

# **LAs118<sub>v2</sub>**

**Hybrid-Horn Arrayable  
Subwoofer**

# **USER MANUAL**



## CONTENTS

INTRODUCTION	2
UNPACKING	2
LAs118v2 OVERVIEW	2
SAFETY FIRST	3
CONNECTIONS AND ELECTRIC DIAGRAM	5
CABLE SELECTING	5
RIGGING LAs118v2	6
GROUND STACKING LAs118v2	11
LAs118v2 and LA122v2	12
LAs118v2/LAs118A DOLLY	13
TROUBLESHOOTING	14
WARRANTY	14
TECHNICAL SPECIFICATIONS	15
NOTES	16
CONTACTS	17

---

---

## INTRODUCTION

Thank you for purchasing a NEXT-proaudio LAs118v2 Hybrid-Horn Arrayable Subwoofer. This manual will provide you with useful and important information about your NEXT-proaudio LAs118v2 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 LAs118v2 element will help you to operate your system 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](http://www.next-proaudio.com)

## UNPACKING

Each NEXT-proaudio Las118v2 subwoofer element is built in Europe (Portugal) by NEXT-proaudio, according to the highest standards and thoroughly inspected before it leaves the factory. When unpacking the NEXT Las118v2, 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.

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

## LAs118v2 OVERVIEW

The LAs118v2 is one of the many members of the NEXT-proaudio LA Series speakers. It is a passive Hybrid-Horn single 18" subwoofer. The integrated rigging hardware was designed to be used as part of a NEXT-proaudio LA122v2 system or as a stand-alone system using the exact same rigging frame structures. It is fully compatible with the LA122v2 line array element also on the ground. The LA122v2 stacks on top of the LAs118v2 without the need of other accessories, providing a cheaper solution where this kind of assembly is needed.

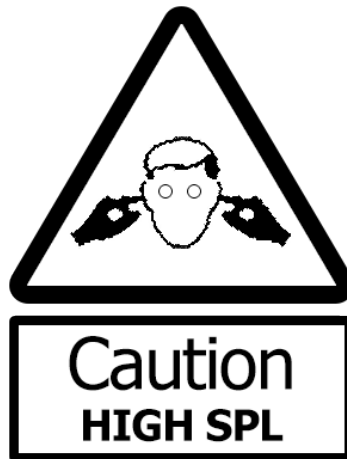
The LAs118v2 is fitted with universal plastic feet, being possible to stack it on any position. It stacks upside down and turned backwards. This feature allows, for example, cardioid response system stacks.

The integrated low frequency driver, with 4" voice coil, delivers 2400W even on the lowest frequencies allowing, when suspended with LA122v2, the best sound coherence.

**SAFETY FIRST**

It's important that loudspeaker systems are used in a safe manner. Please take some time to review the following points concerning safe use of the NEXT LAs118v2 subwoofer element.

**DANGER – HEARING DAMAGE**



NEXT LA 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**

## GROUND STACKING

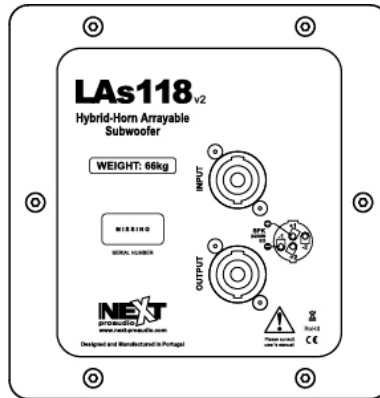
- Always ensure that the floor or structure where the stack will be placed is even and can withstand the weight of the complete stack.
- Do not stack speakers too high, especially outdoors where winds could topple the stack.
- Place cables in a way that they do not present a trip hazard.
- Do not place any objects on top of the stack, they can fall accidentally and cause injuries.
- Do not attempt to move the enclosures while connected.
- Try not to operate the LAs118v2 under heavy rain or moisture, it is weather-resistant but not completely “weather-proof”.
- Do not expose the systems to extreme heat or cold conditions to prevent component damage.

## RIGGING AND SUSPENSION SAFETY CONSIDERATIONS

- Before rigging or suspending NEXT LAs118v2 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 (4 minimum). 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 and other, without any part deformation. NEXT-proaudio advises customers to contact a licensed, professional engineer regarding equipment installation.
- NEXT LAs118v2 system installation should only be carried out by qualified personnel.
- Always use adequate protective clothing and equipment to prevent possible injuries.
- Only install the systems on solid, levelled ground and isolate the surrounding area during installation and operation, to prevent general public presence near the systems.
- Be sure you understand all local and national regulations regarding equipment installation.
- Failure to comply with these instructions may result on injury or death.

