



Extraudio, high end Audio products

X251 MKII

Integrated Amplifier Pure Class AD

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INTRODUCTION

1. Welcome

Thank you and congratulations on the purchase of your new Extraudio Pure Class AD integrated amplifier, model X251 MKII.

This integrated amplifier is the result of a process of research, development, and innovation (R+D+I) carried out over 10 years in the Netherlands by specialized engineers.

Extraudio was conceived with the conviction that things can change in the high-fidelity sector and, particularly, in High End audio.

We have used a very specific design concept, as if it were a mantra: “less is more,” popularized by Mies Van der Rohe and to which Mr. Dieter Rams added a new meaning: “less is more, but with better execution.”

Our objectives in the production process are:

- To create not just a very good sound system, but a perfect music box that delivers a live and exciting sound, totally transparent, silent, and authentic, that is energy-efficient without losing the magic, weight, and measure of the music.
- To create a beautiful, simple, honest, and durable product, without pre-established cost limits in production.
- To put the end user at the center of the creative process.

We have achieved all of this with the X251 integrated amplifier and we hope you enjoy your product for many years.

Please read this entire manual carefully and remember the importance of treating your room acoustically to further enhance your enjoyment of the music.

2 Warning:

To avoid the risk of fire or electric shock, do not expose this appliance to rain or moisture.

Verify the line voltage before use.

Do not remove the top cover.

There are no user-serviceable parts inside. Refer repairs to qualified Extraudio service personnel or your official distributor.

The warranty is void if the security seal on the top left is removed or if the product is tampered with by unauthorized personnel.

Use only an authorized Extraudio service center.

3 Explanation:

Your X251 integrated amplifier aspires to be a work of art that also evokes feelings and sensations. It seems to disappear from your listening room and give way to the musicians, who are, after all, the object of our passion.

At Extraudio, we strive for the faithful reproduction of the real and authentic sound of a live concert with emotion.

The X251 does not aspire to be just a piece of technology. Extraudio bets on a truly flat sound, not just neutral but completely flat with equal amplification across the entire frequency range and without bandwidth limitation, fully compatible with the Hi-Res standard. The X251 exceeds 192Khz and faithfully captures and reproduces all the nuances of the original sound.

4 Contents:

- Standard power cable
- Mini-USB charging cable for RC1 remote control
- Extraudio RC1 remote control
- Warranty sheet

If you do not find any of these items, please contact your supplier.

We recommend that you keep the packaging to transport the product safely if necessary.

INSTALLATION

5 Unpacking

Please remember to keep the original packaging.

Your product has been thoroughly inspected and has passed all quality controls before being packed and shipped.

This double packaging has been designed with stringent controls to ensure the product does not suffer any damage.

Make sure the packaging is in perfect condition when you receive your product. If you notice any damage, inform the carrier and notify your official distributor.

If it is necessary to return the product to the factory, it must be sent in its original packaging.

6 Placement

Remember to plan the placement of your amplifier before installing it. If you intend to place the X251 on a piece of furniture, you must leave at least 5 cm or 2 inches of space on each side to provide sufficient ventilation.

Excessive heating can shorten the lifespan of the internal electronic components and even cause equipment failure.

It is also necessary to leave enough space at the back of the amplifier to facilitate connections with other components and speakers.

7 Power On/Off:

Connect the power cable to the rear socket. Make sure the voltage is correct for the X251 integrated amplifier, which operates correctly at 230VAC or 115VAC, 50/60Hz. Once plugged into the wall socket, it is ready to function. The button with the brand logo will light up in orange (Standby). The X251 is now in standby mode. Then you must press this logo button or the remote control button (ON/OFF), and the logo button will change color from orange to white and begin to blink; it will do so for 20 seconds. The startup process has begun; a microprocessor will check all the functions and the status of the product before the final power-on. If everything is correct, the product will show the button/logo in white.

Please do not disconnect the device from the power supply during this process. After this 20-second preheating period, the logo button will remain lit in white.

NOTE:

Our products are equipped with a soft start system to prolong the lifespan of the electronic components.

