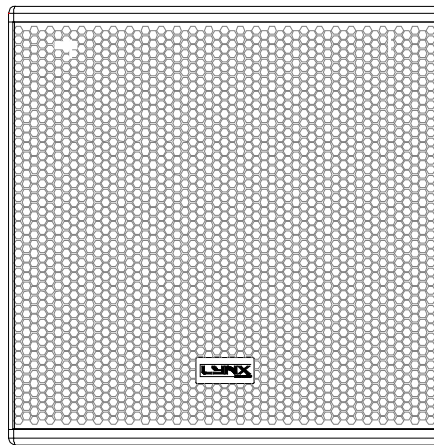


# GXR series

## USER MANUAL

GXR-18S



Lynx Pro Audio S.L.



GXR-18S

Manufacturer



LYNX Pro Audio S.L.  
Calle 1 - Pol. Ind. Picassent  
E-46220 Picassent (Valencia)



**CE CERTIFICATION, EUROPEAN PRODUCT**

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## INTRODUCTION

The GXR-18S model is a self-powered subwoofer enclosure specially designed to reinforce the low frequencies of the full range models of the GXR series. You do not need to carry an external amplification rack and it is an excellent option for subwoofer reinforcement in general.

The enclosure has 1400W class D amplifier switching power supply, with DSP processor. This system can be controlled online in real time and stands out for its high performance, with an excellent power-size ratio.

For portable applications, a wheel kit is available to facilitate transportation. It can also be covered with a practical nylon sheath that protects the box during transport and storage.

To facilitate, correct and reliable use of the powered cabinet GXR-18S we have designed this instruction manual. Please read the manual carefully before proceeding to install the system.

Please observe the technical data carefully and do not ignore the instructions included within this manual.

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Before starting to use this device, please read this instruction manual carefully.  
Keep these instructions in the place where the equipment will be used and with easy access to them.



### • Electrical appliance

The exclamation mark within a triangle identifies the presence of electricity. Use the system carefully without wet hands or feet. Avoid installing the speaker in wet or excessively humid places. Do not place material that contains liquid on or near the unit. Avoid dripping or splashing water or any liquid over the unit. Regularly check the condition of the cables and make sure these are not being walked on or pinched. Connect the speaker to bipolar, earthed mains. The mains plug must be connected to the appropriate protection (fuse or breaker). Connection to any other type of mains could result in an electrical shock and violate local electrical codes.

CAUTION: DO NOT CONNECT OR DISCONNECT THE AC POWER CONNECTORS UNDER LOAD.



### • Heavy equipment

Apply back protection when using the system. Avoid loading and unloading at heights.



### • Electrical shock risk

The diagonal mark within a triangle identifies the presence of dangerous voltage.

Do not open or handle the interior of the box. These parts are not to be adjusted by the user. For maintenance and/or repair please go to an authorized service centre. In order to reduce the risk of electric shock, disconnect from AC before plug in or unplugging Audio signal cables. Reconnect to AC only if all signal connections are made and secured. Never manipulate the ground type plug provided.

The AC mains plugs should always remain accessible for operation.

Unplug the loudspeaker during storms or when it's being used for a long time.



### • Hearing damage risk

These systems can reproduce large quantities of sound pressure which can damage hearing. Take precautions if you are going to be near them for extended amounts of time and do not get too close.



### • Hanging / Flying

Do not hang the cabinets from the handles or from any other part other than the designated hanging point. When flying this system please observe the technical and "Rainbow" software data carefully. Never exceed the maximum safe working loads or ignore the instructions included within this manual. Use Only flying accessories provided by Lynx Pro Audio S.L. Rigging must be always carried out by professionals.



### • Delicate Material

Please ensure no foreign object or water enters the speaker. Only clean the unit with dry cloths. Do not use solvents.



### • Overheating / Fire risk

To reduce the risk of the speaker over heating, avoid direct contact with sunlight. Avoid placing the unit close to heat inducing objects such as radiators. Do not cover the equipment in use and do not block any ventilation openings. Do not put naked flame, such as lighted candles, close or on top of the unit.