## CONNECTIONS AND ELECTRIC DIAGRAM

The LAs118v2 is connected through Neutrik® SpeakON® NL4 plugs (not supplied). A wiring description is printed on the connections panels located on the back of the cabinet.



The 4 pins of the two Neutrik® NL4 SpeakON® sockets are wired in parallel within the enclosure. Either connector can be used to connect to the amplifier or another LAs118v2 element. See the table and the diagram below:

NL4 PIN	Description
1+	LOW +
1-	LOW -
2+	LINK +
2-	LINK -

## 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	
	8Ω	4Ω
1.5 mm <sup>2</sup>	12m [40 ft]	6m [20 ft]
2.5 mm <sup>2</sup>	20m [64 ft]	10m [32 ft]
4 mm <sup>2</sup>	32m [104 ft]	16m [52 ft]

## RIGGING LAs118v2



Before continuing, remember the safety considerations on “Safety First” chapter. If you haven’t read it yet, please read it now.

The LAs118v2 was designed having always two main concerns in mind, ease of use and safety. It was especially designed to perfectly complement NEXT LA122v2 line array, being able to share the same rigging structures and accessories.

On each side of the LAs118v2 enclosure are 2 pairs of high strength rigging plates, which form a channel on top of the enclosure for the sliding arms of another LAs118v2 or the hinges/swing arms of the LA122v2. The same plates hold the sliding arms and arm locking mechanisms on the bottom of the enclosure. The normal procedure of rigging a column of LAs118v2 enclosures is quite simple and fast, as seen later in this manual, but first let’s take a look at Figure 4 for a description of the enclosure rigging panels.

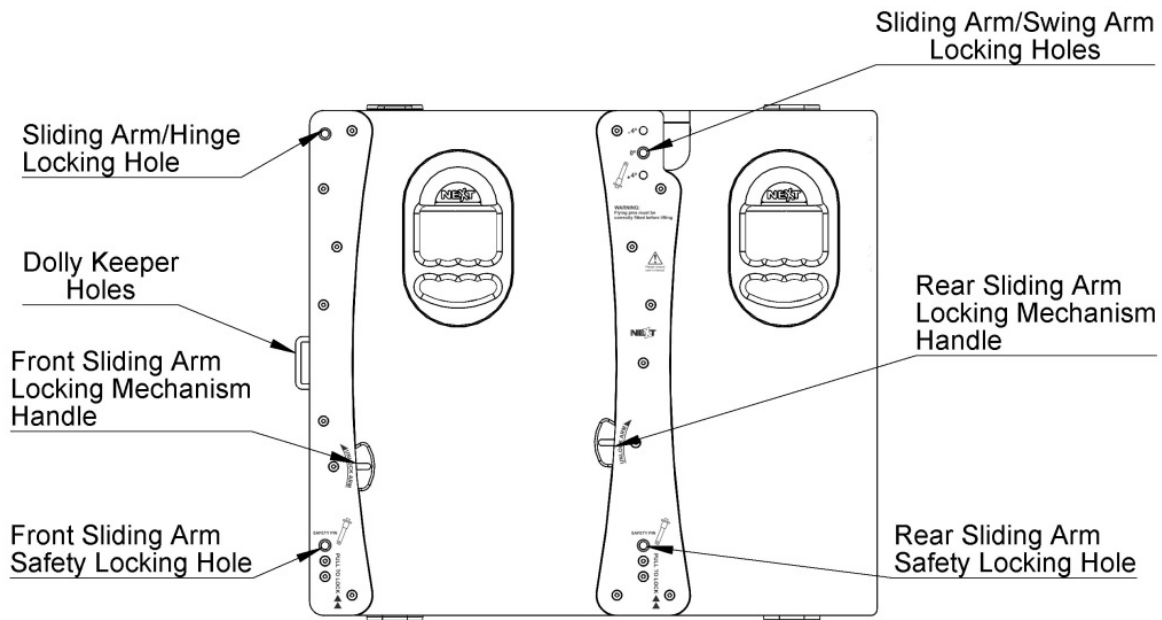
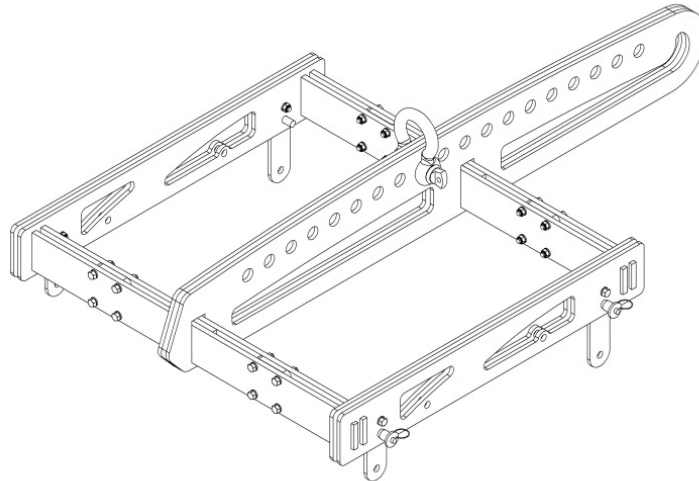


