

NU FORCE



NuForce uDAC

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IMPORTANT: LISTENING AT HIGH VOLUME LEVELS CAN CAUSE PERMANENT DAMAGE TO YOUR HEARING. BEFORE USE, READ ALL WARNINGS AND INSTRUCTIONS.

To avoid hearing damage, do not prolong listening at high volume levels. Follow guidelines established by the U.S. Occupational Safety Health Administration (OSHA) for maximum time exposure at various sound pressure levels. Ignoring these guidelines can result in permanent hearing loss. The following table may prove helpful.

- 90 dB SPL for 8 hours
- 95 dB SPL for 4 hours
- 100 dB SPL for 2 hours
- 105 dB SPL for 1 hour
- 110 dB SPL for 1/2 hour
- 115 dB SPL for 15 minutes
- 120 dB SPL to be avoided altogether.

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 capability should be the measure of excellence isn't difficult to understand. People install often 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.

On 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 in 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 all the more clearly at 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,

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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 uDAC

The NuForce uDAC is a high-performance USB Digital Audio Converter (DAC) that connects your personal computer's audio with your home stereo, desktop sound system, or headphones. The quality and versatility of the uDAC's performance belies its diminutive size. With its extensive power supply, filtering capabilities and charge-pump circuit as a foundation, the uDAC processes incoming data via a USB audio receiver. A D/A converter chip then translates the data to a two-volt analog signal. The NuForce uDAC's performance equals or exceeds that of a great many audiophile CD players. The unit's exemplary flexibility — analog RCA, digital coaxial and high-performance headphone outputs — is bound to satisfy the needs of the most critical music lover.

Features:

- Discrete USB audio receiver and D/A converter
- Coaxial S/PDIF output (turn off volume control to activate)
- Double jitter-reduction mechanism at data level and at oversampling filter stage
- High voltage 2V analog output
- High-quality analog volume control
- No capacitors in any of the audio signal paths
- Low power consumption; USB self-powered
- USB powered, no external power supply required

Specifications:

- Input:
 - USB (USB 1.1, 2.0 compatible)
 - USB DAC: USB 1.1, 2.0 compatible. USB native bit rate: 32-48kHz, 16-bit
 - Maximum sampling rate: 48kHz
 - Resolution: 24-bits
- Output:
 - Analog RCA Output = 2Vrms
 - Dynamic Range: 110dB
 - THD+N= -95 dB
 - S/N Ratio: 98dB
 - Digital Output: coaxial RCA 75-ohm
 - Headphone output jack
 - Power output: 80mW x 2 @16-Ohm
 - THD+N 0.05%
 - SNR > 98dB
- Power:
 - USB Bus Powered
- Dimensions:
 - 68x38x21mm

TERMS AND CONDITIONS OF SALE

Section 0. Refer to “Nuforce Limited Warranty” document.

Scope. These terms and conditions of sale (these “Terms”) apply to all sales of products (the “Products”) by Nuforce Inc. (“NuForce”), a California corporation, to buyer of the Products (“Buyer”). These Terms (along with the specific terms of the attached purchase order) constitute the complete and entire agreement between the parties relating to the subject matter hereof, and supersede any and all prior and contemporaneous other terms or conditions, whether oral or written, including negotiations, prior quotations and purchase orders between the parties. These Terms may be modified only by a writing signed and approved by an authorized representative of NuForce. NuForce’ failure to object to any term or condition contained in any communication from Buyer (including in any purchase order) shall not be deemed a waiver or modification of these Terms. These Terms shall not be modified, supplemented, qualified or interpreted by any trade usage or prior course of dealing.

Orders. Subject to Section **Error! Reference source not found.**, a contract between NuForce and Buyer shall be formed only upon NuForce’ written acceptance of Buyer’s order or shipment of Products to Buyer pursuant to Buyer’s written purchase order. If NuForce accepts by shipment, then the acceptance shall only be for the quantity shipped.

Title and Delivery.

Title and Risk of Loss. Delivery is F.O.B. NuForce’ point of shipment (“Delivery”). NuForce may exercise NuForce’ own discretion in selecting the method of shipment. The risk of loss passes to Buyer upon delivery to the carrier at NuForce’ point of shipment. NuForce retains title to the Products until NuForce has received payment in full of all sums due in connection with the sale of Products to Buyer. NuForce hereby reserves and Buyer hereby grants to NuForce a purchase money security interest in the Products sold and the proceeds thereof, including accounts receivable, until Buyer pays NuForce the purchase price in full.

Shipment and Delivery. Any scheduled ship date quoted is approximate and not the essence of the contract. Claims of late delivery are barred unless made prior to receipt of Products. Buyer's sole remedy for delay in or failure to deliver shall be cancellation of the applicable order.

Pricing. NuForce reserves the right to increase prices for any unshipped Products if the cost to NuForce for supplies, raw materials, labor or services is materially increased. The prices quoted on the attached purchase order shall be valid only for the period of time there indicated. All prices are exclusive of transportation, insurance, taxes, duties and other charges related thereto; unless NuForce receives a certified tax exemption from Buyer prior to shipment. Buyer agrees to indemnify, defend and hold NuForce harmless from any loss or expense arising out of or related to NuForce's reliance on any tax exemption provided by Buyer.