### • Electromagnetic and interferente emissions

Avoid placing objects which through electromagnetic waves can damage the unit, such as mobile phones, lap tops, magnetic strip cards etc.

This system complies with normatives

EN 55103-1 (1)

EN 55103-2 (2)

(1) This device may not cause harmful interferences.

(2) This device may receive interference including interferences that may cause undesired working.



### • IMPORTANT NOTE

This Equipment must be used in accordance with these instructions and by trained professional personnel only. This equipment should not be used in places with extreme tropical climates. Don't expose this apparatus to extreme humidity and or temperature values.

## SYSTEM OVERVIEW

### • GXR-18S

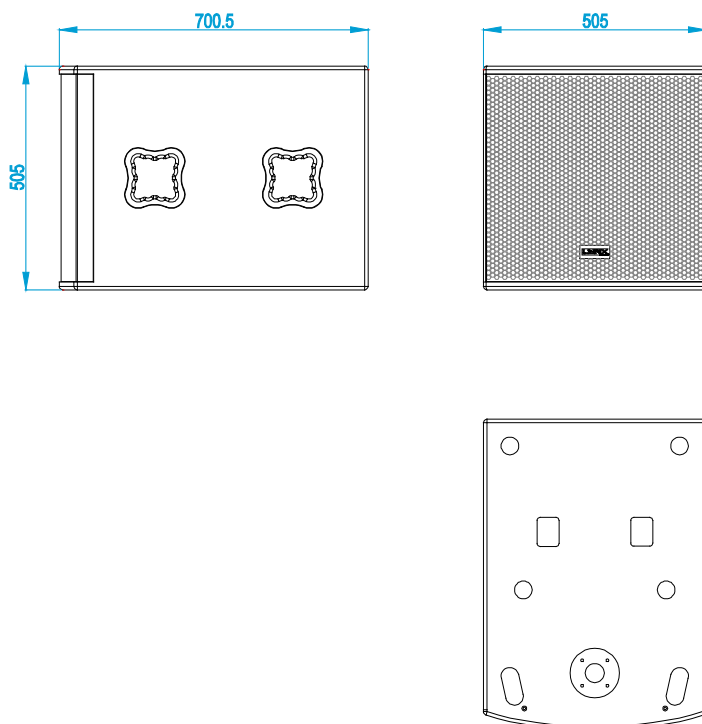
High output, self powered (class D switch mode power supply with PFC), direct radiation subwoofer. Consists of a 18" (3" voice coil) with triple roll surround. DSP (FIR Filters) controlled with 1400W amplification, 132 dB SPL.