If you wish to turn off the product, press the logo button or the remote control button (ON/OFF). The shutdown process will begin: the logo button will change color from white to orange and start blinking for 20 seconds. Do not disconnect the product from the power supply until the logo button stops blinking.

Although the X251 does not have many external indicators, it performs many functions that we wish to conceal and automate through software (in accordance with our mantra, "less is more") to improve its usability. The entire product is controlled by a microcontroller and loaded with our proprietary and exclusive software, which ensures that any future upgrade only requires changing the software version.

Also, stay tuned to our hardware upgrade program at the following link:

[Extraudio Services and Upgrades](https://www.extraudio.com/extraudio_services_and_upgrades/).

8 Front panel

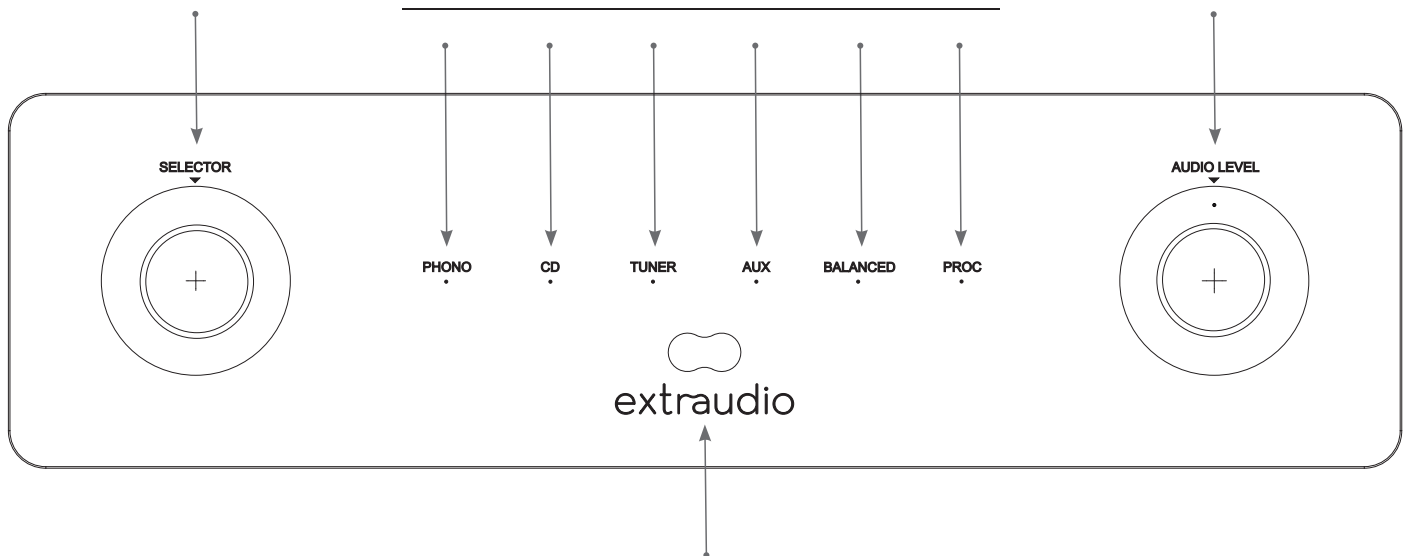
Input Source Selected with the Selector Knob

The first time the X251 is turned on, position 1: “PHONO source input” is selected. Subsequently, the product memorizes the previous state in an EEPROM and stores the selection. Each time it is turned on again, it will start with the last input source that was selected. If one of these selection LED indicators is lit in white, it means that the product is fully operational and an input source is selected.

LED Indicator, Volume Position

“AUDIO LEVEL”: When you press “volume + or -”, “MUTE” or “power on/off” on the remote control, this LED lights up in red to show its position and the volume knob moves, an analog movement controlled by an ultra-precise microcontroller with 128 steps of 0.5 dB per step.

The “SELECTOR” allows you to select different input sources for listening.



