ROX SERIES

USER MANUAL

$$\mathsf{C}\,\mathsf{E}$$

CE CERTIFICACTION, EUROPEAN PRODUCT

CONTENTS

WELCOME

Before working with the ROX speaker 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.

For the maximum optimization of any sound system a first class digital processor with different processing options is required. This ROX speakers 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 ROX speaker 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 **ROX** speaker shows that it is verified and tested to accomplish the European Norms and International Norms about Electromagnetic Compatibility and Electrical Safety.

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

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 speaker 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 ROX

Before unpacking your new speaker, 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

To facilitate the correct and reliable use of the **Rox Series** we have designed this instruction manual, please read it before proceeding to install the cabinet.

The **RX-8, RX-10, RX-12** and **RX-15** models are 2-way active speakers, representing the best in their class, providing powerful and dynamic sound, perfect for both fixed installations and live events.

Both models feature a Class D amplifier module, delivering 450 watts of continuous power, ensuring superior energy efficiency and reliable performance in any environment. The Rox Series stands out not only for its sound quality but also for its refined and professional appearance, making it an excellent fit for any application, whether on stage, in corporate events, or permanent installations.

The robust enclosure guarantees long life and exceptional durability, even in demanding conditions. The 8", 10", 12" or 15" long-term woofer provides impressive low-end depth, creating a sonic impact that will fill any space with powerful and precise bass. Meanwhile, the 1.35" latest-generation titanium diaphragm compression driver ensures clear and accurate high-frequency reproduction, delivering a balanced and immersive listening experience.

The **Rox Series** ensures excellent power response and maintains consistent performance across the listening area, so audiences can enjoy the same high-quality sound no matter where they are positioned.

Is more than just a serie—it's a precision tool designed to provide high-quality sound with flexibility and durability, making it an ideal choice for sound technicians looking for reliable performance in demanding applications

INSTALLATION GUIDE

- **Indoor use only**

We recommend using this appliance indoors only. Moisture can damage the appliance and cause a fire.

- **Power cord safety**

  - Avoid placing the speaker, cables, or any objects on the power cord. Ensure the cord is free from pinches or damage.
  - The power supply circuit must be equipped with a fuse or circuit breaker for overload protection, and an RCD for ground fault protection.

- **Power disconnection**

To disconnect the device from the power source, the power plug must be removed from the power outlet. The appliance should be positioned to allow easy access to the power outlet without obstruction. This will allow you to quickly disconnect the power plug in an emergency.

- **Mounting options**

ROX speaker can be installed on the floor, on a stage, on a subwoofer, on a tripod, wall-mounted, or mounted on a 35mm diameter coupling tube attached to a subwoofer.

- **Safety checks before installaion**

Give your speaker a safety check before mounting it. Make sure the stand, brackets, and anything else it attaches to are in good shape and all the pieces are there. Damaged or missing parts can cause the speaker to become unstable and fall.

- **Floor, tripod, or coupling tube installation**

For floor, tripod, or coupling tube installation, ensure the surface below is flat and stable.

- **Overhead installation**

  - **Strong Support:** Choose mounting hardware or suspension systems that are specifically designed to handle the weight and size of your speakers.
  - **Secure Suspension:** If using a tripod or hanging system, make sure the speaker is well-balanced and securely fastened to prevent it from falling, tipping over, or being accidentally bumped.
  - **Double-Check Fasteners:** Before letting the music flow, take a moment to confirm that all fasteners at the suspension points are tightened properly.

- **Incorrect installation**

Improper assembly or the use of unsuitable mounting equipment can result in an unstable and dangerous installation that could cause injury.

- **Seek professional assistance**

If in doubt, consult a professional to install the equipment. Ensure that national safety regulations for the installation and use of the speaker are followed.

- **Overhead installation safety**

Refer to the speaker's manual for safe overhead installation instructions, which likely recommend two people.

