

NuForce

U192S User Manual

FCC Compliance Statement



Hereby, NuForce Inc. declares that this device is in compliance with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

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. If not installed and operated in accordance with the instructions, it may interfere with radio communications.

There is no guarantee that interference will not occur in a particular installation. If this equipment does interfere with radio or television reception, the user may be able to correct the problem by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase separation between equipment and receiver.
- Use equipment on a circuit to which the receiver is not connected.
- Consult your 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.

Notice for customers: The following information is only applicable to equipment sold in countries applying EU Directives.

EU Declaration of Conformity



Hereby, NuForce 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 NuForce, 382 South Abbott Ave, Milpitas, CA 95035, USA.

The Authorized Representative for EMC and product safety is NuForce, 382 South Abbott Ave, Milpitas, CA 95035, 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.

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 failing to observe the Safety Instructions could result in death or catastrophic bodily injury.

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

CAUTION: Indicates that failing 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.

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.

Allow for 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 capable of blocking ventilation openings. If the unit is placed in a bookcase or cabinet, allow for proper ventilation. Keep the component away from radiators, heat registers, stoves, or any other appliance that produces heat.

If the unit requires a power supply:

- It 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.

U192S User Manual

The NuForce U192S is a digital signal converter designed for transforming digital audio signals presented to the USB port of a computer into a coaxial or optical S/PDIF type commonly encountered in high performance digital-to-analog converters (DACs). The U192S accepts data word lengths of 16 and 24-bits at a maximum sample-rate of 192kHz, thus permitting playback of high-resolution digital audio recordings via the more common USB ports found on computers.

Note: The following instructions are required for Windows OS systems. You will find Mac OS Setup Instructions further below.

Download Driver (Windows OS Installation):

First, you will need to download the required driver from the following location:

<http://www.nuforce.com/hp/support/download/download.php>

The screenshot shows the Nuforce website's support page. At the top, there is a navigation menu with links for ABOUT, REVIEWS, PORTABLE, HOME, WIRELESS, ACCESSORY, STORES, and SUPPORT. Below the menu is a large diagram titled "Whatever your digital needs" which illustrates various digital audio connections including vDAC 2.0, vDAC 2.0 SE, vDAC 2.0 Signature Gold Edition, and vDAC 2.0 SE Signature Gold Edition. Below the diagram is a table with the following data:

Download Location	Operating Systems	Product Model	Comment
Nuforce Async USB Driver	Windows XP, Windows 7 (32 & 64 bit). Driver is not required for Mac OS.	vDAC2-SE, vDAC-2 Signature Gold Edition	Read Async/Async USB FAQ to get the best out of this high-performance DAC.
Nuforce 24-bit/192kHz USB driver	Windows XP, Windows 7 (32 & 64 bit)	DACS, U1905, LP5-20-190K	
Nuforce 24-bit/192kHz USB driver	Mac OS	DACS, U1905, LP5-20-190K	

Install Driver & Software:

After downloading the driver, run the Installation program. After the installation, an icon linking to the **NuForce Stereo Audio Control Panel** program will appear on your desktop. For now move on to the Connect Hardware step, as detailed information regarding software adjustment will follow.

Connect Hardware:

Once the software has been installed, connect a digital coaxial or optical cable from the output of the U192S to the input of your chosen DAC. Plug the provided USB cable between the computer's USB port and the U192S. After the cable is connected, a window will pop up at the lower-right side of the display that reads:

NuForce Async USB Audio 192K HS installed

A white LED – **44.1k** – will indicate power-on status.

Select Playback:

Right click on speaker icon at the bottom right and select

Playback Devices.

Choose **SPDIF OUT** and close window.

