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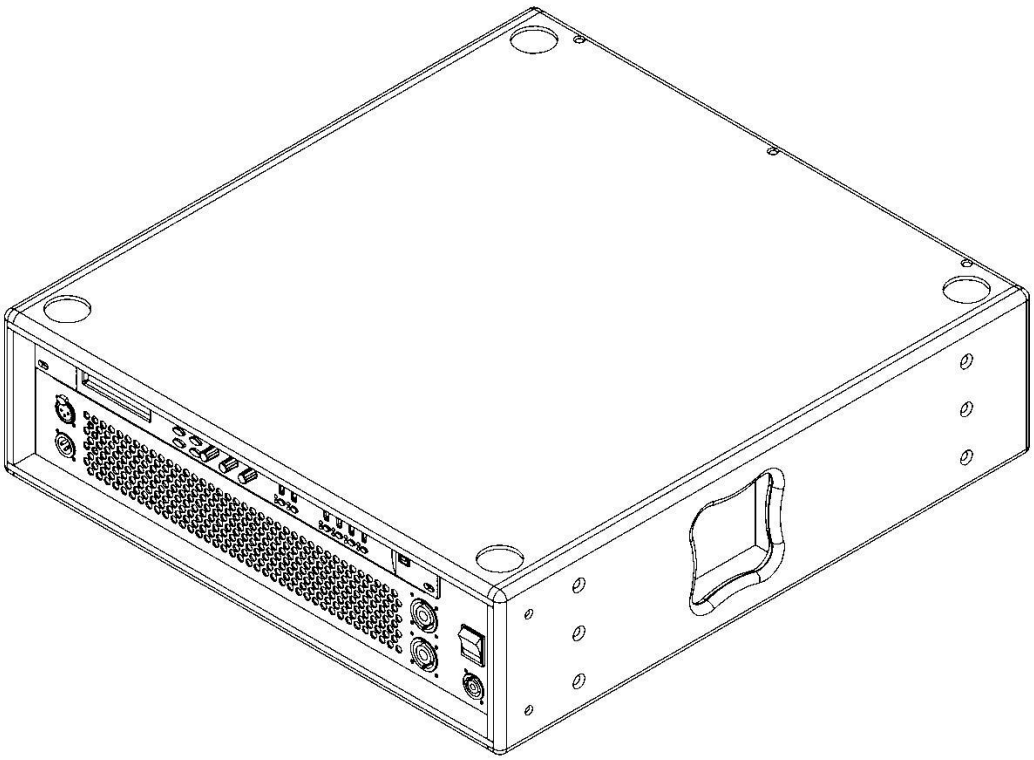

USER MANUAL

PXA8000

PX System Professional Power Rack

V012015

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INTRODUCTION

Thank you for purchasing a NEXT PXA8000 power Rack. This manual will provide you important information about your new NEXT PXA8000. 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 the operation of NEXT PXA8000 will help you to operate it to its full potential.

SAFETY FIRST

! WARNING !

When using electrical products, basic precautions should always be followed:

1. Read all SAFETY INSTRUCTIONS before using this device

2. This apparatus must be connected to a mains socket outlet with a protective grounding connection. If it has malfunction or breaks down, grounding provides a path of less resistance for electric current, reducing risk of electric shock.

3. Do not expose NEXT PXA8000 to rain or moisture.

4. NEXT PXA8000 should be positioned in a way that nothing can block or interfere with proper ventilation.

5. Do not expose NEXT PXA8000 to heat sources.

6. Unplug the power cord when NEXT PXA8000 will be inoperative for long periods of time.

7. Care should be taken so objects do not fall or liquids are not spilled into the NEXT PXA8000 through openings.

8. NEXT PXA8000 should be serviced by qualified personnel only when:
   8.1. Objects have fallen or liquid has been spilled into it.
   8.2. It has been exposed to rain or moisture.
   8.3. It does not appear to operate normally or exhibits an undesired marked change in performance
   8.4. It has been dropped or the enclosure damaged.