- **Avoid extrem weather conditions**

Do not install the speaker in direct sunlight, rain, or any other liquids. The speaker is not waterproof. If installed outdoors, protect it from the elements.

USER GUIDE

• This speaker creates a magnetic field that can interfere with other electronic devices like TVs, phones, and radios nearby. The same can happen if the speaker is too close to other appliances. If you notice any problems, turn off the speaker and move it away from potentially affected devices.

•The rubber feet of the appliance may stain the surface on which it rests. If necessary, use an appropriate underlay between the feet of the appliance and the floor.

• This appliance should not be used by persons (including children) with reduced physical, sensory or mental abilities or lack of experience and/or knowledge, unless they are supervised by a person responsible for their safety or have received instructions from that person on how to use the appliance.

• Never leave this appliance unattended when in use.

• In case of malfunction, stop using the appliance immediately. Do not attempt to repair it yourself.

Contact your dealer or an authorized repairer.

• For best performance, avoid using the appliance in the following conditions:

> - **Direct sunlight, dusty or dirty areas:** These can damage the appliance or shorten its lifespan.
> - **Strong vibrations or bumps**: This can disrupt the appliance's operation and potentially cause damage.
> - **Extreme temperatures (below 2°C or above 45°C):** This can affect the appliance's performance and efficiency.
> - **Very dry or humid environments (ideally keep between 35% and 80% humidity):** This can impact the appliance's function or shorten its lifespan.

• Never use the appliance near flames, flammable or explosive materials, or hot surfaces. Otherwise, you risk causing a fire.

• It is important to use the supplied mains power cable.

• Before switching on, make sure that the voltage and frequency of the power supply correspond to the power requirements of the appliance, as indicated in this manual.

• Never cut or tamper with the power cord or plug. If a power cord is provided with an earthing wire, this is mandatory to ensure safe operation! Risk of fatal electric shock!

• Always hold the power cord by the plug. Do not pull on the cord itself and never touch the power cord with wet hands as this could cause a short circuit or electric shock.

• Do not stick stickers, decals or other similar objects on this instrument. You could damage the finish of the instrument by removing them.

• To ensure safe operation, avoid placing liquids or objects near the appliance. If a spill happens, unplug it quickly and contact after-sales service.

• Before a thunderstorm or lightning storm, unplug the appliance from the power outlet for safety.

Maintenance

- Never attempt to disassemble, repair, or modify the appliance yourself. Doing so will void the warranty and could result in damage or malfunction. Contact an authorized service center for repair.

- Disconnect the appliance from the power supply before any maintenance or cleaning.

- If the cable or external flexible cord of this appliance is damaged, it must be replaced with a cable or cord specifically designed for this purpose and available from the manufacturer or its authorized service agent.