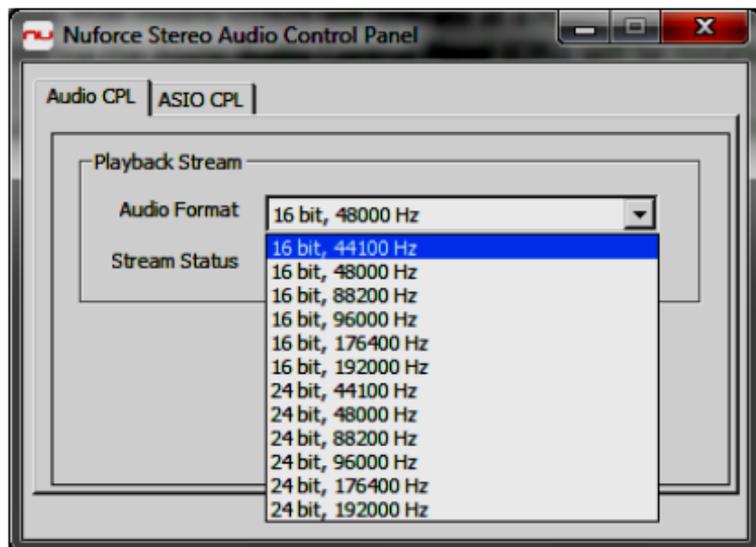
Adjust Software (Windows 7 Setup):

Direct Sound (DS) is the default Windows audio mode and it operates with the Windows Mixer enabled. This means other sound prompts (such as email notifications, etc) will be mixed into the music output. A single sample rate must therefore be used as the common denominator. For music playback in Windows 7, **WASAPI** mode (**Windows Audio Session API**) is the preferred and purest mode. (See WASAPI section)

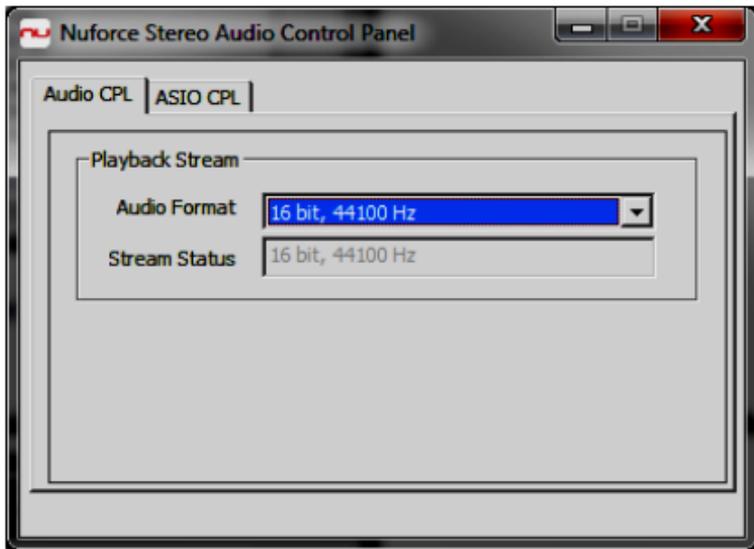
Direct Sound Mode

Because the USB input is asynchronous, the U192S will operate at a fixed output sample rate. Regardless of whether the music is recorded at 48k or 192k, whatever actual DS format (bit depth & sample rate) is selected, that format will be the operating format. Selection is made via the **Audio Control Panel (CPL)** section of the **NuForce Stereo Audio Control Panel**. For the best sound quality in Direct Sound mode, you will need to manually select

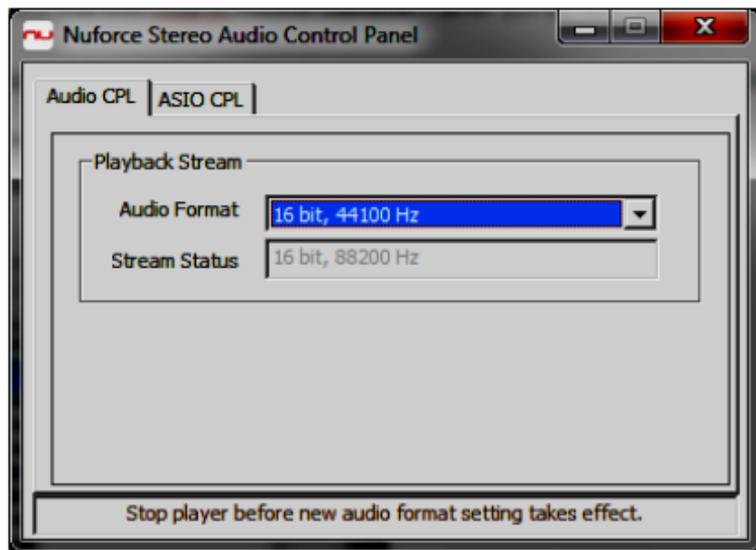
the Audio Format so that it matches the music file format.
(See screenshots below).



