NUPRiME

Omnia S1 is purpose-built audio equipment that optimizes as a DLNA Server and Renderer.

Omnia S1
USER'S MANUAL

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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 o 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.

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EU Declaration of Conformity

Hereby, NuPrime Audio, Inc. declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC.

The manufacturer of this product is NuPrime Audio, Inc., 1712 Pioneer Ave. Ste 1817, Cheyenne, Wyoming 82001, USA.
The Authorized Representative for EMC and product safety is NuPrime Audio, Inc., 1712 Pioneer Ave. Ste 1817, Cheyenne, Wyoming 82001, USA.
For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

For customers in Europe

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

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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 modi cation to your device. Disassembly, modi cation 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 re 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 speci ed 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.

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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 quali ed 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

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Introduction

The Omnia S1 is a purpose-built audio equipment that performs both as a Server and a Renderer for your Digital Audio collection. The Server and Renderer are both DLNA/UPnP compatible, therefore allowing the flexibility of streaming music stored on the Omnia S1 to other DLNA/UPnP compatible renderers; and also streaming music from other DLNA/UPnP compatible servers to the Omnia S1. You can choose to use any DLNA/UPnP compatible controller software (e.g. Bubble UPnP) with the Omnia or the NuPrime App.
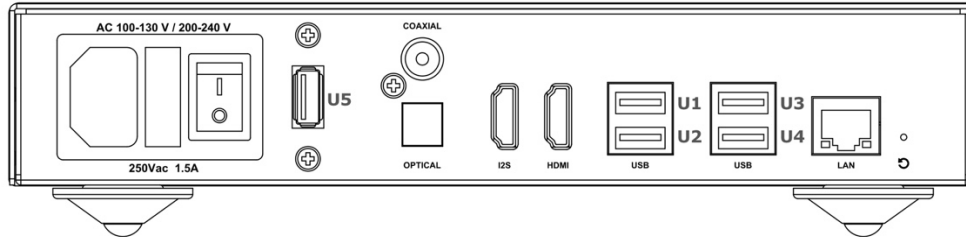
The firmware used for the Omnia S1 is based on Linux operating system. A custom audio driver and hardware were developed which are used by the Renderer to send bit-perfect digital audio via the digital outputs. It also allows Hi-Res PCM audio, DSD(DoP) and I2S playback through a compatible DAC.

Hardware Features:

1. The ARM CPU and firmware handle 32-bit/768kHz and DSD1024 decoding of any available music format.

2. Audio Processing Decoupled from CPU: To isolate the audio processing from performance degradation due to high CPU utilization or signal drop-off due to wireless congestion, the Omnia Audio Processor Unit (OAP Unit) operates independently from the CPU and provides caching of digital music and completely eliminates jitter.

Being a digital transport without the moving parts of a disc based system, the performance of the Omnia S1 surpasses most CD transports. The dedicated firmware designed for low latency playback enables a superior quality compared to typical PC or ARM based offerings.
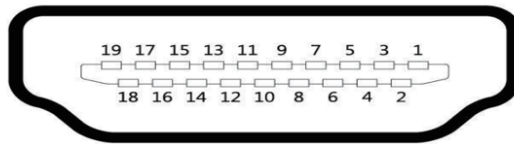
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Specifications

Refer to the above illustration from left to right:

- AC socket
- USB 3.0 port for hard disk and system upgrade use
- Coaxial output (PCM up to 192kHz and DoP format DSD64)
- Optical output (PCM up to 192kHz and DoP format DSD64)
- I2S output (PCM 32K to 768K, DSD64 to DSD1024)
- HDMI display output (video only)
- 4 X USB 2.0 ports for mouse, keyboard, WiFi dongle, and hard disk.
- RJ45 ethernet port
- Hardware reset button

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I2S port specification:

I2S PIN Define:

PIN 1: I2S_DATA-	PIN 10: I2S_MCK+
PIN 2: GND	PIN 11: GND
PIN 3: I2S_DATA+	PIN 12: I2S_MCK-
PIN 4: I2S_BCK+	PIN 13: NC
PIN 5: GND	PIN 14: DSD ON
PIN 6: I2S_BCK-	PIN 15: NC
PIN 7: I2S_LRCK-	PIN 16: NC
PIN 8: GND	PIN 17: GND
PIN 9: I2S_LRCK+	PIN 18: NC
	PIN 19: NC

Supported Audio Formats

File Types

AAC, AIFF, ALAC, APE, DSF, DXD, FLAC, MP3, OGG, WAV, WMA

Bitrates

16bits, 24bits, 32bits

Sample Rates

PCM: 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 KHz

DSD: 2.8MHz (optical and coaxial outputs), 45.2MHz (I2S)

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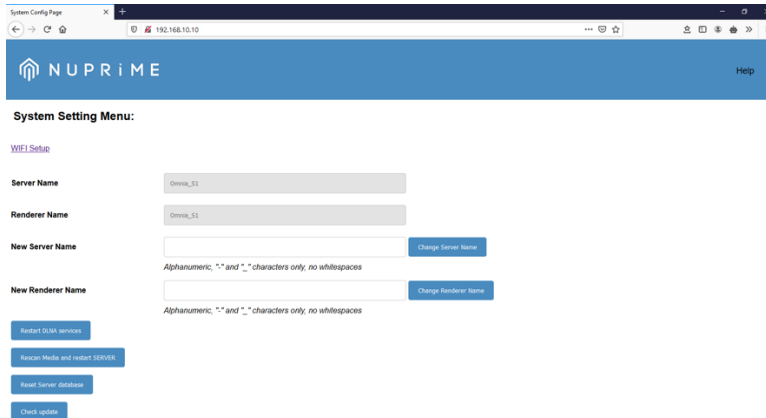
Setting up the Omnia

The Omnia S1 can be connected to your network either by using a wired connection (Ethernet) or using the supplied USB dongle for a wireless connection. The HDMI Display output will only show a NuPrime logo when it is connected to a screen.

Wired Connection (Ethernet)

Connect the Omnia S1 to your network router using a LAN cable. By default, the Omnia will obtain an IP Address from your router via DHCP automatically. Power on the Omnia S1 via the rear switch and both the Omnia Server and Renderer should be visible under your network devices a few minutes *after the music files on the connected hard drive have been indexed*.

Wireless Connection

With the Omnia S1 powered off, insert the supplied USB dongle into one of the available USB ports on the rear panel of the Omnia S1. Power on the Omnia S1. Use a device with a web browser and has WiFi, such as a computer or mobile phone. *Search for the available wireless network* on the device, and you should see "*Omnia_S1*" available. After connecting to this network, launch a web browser on your device and enter the network address **192.168.10.10** in the address bar. You should see the Admin Settings Web Page, where you can set up the WiFi connection using the **WiFi Setup** option. If you need to change the WiFi connection in a new network environment, you can also use this same procedure.

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Click on WiFi Setup

Enter your home WiFi SSID and password for Omnia S1 to connect to your home network. Restart the server.