9. No user servicing parts inside. Refer servicing to qualified personnel only. There is risk of electric shock.

Stacking

NEXT PXA8000 was designed to be stacked within the PX system. Always ensure that the floor or structure where the stack will be positioned is even, and can withstand the weight of the system. Do not stack speakers too high, especially outdoor where winds could topple the stack. Be aware that speakers working at very high levels generate vibrations that can creep the systems. NEXT PX system is prepared to work in such conditions as every enclosure has pockets made to accommodate the element above it, but still, be prepared to take additional measures if needed. Place cables in a way that they do not present a trip hazard. Never place any objects on top of the stack, they can fall accidentally and cause injuries. Do not attempt to move the systems while connected.

Rigging and suspension

NEXT PXA8000 was also designed to work suspended if needed. Before suspending any NEXT PX system component, 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. Don't forget that the hardware won't just hold the systems weight, it has to be sturdy enough to handle dynamic forces like winds without any part deformation.

NEXT PX system installation should only be carried out by qualified personnel. Always use adequate protective clothing and equipment to prevent possible injuries. Isolate the surrounding area during installation and operation, to prevent general public presence near the systems. Also, be sure you understand all local and national regulations regarding equipment installation. Failure to comply with these instructions may result on injury or death.

UNPACKING

Each NEXT PX system component is built in Europe (Portugal) by NEXT-Proaudio, to the highest standard and thoroughly inspected before it leaves the factory. When unpacking the NEXT PXA8000, examine it carefully for any signs of possible transit damage and inform your dealer immediately if any such damage is found.

It is suggested that you retain the original packaging so that the system 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.

NEXT PXA8000 OVERVIEW

Perfectly integrated, the PX system Power Rack is the heart of the system. Composed by a very powerful four channel amplifier with switching power supply and a digital audio processor, this power rack is capable of driving a wide range of system configurations with absolute reliability and ample headroom.

The system amplifier is based in class H technology and is built with a state-of-the-art switching power supply weighting only 12 Kg. Working at optimal efficiency, little power is wasted and the need for heat dissipation is reduced, resulting in long-term reliability with an astounding power output of 4 x 2100W into 4Ω. Two PXH64 and four PXL118 can be driven with extreme operational reliability, sound quality and affordable price.

The digital audio processor unit the NSOUND DP240 protects and optimizes the entire system. All necessary signal processing functions like equalization, crossover filters, delays and limiters are setup at the factory for plug 'n' play.

CABLE SELECTING

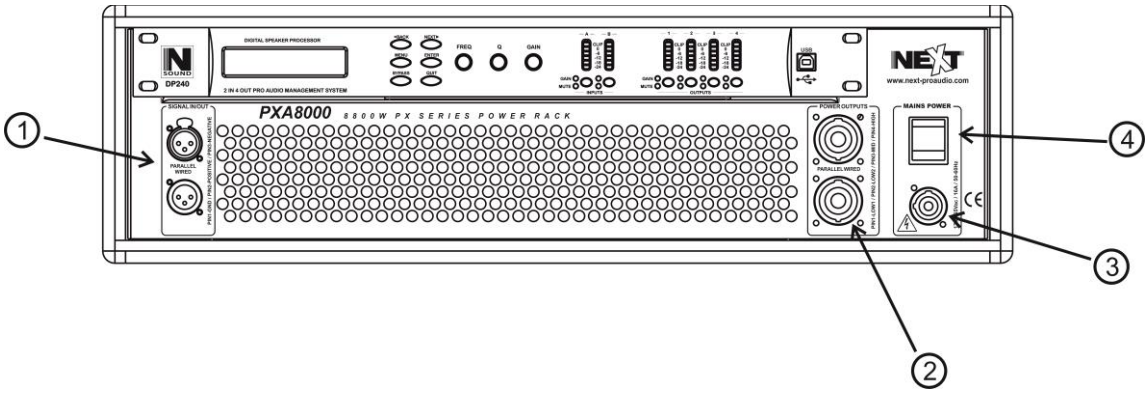
Selecting a cable consists of calculating the correct cable section (size) in relation to the load impedance and the required cable length. A small cable section will increase its serial resistance, which will induce power-loss and response variations (damping factor).

