



High Quality Versatile Speakers

USER MANUAL

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INTRODUCTION

Thank you for purchasing a NEXT-proaudio X Series speaker. The NEXT-proaudio X Series has been designed to cover almost all install applications such as nightclubs, bars, restaurants, convention centers, hotels, museums and houses of worship in a very compact enclosure. With X Series, the NEXT-proaudio's engineering team, developed the most powerful and compact series providing high performance and sound fidelity. This manual will provide you with useful and important information about your X Series element. Please devote some time reading this manual and keep it at hand for future reference. NEXT-proaudio is concerned with your safety and well-being, so please follow all instructions and heed all warnings. Also, a better understanding of some specific features of the X Series will help you to operate it to its full potential. With a continuous evolution of techniques and standards, NEXT-proaudio, reserves the right to change the specifications of its products without early warning. For the most current data, please visit our website: www.next-proaudio.com

UNPACKING

NEXT-proaudio X Series are built in Europe (Portugal) by NEXT-proaudio, according to the highest quality standards and thoroughly inspected before they leave the factory. When unpacking your X Series unit, please examine it carefully for any signs of possible transit damage and inform your dealer immediately if any such damage has occurred.

It is suggested that you retain the original packaging so that the speaker can be repacked in the future if necessary. Please note that NEXT-proaudio and its authorized distributors cannot accept any responsibility for damage to any returned product through the use of non-approved packaging.

When the product has reached the end of its useful life, please dispose of it responsibly through a recycling centre.

X SERIES OVERVIEW

NEXT-proaudio engineered these series of passive point source speakers, specifically for installations, musicians and DJs who want the state-of-the-art in acoustics and electronics. The family currently consists of four full-range cabinets, with driver sizes comprehended between 8" and 15". The passive full-range models are complemented by a high-performance subwoofer of 18", Xh18.

This speaker line employs premium-quality lightweight plywood with a hardening, durable, and scratch-resistant coating. The enclosures are fitted with a very accurate and optimised crossover for the best frequency and phase response. This series is made up of speakers and subwoofers that bind together forming the perfect combination. Several combinations of speakers and subwoofers can be done in order to satisfy your needs.

The X8 speaker counts on a 90°x60° constant directivity horn while the X12 and X15 speakers feature an asymmetric horn that ranges from 50° in the horizontal far-field to 100° in the horizontal near-field and 50° vertical, fully rotatable, meaning you can use it either vertical or on its side and still maintain the same directivity pattern. Widening the possibilities of this series there is a double 12" speaker, X212, that maintains a 60°H x 40°V dispersion pattern, better for stacking and larger venue applications. It is also possible, in all X series models, to rotate the high frequency section horn in order to change the high frequency directivity.

The Xh18 is a single horn-loaded subwoofer with two versions, Left and Right, that can be combined to get a bigger horn located at the centre of the array.

SAFETY FIRST

Please pay close attention to this chapter. Failure to comply with these instructions may result on injury or death.

DANGER - HEARING DAMAGE



NEXT-proaudio X Series systems are capable of producing extremely high sound pressure levels and should be used with care. Hearing loss is cumulative and can result from levels above 90dB if people are exposed for a long period. Never stand close to loudspeakers driven at high levels.



CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER NO USER SERVICEABLE PARTS INSIDE REFER SERVICE TO QUALIFIED PERSONNEL

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- Do not use your X Series unit near any sources of water, like swimming pools, lakes, water streams, exposed to rain, high humidity environments or any other source of water or moisture.
- Use only a soft dry cloth to clean your X Series unit.
- Never use your X Series unit too close to any heat source, such as radiators, or any other device that produces heat.
- When mounted on a pole, always ensure that the floor or structure where the stack will take place is even and can withstand the weight.
- Place cables in a way that they do not present a trip hazard.
- Do not place any objects on top of the stack, they can fall accidentally and cause injuries.
- Do not attempt to move the enclosures while connected.
- Do not attempt to service the X Series unit beyond what is described in this manual. All other service or repair of this product should be carried only by qualified personnel.
- To prevent electric shock, do not use any extension cord, receptacle or other outlets where the blades of the connectors cannot be fully inserted.
- Precautions should be taken to prevent grounding failure or polarity switch.
- It is advised to unplug the X Series unit during storms or when not in use for a long period of time.