Admin Settings Web Page
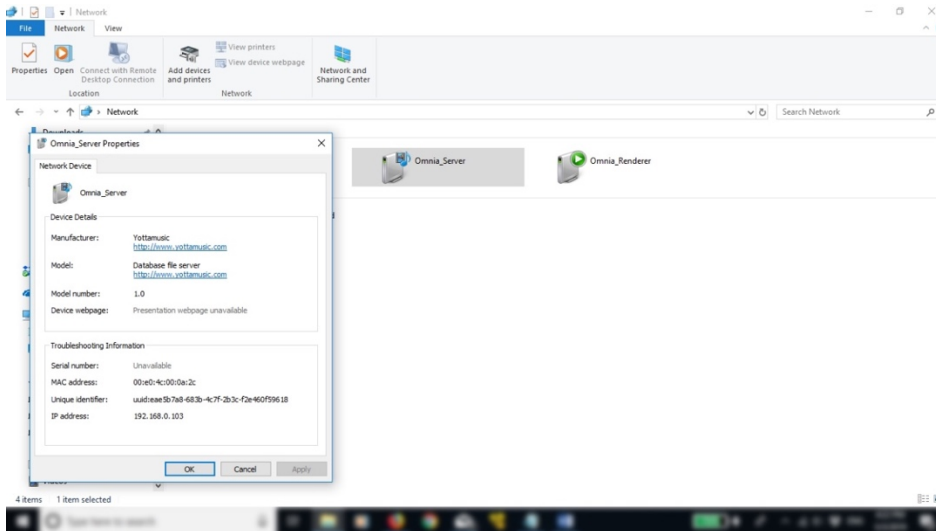
Local Access

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Omnia S1 (Linux OS version) *does not have a local user interface or display.* The HDMI Display output will only show a NuPrime logo when it is connected to a screen. The Admin Setting web page can be accessed remotely by pointing a web browser to its IP address.
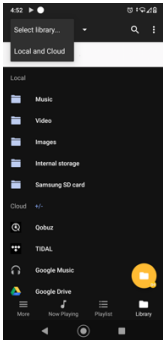
Remote Access

The Admin Settings Web Page can be accessed by any web browser that is on the same network as the Omnia S1. You will require the IP Address of the Omnia S1 on your network to enter into your browser's URL bar. Below is an example identifying the IP Address and accessing the Admin Settings Web Page with a Windows PC (for other OSs, refer to their respective user manual).
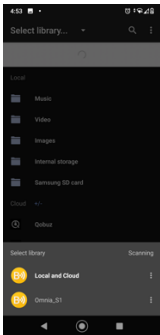

The settings on this page allows you to perform the admin functions for the Omnia.
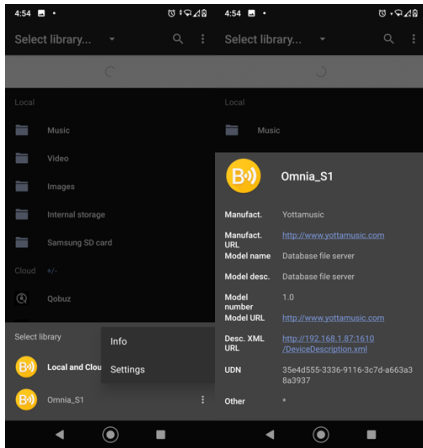
http://192.168.0.193 (example only)

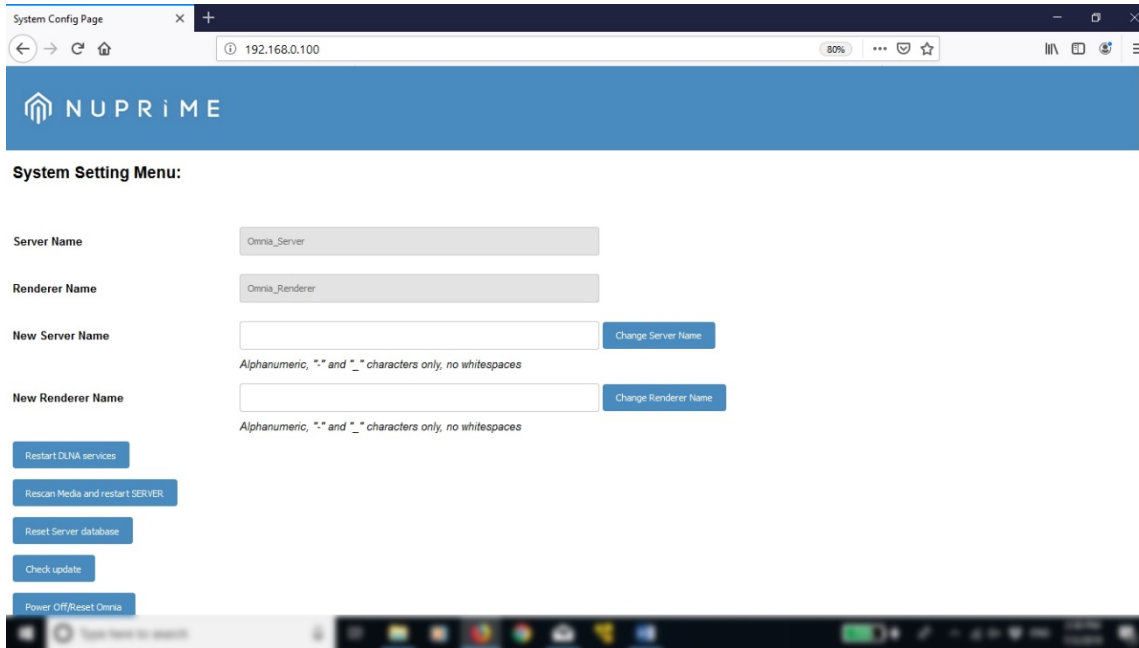**Using BubbleUPnP app to discover Omnia S1 DLNA server IP address**

