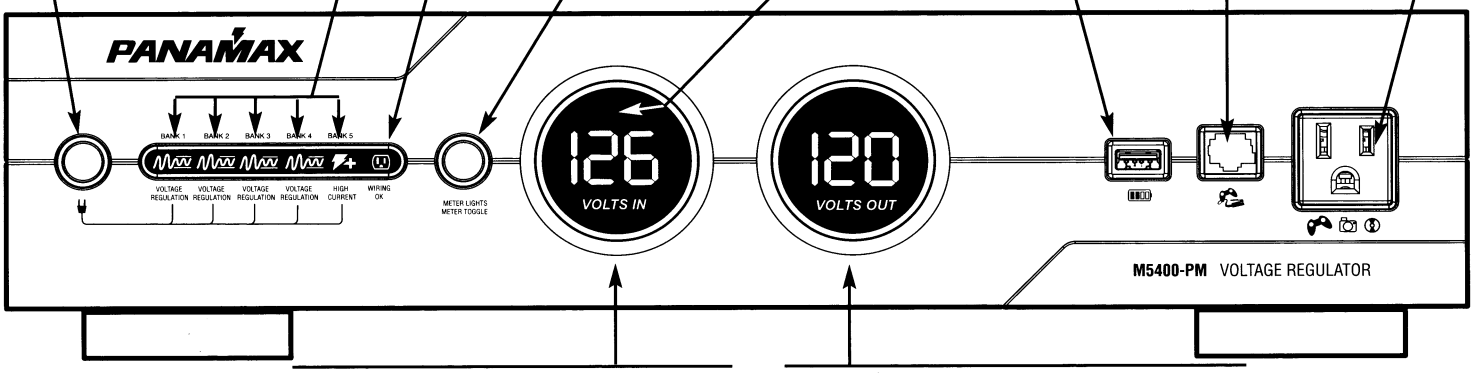
Display Indicator Dimmer/Meter Mode
Pushbutton control for meter and front panel indicator brightness. Quick press cycles between four brightness settings. Press and hold toggles the meter 2 display between Volts-Out and Amps.

Unsafe Voltage Indicator
Located in the Voltmeter and is normally off. Flashes red to indicate that the incoming line voltage is unsafe and the unit has disconnected the power to protect your equipment.

USB Charging Port
For charging portable electronic devices while protecting them from unsafe voltages. USB 5V.

Convenience LAN Port
Offers a bi-directional Ethernet pass-thru connection between the front and rear panel.

Gaming Outlet
Convenient front panel switched outlet provides voltage regulation and surge protection for gaming systems, digital cameras, camcorders, and other devices.



Digital Voltmeter
Digital LED voltmeter indicates the incoming line voltage. If line voltage drops below 90VAC, or if the line voltage exceeds 142VAC, the display will turn off and the "unsafe voltage" indicator will flash indicating an unsafe voltage condition.

Digital Volts Out/Ammeter
Shows the voltage the unit is providing to connected components, when the Meter Mode button is activated, displays actual current draw (0-15A) of the system, giving a visual reference as to how the system is functioning under a variety of conditions. Volts out meter will flash if the unit is out of regulation.

M5400-PM Back Panel Connection Features

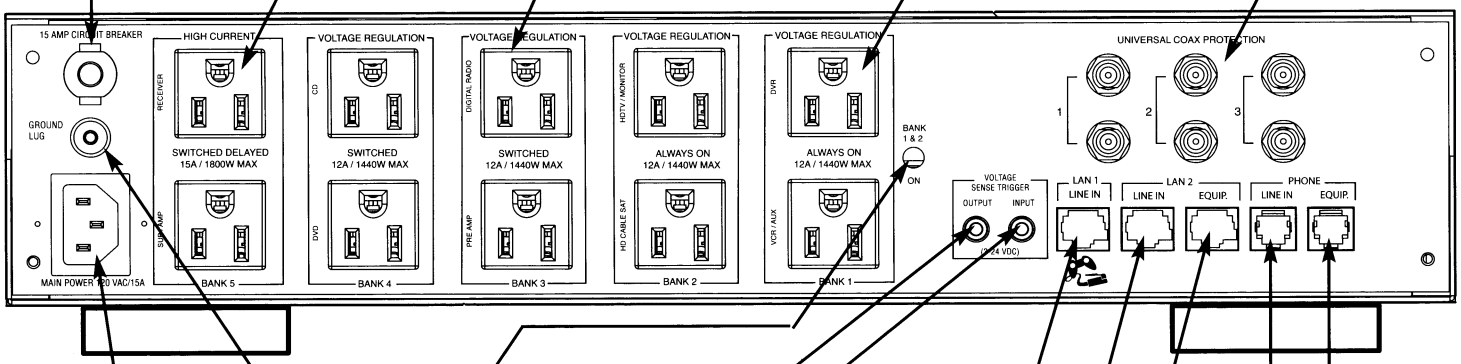
Circuit Breaker
Automatically opens when the current load is greater than 15 Amps. Push to reset.