Logo Button

Power on/off and LED status indicator:

- **ORANGE:** The X251 is off - standby mode.
- **WHITE:** The X251 is on.

NOTE: When the LED blinks white, it is in the initial warm-up phase. When the LED blinks orange, it is shutting down.

The L/R phono RCA input, installed on the rear panel, allows you to connect an external phono preamplifier. Extraudio offers an optional high-quality internal MM or MC preamplifier. It features a minimalist design with low noise. This preamplifier is built with discrete components in pure Class A and is an essential complement to enjoy your vinyl LPs.

NOTE:

The **Extraudio MM/MC/IEC** phono preamplifier option is not installed in the standard version; if you want this option installed, please contact your official distributor.

9 Rear panel

Speaker Connection:

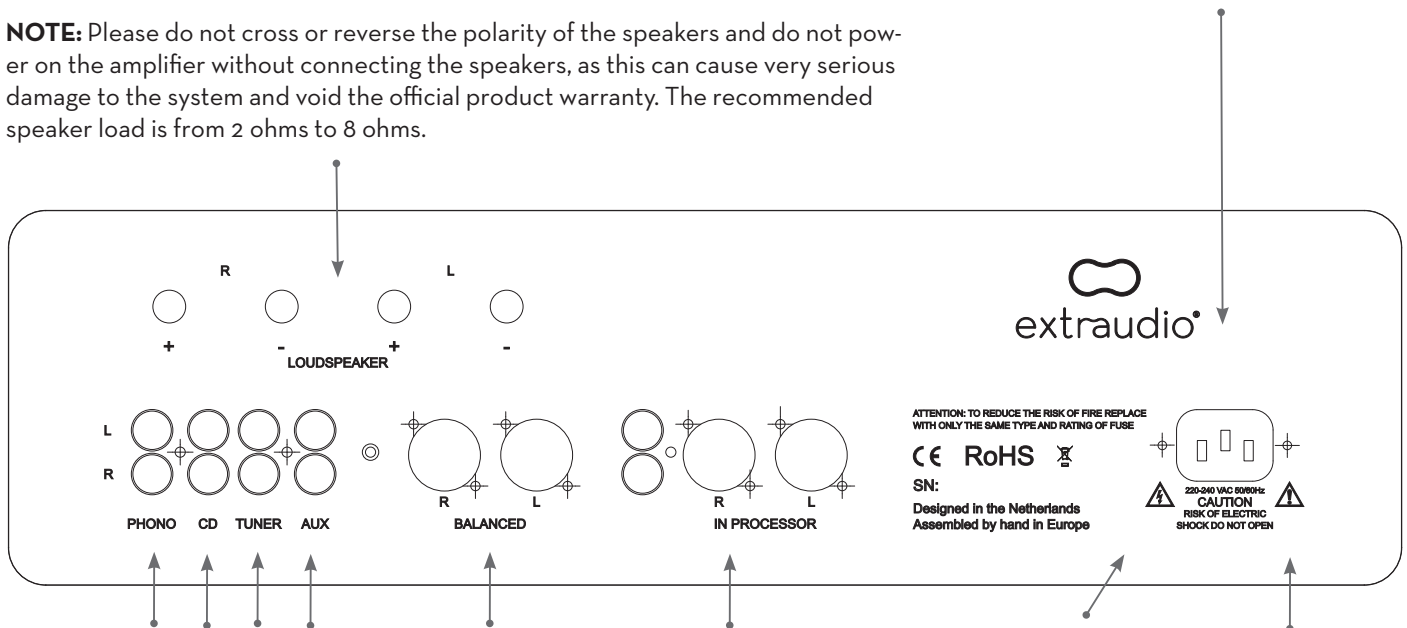
Output terminals L + R. Connect the speakers correctly: the right one to the terminal marked with R and the left one to the terminal marked with L. Always check the polarity of the speaker cables; the + sign indicates the red or positive connector and the - sign indicates the black or negative connector.

You can use banana plugs, spades, or bare wire; the recommended gauge for the speaker cable is from 2.5mm to 4mm. You can also connect our Artisan audio speaker cable to get the maximum performance from your X251 integrated amplifier as well as your speakers.

