

NuPrime

IDA-16

NuPrime

NuPrime is a new and independent company whose purpose is to carry on in the celebrated tradition of the NuForce high-end product line. Since 2005 NuForce's audiophile-grade Class-D power amplifiers have won numerous awards from the world's leading audio publications. The founders of NuForce will be providing invaluable guidance in order for NuPrime to achieve new heights in high-performance audio. Starting with IDA-16, an extreme-resolution digital integrated amplifier, NuPrime will be launching a series of superb yet affordable audio products in 2014 and beyond.

FCC Notice - Declaration of Conformity Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING: Only peripherals complying with the FCC class B limits may be attached to this equipment.

Changes or modifications made to this equipment, not expressly approved by us or parties authorized by us could void the user's authority to operate the equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

SAFETY INSTRUCTIONS

There are two categories of Safety Instructions included in this manual:

- Product Warnings, (i.e., what must never be done to assure avoiding those hazards that could cause bodily injury or property damage); and
- User Directions (i.e., what must always be done to assure the safe use of your device).

The Safety Instructions contained in this manual have been categorized in accordance with the seriousness of the potential hazards through the use of Signal Words. Those Signal Words, and their intended meanings, are as follows:

DANGER: Indicates that a failure to observe the Safety Instructions could result in death or catastrophic bodily injury.

WARNING: Indicates that a failure to observe the Safety Instructions could result in serious bodily injury.

CAUTION: Indicates that a failure to observe the Safety Instructions could result in minor bodily injury or property damage.

NOTE: Designates important information that relates to activities and/or conditions that might result in loss of data and/or damage to your device.

Safe Use and Operation of Your Device

This equipment emits stray RF energy and will interfere with the reception of signals by airborne electronic navigational devices or medical devices. Do not operate this equipment near any sensitive medical devices.

WARNING: Use only grounded AC power cords.

Always immediately disconnect the power to the equipment in the event the device emits an unusual odor or sound or generates smoke.

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WARNING: Never attempt to disassemble, repair or make any modification to your device. Disassembly, modification or any attempt at repair could cause bodily injury or property damage, as well as damage to the device itself.

WARNING: Your device is not a toy. Never allow children to play with your device. Misuse, rough or improper handling of your device by children could result in serious bodily injury for any of the enumerated safety warnings in this manual. In addition, always keep all accessories and components out of the reach of small children as small parts might present a choking hazard. Seek immediate medical attention if choking occurs or if any small part has been swallowed.

CAUTION: Never raise the sound volume level too high when using your device with earphones. An excessive sound volume level could cause damage to your hearing.

WARNING: To reduce the risk of fire or electric shock, do not expose the unit to moisture or water.

Do not allow foreign objects to get into the enclosure. If the unit is exposed to moisture, or a foreign object gets into the enclosure, immediately disconnect the power cord from the wall. Take the unit to a qualified service person for inspection and necessary repairs.

Read all the instructions before connecting or operating the component.

Keep this manual so you can refer to these safety instructions.

Heed all warnings and safety information in these instructions and on the product itself.

Follow all operating instructions.

Do not use this unit near water.

You must allow a minimum 10 cm or 4 inches of unobstructed clearance around the unit. Do not place the unit on a bed, sofa, rug, or similar surface that could block the ventilation openings. If the unit is placed in a bookcase or cabinet, there must be ventilation of the cabinet to allow proper cooling. Keep the component away from radiators, heat registers, stoves, or any other appliance that produces heat.

The unit must be connected to a power supply only of the type and voltage specified on the rear panel.

Connect the component to the power outlet only with the supplied power supply cable or an exact equivalent. Do not modify the supplied cable.

Do not route the power cord where it will be crushed, pinched, bent, exposed to heat, or damaged in any way. Pay particular attention to the power cord at the plug and where the cord exits the back of the unit.

The power cord should be unplugged from the wall outlet during a lightning storm or if the unit is to be left unused for a long period of time.

Immediately stop using the component and have it inspected and/or serviced by a qualified service agency if:

- The power supply cord or plug has been damaged.
- Objects have fallen or liquid has been spilled into the unit.
- The unit has been exposed to rain.
- The unit shows signs of improper operation.
- The unit has been dropped or damaged in any way.