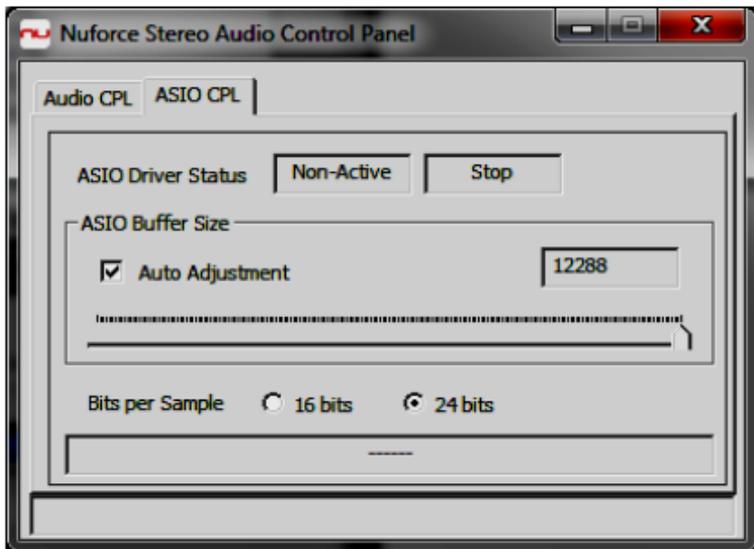
In Direct Sound mode the Stream Status is **ALWAYS** equal to the selected Audio Format:



When music is being played, the Audio Format cannot be changed on the fly. The music must be stopped before you can make the next change (Note the message: **Stop Player...**)



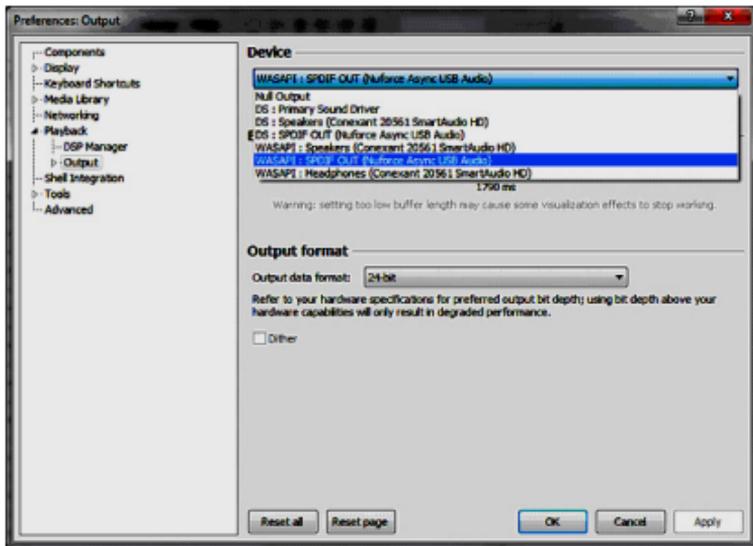
The ASIO tab should be set to 24-bit and Auto Adjust:



WASAPI Mode:

Some media players require a special WASAPI plug-in to enable support for WASAPI. Once installed and activated, WASAPI can be selected as the default audio driver.

Below is a screenshot of **Foobar2000** in Windows 7 (after WASAPI plug-in has been installed) showing different supported device driver options: As you can see, both Direct Sound (DS) and WASAPI options are listed.



Once WASAPI mode is selected, the native sample rate will be employed. No adjustment in Audio CPL is required. Look at the **Stream Status**. You will note in the screenshot below that the actual sample rate used does not equal the selected sample rate. This is a result of WASAPI's ability to provide automatic playback of the music file in its native format apart from those of other Sound Effects settings.