RIGGING AND SUSPENSION SAFFTY CONSIDERATIONS

X Series enclosures are designed for portable applications but can be suspended by means of the threaded inserts provided. These enclosures are fitted internally with steel corner reinforcement brackets to ensure that each cabinet is strong enough to be hung from its top.

- Before rigging or suspending NEXT-proaudio X Series systems, inspect all components and all
 hardware for any signs of damage or missing parts. If you find any damaged, corroded or
 deformed parts, do not use them, replace them immediately.
- Do not use hardware that isn't load rated or that its rating is not enough to handle the system's weight with a good safety factor (minimum 4:1).
- Suspended systems installation should only be carried out by qualified personnel.
- Always use adequate protective clothing and equipment to prevent possible injuries.
- Be sure you understand all local and national regulations regarding equipment installation.

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X Series FAMILY

Model	Drivers	Freq. Resp.	Dispersion	Power
Х8	1 x 8"	72Hz to 20kHz	90°x60°	400W
X12	1 x 12"	57Hz to 20kHz	50-100° x 50°	700W
X15	1 x 15"	53Hz to 18kHz	50-100° x 50°	800W
X212	2 x 12"	52Hz to 20kHz	60°x40°	1400W
Xh18	1 x 18"	38Hz to 160Hz	Omnidirectional	2400W

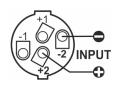
X Series IN DETAIL

X8

The X8 is a versatile, 2-way full-range cabinet, designed for applications where high output is required from an ultra-compact enclosure. It features an 8" low frequency driver with a high energy neodymium magnet and a 1" HF compression driver mounted on a constant directivity 90°H x 60°V rotatable horn. The enclosure is provided with 14xM6 rigging points, which gives a wide range of flying options, or mounting configurations. It is also provided with a top hat fitting to use with a tripod or as a pole socket to place above an X-line subwoofer. This cabinet is also an excellent solution when used as an ultra-compact floor monitor (45° degrees with the floor). The use of the NEXT LMS242, Digital Signal Processor, will improve the speaker's performance as well as its durability. The speaker's use without the LMS242 will result in poorer sound quality and the components damage may occur.

Applications:

- General Applications Requiring High Quality Sound Reproduction
- Theatres and Houses of Worship
- Night-Clubs
- Compact Voice Reinforcement
- Under Balcony System
- Portable or Installed Audio-Visual Reproduction

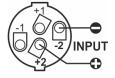


X12

The X12 is a 2-way passive cabinet, designed to provide exceptional club sound reinforcement and stage monitoring from a very compact enclosure. It features a powerful neodymium 12" low frequency driver and a 1" HF compression driver mounted on a constant directivity 50°-100°H x 50°V asymmetric horn. Depending on the application, the HF horn can be rotated to allow the multi-angle enclosure to be used in either its vertical or horizontal orientation. To rotate the horn for horizontal use, remove the grille unscrew the horn and rotate it by 90 degrees. The enclosure also contains 14xM6 threaded inserts for a variety of mounting configurations. It is also provided with a top hat fitting underneath to use with a tripod or as a pole socket to install above an X-line subwoofer. This cabinet is also an excellent solution when used as a floor monitor (45° degrees with the floor). The use of the NEXT LMS242, Digital Signal Processor, will improve the speaker's performance as well as its durability. The speaker's use without the LMS242 will result in poorer sound quality and the components damage may occur.

Applications:

- Theatres and Houses of Worship
- Night-Clubs
- Live Performances
- FOH System (Small to Medium Indoor Venues)
- Under Balcony System
- Floor Monitor



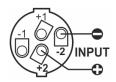
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X15

The X15 is a 2-way passive system, designed to provide exceptional club sound reinforcement and stage monitoring from a very compact enclosure. It features a powerful neodymium 15" low frequency driver and a 1.4" HF compression driver mounted on a constant directivity 50°-100°H x 50°V asymmetric horn. Depending on the application, the HF horn can be rotated to allow the multi-angle enclosure to be used in either its vertical or horizontal orientation. To rotate the horn for horizontal use, remove the grille unscrew the horn and rotate it by 90 degrees. The enclosure also contains 14xM6 threaded inserts for a variety of mounting configurations. It is also provided with a top hat fitting underneath to use with a tripod or as a pole socket to install above an X-line subwoofer. This cabinet is also an excellent solution when used as a floor monitor (45° degrees with the floor). The use of the NEXT LMS242, Digital Signal Processor, will improve the speaker's performance as well as its durability. The speaker's use without the LMS242 will result in poorer sound quality and the components damage may occur.