A World-First in Digital Integrated Amplifier Design for the Ultimate in High-Resolution Sound

Introduction

Following in a long tradition of world-renown audio excellence, the NuPrime IDA-16 combines leading-edge audio technology with unprecedented innovation, style, and value. As the world's first fully integrated digital amplifier offering 384K & DSD decoding, from its digital or analog inputs to its 200-Watts/Channel speaker outputs it delivers the purest, most natural sound modern audio technology can provide, while also providing the widest support for the latest High-Resolution music formats.

Starting with complete integration of all necessary stages within one chassis, the design inherently ensures the shortest possible signal path, which thereby results in vanishing levels of noise and distortion to create a jet-black backdrop upon which your recordings literally unfold before your ears.

Such deafening silence is further augmented by the IDA-16's innovative volume control; a feature based upon advanced, thin-film switched-resistor technology that places only a single resistor in the signal path at any volume setting. Volume adjustment is conveniently achieved in 99 precise, 0.5dB increments and is further complimented by providing individually adjustable volume for each input. Precise level matching of your various sources becomes a breeze and makes comparison between them equally so.

Completing the ensemble is NuPrime's proprietary variable frequency Switch-Mode Power Supply (SMPS) technology. For thundering, authoritative bass performance, the IDA-16's innovative supply and its Cross-Matrix Array (CMA) capacitor bank are capable - upon demand - of delivering extremely high current to the amplifier's output stages. In addition, the supply's 600 kHz switching frequency and output voltage actually vary in real-time based on the instantaneous demands of the music. The result is unprecedented transient speed and an almost shocking level of dynamic impact that renders percussive instruments as though they were suddenly attacking outward from beyond the blackest depths of a phantom stage.

Such highly responsive behavior achieves extremely low Total Harmonic Distortion + Noise (THD+N) levels of less than 0.004% while attaining a maximum system efficiency of up to 93%. Adding the IDA-16's stratospheric frequency response up to 80 kHz, and now mere vocals are transformed nigh unto emotional experiences while the upper registers of instruments become the shimmering highlights of a live performance. In all, its crystalline transparency, holographic imaging and fatigue-free sound will allow you to finally relax and experience the music as it was meant to be... while almost forgetting the IDA-16 is even there.

Although, when the music stops and the lights are on you definitely won't forget. Rather, you'll be quite proud to showcase the IDA-16 in a place of prominence within your room as its sleek, low profile chassis and understated elegance are sure to draw the attention of your most discriminating guests. Whether your preference is Black or Silver finish, the IDA-16's simple, modern style is certain to find broad approval as it politely augments any decor.

As you continue to review below, you will see that the IDA-16's many innovative features and exemplary specifications are truly impressive and have few equals. More importantly though, just one listen and you are certain to discover the IDA-16 to be a true hallmark of audio performance by elevating music playback and visual style to a level seldom experienced at any price.

Features:

- Full microprocessor control with memory retention
- Five digital inputs & one stereo input for complete system flexibility
- Supports DSD native playback by ASIO2.1 and DoP method
- Theater-Mode pass-through (fixed volume control) function
- Ultra low noise JFETs employed in input stage for the lowest possible noise performance
- Volume adjustment in 99 precise, 0.5dB increments
- Advanced, thin-film switched-resistor ladder network for controlling volume - only a single resistor in the signal path at any volume setting
- Individually adjustable volume on each input for precise level matching of all sources
- High-standard parts: USB (DSD): XMOS DAC: ESS9018 and OPA2134 for high-quality sound.
- Cross-Matrix Array (CMA) capacitor module
- Exclusive driver software for Windows
- Standard driver software for Mac
- Asynchronous transfer mode
- Very Low Power Consumption on Standby Mode
- Available in stylish black or silver anodized aluminum finish
- Included remote control for full convenience

Inputs:

- (1) USB Digital
- (2) Coaxial Digital S/PDIF
- (2) Optical Digital S/PDIF
- (1) Analog Stereo RCA

Outputs:

- (1) Optical (up to 24 bit/192 kHz)
- (1) Stereo RCA (Line out)
- (1) Stereo Speaker (Binding Posts) Output