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**	
	8 Ω	**4Ω**
1.5 mm²	12 m [40 ft]	6 m [20 ft]
2.5 mm²	20 m [64 ft]	10 m [32 ft]
4 mm²	32 m [104 ft]	16 m [52 ft]

CONNECTIONS AND OPERATION

Next PXA8000 is very easy to use. The connections panel is intuitive and doesn't require much user interference. There is one mono balanced signal XLR3 input, paralleled with a XLR3 output, and two NL8 power outputs, also paralleled. Each NL8 socket is connected in order to drive one PXH64 and two PXL118. The cabling to achieve this is supplied by NEXT-proaudio when the PXA8000 is acquired as a component of the PX System[1], and is explained further below on the System Deployment chapter. Everything is done on the back of the rack-mount, including the audio processor interface, in order to maintain a good aesthetic look on the front of the system, and hide the controls and connections.



PXA8000 Connections:

1 - XLR Paralleled balanced input/output

2 - NL8 Paralleled Speakon Outputs

3 - Powercon power socket

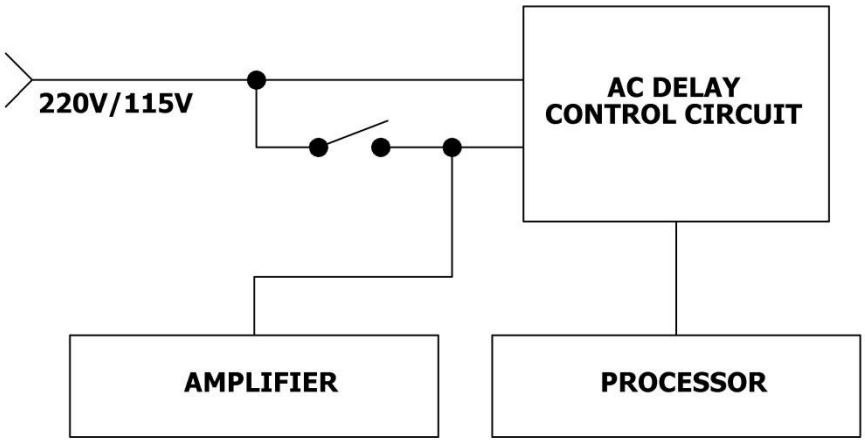
4 - Power switch

Power On/Off Considerations

The NEXT PXA8000 is a fully integrated audio processing system. It is comprised of a digital signal processor and a 4 channel powerful NEXT amplifier. When we power on the system, their own internal protections prevent power surges. That is not the case we power off the system. Because of that NEXT engineers developed a power off delay circuit, also integrated, that protects the entire system from power surges, delaying the signal processor power off. For this circuit to work, it's imperative that the PXA8000 is connected to mains outlet in the entire process. **Never cut power to PXA8000 through**

[1] No cables or plugs are supplied when PXA8000 is acquired as a stand-alone equipment

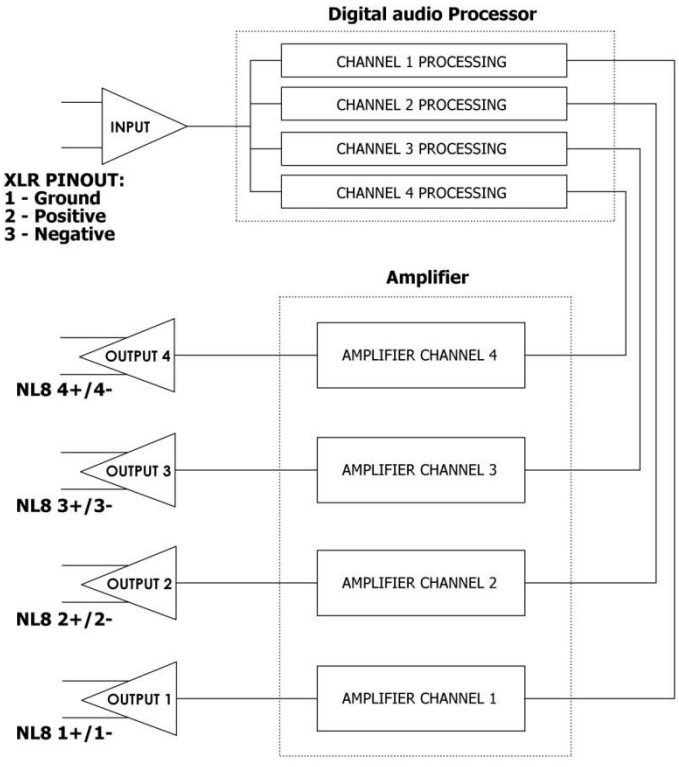
cable disconnection or exterior circuit breakers. Always power off the PXA8000 using the power-switch on the connections panel.