Applications:

- Theatres and Houses of Worship
- Night-Clubs
- Live Performances
- FOH System (Small Outdoor Venues)
- Floor Monitor

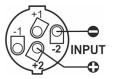


X212

The X212 is a 2-way passive system, designed to provide exceptional club sound reinforcement and stage monitoring from a very compact enclosure. It features a powerful Neodymium 12" low frequency driver and a 2" HF compression driver mounted on a constant directivity 60°H x 40°V horn. The enclosure also contains 14xM6 threaded inserts for a variety of mounting configurations. The use of the NEXT LMS242, Digital Signal Processor, will improve the speaker's performance as well as its durability. The speaker's use without the LMS242 will result in poorer sound quality and the components damage may occur.

Applications:

- Theatres
- Night-Clubs
- Live Performances
- FOH System (Small to Medium Outdoor Venues)



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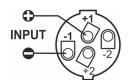
Xh18

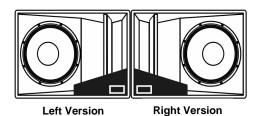
The Xh18 subwoofer can be used with any of the X Series speaker's range, X8, X12, X15 and X212, in order to extend and increase the total low frequency output power. The Xh18 is a hybrid-horn loaded subwoofer enclosure that provides a powerful bass from a long excursion 18" driver with 100mm voice coil, extending the frequency response of the complete system down to 30Hz. The Xh18 enclosure provides a top hat fitting to be used as a pole socket to mount a X8, X12 or X15 speaker. The use of the NEXT LMS242, Digital Signal Processor, will improve the speaker's performance as well as its durability. The speaker's use without the LMS242 will result in poorer sound quality and the components damage may occur.

There are two different kinds on this model, the left and the right version. The main purpose is to have the horns together when coupling several Xh18 elements.

Applications:

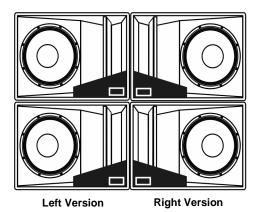
- Theatres
- Night-Clubs
- Live Performances
- FOH System (Small to Medium Outdoor Venues)



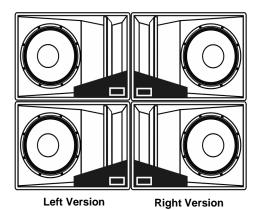


Centre Configuration

LEFT SIDE



RIGHT SIDE

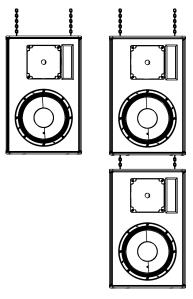


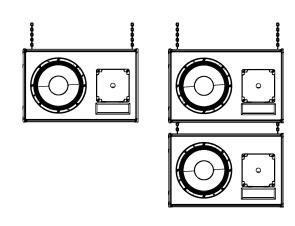
L-R Stack Configuration

X Series ACCESSORIES

Туре	Application	Model
U-Bracket	Wall/Ceiling Mounting	Х8
U-Bracket	Wall/Ceiling Mounting	X12
U-Bracket	Wall/Ceiling Mounting	X15
Eye Bolt	Suspension	X8/X12/X15/X212

X Series SUSPENSION EXAMPLES





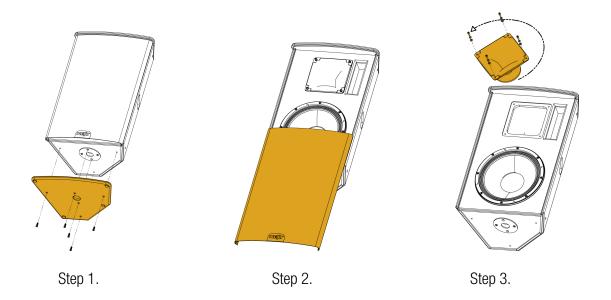
Vertical Suspension Example

Horizontal Suspension Example

X8, X12, X15 - Horn Rotation Procedure

When using the point source speakers on its horizontal position, the horn can be rotated to maintain the same dispersion pattern. Only three steps are needed to accomplish the modification. Please follow the step by step procedure below.