NOTE: Please do not cross or reverse the polarity of the speakers and do not power on the amplifier without connecting the speakers, as this can cause very serious damage to the system and void the official product warranty. The recommended speaker load is from 2 ohms to 8 ohms.

IEC Power Socket

Please note that, to achieve the best sound quality, you must correctly connect the phase and neutral of all your audio products. (See page 6.3 of this manual)



Stereo RCA Inputs:

The phono input is the only special one on the X251. We offer an optional Extraudio MM/MC/IEC phono preamplifier. Consult your Extraudio dealer about this option and its installation or, if you prefer, this input comes configured as a direct bypass to use an external phono preamplifier.

NOTE: Be very careful when using the X251 in the PROC position, as its power stage operates in bypass mode at full power and could cause damage to your front speakers.

Before selecting the processor input, lower the volume of your Home Cinema amplifier to the minimum, connect the output of your FL and FR channels, RCA or XLR, from your processor or home cinema amplifier to the processor inputs of the X251, and then turn the selector knob to the processor position of the X251. Once the Extraudio X251 completes its startup process in Processor mode, you can slowly increase the volume of your processor or Home Cinema amplifier and enjoy the extra power of 800Wx2 at 4 Ohms from the power section built into your X251 for your front channels without having to disconnect speaker cables.

High-quality, low-noise balanced XLR input with isolation.

Processor Input Connections or Home Cinema Audio Bypass Inputs:

These RCA and XLR inputs are designed to allow the connection of a home cinema processor or receiver to the Extraudio X251 integrated amplifier.

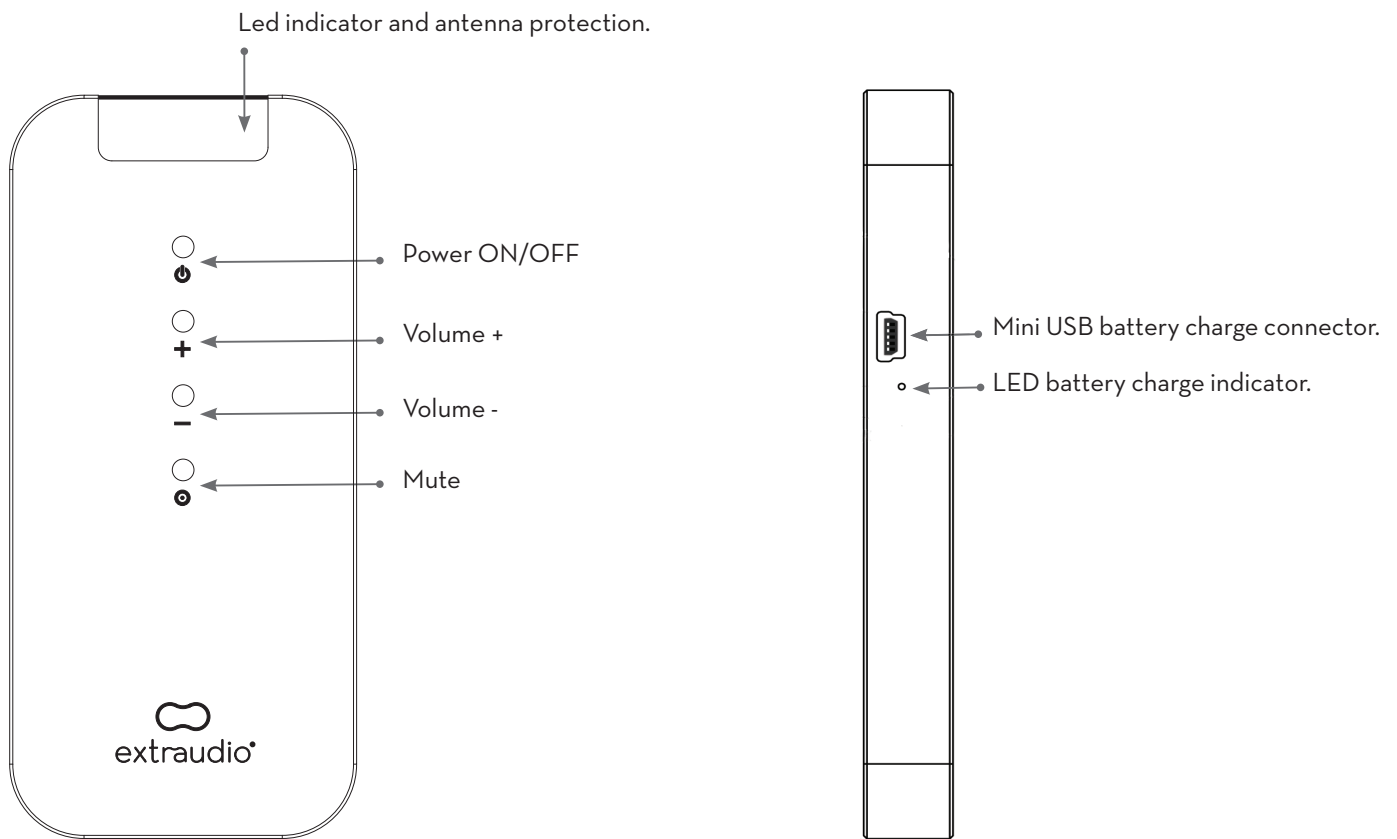
The X251 behaves in this position as a power stage for the front channels (FL and FR) of your Home Cinema. Additionally, this processor input position turns off all other systems and the built-in preamplifier of the X251, preventing wear while you enjoy your favorite movie.