PXA8000 AC POWER DIAGRAM

OPERATION

The NEXT PXA8000 was originally designed as part of the PX System. Because of its great aesthetic look, little weight, and great versatility, it is today applied in many other situations. Because of that, the signal was arranged in order to support any kind of system.



PXA8000 SIGNAL DIAGRAM

As you can see above, all output channels are independent and have their own individual processing, allowing the PXA8000 to drive a wide selection of system arrangements. In the PX System they have the following assignments:

PX System channel distribution	
Channel 1 (NL8 pins 1+/1-)	PXL118 SUB 1
Channel 2 (NL8 pins 2+/2-)	PXL118 SUB 2
Channel 3 (NL8 pins 3+/3-)	PXH64 MID
Channel 4 (NL8 pins 4+/4-)	PXH64 HIGH

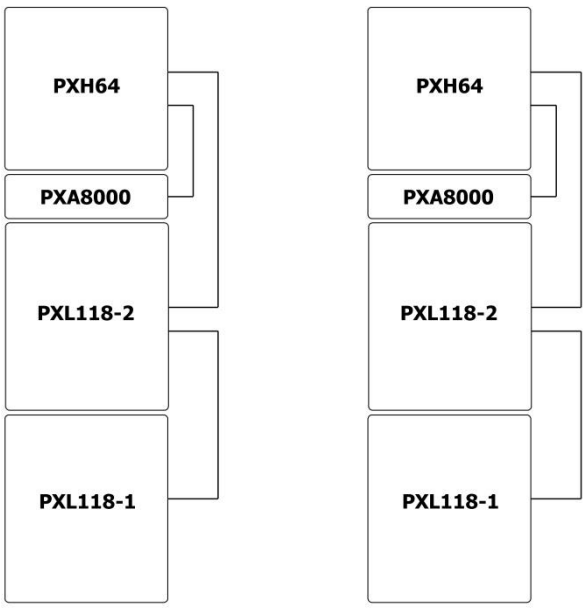
!WARNING!

PXA8000's recommended minimum impedance is 4Ω. Though the amplifier is capable of driving 2Ω impedances NEXT-Proaudio does not recommend working in such conditions.