- Never immerse the appliance in water or any other liquid. Wipe it only with a slightly damp cloth.
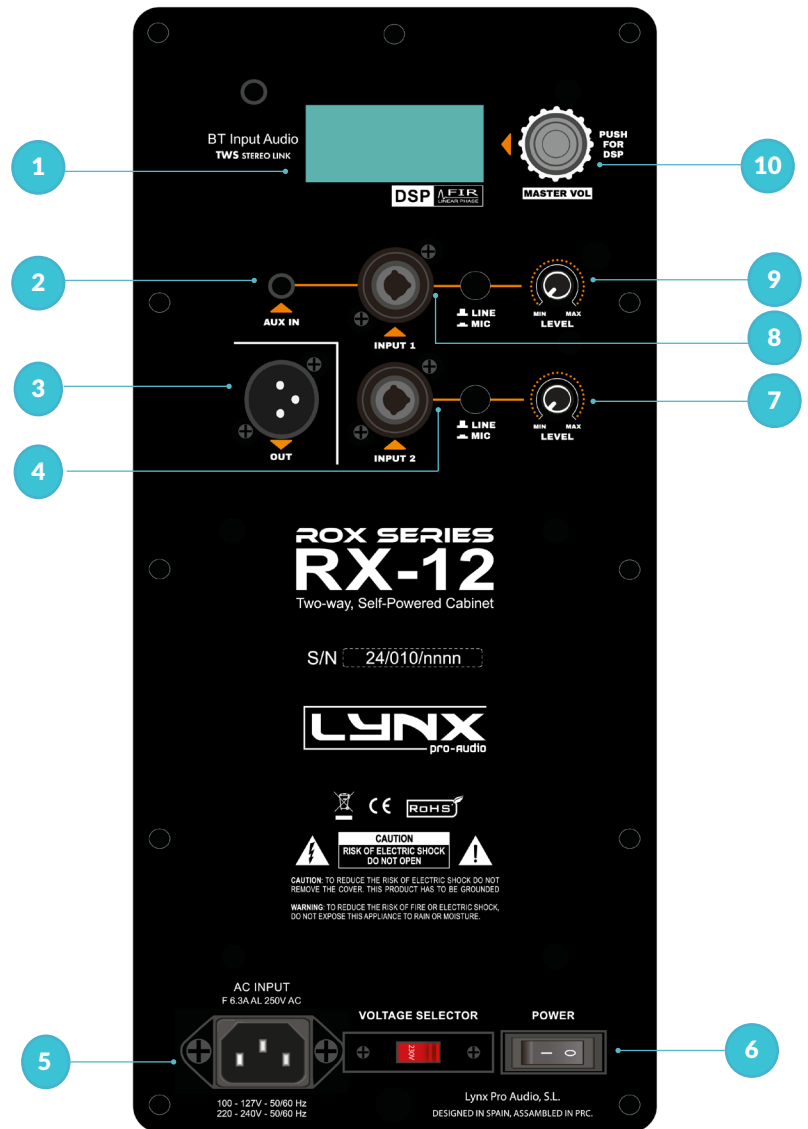
Power supply

Connect the power cord to the IEC socket on the back of the speaker. Make sure the plug is fully inserted into the IEC socket of the speaker. Make sure the power switch is OFF before connecting the cable plug to the power source and then connect the power cable to the local power outlet.

The correct procedure for turning on and off can help prevent unexpected sounds from being produced by the system (cracks, clicks and small muffled noises). Always follow the rule that the speakers are "last on and the first ones off". If a RX cabinet is driven from the output of another RX cabinet, it must be on after the unit providing the signal and off before the unit providing the signal.

CABLE (EU)	CABLE (US)	(PIN)	INTERNATIONAL
Brown	Black	Live	I
Light blue	White	Neutral	N
Yellow/Green	Yellow/Green	Earth	⏚

2. SET UP AND CONNECTION

ROX Back panel

DESIGNATIONS	FUNCTION
1. LCD DISPLAY:	Backlit display for showing DSP functions.
2. UNBALANCED INPUT:	Allows connection of audio sources such as CD/MP3 players, smartphones, DJ mixers, or computers. - 3.5 mm stereo mini-jack.
3. BALANCED XLR OUTPUT JACK:	The summed signal of all channels is output through this jack.
4. XLR/JACK COMBO CONNECTOR 6.35 MM (¼") - CH2:	Balanced XLR and 6.35 mm (¼") jack input. Accepts line-level and microphone-level inputs. Select MIC or Line using the pushbutton.
5. POWER SUPPLY:	Standard IEC-type mains power inlet connector.
6. ON/OFF SWITCH:	Power switch. Turns the unit on and off.
7. LEVEL - CH2 ROTARY KNOB:	Adjusts the sensitivity of input 2.
8. XLR/JACK COMBO CONNECTOR 6.35 MM (¼") - CH1:	Balanced XLR and 6.35 mm (¼") jack input. Accepts line-level and microphone-level inputs. Select MIC or Line from the Menu.
9. LEVEL - CH1 ROTARY KNOB:	Adjusts the sensitivity of input 1.
10. MASTER / PUSH FOR DSP:	Adjusts the overall volume, pushbutton to activate DSP functions.

