TS series

USER MANUAL

LYNX pro-audio

V. 20.06

Lynx Pro Audio S.L. shall not be liable to the purchaser of this product or to third parties for any damages, losses, costs, or expenses incurred by the purchaser or as a result of an accident, misuse, or abuse of this product, nor for any modifications, repairs, or alterations to it, or for failing to strictly adhere to the operating and maintenance instructions of Lynx Pro Audio S.L.

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CE

CE CERTIFICACTION, EUROPEAN PRODUCT

CONTENTS

WELCOME

Just contact the new generation of digital amplifiers, designed and manufactured by Lynx Pro Audio S.L.

Before working with the amplifier we recommend that you read this manual, in its pages you will find instructions for use, programming examples and practical advice that will be of great help.

This TS amplifier become a working tool of great value, providing the user with the best solutions in the market with the highest level of accuracy and a host of features for the professional.

We hope that as a user you will be completely satisfied. We are sure that the TS amplifier will meet your expectations and make it easier for you to get the most out of your system.

IMPORTANT SAFETY INSTRUCTIONS

The CE mark of the **TS** amplifier shows that it is verified and tested to accomplish the European Norms and International Norms about Electromagnetic Compatibility and Electrical Safety.

CE

Radiated Emisions :	EN55013-1 (1996)
RF Immunity:	EN55103-2 (1996)
Electical Safety:	EN60065 (1993)
	IEC65 (1985) and emendation 1, 2 and 3

This product also meets the specifications of the following safety directives:

Low Voltage Directive 73/23/EEC
EMC Directive 89/336/EEC

EUROPEAN PRODUCT

Product Developed and Manufactured in the European Union.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

The symbols shown above are internationally accepted symbols that warn of potential hazards with electrical products. The lightning flash with arrowpoint in an equilateral triangle means that there are dangerous voltages present within the unit. The exclamation point in an equilateral triangle indicates that is necessary for the user to refer to the owner's manual.

Warning :

Do not expose the amplifier to humidity and dust.
Do not take off the top cover.
Do not handle internal elements to avoid electrical shock.
Use only power cords in good condition.

Unpacking the TS

Before unpacking your new amplifier, verify that the box does not show any damage or deformation. If this happens, please claim the damage to your fordwarder. Once unpacked and verified its correct operation, keep the original box in case you need to ship it back to your provider.

1.- INTRODUCTION

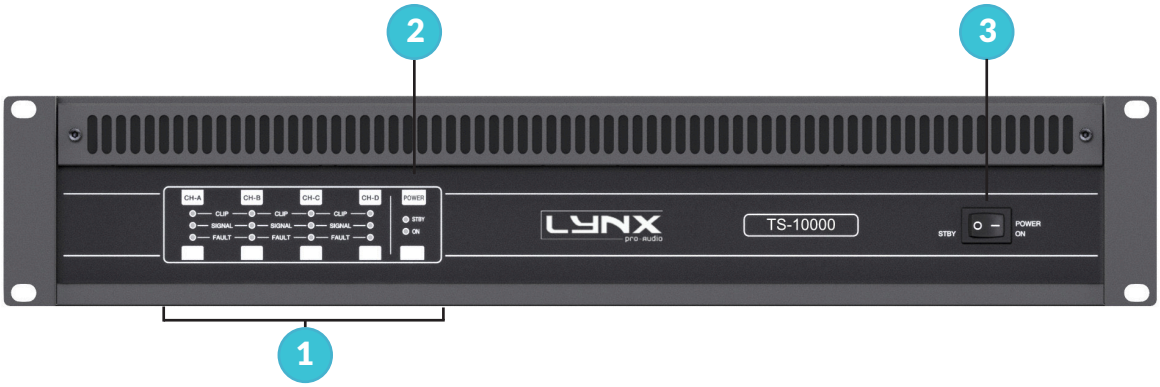
The TS series comprises high-performance 4-channel amplifiers of medium/high power, specifically designed for the installation market. These amplifiers can connect to both high and low impedance loads via their Phoenix input and output connectors and allow output levels to be controlled through the rear panel potentiometers.

The design includes Lynx Pro Audio's advanced Power Control Management system, which allocates power across the channels according to the user's needs, even enabling maximum power to be delivered through a single channel.

These amplifiers offer extensive configuration options, including Bridge mode, subsonic filter, per-channel power limiter, and signal link, to meet the demands of any installation. They can also be equipped with a GPIO connection for integration with third-party control systems. Additionally, Networking (AES67) inputs are available for the TS amplifiers.

With all these configurations, the TS amplifiers can meet the requirements of any installation ranging from 300 to 2500 W.