Figure 1 - LAs118v2 Integrated Rigging Hardware Reference



We will now discuss the actual rigging of the NEXT LAs118v2, either stand-alone LAs118v2 systems or integrated in the LA122v2 systems. Keep in mind though that this is a minimum 2-man job. These are heavy enclosures and it's easy for someone to get injured if he/she tries to manage it alone. In every step of the rigging procedure always check that the locking pins are secure. In order to successfully suspend the LAs118v2 you'll need to have these accessories:



**Figure 2 - NC18124 Rigging Structure**

In Figure 5 we can see a drawing of the NC18124 Rigging Structure. This structure is used on several NEXT-proaudio line array elements: LAs118A, LA122A, LA122WA, LAs118v2, LA122v2 and LA122Wv2. With a working load limit (WLL) of around 600 kg and a minimum safety factor of 4:1 this structure can hold up to 8 - NEXT LAs118v2 or any combination of NEXT LAs118v2 and NEXT LA122v2 under the WLL.



**Figure 3 - NEXT VP60052 Locking Pin**

---

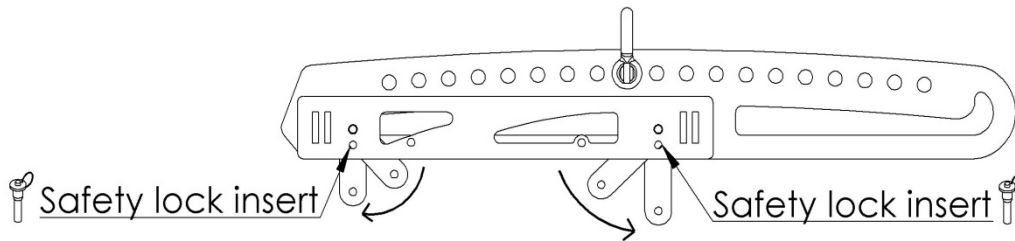
Never use any lock pins but the ones supplied by NEXT-proaudio. These pins are built to withstand the system's weight with a good safety factor. They are also built with very specific dimensions. On the other hand, before you suspend the system, please read the instructions in the "Safety first" chapter.