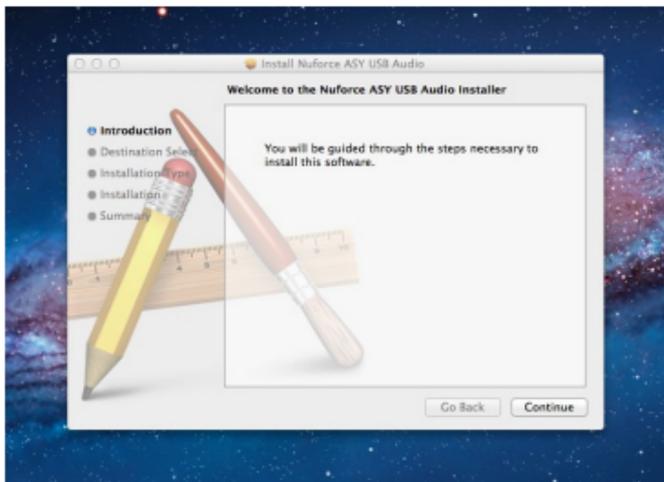
Download Driver (Mac OS Installation):

First, you will need to download the required driver from the following location:

<http://www.nuforce.com/hp/support/download/download.php>

Install Driver & Software:

After downloading the driver, the Installation program will begin. Click **Continue** > **Install** > **Install Software** > Continue installation as each screen appears. In the last window, click **Restart** to reboot your computer in order to complete the installation process.



Connect Hardware:

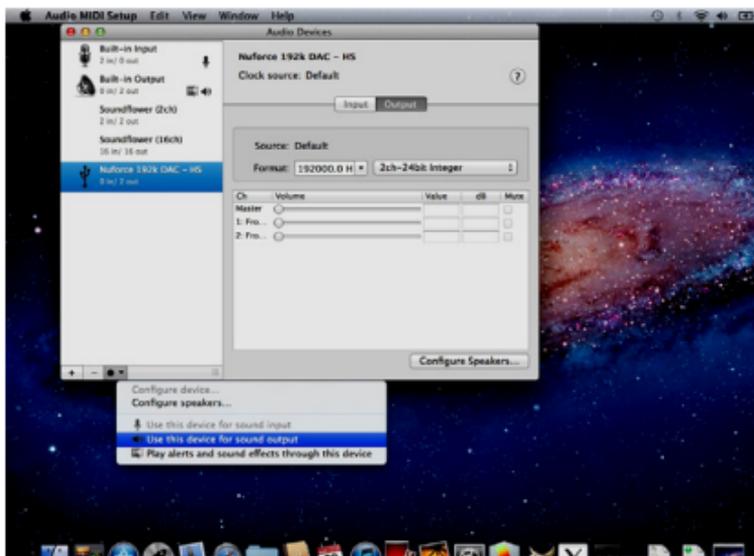
Once the software has been installed, connect a digital coaxial or optical cable from the output of the U192S to the input of your DAC. Plug the provided USB cable between the computer's USB port and the U192S. A white LED – **44.1k** – will indicate the U192S's power-on status.

Adjust Software (Mac OS Setup):

Installation of the U192S on Apple Mac systems is straightforward and simple:

1. On the **Desktop**, select **Launchpad**.
2. Under **Launchpad**, select **Utilities**.
3. Under **Utilities**, select **Audio/Midi Setup**.
4. Under **Audio/Midi Setup**, select **NuForce U192S** as the default audio device.
5. In the **Format** drop-down menu select the desired sample rate and bit resolution.
6. The white LED on the U192S will indicate the selected sample rate.

- Begin using the U1925 by playing music files via your media software.



U192S Specifications:

Supported Operating Systems: Windows XP, Windows 7 (32-bit and 64-bit), Mac OSX

Digital Input: USB-B

Digital Output (S/PDIF): Coaxial RCA 75-ohm, Optical TOSLINK

Digital Output Signal Level: 1.0 Vpp

Supported Sample Rates: 44.1, 48, 88.2, 96, 176.4 and 192 kHz

Bit Resolution: 16 or 24 bit

Power Requirement: USB Bus Powered, 80 mA/5V

Maximum Power Consumption: 150mW

Dimensions: 68 x 21 x 38 mm

Weight: 71 grams

A Beginner's Guide to Good Audio

What qualities distinguish a good audio system?