Line/ Mic function

Input selector and level settings

Channels 1 and 2 both operate on the same principle.

- **MIC LEVEL**

Level suitable for a low input level such as a microphone or electro-acoustic guitar. Connect the source, then slowly raise the level potentiometer. If the sound is distorted or the LIMIT indicator light comes on, the input level is too high. Then select the LINE level.

- **LINE LEVEL**

Level suitable for most applications. Whether the signal comes from a mixing console or a sound processor, this LINE selector position should be chosen. Connect the source, then slowly raise the level potentiometer. If the LIMIT indicator light comes on, the input level is too high.

LINE   MIC
ON   **ON**

ATTENTION

Before connecting or changing the level selection, make sure to lower the "LEVEL" potentiometer for the corresponding channel.

Accessing to the DSP menu

The RX enclosure features a multi-function digital display for controlling and selecting its functions. When switched on, the following screens appear one after the other:

LEVEL : -12dB
IN1		
IN2		

The **LEVEL** screen shows the sound levels of the different inputs. This allows you to view the signal and adjust the entry level. Once the volume is increased, the levels appear, as shown below:

LEVEL : -12dB
IN1	████████	
IN2	████	

● ACCESSING THE DSP MENU

1 - Press the MASTER rotary button.

2 - Turn the MASTER rotary knob to scroll through the menu items. Press the rotary knob to select the menu item you want to edit. The cursor moves to the setting to the right of the menu.

3 - Turn the MASTER rotary knob to scroll through the parameter.

4 - Press the MASTER rotary button to confirm the selected parameter. The setting is saved. The cursor moves to the setting on the left side of the menu.

5 - Repeat steps 2 to 4 to modify other parameters.

6 - Select **EXIT** to return to the home screen. After 20 seconds of inactivity, the screen automatically returns to the home screen.

MENU SETTINGS

● DESIGNATIONS   FUNCTION

BLUETOOTH <OFF> <TWS> <ON>		
OFF:	The BT receiver is turned off.
TWS:	TWS Allows pairing with a second ROX in stereo
ON:	The BT receiver is turned on and allows you to connect a mobile device to your cabinet.

The cabinet is equipped with a BT receiver that allows you to stream music wirelessly from your devices mobile devices such as smartphones, tablets and laptops.

BT TWS mode allows you to connect two LYNX RX together via BT to broadcast in stereo from a only BT source (phone, tablet, etc.).

● CONNECT A MOBILE DEVICE

1- To activate BT, select <**ON**> in the menu BT The device enters pairing mode.

The BT logo flashes quickly on the screen to indicate that it is searching for a BT connection.

2 - On your smartphone or computer, select "**Lynx RX-12**" or "**Lynx RX-15**" in the device list in order to pair electronics.

3 - To unpair the devices, select <**OFF**>. The BT symbol turns off.

● CONNECTING A SECOND ROX CABINET

1 - If you have already paired one of the two Lynx RX cabinet, go to the BT settings on your mobile device and disable BT.

2 - Reactivate BT on your mobile device and pair with the device named "**Lynx RX-12**" or "**Lynx RX-15**".

3 - To unpair the devices, select <**OFF**>. The BT symbol turns off.

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• MODE

This menu allows you to optimize the audio settings during use.

• DESIGNATIONS   FUNCTION

NORMAL:	Linear adjustment.
LIVE:	Slight emphasis on bass and high frequencies.
DJ:	Increased presence and bass
SPEECH:	Optimization of speech intelligibility

• LOCATION

This menu allows you to select a preset depending on where the cabinet is placed.

• DESIGNATIONS   FUNCTION

NORMAL:	Standard (front speaker)
MONITOR:	Stage monitor operation with reduction feedback

• TREBLE/ MID/ BASS

This menu allows you to select a preset depending on where the cabinet is placed.

The **TREBLE** menu allows you to adjust the **high frequency** performance of the cabinet depending on the different applications or preferences personal.