---

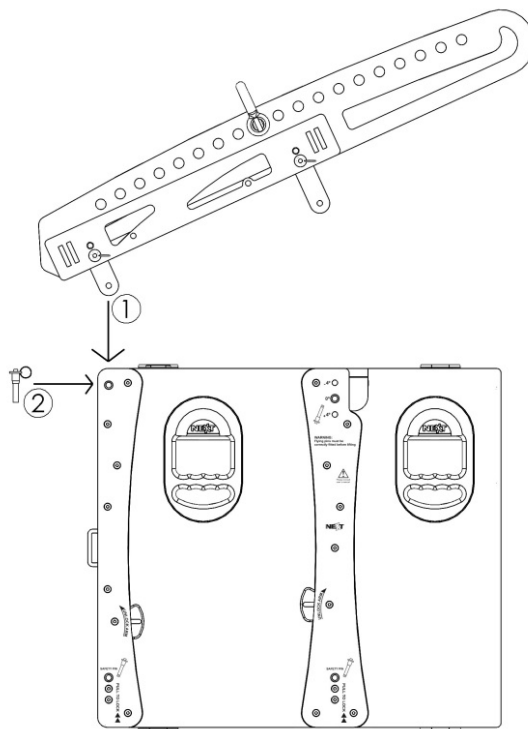
# NEXT LAs118v2 - User Manual

www.next-proaudio.com

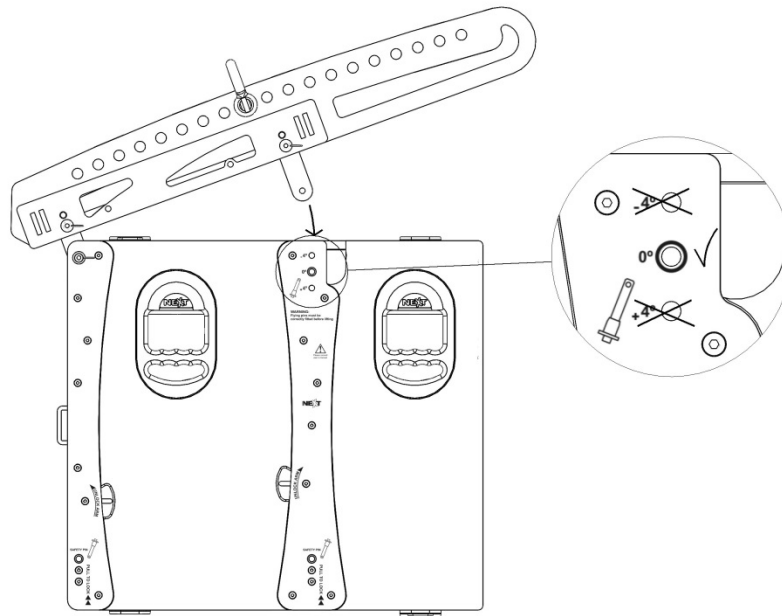
Now let's review a 6-unit LAs118v2 suspended system rigging procedure.



1. - Start by preparing the rigging structure to be positioned on the LAs118v2. Take the swing arms out of the parking positions and rotate them until they are aligned with the safety lock insert and insert a locking pin in each of the four swing arms.

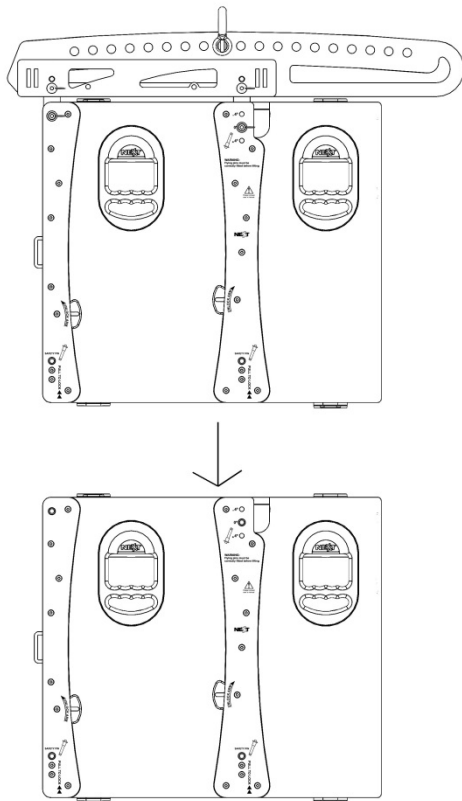


2. – Insert the front swing arms of the structure in the front LAs118v2 channels as shown in the picture, and insert another 2 locking pins, one in each swing arm.



3. – Now rotate the structure until the rear swing arm aligns with the 0° hole in the LAs118v2. Insert a locking pin in the designated hole.