These RCA and XLR inputs are marked on the front panel with the acronym PROC and are activated by setting position 6 with the front panel selector knob. For safety, there is the possibility to return to the previous input (Balanced) within 5 seconds. After 5 seconds, the integrated amplifier will start the AV Bypass process.

This triangle signifies "uninsulated dangerous voltage within the equipment, of sufficient magnitude to constitute a risk of electric shock to persons."

The exclamation mark within this triangle indicates and warns the user that this product contains important maintenance, technical, and operating instructions in the accompanying documentation.

10 Extraudio remote control



Our remote control has been conceived from a different approach, focusing on user convenience. Extraudio aimed to offer battery life and operating distance as its main features, and these objectives have been achieved:

The remote control does not have removable batteries but features a rechargeable internal battery that only needs recharging after approximately more than 100 days under normal usage conditions.

It includes an integrated USB battery charger with a charge indicator that can be used with any USB port, such as a PC or a mobile phone charger. When you connect the USB cable to the remote control, the battery charge LED lights up, and when the battery is fully charged, the LED turns off, indicating that the battery is 100% charged.

The transmission range is from 20 to 80 meters (depending on the country of use).

The design is minimalist, following Mies Van Der Rohe's philosophy of "less is more." There are only four buttons: power on, power off, volume up, volume down, and mute. The concept behind this remote control is unusual, but in the end, it is a more efficient and ergonomic creation.

Some advice and tips/ Recommendations

11 Cleaning and maintenance

Unplug the X251 Integrated Amplifier unit from the power outlet before cleaning it. The chassis can be cleaned with a soft, damp cloth. It is essential that the cloth does not shed lint. The X251 Integrated Amplifier has a high-gloss acrylic varnish layer and a protective ceramic finish that must be treated with care and should not be cleaned with solvents or any chemical products. If desired, you can use a special liquid for painted surfaces or a non-abrasive polish.

12 Product run-in/warming-up and operating temperature

Extraudio is fully aware of the empirical concept of the break-in or warming-up period for audio products equipped with thermionic valves or audiophile-grade capacitors. We can affirm that our valve or solid-state products improve after an initial warm-up and break-in period, which lasts between 100 and 400 hours of operation. Once the break-in period is completed, the sound becomes more rounded and gains in sound-stage and spatiality. The break-in process should be carried out with music, regardless of the output volume.