The range is -10 dB to +10dB. Selection of the value using to the "MASTER" rotary knob.

The **MID** menu allows you to adjust the **frequency performance cabinet midrange** in operation different applications or personal preferences.
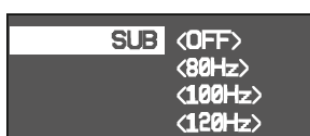
The range is -10 dB to +10dB. Selection of the value using to the "MASTER" rotary knob.

The **BASS** menu allows you to adjust the performance **low frequencies** of the cabinet according to the different applications or personal preferences.

The range is -10 dB to +10dB. Selection of the value using to the "MASTER" rotary button.

• SUB

The **SUB** menu allows you to select a cutoff frequency for a use with a subwoofer. By filtering low frequencies, the efficiency between the speaker and the subwoofer can be balanced.

The available cutoff frequencies are as follows: , 80Hz, 100Hz and 120Hz.

- DELAY

This menu allows you to restore the incoming signal with a delay that can go up to from 0 up to 9.99 milliseconds.

Selection of the value using the "MASTER" rotary knob.

- LED

The front LED indicator can be configured.

• DESIGNATIONS	FUNCTION
LIMIT:	The LED indicator lights up when the limiter activates
ON:	The LED indicator is permanently lit
OFF:	LED indicator is off

When the integrated limiter is activated (<**LIMIT**> function) the corresponding LED lights up. It indicates that the signal level is too high or the amplifier too hot, at any frequency. To protect and prevent damage to the speaker, it is It is best to reduce the signal level or turn off the speaker.

- RESET

This menu allows you to reset the speaker to its factory settings. This will clear all personal settings. A confirmation screen is always displayed first.

Select **YES** to execute the function or select **NO** to cancel the procedure.

- INFO

This menu allows you to display the DSP version of the software package.

3. TECHNICAL SPECIFICATIONS

Amplification	**RX-8 & RX-10**: Class- D/ DSP FIR Filters **RX-12 & RX-15:** Class- D	**BT**	Receiver - TWS Stereo Pairing
Control	LCD Display, encoder and push button	**Output**	Balanced XLR LINE-level output
Inputs	2 balanced Combo Jack/XLR inputs with MIC/ LINE selector and adjustment level for each input. 1 3.5mm mini-jack AUX input	**Latency**	1.17 ms
Applications	35mm (2-position) speaker stand socket and a 45° angled wedge for stage monitoring	**Power**	**RX-8 & RX-10:** RMS power of 280W and a peak 600W **RX-12 & RX-15:** RMS power of 450W and a peak 1000W
Frequency Response	**RX- 8:** 65 Hz to 20 kHz **RX- 10:** 45 Hz to 20 kHz **RX- 12:** 45Hz to 20kHz **RX- 15:** 40Hz to 20kHz	**Power Supply**	230V ~ / 50Hz mains power supply
SPL Max.	**RX- 8:** 118dB to 124 dB peak **RX- 10:** 119dB - 125 dB Peak **RX- 12:** 125dB - 131 dB Peak **RX- 15:** 125dB - 131 dB Peak	**Dimension** (H x W x D)	**RX-8:** 435 x 245 x 295 mm **RX-10:** 595 x 355 x 295 mm **RX- 12**: 610 x 365 x 350 mm **RX-15:** 700 x 420 x 370 mm
Weight	**RX-8: 7** Kg **RX- 10:** 9 Kg **RX- 12:** 19Kg **RX- 15:** 21Kg		

DSP Processor

Level, Treble, Mid, Bass, Delay

4 Audio Modes	Normal, Speech, Live and DJ
2 Position Presets	Normal, Monitor
HPF SUB Filter	ON/ 80/ 100/ 120
LED Display	ON/ OFF/ LIMIT

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4. RAINBOW (Acoustic Prediction Software)

Lynx Pro Audio's R&D department is working on Rainbow 3D, our acoustic simulation software with dynamic 3D features. With a sophisticated design, Rainbow 3D stands out for its speed, being able to provide a simulation in just a few seconds. It also provides algorithms for beam steering and optimizing the listening area.