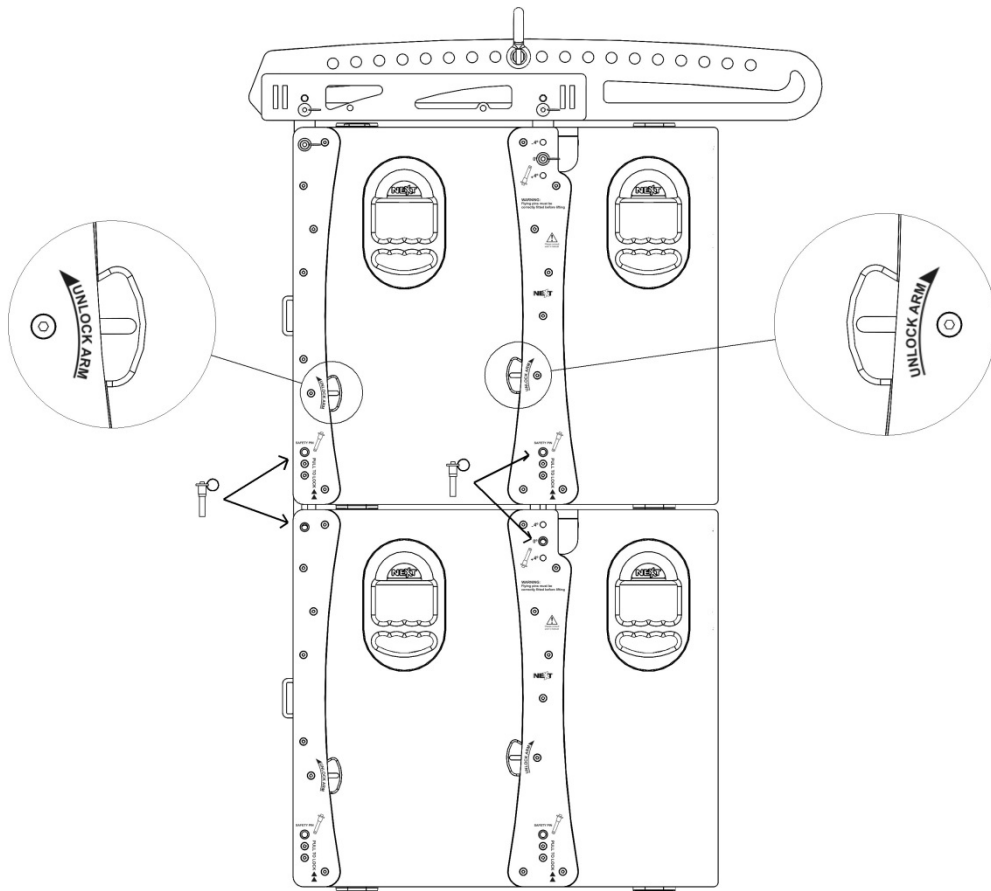
Note that the -4° and 4° holes are marked with an X. These holes are to be used **ONLY** with the LA122v2 when in a ground stack to define initial splay as explained later in this manual in the “GROUND STACKING LAs118v2” chapter.



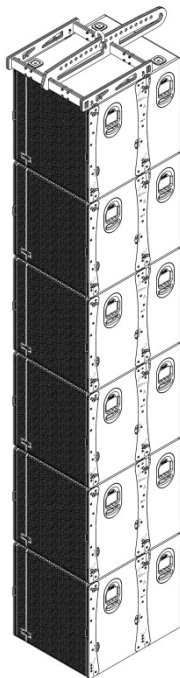
4. – Lift the assembly with the help of the hoist system being used, until another LAs118v2 can be positioned right below the assembly, and gently lower it until the LAs118v2 above fits in the LAs118v2 below. If both LAs118v2 are correctly aligned and engaged, one will not rotate over the other more than the allowance in the universal feet.

# NEXT LAs118v2 - User Manual

www.next-proaudio.com

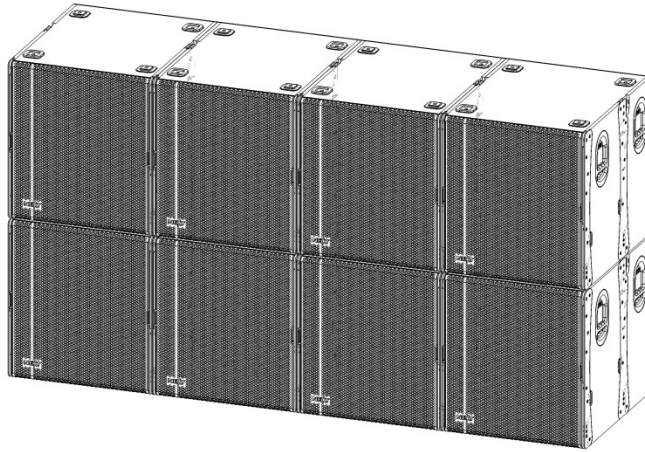


5. – With the LAs118v2 properly aligned, use the handles shown in the image to unlock the sliding arms of the LAs118v2 on the top. By gravity, they'll insert in the channels of the bottom LAs118v2. Insert the locking pins as shown in the image.