Outlet Bank 5
Two switched, high-current outlets controlled by the front panel Power Button or the DC Trigger input. Bank 5 has a 5 second turn on delay and turns off immediately upon shutdown. The High Current outlets provide power from a low impedance noise filtration circuit that does not limit the current to your equipment. Its output is noise isolated from all other outlet banks

Outlet Banks 3 and 4
Two switched outlets with linear filtration technology (LiFT) controlled by the front panel Power Button or the DC Trigger input. Banks 3 & 4 will turn on immediately and turn off after a 10 second delay. LiFT EMI/RFI noise filtration is provided by a two-stage balanced Pi filter which also provides noise isolation from all other outlet banks.

Outlet Banks 1 and 2
Two always-on outlets with linear filtration technology (LiFT). Power will only be turned off under a fault condition (See specifications for over-voltage and under-voltage thresholds). LiFT EMI/RFI noise filtration is provided to Banks 1 & 2 by a two-stage balanced Pi filter which also provides noise isolation from all other outlet banks.

Universal TV Coaxial Jacks
3 pairs of bidirectional protection circuits optimized for satellite, cable, and antenna TV signal lines.



Main Power
Must be plugged into a properly wired & grounded 3-wire outlet.

Ground Lug
Provides a common grounding point for equipment with separate ground leads.

Bank 1 and 2 Indicator Light
Normally ON, is lit when there is power present on the Bank 1 and 2 receptacles.

Voltage Sense Trigger Output
3.5mm (1/8") Mini-Plug jack. Connecting a trigger wire to the Voltage Sense Output jack will allow the input signal to pass through the M5400-PM to control the startup/shutdown of an additional device.

Voltage Sense Trigger Input
3.5mm (1/8") Mini-Plug jack. Connect to a remote trigger device that uses a DC output to trigger a startup/shutdown sequence. This bypasses the front panel power switch.

LAN Jacks
Protection circuits for 10/100 baseT Ethernet lines. For the LAN 2 protected jacks, the incoming LAN line MUST be plugged into the LINE jack and the patch cord to the equipment MUST be plugged into the EQUIP jack. For the LAN 1 protected jacks the incoming LAN line must be plugged into the LINE jack and the equipment must be plugged into the gaming jack on the front panel. 8 wire protection, 52V clamping.

Phone Jacks
Protection circuits for standard telephone or pay-per- view lines. Phone circuit is auto-resetting. Incoming phone cord MUST be plugged into the LINE jack. Patch cords to the equipment (satellite receiver, digital video recorder, telephone, etc.) MUST be plugged into the EQUIP jacks.

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.

M5400-PM Specifications

AC Power

Line Voltage:.....120V, 60Hz
Total Current Capacity:.....15 A
UL1449 Suppression Rating:.....330V
Protection Modes:.....L-N, L-G, N-G
Initial Clamping Level:.....200V
Energy Dissipation:.....2125 Joules
Peak Impulse Current:.....72,000 Amps
Catastrophic Surge Circuit:.....Yes
Thermal Fusing:.....Yes

Over-voltage Shutoff:.....142 VAC ± 8 VAC
Under-voltage Shutoff:.....90 VAC ± 2 VAC

EMI/RFI Noise Filtration
Banks 1, 2, 3, 4, ... 80 db, 100 KHz - 2 MHz
Bank 5 High Current Outlets.....60 db, 100 KHz - 2 MHz

Voltage Regulation (Banks 1-4)
Power / Current.....1500 VA / 12A
Input Voltage Range:.....100-136 VAC
Output Voltage Range:.....120 VAC ± 6 VAC
Buck Stage:.....reduces voltage in the 125-136 V range
Boost Stage 1:.....boosts voltage in the 109-119 V range
Boost Stage 2:..... boosts voltage in the 100-109 V range

Specifications are subject to changes due to product upgrades and improvements.