### • Technical Data:

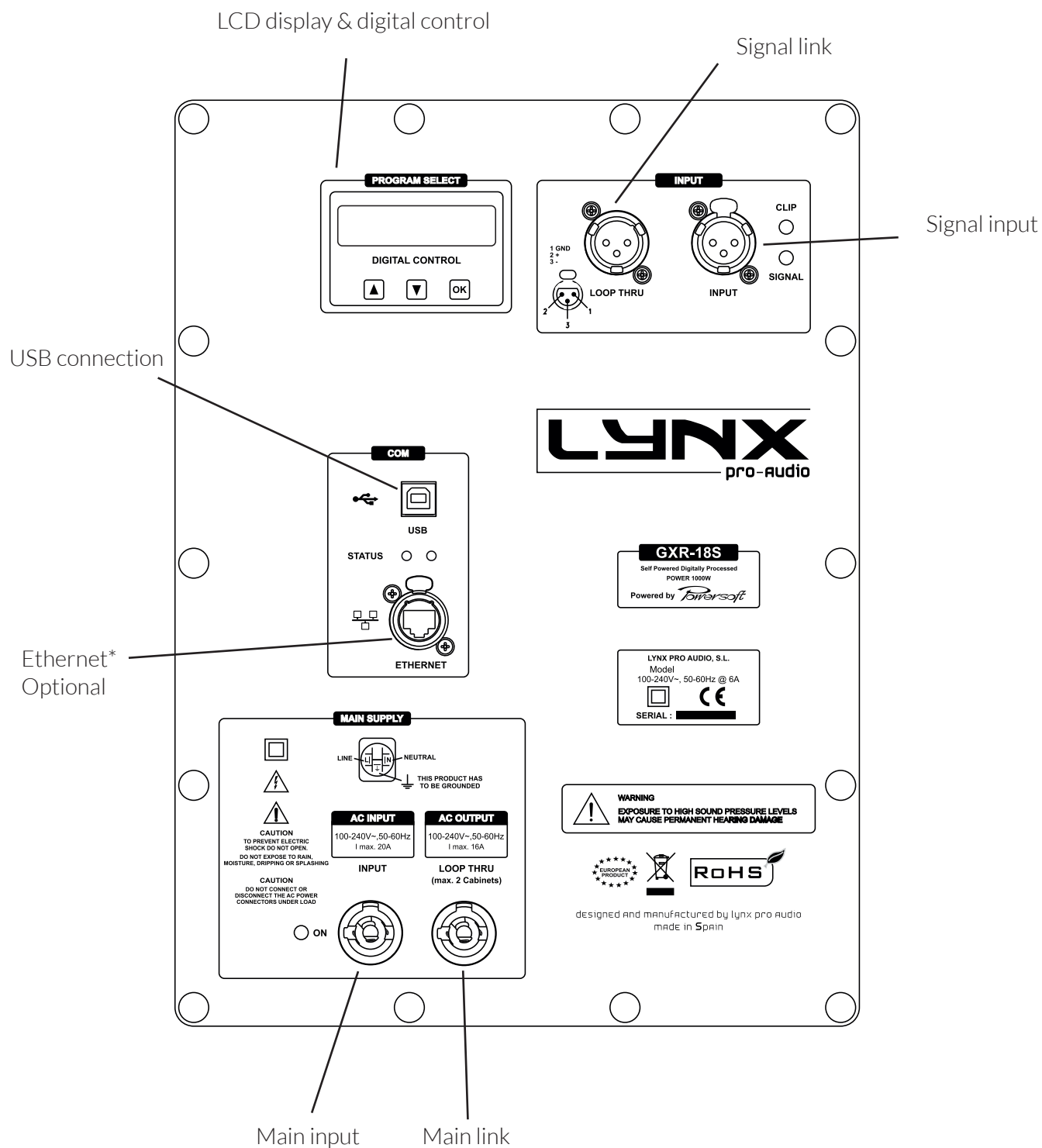
Components:

• LF	1 x 18" 3" voice coil
Frequency range:	38 Hz – 140 Hz (-10dB)
Frequency response:	44 Hz – 125 Hz ( $\pm$ 3dB)
Max SPL:	132 dB
Coverage angle:	Omnidirectional
Power:	1400W Class D with switching power supply & PFC
LF amplifier:	1 x 1400 W
Processing:	48 KHz / 56 bit double precision
Control:	User control interface with LCD
Control connections:	USB (DSP programming)
AC power:	85 – 270V. 50/60 Hz with PFC
AC connections:	16A Neutrik powerCon TRUE1 TOP with looping output
Finish:	Polyurea coating high grade resistant paint
Material:	18 mm Premium birch plywood
Dimensions:	505 x 505 x 700 mm (H x W x D)
Weight:	41 kg (90 lbs)

### • GXR-18S measurements



## GXR-18S back panel

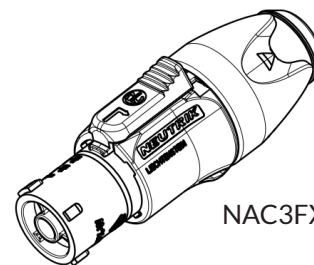
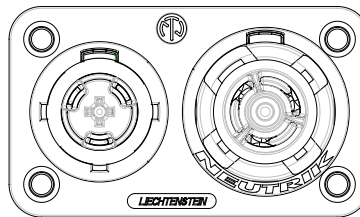