Go to the Library Menu and tap on the top left drop down. Tap **Select library**...

Tap on the **three vertical dots** beside the media server.

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Tap on **Info**.

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Server Name – Shows the current name of the Omnia Server that will appear in your UPnP browser/controller.

Renderer Name – Shows the current name of the Omnia Renderer that will appear in your UPnP browser/controller.

New Server Name – Change the name of the Omnia Server that appears in your UPnP browser/controller. To change, type in the new name in the text box and click on the 'Change Server Name' button.

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New Renderer Name – Change the name of the Omnia Server that appears in your UPnP browser/controller. To change, type in the new name in the text box and click on the 'Change Server Name' button.

Restart DLNA Services – Click on the button to restart the Server and Renderer (if they become unresponsive to the controller).

Rescan Media and restart SERVER – Click on the button to rescan your music library (when new music is added to the attached storage devices) and restart the Server.

Reset Server Database – Click on the button to reset the Server database (if the indexing of the audio files becomes corrupted i.e. showing wrong track info).

Check Update – Click on the button to check if a newer version of the application package is available online. If a newer version is available, the system will automatically download the package and restart the unit to perform the update (requires internet connectivity).

Power Off/Reset Omnia – Click on the button to power off (recommended especially if a mechanical hard drive is connected before turning off via the main switch) or reboot the unit.

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Firmware Update

Omnia S1 is a customized Linux OS and hardware. There is no app to install. In the rare event that Omnia S1 operating system and firmware have to be updated, please visit the Omnia S1 product page download tab on NuPrimeAudio.com

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Using the Omnia S1 as Music Server

During the first initialization, the system will search all physically connected storage devices for playable music content and automatically add them to the library. The Server is DLNA/UPnP compatible, so you can use any DLNA/UPnP software (e.g. BubbleUPnP) to browse the library and stream the music content to any DLNA/UPnP compatible renderer on the same network. To select the Omnia S1 as the music server, please refer to the instructions or guides for the DLNA/UPnP software you are using. If new music content is subsequently added to the storage devices, you can refresh the library using the Admin Settings Web Page.

Note: NuPrime Omnia Receiver app that is designed for NuPrime streamer products is able to browse Omnia S1 music library and stream to other NuPrime streamer. But it won't be able to stream music to play on Omnia S1.

Using the Omnia S1 as Music Renderer

The Omnia S1 DLNA/UPnP Compatible Renderer is automatically started when the system powers on. In your preferred DLNA/UPnP software, choose the Omnia S1 as the renderer and you will be able to stream music from any DLNA/UPnP compatible server on the same network. Please refer to this section for the audio formats, bitrates and sample rates supported by the Renderer.

Local Play: Stream music from Omnia S1 Server to Renderer

To play music on Omnia S1, browse the Omnia S1 Server and stream to Omnia S1 Renderer.

NuPrime's Limited Warranty and Limitation of Liabilities

ADDITIONAL RIGHTS

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LIMITED WARRANTY

For a period of ONE (1) YEAR from the date of retail purchase by the original end-user purchaser ("Warranty Period"), NuPrime warrants (in) 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-

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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.A or Taiwan service center for obtaining warranty service, however, you may have to pay for 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

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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.

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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.

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