TS frontal panel description



01. CHANNEL

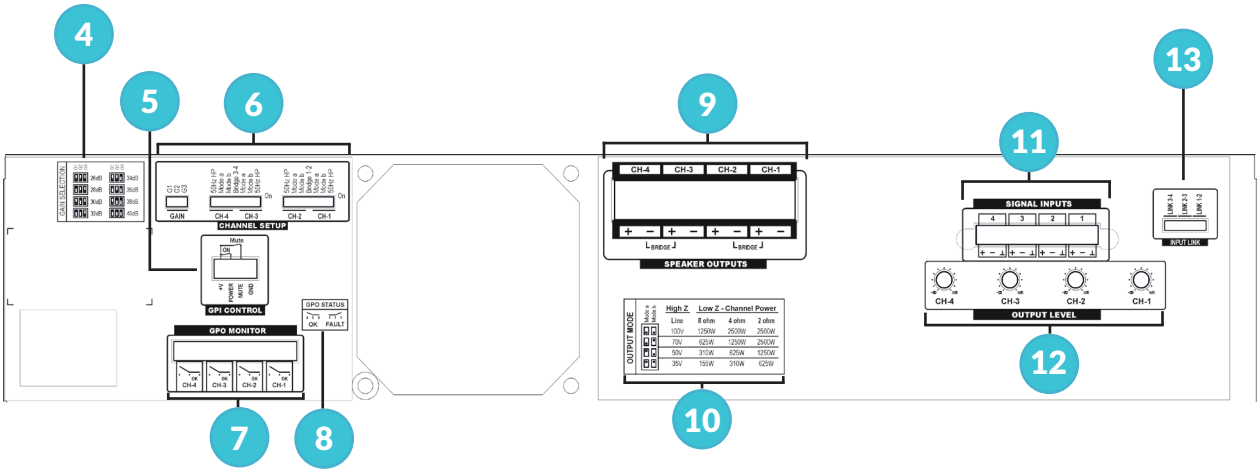
These LEDs are used to provide visual information about the status of the clip, faults and signals.

02. POWER SUPPLY INDICATION

The LED indicates that the amplifier is receiving power and is switched on.

03. POWER ON SWITCH

TS back panel description



04. GAIN SELECTION

Gain configuration from 26 to 40 dB.

05. GPI CONTROL

GPI Power: On/off by maintained contact or voltage.

GPI Mute: Mute/unmute completelly amplifier by contact or voltage.

06. CHANNEL SETUP

50Hz HP: 50Hz subsonic filter.

07. GPO MONITOR

GPIO for third party interface. AES67 options.

08. GPO STATUS

Monitor each individual channel, with switching contacts for fault/ OK status.

09. SPEAKER OUTPUTS

Up to 10000 W in 4 channels.

10. OUTPUT MODE

Output Mode: Hi impedance voltage selector. Low impedance power limitation.

Bridge mode: Low impedance bridge mode. 200V/140V high impedance mode.

11. SIGNAL INPUTS

- **Input Link**: Linking of input signals in consecutive channels.
- **Output Levels:** Hidden potentiometers on the rear for adjusting output levels.

TS characteristics

- Low weight high efficiency class D topology.
- Universal power supply with PFC.
- Up to 10000 W in 4 channels.
- 8, 4 and 2 Ohm low impedance operation.
- 100, 70, 50 and 35 V high impedance modes.
- Power Control Management.
- Phoenix connectors for inputs and outputs.
- Up-side-down design to avoid fan dust accumulation.
- Temperature controlled, front to back cooling.
- Gain configuration from 26 to 40 dB.
- GPIO for third party interface. AES67options.
- Subsonic filter.
- Signal link mini-dips configurable.
- Output level control in rear panel.
- Output mode configuration for high or low impedance with power limitation.

TS Output power

	TS-2500	TS-5000	TS-10000
2 ohms	4 x 312 W	4 x 1250 W	4 x 2500 W
4 ohms	4 x 625 W	4 x 1250 W	4 x 2500 W
8 ohms	4 x 625 W	4 x 1250 W	4 x 2500 W
Hi -Z 100 V	4 x 625 W 1 x 1250 W	4 x 1250 W 1 x 2500 W	4 x 2500 W 1 x 2500W
Hi -Z 70 V	4 x 625 W 1 x 900 W	4 x 1250 W 1 x 1800 W	4 x 2500 W 1 x 2500 W

TS Dimensions (in mm)