Payment. Except as otherwise specifically designated on the invoice, payment shall be due and payable within 30 days from the date of the invoice. NuForce reserves the right at any time to modify or withdraw any credit extended to Buyer. If in NuForce's sole discretion, NuForce may require full or partial payment in advance of any shipment of Product. If Buyer becomes delinquent in any payment to NuForce, NuForce has the right to suspend performance until such delinquency is corrected. Regardless of any statement appearing on a check in payment for Product, NuForce's acceptance of such check shall not constitute a waiver of NuForce's right to pursue the collection of any remaining balance. NuForce reserves the right to charge a late fee on late payments at the lesser of one and 1.5% per month or the maximum rate allowable by law, together with NuForce's costs of collections including attorneys' fees.

Acceptance. Use of the Products by Buyer or its agents, or the failure by Buyer to reject the Products within 5 days following Buyer's delivery of such Products shall constitute acceptance by the Buyer.

NuForce's Limited Warranty and Limitation of Liabilities.

Full Refund Period. For a period of 30 days after shipment (the "Refund Period"), Buyer may return the Products to NuForce for a full refund. To qualify for this refund, the Products must be returned in their original packaging and a 15% restocking fee will apply to damaged (including blemish on product's surface) Products.

Limited Warranty. For a period (as specified in the Warranty Coverage section) after conclusion of the Refund 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.

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Liability. With respect to any claims asserting breach of the limited warranty set forth in Section **Error! Reference source not found.**, NuForce' exclusive liability and Buyer's sole remedy, is at NuForce' option, to replace or repair the defective Product or to issue credit to Buyer for the purchase price of the Product (without interest), provided that prior to any replacement, repair or credit the following conditions are satisfied: (i) NuForce is promptly notified in writing by Buyer upon discovery of any such default; (ii) the defective Product is returned to NuForce, transportation charges prepaid by Buyer, accompanied by a brief statement explaining the alleged defect; and (iii) NuForce' examination of such Product shall disclose to NuForce' satisfaction that

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such failures did not arise as a result of misuse, abuse, improper installation or application, repair, alteration, or accident, or negligence in use, storage, transportation or handling by anyone other than NuForce. Any replacement Product will be warranted for the remainder of the original warranty period or 30 days, whichever is longer. NuForce shall in no event be responsible for any labor costs, or otherwise, incurred by Buyer incident to the replacement of any defective Product. If NuForce determines that the returned Product conformed to the warranties, NuForce will return the Product to Buyer at Buyer's expense.

NUFORCE SHALL NOT BE LIABLE FOR INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY NATURE INCLUDING WITHOUT LIMITATION LOSS OF PROFIT, PROMOTIONAL OR MANUFACTURING EXPENSES, OVERHEAD, DATA, INJURY TO REPUTATION OR LOSS TO CUSTOMERS, ARISING OUT OF OR IN CONNECTION WITH THE PURCHASE, SALE, USE, PERFORMANCE OR FAILURE OF THE PRODUCTS, WHETHER SUCH LIABILITY ARISES UNDER CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT PRODUCT LIABILITY OR OTHERWISE, EVEN IF NUFORCE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR IF SUCH DAMAGE COULD HAVE BEEN REASONABLY FORESEEN. IN NO EVENT WILL NUFORCE' LIABILITY TO BUYER ARISING OUT OF OR RELATING TO THESE TERMS EXCEED THE AMOUNT OF THE PURCHASE PRICE PAID TO NUFORCE BY BUYER FOR THE PRODUCT THAT GIVES RISE TO THE CLAIM.

Default. If Buyer becomes insolvent, bankrupt, makes an assignment for the benefit of its creditors or is otherwise unable to meet Buyer's obligations as they come due, NuForce may decline to make further shipments without in any way affecting NuForce' rights under these Terms. If, NuForce elects to continue to make shipments, NuForce' action shall not constitute a waiver of any default by Buyer or in any way affect NuForce' legal remedies of any such default.

Assignment. Buyer shall not assign Buyer's order or any interest in or any rights hereunder without the prior written consent of NuForce.

Confidentiality. Buyer acknowledges that Buyer may gain access to trade secrets and confidential information of NuForce. At all times Buyer agrees not to disclose NuForce' trade secrets or confidential information to any third party without the express written consent of NuForce. Buyer
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Miscellaneous. All notices, authorizations, and requests shall be deemed given on receipt. These Terms shall be governed by the laws of the State of California without reference to that state's choice of law provisions. The California state courts of Santa Clara County, California or the United States District Court for the Northern District of California shall have exclusive jurisdiction and venue over any dispute arising out of this Agreement, and each party hereby consents to the jurisdiction and venue of such courts. All waivers of the exercise any remedy or option provided herein, or to require any performance by Buyer must be in a writing signed by NuForce. If any provision of these Terms is declared invalid, illegal or unenforceable, all remaining provisions shall continue in full force and effect. Nonperformance of either party, except for the making of payments, shall be excused to the extent that performance is delayed or rendered impossible by any reason where failure to perform is beyond the reasonable control of the non-performing party.

Nuforce One Year Limited Warranty

WARRANTY COVERAGE

Nuforce's warranty is specified in **NuForce Terms and Conditions of Sale**. If a defect exists, at its option Nuforce will (1) repair the product 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. 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 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. You can always deliver the product to NuForce's U.S. main service center for obtaining warranty service.

EXCLUSIONS AND LIMITATIONS



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