## CONNECTORS AND CONNECTIONS

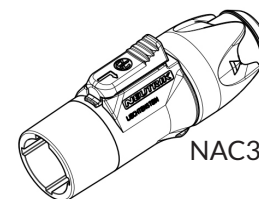


**CAUTION:** Do not connect or disconnect the AC Power connectors under load.

SOCKET POWERCON TRUE1 TOP

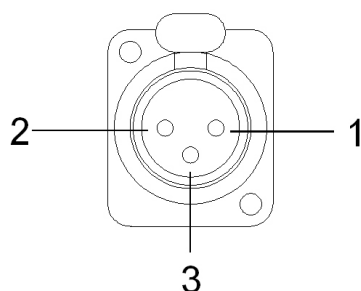


NAC3FX-W TOP

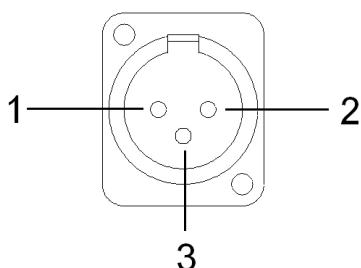


NAC3MX-W TOP

### XLR SOCKET CONNECTORS



**INPUTS**  
1.- EARTH  
2.- LIVE (+)  
3.- LIVE (-)

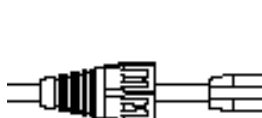


**OUTPUTS**  
1.- EARTH  
2.- LIVE (+)  
3.- LIVE (-)

### XLR AERIAL CONNECTORS



Connect to output



1 Earth  
2 Live(+)  
3 Live(-)



## CONFIGURATION PANEL

On the back panel you will see 3 buttons and an information screen, on which you can read the established parameters and information such as amplification module temperature, input signal level and name of the current preset (Fig1).

If changes are not made the display will automatically dim to save energy and avoid unnecessary light in situations where light is not wanted. To re-activate the light simply press the OK button.

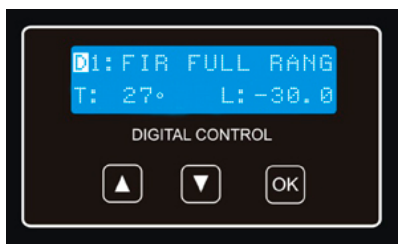


Fig 1

## SELECT THE INPUT: DIGITAL OR ANALOG

This selection is only available when the user has requested the cabinets to be supplied with the Digital input kit. There are four input options: Analog / Digital L / Digital R / Digital L+R

To select the input mode just press the OK button (3) and the up button (1), both at the same time but pressing the OK button first. Then you can select one of the four options using the up button (1).

To confirm your selection press OK (3) until the progress bar finishes.

The display will show an inverted D (digital) or an inverted A (analog) so you can always know if the input is digital or analog.



Fig 2

1

2

3



Fig 3



## SELECT AND RUN PRESET

On the back panel you will see 3 buttons and an information screen, on which you can read the established parameters and information such as amplification module temperature, input signal level and name of the current preset (Fig1).

If changes are not made the display will automatically dim to save energy and avoid unnecessary light in situations where light is not wanted. To re-activate the light simply press the OK button.



Fig 2



Fig 3

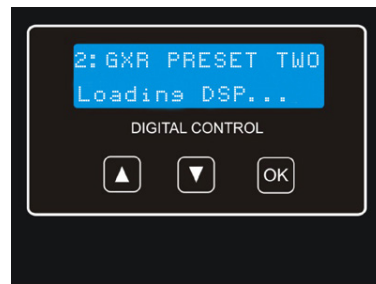


Fig 4

Note: In case of a power cut, the DSP will save its last configuration when restarted.

## ONLINE CONTROL SYSTEM

### • Who is it for?

Users of Self powered DSP incorporated Lynx Pro Audio Cabinets where the user has requested the cabinets be supplied with the Ethernet Module kit.