2. TECHNICAL SPECIFICATIONS

	TS-2500	TS-5000	TS-10000
Number of channels	4	4	4
Total output power	2500 W	5000 W	10000 W
Output power	4 x 312 / 1 x 312 W	4 x 1250 / 1 x 1250 W	4 x 2500 / 1 x 2500 W
@ 2 Ohms	4 x 430 / 1 x 430 W	4 x 1250 / 1 x 1700 W	4 x 2500 / 1 x 3330 W
@ 2.67 Ohms	4 x 625 / 1 x 625 W	4 x 1250 / 1 x 2500 W	4 x 2500 / 1 x 2500 W
@ 4 Ohms	4 x 625 / 1 x 1250 W	4 x 1250 / 1 x 1250 W	4 x 1250 / 1 x 1300 W
@ 8 Ohms	2 x 625 W	2 x 5000 W	2 x 5000 W
@4 Ohms Bridged	2 x 1250 W	2 x 5000 W	2 x 5000 W
@8 Ohms Bridged	4 x 625 / 1 x 1250 W	4 x 1250 / 1 x 2500 W	4 x 2500 / 1 x 2500 W
Hi-Z 100V	4 x 625 / 1 x 900 W	4 x 1250 / 1 x 1800 W	4 x 2500 / 1 x 2500 W
Hi-Z 70V			
Max output voltage	150 V peak	150 V peak	150 V peak
Max output current	18 A peak	36 A peak	50 A peak
Total Harmonic Distortion	<0.05%	<0.05%	<0.05%
Crosstalk /20Khz-1KHz), typical	>70 dB	>70 dB	>70 dB
Voltage Gain	26 dB to 44 dB	26 dB to 44 dB	26 dB to 44 dB
SNR	100V-240V AC, 50Hz-60Hz (Operating: 90V-265V AC)		
Required AC Mains			
230 V AC - 1/8 rated power (4 ohm)	2.1 A / 420 W	3.7 A / 840 W	7.3 A / 1680 W
120 V AC - 1/8 rated power (4 ohm)	3.6 A / 783 W	7.2 A / 1556 W	314.3A / 3132 W
Idle	0.7 A / 85 W	0.7 A / 85 W	0.7 A / 85 W
Thermal Dissipation			
(1/8 rated power 4ohm)	328 BTU/h	655 BTU/h	1310 BTU/h
Dimensions W x H x D (mm)	483 x 89 x 342 mm / 19 x 3.5 x 13.5 in		
Weight Net (kg - lbs)	7 - 15.4		
Protections	Soft-start, Turn-on Turn-off transients, Over-heating, DC, RF, Short-circuit, Open or mismatched loads, Overloaded power supply, ICL™, PMS™ and SSP™		

*IEC filtered pink noise signal (40Hz-5kHz, 12dB crest factor).

3. TROUBLESHOOTING

We aim to resolve possible issues by providing solutions in this section:

1 – The amplifier does not start up
Check the power supply cord. If it is correctly connected and the red led on the front panel does not light on, check the fuse situated in the input of the power cord.

2 – The amplifier starts up but there is no sound
Check that the amplifier is being provided with a signal in the correct input, A, B, C or D. If the signal does reach the amplifier, the green signal LED will light.

3 – The resulting sound is “strange”
Check that the outputs and their corresponding cabinets are correctly linked. Always be careful in increasing little by little the cabinets volume channel by channel in order to check the correct connection and not to damage the transducers.

4 – One of the cabinets (with the same signal) sounds less than the others
Check that the joining cable from the amplifier to the cabinet is well balanced otherwise the output signal will fall 6 dB.

CE

DECLARATION OF CONFORMITY

Lynx Pro Audio S.L. declares that TS series are in conformity with the following EC directives:

Low Voltage Directive	2006/95/EC
Electromagnetic Compatibility EMC	2004/108/EC
RoHS Directive	2002/95/EC

In accordance with Harmonized European Norms:

EN 60065:2002	Audio, video and similar electronic apparatus. Safety requirements
EN 55103-1:1996	Electromagnetic compatibility. Product family standard for audio, video, audiovisual and entertainment lighting control apparatus for professional use. Part 1: Emission.
EN 55103-2:1996	Electromagnetic compatibility. Product family standard for audio, video, audiovisual and entertainment lighting control apparatus for professional use. Part 2: Immunity.

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LYNX PRO AUDIO GUARANTEE

Lynx products are guaranteed against every kind of manufacturing fault 2 year after the date of sale. When products are under guarantee, the repairing and the free supplying of the device parts in order to correct any kind of defect are guaranteed by Lynx Pro Audio S.L. In the case that the product could not be returned to the factory for checking and repairing, Lynx Pro Audio S.L. would supply all the necessary parts.