- 1. Unscrew the 5 hex screws on the speaker's bottom. Remove the bottom part.
- 2. Carefully remove the front grille by simply sliding it down.
- 3. Unscrew the 4 hex screws on the horn. Remove the horn, rotate it by 90° and re-assemble it.
- 4. Repeat step 1 and step 2 on the reverse order to re-assemble the speaker.



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POWER CABLE SELECTING

Selecting a cable consists of calculating the correct cable section (size) in relation to the load impedance and the required cable length. A small cable section will increase its serial resistance, which will induce power-loss and response variations (damping factor).

The following table indicates, for 3 common sizes, a cable length with a maximum serial resistance equal to 4% of the load impedance (damping factor = 25):

Cable section	Maximum Length related to load impedance		
Capie Section	8Ω	4Ω	
1.5mm ² [16AWG]	12m [40 ft]	6m [20 ft]	
2.5mm ² [14AWG]	20m [64 ft]	10m [32 ft]	
4mm² [12AWG]	32m [104 ft]	16m [52 ft]	

TROUBLESHOOTING

Simple troubleshooting does not require sophisticated measurement equipment and can be easily undertaken by users. The technique should be to segment the system in order to identify the faulty system component: signal source, controller, amplifier, loudspeaker or cable? Most installations are multi-channel, it is often the case that one channel works and others do not. Trying different combinations of system elements can usually help to isolate and locate the fault.

Some cabinet faults can be quite easily identified and corrected by the user. A simple sweep with a sine wave generator can be very helpful though it **MUST** be made at a fairly low level to prevent damage to the speakers. A sine wave sweep can help find:

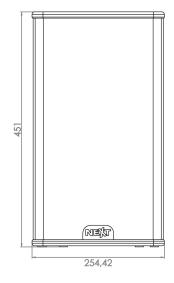
- Vibrations due to loose screws.
- Air-leak noises: check that no screws are missing, particularly where the accessories attach to the cabinet.
- Vibrations due to a front grille badly positioned on the quick release fixings.
- Foreign object that has fallen into the cabinet after repair or through the ports.
- Internal connection wires or absorbing material touching the loudspeaker diaphragm: check by removing the bass loudspeaker.
- Loudspeaker not connected or phase reversed following a previous inspection, test or repair.

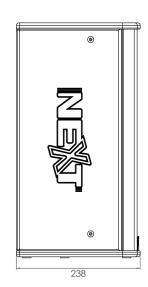
Do not attempt to service your X Series unit beyond what is described in this manual. All other service or repair of this product should be carried only by qualified personnel.

TECHNICAL SPECIFICATIONS

X8

TECHNICAL SPECIFICATIONS	Х8
Speaker Type	Passive High Performance Full-Range Speaker/Monitor
Frequency Response (-6dB)	72Hz - 20.000Hz
Low Frequency Extension (-10dB)	64Hz
Sensitivity (1W@1m)	94dB (Full-Space)
Recommended HPF.	55Hz, 18dB/oct Butterworth
Calculated Max. SPL (Cont./Peak)	120dB / 126dB (Full-Space)
Componento	LF: 1 x 8" / 2" Voice Coil B&C Custom Speaker
Components	HF: 1 x 1" / 1.4" Voice Coil Custom B&C Compression Driver
Directivity H x V (-6dB)	90° x 60° User Rotatable
Program Power	400W
Nominal Impedance	8 Ω
Recommended Amplifier	MA1700
Construction	12mm Multi-laminate Birch Plywood, Screwed and Glued
Finish	Black Textured Scratch Resistant Paint (also available in other colours and finishing)
Grille	Black Perforated Steel
Connectors	2 x Neutrik NL4 (2+/2-)
Dimensions (W x H x D)	254 x 451 x 238 mm (10 x 17.76 x 9.37 in)
Net Weight	8.9 kg (19.6 lb)