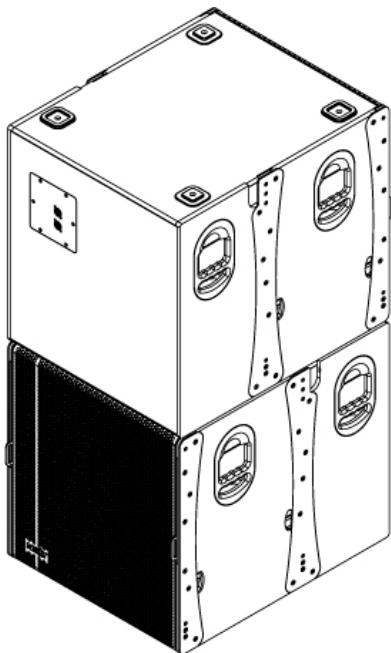
6. – Repeat steps 4 and 5 for all the other enclosures and in the end you'll have a nice rig like this one on the left.

## GROUND STACKING LAs118v2



Ground stacking of any loudspeaker enclosure is normally an intuitive process. But when talking about the LAs118v2, although it is still intuitive, there are a few things to take into consideration. The first is that when packed together like in the image above, they shouldn't be placed touching each other. There should be a gap of at least 2 or 3 mm between vertical stacks to avoid noises due to contact induced by vibration. Another important piece of knowledge is that when ground stacking you should not connect them using the rigging frame structures. The locking mechanism on the sliding arms is not just to keep the arms in place. It also produces a dampening effect on the metal parts and helps to greatly reduce vibration noises created due to the allowance on the sliding arms.

## CARDIOID PATTERN SETUP

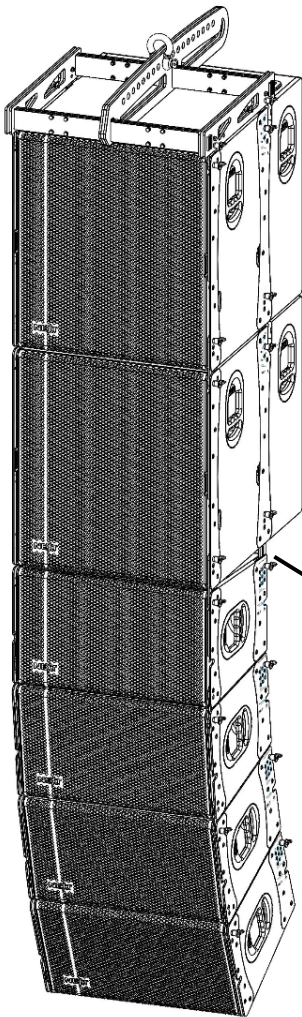


A cardioid response stack is a configuration where there is a direct radiating element and an indirect radiating element, placed and configured in a way that while increasing SPL in the venue, decreases it in the stage area through destructive interference. It is becoming a very popular configuration, because when properly configured, it almost completely eliminates the bass at the back of the system. The development of the LAs118v2 had this principle in mind from the beginning, and has a few features that make it a perfect choice for this purpose. Among those, are the universal feet that allow engagement of the LAs118v2 both in traditional and cardioid stacks.

The preset must be adjusted to have the proper cardioid behaviour.

## LAs118v2 and LA122v2

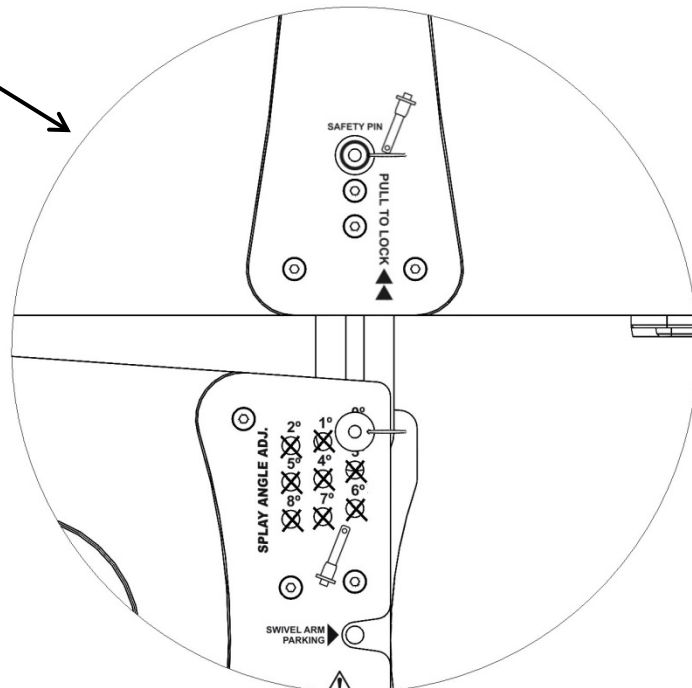
It has been told earlier in this manual that LAs118v2 was designed to be part of the LA122v2 system. The purpose of this is to allow for greater versatility of both systems. They can be suspended in the same rigging frame, and engage each other without the need of any other accessories than the locking pins. In this manual we will focus only on the interaction between the two without going much into detail about the LA122v2. For more information about the NEXT-proaudio LA122v2/ LA122Wv2 please consult its user manual or visit [www.next-proaudio.com](http://www.next-proaudio.com).