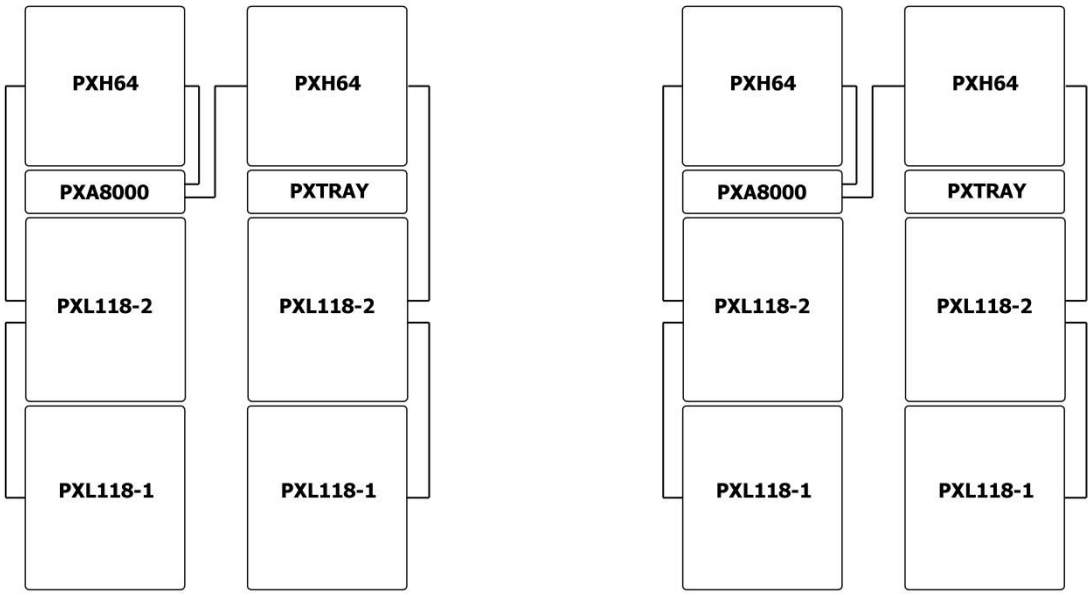
PX SYSTEM DEPLOYMENT

The PX SYSTEM is an easy to use, fast deployment system. For normal ground-stacked operation all cables are included with the system, and are organized as follows:

Stereo Single Stack

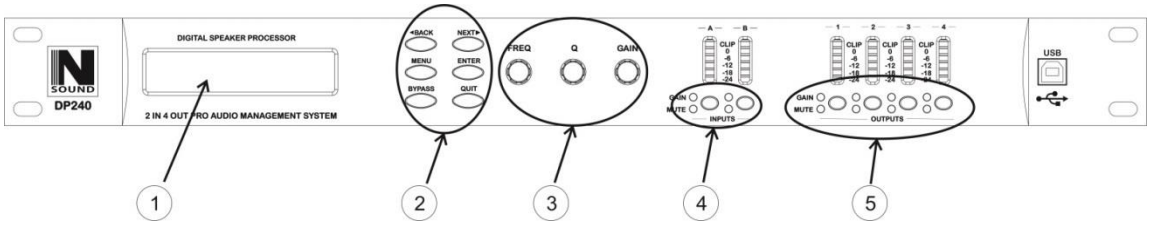


Stereo Double Stack 1



NSOUND DP240

The digital signal processor integrated on PXA8000 is the NSOUND DP240 (By NEXT). It delivers excellent sound quality and an impressive variety of processing functions. Below is an introduction to its front panel.



NSOUND GENERAL DESCRIPTION

1. **LCD Display (Backlit)**
2. **Menu access and browse buttons**
3. **Menu programing rotary switches**
4. **Input channels mute/programing buttons**
5. **Output channels mute/programing buttons**

When integrated in the PX System, the DP240 is fully programmed and the user interface is blocked. When blocked, the DP240 does not allow any kind of user input besides channel muting.
To mute/unmute a channel, press the mute buttons shown above on points 4 and 5. It is possible to mute any channel, inputs and/or outputs. For more detailed information regarding the NSOUND DP240 digital audio processor, refer to its manual.

TROUBLESHOOTING

In this section will take a look on the most common problems known. Most of the time these issues have a simple solution, but of course, as any electronic device, PXA8000 can fail. In case you have to send the PXA8000 to a dealer for servicing, always send the PXA8000 as is. Never take the components out and send them alone. Only with the entire system can we assure that your problem will be completely solved. Having this in mind look below for some most common problems.

1. When I switch on the PXA8000 nothing happens.

   - Verify that there is voltage present on the mains outlet.
   - Check that the Powercon is correctly plugged in and locked on.
   - Try with another cable if the above doesn't solve the problem.
   - If any of the above solves the problem, send your PXA8000 to an authorized dealer for servicing.

2. When I switch on the PXA8000, the amplifier starts, but there's no reaction from the processor.

   - Remove the four screws of the NSOUND DP240. Pull it out gently. Check that the IEC cable is correctly inserted and the processor is switched on.

   - If the above does not solve the problem, send your PXA8000 to an authorized dealer for servicing.