Another process is warming up; for an audio product with valves or transistors to sound properly, it must be turned on for about 45 minutes. This is the time it takes for the product to reach its electrical operating temperature. It will sound better after the first 45 minutes.

13 Fuse and *phase

Please, do not tamper with the top cover of the device or the warranty may be voided. If the equipment has any issues, please contact your official distributor.

The fuses are inside the device and should only be replaced by qualified personnel.

Fuses must be of the T (time-delay) type.

DO NOT use fuses with wound coil filaments. In case of doubt, please always install Fast Blow types.

*The phase of a power supply can influence the sound of your audio products. Please ensure that all devices are connected in the same way and that the phase is correctly connected. Verify that the phase or positive pole of the electrical input is connected to the terminal on the right of your power connector, front view.

14 Use of Power Conditioners or Isolation Transformers

We have found that the use of some power conditioners can perform the function of “cleaning” the power supply and eliminating electrical interference, thereby improving the sound. However, the most recommended devices are those that do not regenerate the electrical signal (AC-DC-AC) since they eliminate the harmonics that are so desirable when listening to music on analog products.

We recommend the use of isolation transformers instead.

15 Ground Connection

The X251 integrated amplifier is designed to be connected to a ground connection. For optimal and safe performance, it is very important that the ground connection is correct and enabled in your listening room. If you do not have a proper ground connection, you may experience noise or electrical interference. **In this case, it is recommended to use a balanced isolation transformer. Consult your trusted dealer about these types of products.**

16 Support

If you need support or have any technical questions about Extraudio products, contact your dealer or us by email at the following address so that we can provide you with fast and quality support:

support@extraudio.com

You can also contact us at the following postal address or by email:

Extraudio BV

Gravin Juliana van Stolberglaan 31, Office A8875, 2263 AB - Leidschendam, Netherlands

email: info@extraudio.com

We also invite you to visit our website:

<https://www.extraudio.com>

Remember: Do not tamper with the top cover of the device or the warranty may be voided. If the equipment presents any issues, please contact us or your official dealer.

Thank you for reading this manual.

We hope you enjoy many hours of listening with your Extraudio and your favorite music. Enjoy the music!

The Extraudio Team, "Beyond the Limits."

Please take a moment:

Save the invoice of your purchase. Enter the following information here for insurance or for a future technical service request: serial number, date of purchase and name of the Extraudio Reseller.

Serial Number: _____

Date: _____

Reseller Name: _____

17 Technical data

Frequency response:

20Hz to 50Khz +0db Flat response

Noise level / dynamic range / dBA:

> 120 dB (20 Hz - 20 kHz, 8 · load)

Total armonic distortion / THD+N:

THD+N (1kHz @ 1W): 0.003 %

Output Power:

800W X2 4· / 400W X2 8·

Peak output current: 40 Amp x2

Gain:

Main output: 12dB Balanced output, 6dB RCA output.

Processor AV input: 0dB RCA and XLR output.

Damping factor:

> 1000, total channel (8 · load, 1 kHz and below)

Input Impedance: (Balanced / Unbalanced)

120K / 60K Ohms

Maximum input:

20V RMS BAL, 10V RMS RCA.

Controls:

Volume (ALPS BLUE BEAUTY Motorized 128 steps, controlled by microcontroller), Select Input, optical rotary encoder (ALPS 18 steps).

Recommendation tube:

Electro Harmonix 6922 Gold pin.

(balanced triode and matched pair).

Premium versión, more silence: GOLD LION 6922

(balanced triode and matched pair).

Connectivity:

Analog inputs:

4 pair unbalanced RCA +0db

1 Pair Balanced XLR -6db

1 Processor AV +0db

(XLR and RCA connectors)

Speakers outputs:

2 Pair Speakers, WBT Germany Speakers Connectors

Power requirements:

115V or 230VAC 50/60Hz, 20W to 300W - 0.5W standby

power consumption Energy Star & EU specs

Safety approved and verified for EMC compliance

Dimensions:

(Product W x H x D) 44 x 12 x 40 cm

(shipping) 66 x 66 x 37 cm

Weight:

39 lbs. (18 kg) Net; 52 lbs. (24 kg) Shipping.