### SUSPENDING LAs118v2 with LA122v2

There have to be some considerations when rigging the LAs118v2 and the LA122v2 together. The first and one of the most important is that the LAs118v2 have always to be on top. For example, in a “2+4” system, you start with the rigging procedure described in this manual for the 2 x LAs118v2 and then continue with the rigging procedure described in the LA122v2 manual for the 4 x LA122v2 Line Array element.

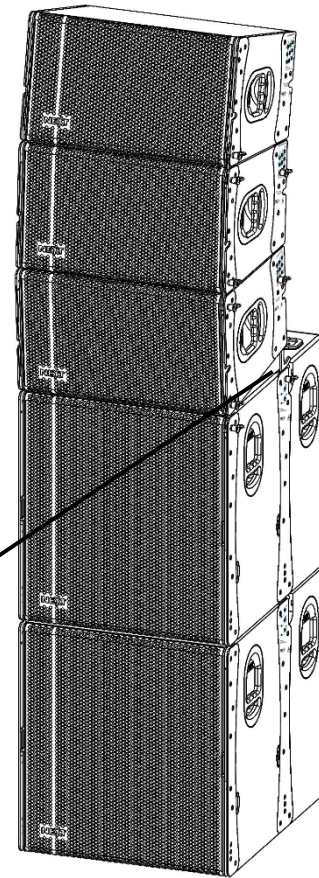
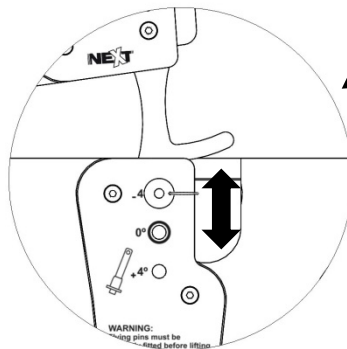
Another thing you need to know, is that between the LAs118v2 and the LA122v2, only one splay position is possible, the 0° (in the LA122v2), due to physical limitations in the sliding arm system of the LAs118v2. On the bottom of the array (**always** after a LA122v2 enclosure) is also possible to rig the LA122Wv2 speaker.



## GROUND STACKING LAs118v2 with LA122v2/LA122Wv2

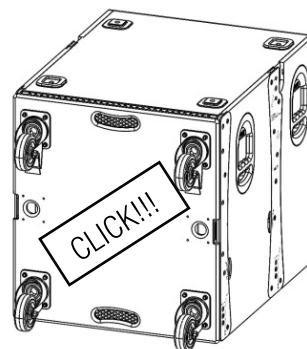
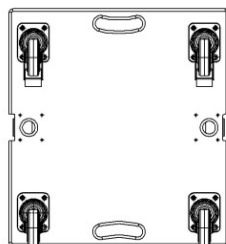
The NEXT-proaudio LAs118v2 was designed to be ground stacked with LA122(W)v2 directly, without the need of any accessories. We can safely stack up to 4 x LA122(W)v2 on top of a LAs118v2 provided the ground is levelled. If this is not the case, additional measures have to be taken to secure the stack.

There are 3 splay angles between the LAs118v2 and LA122v2. These are 4°, 0° and -4°. To make the engagement between the LAs118v2 and LA122v2, apart from the handles already included on the swivel arms of the LA122v2, a cut was included in the LAs118v2's rigging panels, so that the handle in the LA122v2 rear swivel arm is always visible.



## LAs118v2/LAs118A DOLLY

Due to allowances on wheel mechanisms, which are needed for the wheel proper functioning, loud noises are produced when subwoofers are playing. Because of this and other factors, wheels are not included by default on the NEXT-proaudio LAs118 v2, instead, NEXT-proaudio has developed a dolly (optional) that is used to aid in the transportation of the LAs118v2 and LAs118A (The dolly can be used by both models). To apply the dolly simply push it against the front grill until the “click” sound. To detach it, press the plastic pieces on the sides and pull the dolly towards you.