• Designed from scratch by professionals

Rainbow 3D has been programmed from scratch by Lynx Pro Audio engineers, using new programming procedures that achieve an effective simulation with really low calculation time.

• Multiple listening zones

The program can simulate all Lynx Pro Audio's acoustic enclosures located in a 3D space, including the classic side, top and front views. It can also define multiple listening zones and allows offset positioning and symmetry. Blueprint images, textures and PNG format pictures can be imported.

• Unlimited sound sources

Allows the acoustic simulation for an unlimited number of sound sources and audio systems. You can place as many systems (subwoofers, line arrays, columns and individual boxes) as you desire. Also, the line arrays can be placed in stack or flown configuration.
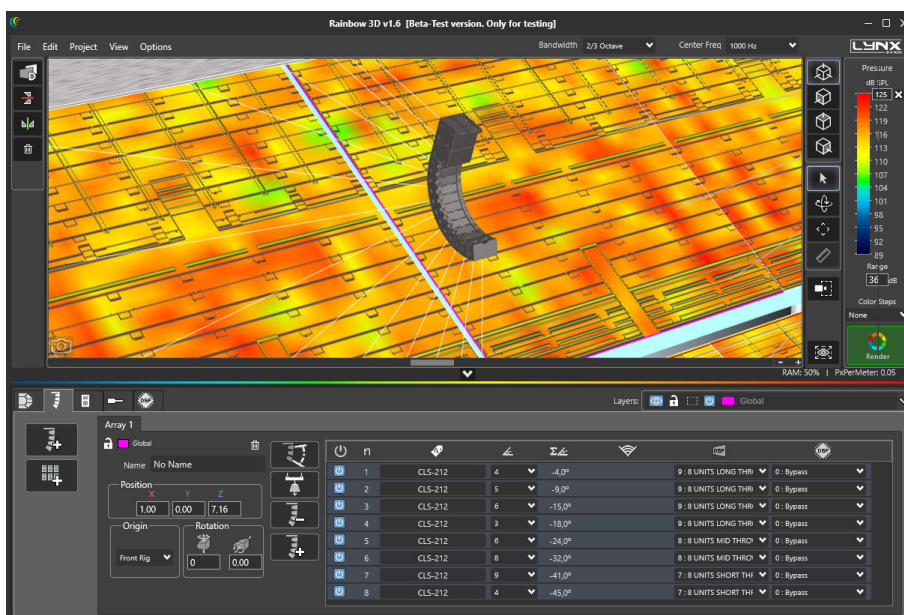
• Beam steering

Rainbow 3D has the ability to add DSP processing to the simulation and uses algorithms to control the directivity (beam steering) in columns, without the need to tilt them physically, being able to divide the column into several beams that point to different zones.

• Accurate optimization thanks to FIR filters

Optimized algorithms are used in the listening area to improve the sound coverage and the frequency response. This feature can be executed in a matter of seconds. Additionally, the export of FIR coefficients can be performed with the optimization for later loading in the DSP via Ethernet or a USB device. In the near future direct communication with Lynx Pro Audio and OCS will be available.

• Multiple measures and tools

Likewise, the R&D department is developing multiple measurement and analysis tools for the calculated data. For example, the sound pressure curves (SPL) in the listening areas and the capture of virtual measurements that show the frequency response in the points of location indicated and added. Among other tools you will find autosplay and a wizard to set up different subwoofer arragements.

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.