3. When I switch on the PXA8000, the processor starts, but there's no reaction from the amplifier.

   - With the help of the flashlight, try to look through the openings on the PXA8000 back panel, and check if the power switch is in the on position. The power switch is located on the right side of the amplifier.

- Unscrew and gently remove the front grille, and check that the amplifier AC plug is correctly connected to the inner AC outlet.

- If the above does not solve the problem, send your PXA8000 to an authorized dealer for servicing.

4. My PXA8000 switches on and seems to start correctly but there's no sound on the system or one of the elements.

   - Go through steps 2 and 3 to check that you didn't miss anything. Especially with the amplifier, it is easy not to notice if it is on or not.

   - With the help of a flashlight, look through the openings on the PXA8000's back panel and try to check that the amplifier's volume rotary potentiometers are on the 0dB position.

   - Check the processor input VUs. If there is no response from the input channel A VU there may be a problem with your signal cable, or other equipment. If possible, try the PXA8000 with another cable and/or switch channels on the mixer/equalizer/other.

   - If the above does not solve the problem, unscrew and remove the DP240, check that the signal cable is correctly plugged in and locked on input channel A.

   - Check the output VUs. If the input VUs respond and the output VUs do not then most probably you have a faulty DP240 unit.

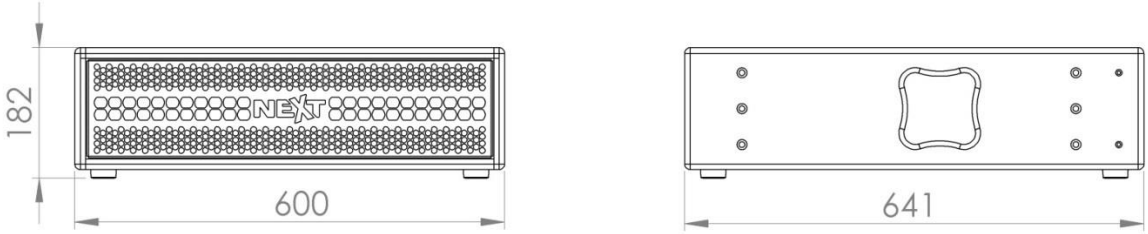
   - If it's only one channel missing, and the correspondent VU is responsive, check the cables of the system, and switch the elements. If the element functions with other channels, then either the processor or the amplifier is faulty.

   - If the above does not solve the problem, send your PXA8000 unit to an authorized dealer for servicing.

TECHNICAL SPECIFICATIONS

PXA8000 TECHNICAL SPECIFICATIONS				
Model				
Type	PX System Power Rack			
Operating Volt./Current/Freq.	115-265 Vac / 16A / 50-60Hz			
Dimensions (W x H x D)	600 x 182 x 641			
Weight	21 Kg			
DSP Section				
Input impedance	>10KΩ			
Max. Input Impedance	+20 dBu			
Input Type	Electronically Balanced			
Processor (DSP)	40 bit Floating Point			
Sample Rate	48 KHz			
Analogue Convertors	24 bit			
Propagation Delay	1.5 ms			
DSP Functions	Crossover, Equalizer, Compressor, Delay, Gain			
Program memories	30			
Display	2 x 16 Characters Backlit LCD			
Amplifier Section	**LOW 1**	**LOW 2**	**MID**	**HIGH**
Rated Output Power 8Ω	1250W	1250W	1250W (Limited to 800W)[2]	1250W (Limited to 160W)[2]
Rated Output Power 4Ω	2100W	2100W	2100W (Limited to 1600W)[2]	2100W (Limited to 320W)[2]
THD at 1 KHz	< 0.05 %			
Signal to Noise Ratio	> 112 dB			
Channel Separation at 1 KHz	> 70 dB			

DIMENSIONS



[2] When applied to the PX System.

WARRANTY

NEXT products are warranted, by NEXT-proaudio, against **manufacturing defects** in materials or craftsmanship over a period of 5 years for the loudspeakers, and 2 years for the other components, 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. 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.

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