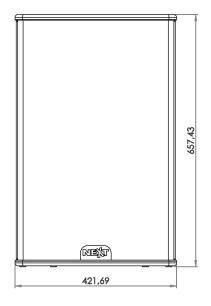


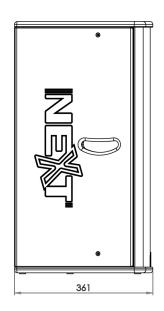


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X12

TECHNICAL SPECIFICATIONS	X12
Speaker Type	Passive High Performance Full-Range Speaker/Monitor
Frequency Response (-6dB)	57Hz - 20.000Hz
Low Frequency Extension (-10dB)	50Hz
Sensitivity (1W@1m)	99dB (Full-Space)
Recommended HPF.	46Hz, 18dB/oct Butterworth
Calculated Max. SPL (Cont./Peak)	127.5dB / 133.5dB (Full-Space)
Components	LF: 1 x 12" / 3" Voice Coil B&C Custom Speaker
Components	HF: 1 x 1" / 1.7" Voice Coil Custom B&C Compression Driver
Directivity H x V (-6dB)	50°-100° x 50° User Rotatable
Program Power	700W
Nominal Impedance	8Ω
Recommended Amplifier	MA3200
Construction	15mm Multi-laminate Birch Plywood, Screwed and Glued
Finish	Black Textured Scratch Resistant Paint (also available in other colours and finishing)
Grille	Black Perforated Steel
Connectors	2 x Neutrik NL4 (2+/2-)
Dimensions (W x H x D)	422 x 657 x 361 mm (16.61 x 25.87 x 14.21 in)
Net Weight	23.6 kg (52 lb)

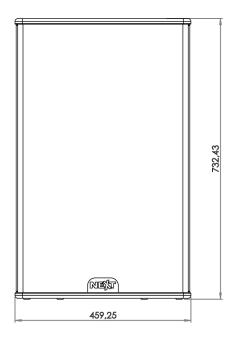


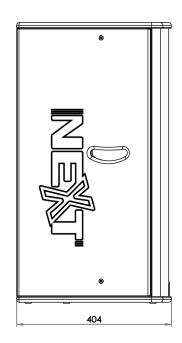


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X15

TECHNICAL SPECIFICATIONS	X15
Speaker Type	Passive High Performance Full-Range Speaker/Monitor
Frequency Response (-6dB)	53Hz - 18.000Hz
Low Frequency Extension (-10dB)	48Hz
Sensitivity (1W@1m)	100dB (Full-Space)
Recommended HPF.	42Hz, 18dB/oct Butterworth
Calculated Max. SPL (Cont./Peak)	129dB / 135dB (Full-Space)
Companyata	LF: 1 x 15" / 3" Voice Coil B&C Custom Speaker
Components	HF: 1 x 1.4" / 3" Voice Coil Custom B&C Compression Driver
Directivity H x V (-6dB)	50°-100° x 50° User Rotatable
Program Power	800W
Nominal Impedance	8Ω
Recommended Amplifier	MA3200
Construction	15mm Multi-laminate Birch Plywood, Screwed and Glued
Finish	Black Textured Scratch Resistant Paint (also available in other colours and finishing)
Grille	Black Perforated Steel
Connectors	2 x Neutrik NL4 (2+/2-)
Dimensions (W x H x D)	459 x 732 x 404 mm (18.11 x 28.86 x 15.9 in)
Net Weight	31.4 kg (69.2 lb)