CE

DECLARATION OF CONFORMITY

Lynx Pro Audio S.L. declares that ROX series are in conformity with the following EC directives:
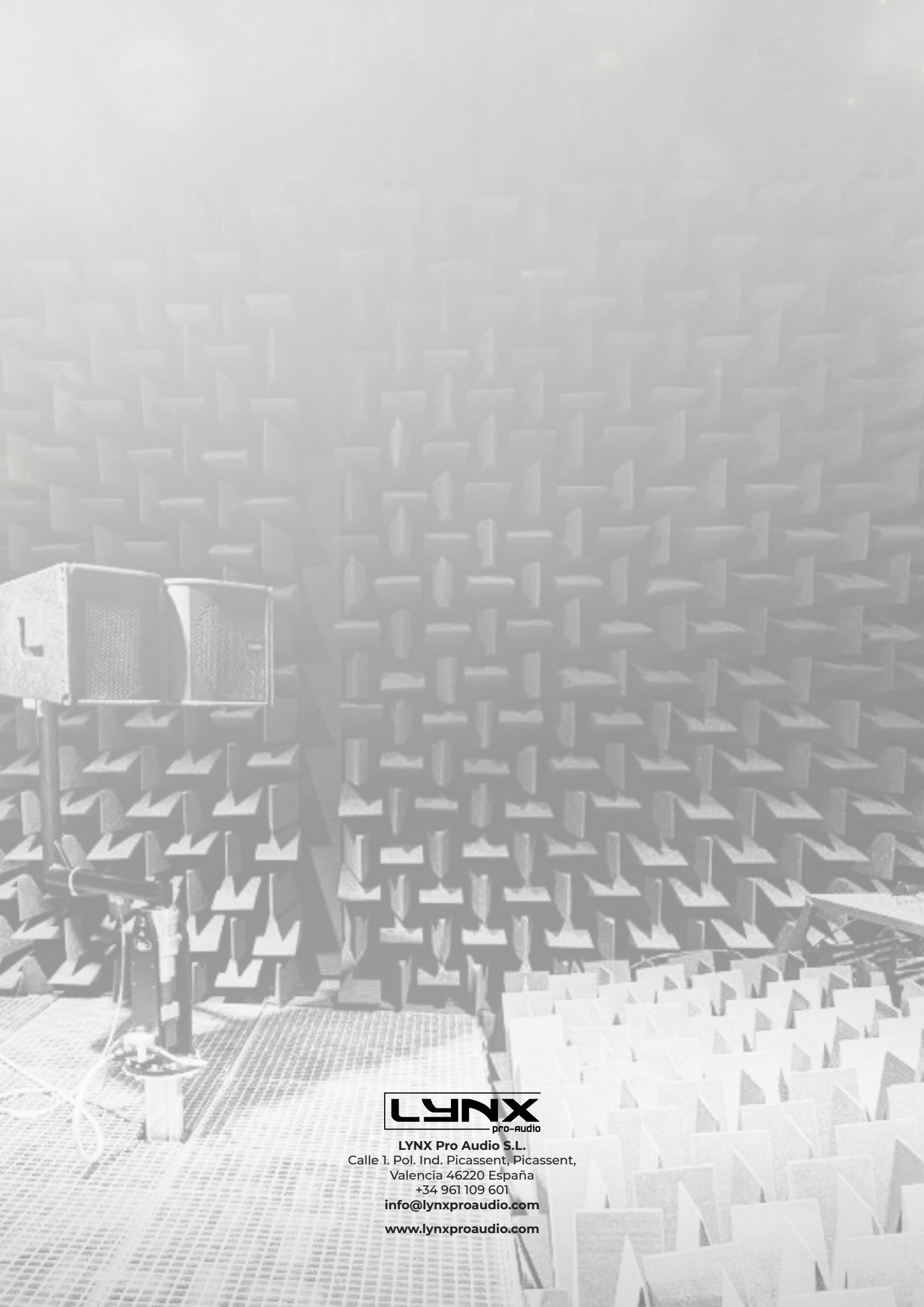
Low Voltage Directive   2006/95/EC
Electromagnetic Compatibility EMC   2004/108/EC
RoHS Directive   2002/95/EC

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.

                       RX - 8 | RX - 10 | RX - 12 | RX - 15

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