Specifications:

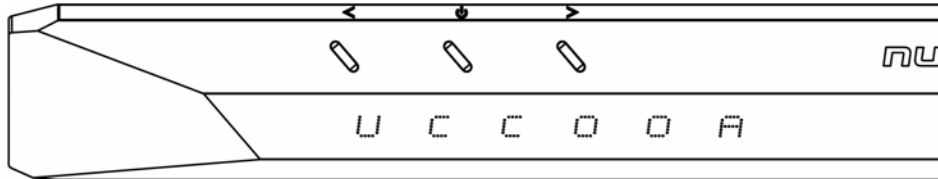
- USB Sampling Rates: 44.1KHz, 48KHz, 88.2KHz, 96KHz, 176.4KHz, 192KHz, 352.8KHz, 384KHz and DSD 2.8MHz, 5.6MHz, 11.2MHz
- S/PDIF Sampling Rates: 44.1KHz, 48KHz, 88.2KHz, 96, 176.4KHz, 192KHz
- Maximum Sampling Rate: 24-bits
- Bit Resolution: 16-24-bits
- Power output: 200W x 2 (8-Ohm)
- THD+N: 0.004%
- Peak Output Power: 400W
- Frequency Response: 10Hz to 80kHz
- RS232 extension: Smart Home Control & Firmware upgrade
- Dimensions: 17 in W x 15 in D x 1.97 in H (2.56 in H include feet)
- Weight: 16 lbs.
- Worldwide AC voltage: (90VAC~130VAC // 210VAC~ 250VAC) With Voltage Select Switch
- AC Fuse: Slow-blow, 5A, 250VAC

Quick Start Guide

Front Panel View:



Power and Input Selector & Indicator:

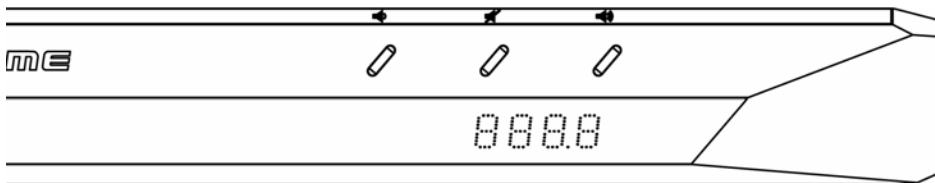


- < Previous Channel
- ⏻ Power ON/OFF: Press 3 sec to turn ON. Display ON, Standby indicator OFF.
Press 3 sec to turn OFF. Display OFF, Standby indicator ON.
- > Next Channel

Input Indicator:

U: USB Digital Input
 C: Coaxial Digital S/PDIF Input 1
 C: Coaxial Digital S/PDIF Input 2
 O: Optical Digital S/PDIF Input 1
 O: Optical Digital S/PDIF Input 2
 A: Analog Stereo RCA Input

Volumes:



- ⏮ Volume down. Pressing 3 sec for fast decreasing.
- ⏸ Mute.
- ⏭ Volume up. Pressing 3 sec for fast increasing.
- ⏮⏭ Press and hold both buttons 3 sec to activate/deactivate Theater-Mode.
 During Theater-Mode volume adjustment is disabled. Volume is set at 0 db.

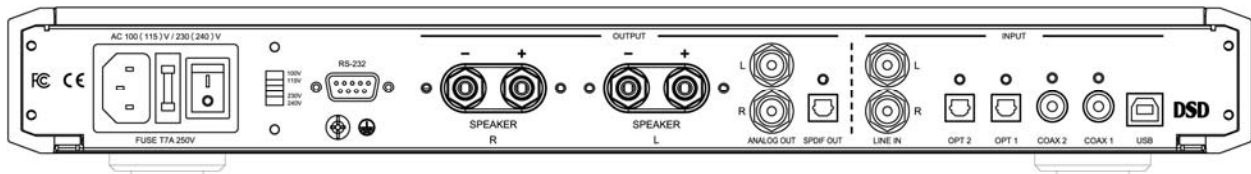
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Display:

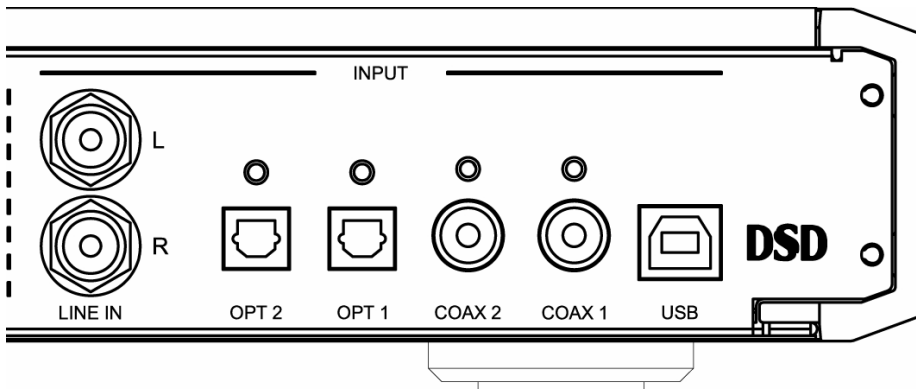


PCM :	44.1	48
88.2	96	176.4
192	352.8	384
DSD:	d2.8	d5.6
d11.2		
VOL:	00 ~ 99	

Back Panel View:



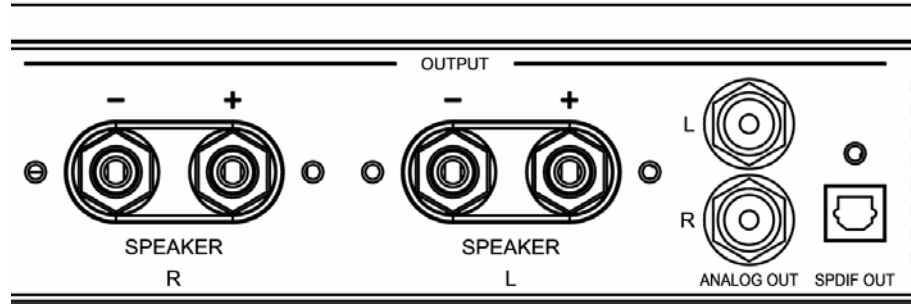
Inputs:



- U: USB Digital Input
- C: Coaxial Digital S/PDIF Input 1
- C: Coaxial Digital S/PDIF Input 2
- O: Optical Digital S/PDIF Input 1
- O: Optical Digital S/PDIF Input 2
- A: Analog Stereo RCA Input

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Outputs:

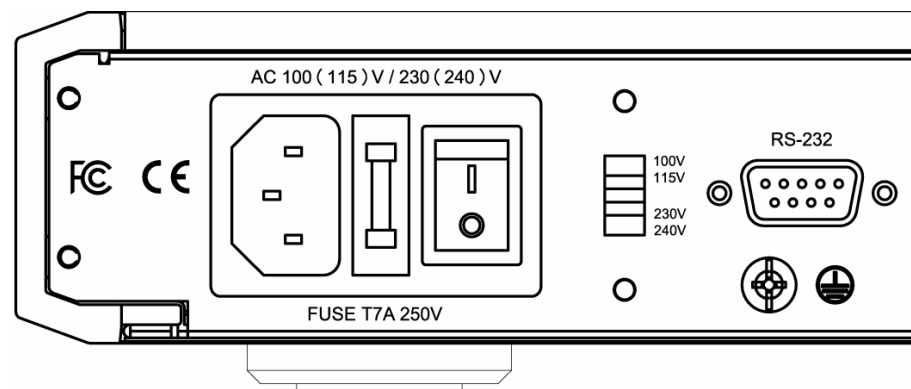


SPDIF OUT: Optical Output (up to 24 bit / 192 kHz) (No output during DSD playback)

ANALOG OUT: Stereo RCA Output (Line out: Subwoofer compatible)

SPEAKER: Stereo Speaker Outputs (Binding Posts)

AC Inlet Voltage Selector & RS232 extension:



AC Inlet Voltage Selector:

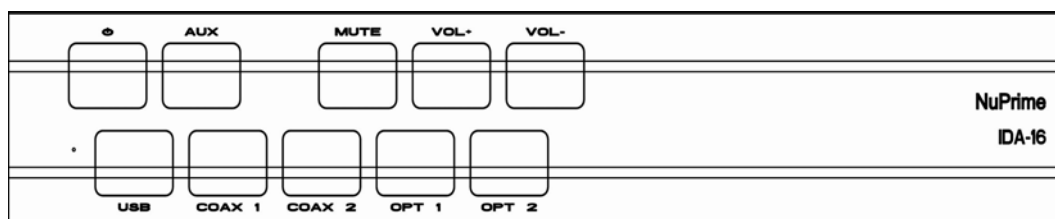
Make sure that the AC Voltage selector switch at the rear of the unit is switched to the appropriate voltage for your country. All IDA-16s are shipped with the switch set to 230V AC in order to prevent accidental damage.

Turn ON the AC power switch at the rear of the unit. The IDA-16 will now be in standby mode. Red LED indicator lights up on the front panel.

RS232 extension: Smart Home Control Commands

Command	Function
\$IDA16 >S?z	POWER ON
\$IDA16 >S@z	POWER OFF
\$IDA16 >SLz	Previous Channel
\$IDA16 >SRz	Next Channel
\$IDA16 >SUz	VOLUME UP
\$IDA16 >SDz	VOLUME DOWN
\$IDA16 >SMz	MUTE
\$IDA16 >STz	THREATER MODE
\$IDA16 S1z	USB Digital Inpu
\$IDA16 S2z	Coaxial Digital S/PDIF Input 1
\$IDA16 S3z	Coaxial Digital S/PDIF Input 2
\$IDA16 S4z	Optical Digital S/PDIF Input 1
\$IDA16 S5z	Optical Digital S/PDIF Input 2
\$IDA16 S6z	Analog Stereo RCA Input

Using the Remote Control:



Power ON/OFF

Input Selector:

- U: USB: USB Digital Input
- C: COAX 1: Coaxial Digital S/PDIF Input 1
- C: COAX 2: Coaxial Digital S/PDIF Input 2
- O: OPT 1: Optical Digital S/PDIF Input 1
- O: OPT 2: Optical Digital S/PDIF Input 2
- A: AUX: Analog Stereo RCA Input

Mute: Mute the music.

VOL+: Increase Volume.

VOL-: Decrease Volume.

NuPrime's Limited Warranty and Limitation of Liabilities

ADDITIONAL RIGHTS

FOR CONSUMERS, WHO ARE COVERED BY CONSUMER PROTECTION LAWS OR REGULATIONS IN THEIR COUNTRY OF PURCHASE OR, IF DIFFERENT, THEIR COUNTRY OF RESIDENCE, THE BENEFITS CONFERRED BY THIS WARRANTY ARE IN ADDITION TO ALL RIGHTS AND REMEDIES CONVEYED BY SUCH CONSUMER PROTECTION LAWS AND REGULATIONS. THIS WARRANTY DOES NOT EXCLUDE, LIMIT OR SUSPEND ANY RIGHTS OF CONSUMERS ARISING OUT OF NONCONFORMITY WITH A SALES CONTRACT. SOME COUNTRIES, STATES AND PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY OR CONDITION MAY LAST, SO THE LIMITATIONS OR EXCLUSIONS DESCRIBED BELOW MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY BY COUNTRY, STATE OR PROVINCE. THIS LIMITED WARRANTY IS GOVERNED BY AND CONSTRUED UNDER THE LAWS OF THE COUNTRY IN WHICH THE PRODUCT PURCHASE TOOK PLACE.

LIMITED WARRANTY

For a period of TWO (2) YEARS from the date of retail purchase by the original end-user purchaser ("Warranty Period"), NuPrime warrants (i) this product against defects in materials and workmanship, and (ii) that each Product, unmodified and under normal use and conditions, will substantially comply with NuPrime' applicable written technical documentation for the Product. NuPrime reserves the right to make substitutions and modifications from time to time in the specifications of Products sold by NuPrime, provided that such substitutions or modifications do not materially affect overall Product performance.