These pre-specifications are subject be changed without notice.

** The Phono preamp for cartridge MM/MC/IEC is optional and is not installed in standard product.

18 Warranty

Warranty Conditions

1. Extraudio warrants its products for a period of three years and covers material and manufacturing defects.
2. The warranty period begins on the date of purchase from an authorized dealer and is subject to the following terms and conditions.
3. The buyer must register the product within 30 days of the original purchase to register and activate the warranty. Registration can be done on the following Extraudio website: [Link].
4. The customer must be in possession of the original invoice so that it can be authenticated in the event of any warranty claim and from their country.
5. The Extraudio product must not be modified in any way or the warranty will be null and void. Consult changes of audio valves or tubes.
6. Extraudio's warranty is only valid in the country of original purchase. The product should not be kept in a wet or humid environment or exposed to the weather, water, or saltwater.
7. Extraudio will not be responsible under any circumstances for any product that has been damaged due to intentional misuse, accident, negligence, loss, or any other damage caused to or by other devices despite the fact that they interact with an Extraudio product.
8. The normal warranty repair period is 1 week, and the maximum warranty product repair period is 180 days once the product is received.

All repairs performed after the expiration of the warranty will be the responsibility of the product owner or dealer. The repair will be warranted for a period of ninety days on parts and labor. The customer is responsible for delivering the product to the Extraudio distributor in its original packaging and with all accessories.

9. The customer or distributor will assume all transportation costs, including taxes, that the shipment of the product under warranty entails. In no event will Extraudio be held liable for damages caused by accident or negligence on the part of the carrier.
10. Extraudio will return the product repaired under warranty with all transportation costs paid, including insurance. However, Extraudio will not be responsible for any repair tax incurred in the customer's country.
11. Extraudio must be notified of the purchase of any of its products on the following webpage [Link] within thirty days of the purchase. Unregistered products or products not purchased from an authorized dealer will not be covered by the warranty.
12. The warranty is non-transferable. It only protects the original purchaser of the product. "The Extraudio warranty is not transferable."

Extraudio does not warranty, in any way, products that are purchased from any person or company that is not an authorized Extraudio dealer, or that have their serial numbers altered or defaced, as well as products in the second-hand/used/ex-display/ex-demo market, which are not covered by the official warranty.

13. In the event of any non-conformity with the warranty, Extraudio's decision is final and not subject to review.

19 Energy efficiency

< 0.25 W (Green Energy Star & ErP 1275/2008/EC compliant)

Extraudio integrated amplifier X251 Pure Class AD is equipped with a high power (EPAM module) amplification module with very low power consumption, with an energy efficiency of 89%.

20 European Directives

All Extraudio products follow and are homologated according to European directives and quality standards:

- Directive 2002/95/EC for the restriction of hazardous substances in electrical and electronic equipment (RoHS).
 - Each product includes an EC declaration and the EC conformity mark, directive 93/68/EEC, and is designed and manufactured within the European Union.
 - 0.5W in standby mode according to Energy Star and EU specifications.
 - Compliance with Directive 2014/35/EU, CE, and RoHS.
 - Extraudio's high-quality toroidal transformers comply with electrical standards and approvals: KEMA KEUR, UL/CSA, and CE. AC 100/115/240V 60/50Hz.
 - The products are designed and created following the safety standard for electrical and electronic audio and video equipment, IEC 60065.
 - Compliance with Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS2).
 - Directive 2012/19/EU on waste electrical and electronic equipment (WEEE).
 - Energy-related Products Directive (ErP) 2009/125/EC for eco-design requirements.
- Our audio products are marketed in the EU, North America, and the East Asia region.

21 Copyright

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Sample of this document: X251 V2

- All the information contained in this manual is considered correct to date. However, our policy is one of continuous development, so the information is subject to change without prior notice and does not represent a commitment on the part of Extraudio BV.

NOTES:



NOTES:



extraudio®

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