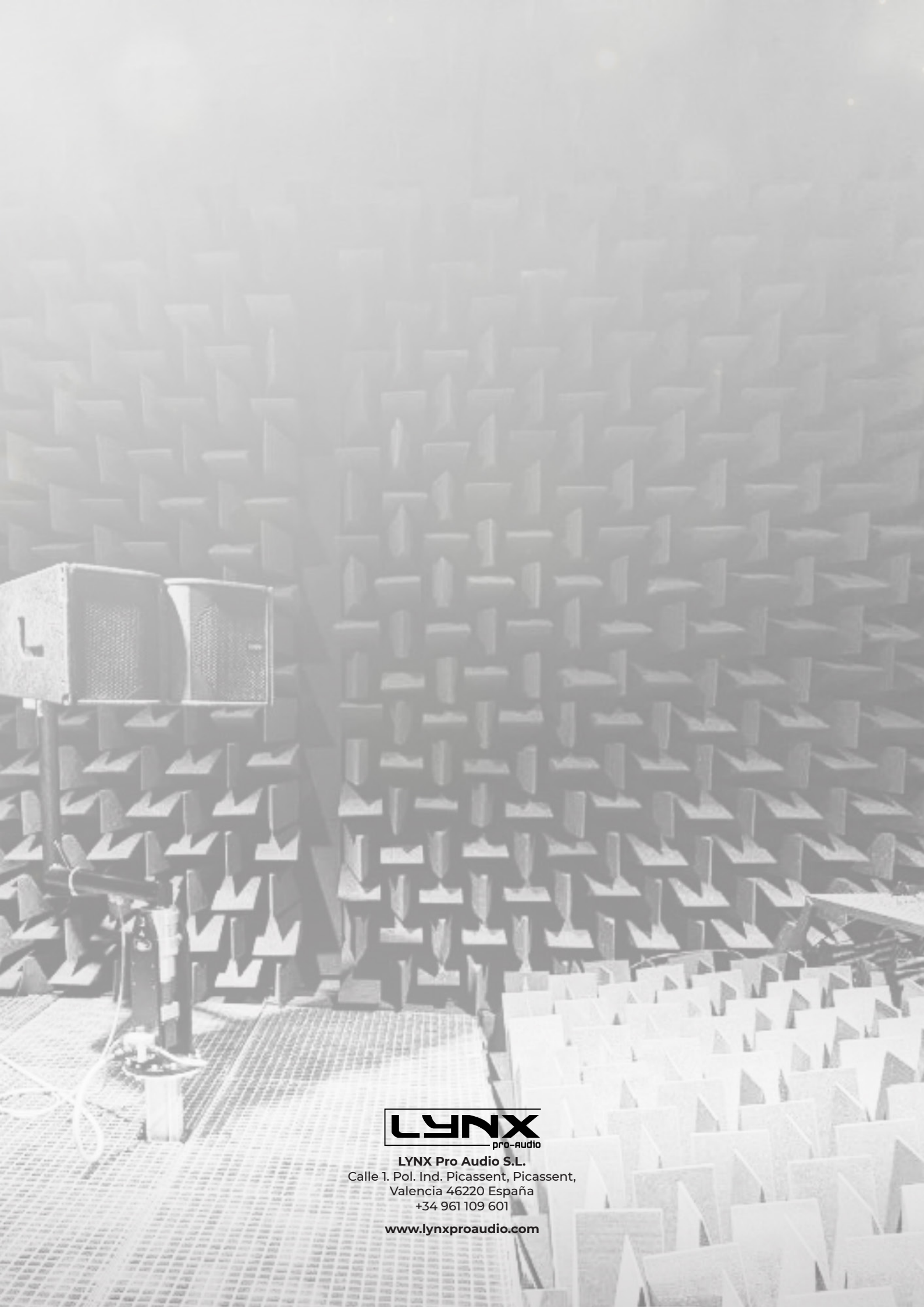
Lynx Pro Audio S.L. is not responsible for any damage or defect caused during the transport or caused by an undue or improper handling by a non-authorized person during the life of this guarantee.

All our products go through rigorous testing and quality controls. We guarantee the characteristics described here within and their quality against any fabrication defect.

The user loses all warranty rights if he incorporates or carries out any modification to the product, if he uses it outside of the stated safe working loads or does not secure the system properly using all the pins in their corresponding holes.

For any question regarding the product, the user must quote the model and serial number.

WEEE Declaration: Electrical and electronic equipment must be disposed of separately from normal waste at the end of its operational lifetime. Please dispose of this product according to the respective national regulations or contractual agreements. If there are any further questions concerning the disposal of this product please contact Lynx Pro Audio S.L.



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