### • What is it for?

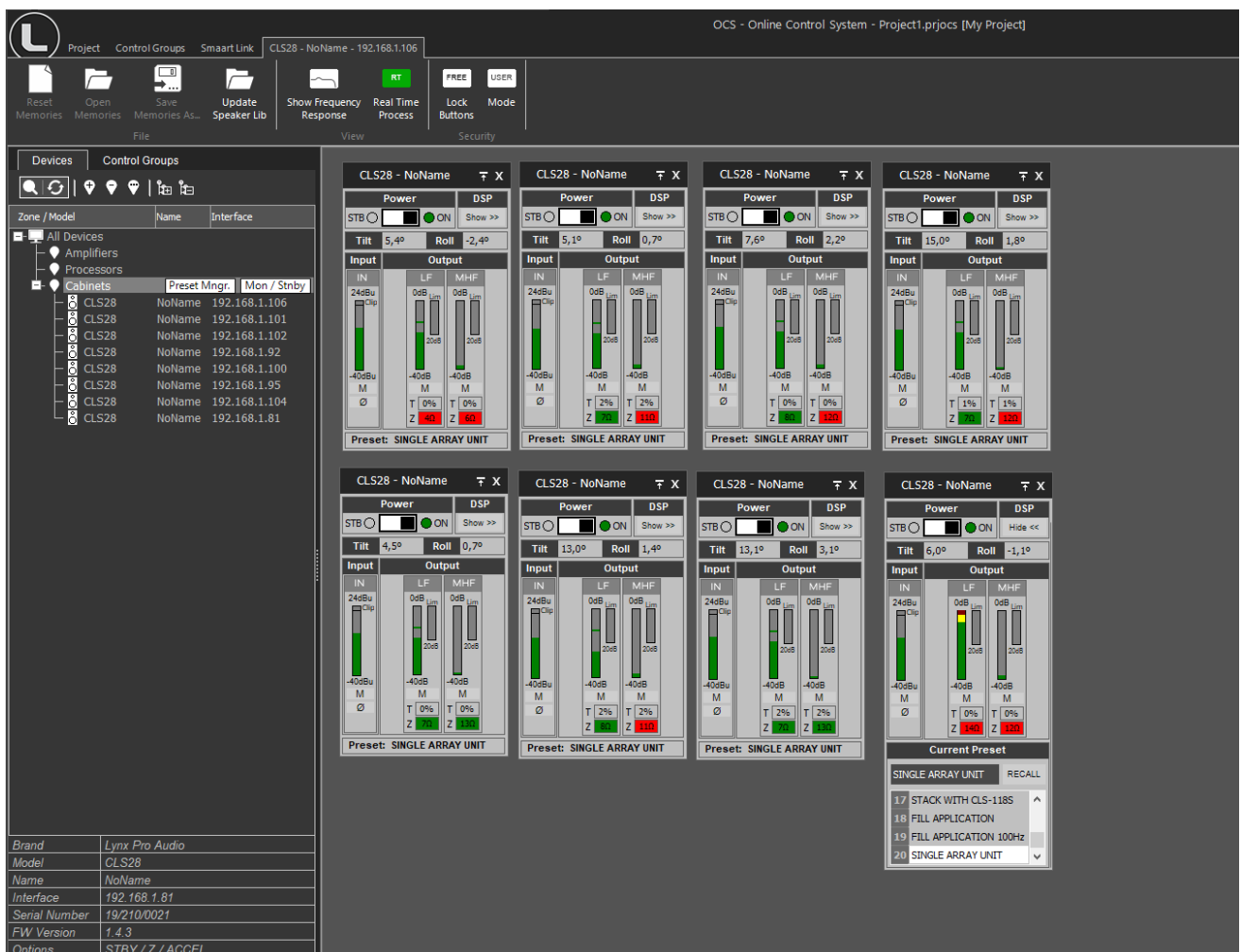
Obtain detailed information of cabinet behaviour and monitor the cabinet/s in real time. You can change the preset, gain, mute, polarity and phase. You can also activate the air absorption compensation and select the «SOLO» mode.

### • How does it work?

Via Ethernet (cable or wireless). Once installed, the O.C.S. software automatically detects all the cabinets connected to the network and displays them in the O.C.S. window on the users PC.