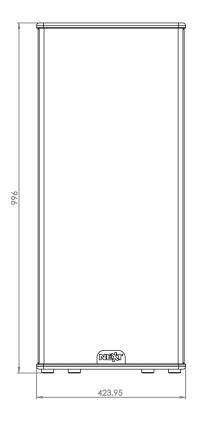


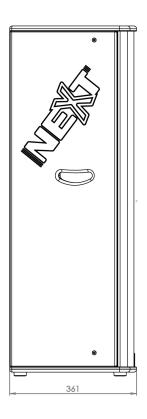


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X212

TECHNICAL SPECIFICATIONS	X212
Speaker Type	Passive High Performance Full-Range Speaker/Monitor
Frequency Response (-6dB)	52Hz - 20.000Hz
Low Frequency Extension (-10dB)	48Hz
Sensitivity (1W@1m)	102dB (Full-Space)
Recommended HPF.	46Hz, 18dB/oct Butterworth
Calculated Max. SPL (Cont./Peak)	133.5dB / 139.5dB (Full-Space)
Componento	LF: 2 x 12" / 3" Voice Coil B&C Custom Speaker
Components	HF: 1 x 2" / 3" Voice Coil Custom B&C Compression Driver
Directivity H x V (-6dB)	60° x 40° User Rotatable
Program Power	1400W
Nominal Impedance	4Ω
Recommended Amplifier	MA3800
Construction	15mm Multi-laminate Birch Plywood, Screwed and Glued
Finish	Black Textured Scratch Resistant Paint (also available in other colours and finishing)
Grille	Black Perforated Steel
Connectors	2 x Neutrik NL4 (2+/2-)
Dimensions (W x H x D)	424 x 996 x 361 mm (16.69 x 39.21 x 14.21 in)
Net Weight	40.2 kg (88.6 lb)



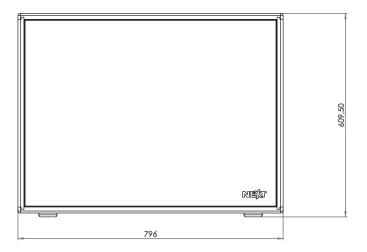


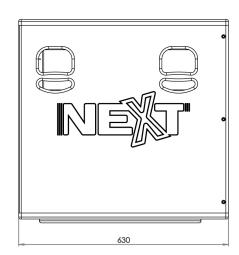
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Xh18

TECHNICAL SPECIFICATIONS	Xh18	
Speaker Type	Passive Hybrid Horn Subwoofer	
Frequency Response (-6dB)	38Hz – 16Hz	
Low Frequency Extension (-10dB)	32Hz	
Sensitivity (1W@1m)	105dB (Half-Space)	
Recommended HPF.	34Hz, 18dB/oct Butterworth	
Calculated Max. SPL (Cont./Peak)	139dB / 145dB (Half-Space)	
Components	LF: 1 x 18" / 4" VC Long Excursion B&C Custom Speaker	
Program Power	2400W	
Nominal Impedance	8Ω	
Recommended Amplifier	MA6000	
Construction	18mm Plywood, Screwed and Glued	
Finish	Black Textured Scratch Resistant Paint (also available in other colours and finishing)	
Grille	Black Perforated Steel	
Connectors	2 x Neutrik NL4 (1+/1-)	
Dimensions (W x H x D)	796 x 610 x 630 mm (31.34 x 24.02 x 24.8 in)	
Net Weight	55.8 kg (123 lb)	





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WARRANTY

NEXT-proaudio's products are warranted, by NEXT-proaudio, against <u>manufacturing defects</u> in materials or craftsmanship over a period of 5 years for the passive loudspeakers, and 2 years for all other products counting from the date of original purchase. The original receipt of purchase is mandatory for warranty validation purposes, and the product must have been bought from a NEXT-proaudio authorized dealer.

The warranty can be transferred to a subsequent owner during the warranty period; however, this cannot extend the warranty period beyond the original warranty period of five years from the original date of purchase stated on the NEXT-proaudio's invoice.

During the warranty period NEXT-proaudio will, at its own discretion, either repair or replace a product which prove to be defective provided that the product is returned in its original packaging, shipping prepaid, to an authorized NEXT-proaudio service agent or distributor.

NEXT-proaudio cannot be held responsible for defects caused by unauthorized modifications, improper use, negligence, exposure to inclement weather conditions, act of God or accident, or any use of this product that is not in accordance with the instructions provided by this manual and/or NEXT-proaudio. NEXT-proaudio is not liable for consequential damages.

This warranty is exclusive and no other warranty is expressed or implied. This warranty does not affect your statutory rights.

CONTACTS

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