Let's start with a misconception. "Wow! I'll bet that can play loud!" This, or something like it, is typical of the newcomer's reaction to an audiophile's setup, particularly if the speakers are large.

Why a system's loudness capabilities should be the measure of excellence isn't difficult to understand. People often install quite costly sound systems in their cars. Some of the larger specimens seem capable of shaking their host vehicle apart. The pavement trembles when one passes by. A club's sound system is in the same league: ear-splitting, gut-wrenching, floor-buckling output. With the exception of classical music, which is rarely ever amplified, the same is true for most live concerts. Domestically, the average boom box can break a lease. TV ads featuring hard-pumping woofer cones say it all.

Upon actually sitting down and listening to our hypothetical audiophile's sound system, the newcomer will likely say "Wow!" again, followed this time by "It's so clear!"

Clarity. The term takes on a host of qualities. As strange as this may seem, one of clarity's principal components is silence. A silent audio system — an audio system that contributes little to no noise of its own — reveals the music much more clearly at all listening levels, from soft to loud.

Resolution likewise contributes to clarity. Imagine two mounds of sand in bright sunlight. One mound is mixed with mud. It's difficult to see its individual grains. The other mound is free of mud. You have no trouble seeing its tiny, glittering bits. And so it is with high-quality audio. The music shines through. Nothing muddies the sonic image. You hear the texture of a singer's voice almost as if she's in the room. Instrumental timbres allow you to distinguish the purposeful grunge of the rockers' guitars. Violas differ from violins, likewise oboes from English horns. A good sound system allows you to make these listening distinctions.

Soundstage. Another critically important measure of an audio system's quality is its ability to project a convincing soundstage. Can you perceive its width and depth? Is it realistically proportioned? Can you hear the venue as large or small? Is it clear to you where the musicians perform within the soundstage? Depending on the style of recording, our audiophile's sound system provides the answers. And of course, the pleasures.

Speed. An audio system's superior speed produces crisp, clean attacks: a violin or trumpet's edge, a drummer's rim shot, a marimba's wooden loveliness -- all those little delights that mimic live music.

Bass. To return to trembling pavements and hard-pumping woofer cones, the audiophile's guest will be pleasantly surprised to discover that a high-quality sound system's low end is as tuneful and clean as the rest of the audio spectrum. Again, no mud. Just lovely, well-defined sounds. A good audio system aims at naturalness.

Size. Good audio is not necessarily big audio. If you shop wisely, you need not spend a fortune to achieve a high level of audio performance. With these pointers as a guide, the newcomer has a good idea of what to listen for. The least expensive NuForce components will more than satisfy modest applications. With our reference-grade components serving as the culmination of all our efforts, our entire line answers to the same ideal: accurate, vibrant, lifelike sound.

NuForce One (1) Year Limited Warranty

NuForce'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 ONE(1) YEAR from the date of retail purchase by the original end-user purchaser (“Warranty Period”), NuForce 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 NuForce’ applicable written technical documentation for the Product. NuForce reserves the right to make substitutions and modifications from time to time in the specifications of Products sold by NuForce, 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, NuForce 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. NuForce may request that you replace defective parts with user-installable new or refurbished parts that NuForce 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 NuForce's property. When a refund is given, your product becomes NuForce's property.

OBTAINING WARRANTY SERVICE

If you purchased the product in the U.S., deliver the product, at your expense, to any NuForce Service Center located in the U.S. If you purchased the product outside of the U.S., deliver the product to any NuForce Authorized Importer in the country where you purchased the product. Be aware, however, that not all countries have NuForce 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, NuForce 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 NuForce's U.S. main service center for obtaining warranty service, however, you may have to pay for return shipping cost.

NuForce 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 NuForce and you agree to follow instructions, including, if required, arranging the return of original product or part to NuForce in a timely manner.

When providing DIY Service requiring the return of the original product or part, NuForce 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, NuForce 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, NuForce will charge the credit card for the authorized amount.

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caused by normal wear and tear or otherwise due to the normal aging of the product; or (g) if any NuForce 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 NuForce or a NASP should perform service on this hardware product.

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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.

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