### • What does it show?

As well as displaying the cabinet model and IP address the O.C.S will be monitoring in real time and the user will be able to view RMS levels, Input clip, power module temperature, compression levels, air absorption compensation and cabinet angulation.



## RAINBOW 3D Acoustic Prediction Software

Lynx Pro Audio's R&D department is working on Rainbow 3D, a new 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**

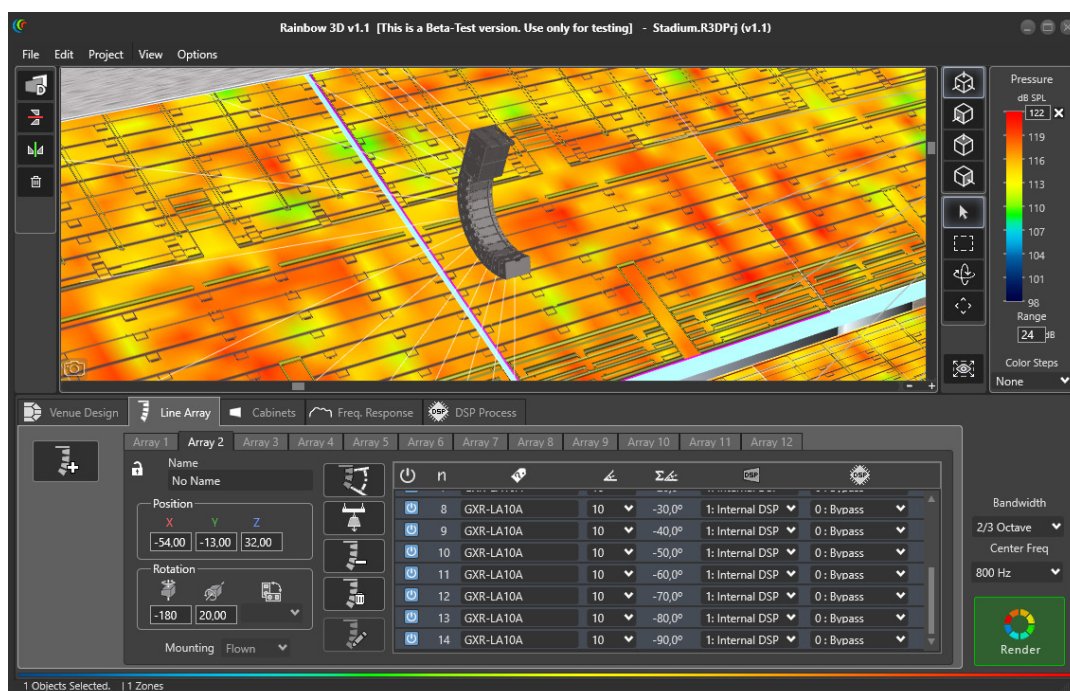
Rainbow 3D has the ability to add DSP processing to the simulation and uses algorithms to control the directivity (beam steering) in columns, without the need to tilt them physically, being able to divide the column into several beams that point to different zones.

- **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 autoplay and a wizard to set up different subwoofer arrangements.



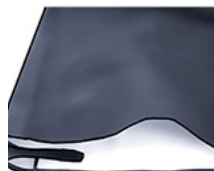
## HARDWARE AND ACCESSORIES

The GXR series include some accessories for installation and transport. The GXR-18S includes:



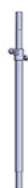
### GR-18WKIT

Wheel kit for the GXR-18S



### FD-GXR18S

Nylon protection cover for the GXR-18S



### TU-C01

35mm connecting pole for satellite combination between subunits and GXR-12/GXR-15



### TU-C02

M20 poles support combination between sub units and GXR-12/GXR-15 with safety lock



## DECLARATION OF CONFORMITY

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Lynx Pro Audio S.L. declares that ionic 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.
GXR models:	GXR-LA10A / GXR-D15A / GXR-D18A / GXR-215 / GXR-15 / GXR-12 / GXR-18S



## 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 undergo rigorous tests 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.