If a hardware defect exists and a valid claim is received within the Warranty Period, at its option and to the extent permitted by law, NuPrime will (1) repair the hardware defect at no charge, using new or refurbished replacement parts, (2) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product, or (3) refund the purchase price of the product. NuPrime may request that you replace defective parts with user-installable new or refurbished parts that NuPrime provides in fulfillment of its warranty obligation. A replacement product/part assumes the remaining warranty of the original product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes NuPrime's property. When a refund is given, your product becomes NuPrime's property.

OBTAINING WARRANTY SERVICE

If you purchased the product in the U.S., deliver the product, at your expense, to any NuPrime Service Center located in the U.S. If you purchased the product outside of the U.S., deliver the product to any NuPrime Authorized Importer in the country where you purchased the product. Be aware, however, that not all countries have NuPrime Authorized Service Providers ('NASP') and not all Authorized Service Providers outside the country of purchase have all parts or replacement units for the product. If the product cannot be repaired or replaced in the country it is in, it may need to be sent to a different country or returned to the country of purchase at your expense for repair or replacement. If you seek service in a country that is not the country of original purchase, you will comply with all applicable import and export laws and regulations and be responsible for all custom duties, V.A.T. and other associated taxes and charges. Where international service is available, NuPrime may repair or exchange defective products and parts with comparable products and parts that comply with local standards. You can always deliver the product to NuPrime's U.S. main service center for obtaining warranty service, however, you may have to pay for return shipping cost.

NuPrime may send you user-installable new or refurbished replacement product or parts to enable you to service or exchange your own product ("DIY Service"). Upon receipt of the replacement product or part, the original product or part becomes the property of NuPrime and you agree to follow instructions, including, if required, arranging the return of original product or part to NuPrime in a timely manner.

When providing DIY Service requiring the return of the original product or part, NuPrime may require a credit card authorization as security for the retail price of the replacement product or part and applicable shipping costs. If you follow instructions, NuPrime will cancel the credit card authorization, so you will not be charged for the product or part and shipping costs. If you fail to return the replaced product or part as instructed or the replaced product or part is not eligible for warranty service, NuPrime will charge the credit card for the authorized amount.

EXCLUSIONS AND LIMITATIONS

This Limited Warranty applies only to hardware products manufactured by or for NuPrime that can be identified by the "NuPrime" trademark, trade name, or logo affixed to them. The Limited Warranty does not apply to any non-NuPrime hardware products or any accessories, even if packaged or sold with NuPrime hardware. Non-NuPrime manufacturers, suppliers, may provide their own warranties. Other accessories distributed by NuPrime under the NuPrime brand name are not covered under this Limited Warranty. This warranty does not apply: (a) to damage caused by accident, abuse, misuse, misapplication, liquid contact, fire, earthquake, non-NuPrime products, or other external causes; (b) to damage caused by service performed by anyone who is not a NASP; (c) to a product or a part that has been modified without the written permission of NuPrime; (d) to consumable parts, such as batteries, or protective coatings designed to diminish over time unless failure has occurred due to a defect in materials or workmanship; (e) to cosmetic damage, including but not limited to scratches, dents, and broken plastic on ports; (f) to defects caused by normal wear and tear or otherwise due to the normal aging of the product; or (g) if any NuPrime serial number has been removed or defaced.

Important: Do not open the hardware product. Opening the hardware product may cause damage that is not covered by this warranty. Only NuPrime or a NASP should perform service on this hardware product.

THIS WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. NUPRIME SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF NUPRIME CANNOT LAWFULLY DISCLAIM IMPLIED WARRANTIES UNDER THIS LIMITED WARRANTY, ALL SUCH WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. No NuPrime reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty. NUPRIME IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE TO OR REPLACEMENT OF EQUIPMENT AND PROPERTY, ANY COSTS OF RECOVERING, REPROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH NUPRIME PRODUCTS, AND ANY FAILURE TO MAINTAIN THE CONFIDENTIALITY OF DATA STORED ON THE PRODUCT. NUPRIME SPECIFICALLY DOES NOT REPRESENT THAT IT WILL BE ABLE TO REPAIR ANY PRODUCT UNDER THIS WARRANTY OR MAKE A PRODUCT EXCHANGE WITHOUT RISK TO OR LOSS OF PROGRAMS OR DATA.

Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitations on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by state or province.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. NUPRIME SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.