DC Trigger Input

Jacks:..... 3.5mm (1/8") mono mini-plug
Voltage and Polarity:..... 3 - 24V DC, bidirectional
Current Requirement:..... 4.6 mA @3V, 58 mA @24V

DC Trigger Output

Pass through.....no delay
Positive = Tip, Negative = Ring

LAN Circuits

Clamping Level:.....52V
Jacks:.....RJ-45
Wires Protected:.....8-Wires

USB Circuit

Jacks.....USB-A
Power Delivery..... 500 mA @ 5VDC

Telephone Circuit

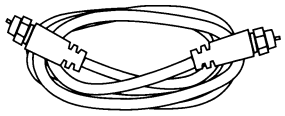
Fuseless/Auto-resetting:.....Yes
Clamping Level:.....260V
Capacitance:.....30pf (approx.)
Suppression Modes:.....Metallic & Longitudinal
Jacks:.....RJ-11
Wires Protected:.....2-Wire, Pins 4 & 5

Cable and Satellite Circuits

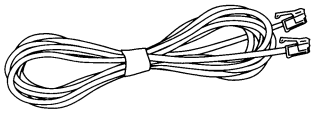
HD 1080 i/p Ready .....Yes
Bi-directional..... Yes
Shielded.....Yes
Clamping Level.....75V
Frequency Range.....0MHz - 2.2 GHz
Insertion Loss.....< 0.5 dB
Connections.....Female "F", Gold Plated

Contents

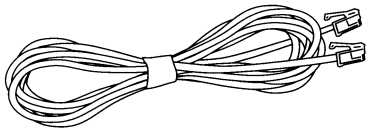
One coaxial cable, 36 inches



One telephone cable
48 inches



One LAN cable (CAT-5)
48 inches



Contacting Panamax

PANAMAX®

Panamax
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Petaluma, CA 94954
Phone - 707-283-5900 or 800-472-5555
Fax - 707-283-5901
Web - www.panamax.com

Customer Relations
7:30 AM – 4:30 PM, M-F
Email - custrelations@panamax.com

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" below.

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 systemic approach using multiple protectors must be employed. Systemic protection requires professional design. AC power, satellite cables, CATV cables, telephone/network lines or any other signal lines entering the system that do not pass through this surge protector may render the Panamax Connected Equipment Protection Policy null and void. For additional information on how to protect your system, please contact Panamax before connecting your equipment to the surge protector.

WARNING NOTICE
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). Authorized Panamax Internet Dealers have sufficient expertise to insure warranty compliant installations. For a list of Authorized Panamax Internet Dealers go to www.panamax.com

More detailed information is available at www.panamax.com

If you have any questions regarding these requirements, please contact Panamax Customer Relations

Panamax Power Conditioner Limited Connected Equipment Protection Policy

Valid only in the United States and Canada.

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. Panamax must determine that the power conditioner shows signs of surge damage or is operating outside of design specifications, relative to its surge protection capability, and under all of the circumstances failed to protect your connected equipment.

M4300-PM: $5,000,000
M5100-PM: $5,000,000
M5300-PM: $5,000,000
M5400-PM: $5,000,000
M4300-EX: $5,000,000
M5300-EX: $5,000,000
M5510-Pro: $5,000,000
M4310: $5,000,000
M5400-EX: $5,000,000
ML4200: $5,000,000
M4400: $5,000,000
M5410: $5,000,000
M5100-EX: $5,000,000
M5500-EX: $5,000,000

THIS WARRANTY IS SUBJECT TO THE FOLLOWING

CONDITIONS:
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** 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, shall 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 and notifying you of the rejection your claim. 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.

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, punitive, 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 warranty, please contact the Panamax Customer Relations Department at www.panamax.com. This warranty supersedes all previous warranties. THIS IS THE ONLY WARRANTY PROVIDED WITH THE PROTECTOR 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.
Effective Date 06/05 Q01L0049 Rev. A

Product Upgrade Program
Valid only in the United States and Canada 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/rma or contact Panamax Customer Relations at 800-472-5555 for details.

www.panamax.com