## 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.
- Loudspeaker not connected or phase reversed following a previous inspection, test or repair.

## 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.

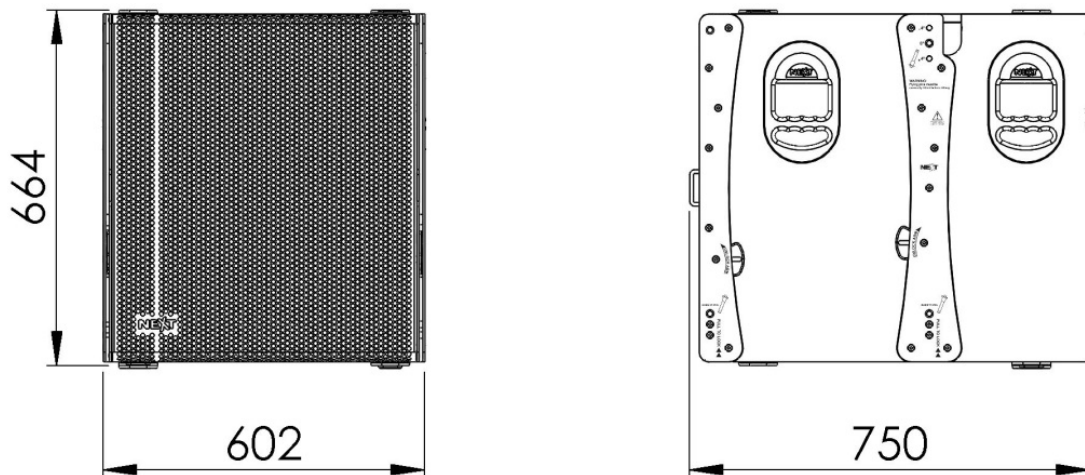
NEXT-proaudio cannot be held responsible for defects caused by unauthorized modifications, improper use, negligence, exposure to inclement weather conditions, act of God or accident, or any use of this product that is not in accordance with the instructions provided by this manual and/or NEXT-proaudio.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



## TECHNICAL SPECIFICATIONS

NEXT LAs118v2 TECHNICAL SPECIFICATIONS	
Speaker Type	Passive Hybrid-Horn Subwoofer
Frequency Response (-6dB)	38Hz – 160Hz
Low Frequency Extension (-10dB)	32Hz
Calculated Max. SPL (Cont/Peak)	133.8dB / 136.8dB (Half-Space)
Components	1 x 18" / 4" Voice Coil Custom B&C Speaker
Program Power	2400W
Nominal Impedance	8Ω
Sensitivity (1W/1m)	100dB (Half-Space)
Recommended HPF	36Hz – 18dB/oct Butterworth
Recommended LPF	80Hz to 180Hz – 24dB/oct Linkwitz-Riley
Construction	18mm Multi-laminate Birch Plywood, Screwed and Glued
Finish	Black Textured Scratch Resistant Paint
Grille	Steel, Black Finish (also available in other colours)
Dimensions (W x H x D)	602 x 664 x 750 mm
Net Weight	66 kg
Shipping Weight	68.5 kg

## Dimensions



**NOTES**

A large rounded rectangular frame with a black border, containing 25 horizontal lines for taking notes. The lines are evenly spaced and extend across most of the width of the frame.

## CONTACTS

In case of any doubts or need of information just:

**Write us:**

NEXT-PROAUDIO  
Rua da Venda Nova, 295  
4435-469 Rio-Tinto  
Portugal

**Contact us:**

Tel. +351 22 489 00 75  
Fax. +351 22 480 50 97

**Send an e-mail:**

[info@next-proaudio.com](mailto:info@next-proaudio.com)

**Search our website:**

[www.next-proaudio.com](http://www.next-proaudio.com)

**Follow us on:**

**Facebook:** [facebook.com/nextproaudio](https://facebook.com/nextproaudio)

**Instagram:** [instagram.com/nextproaudio](https://instagram.com/nextproaudio)

**LinkedIn:** [linkedin.com/company/next-proaudio](https://linkedin.com/company/next-proaudio)

**Twitter:** [twitter.com/next\\_proaudio](https://twitter.com/next_proaudio)

**Youtube:** [youtube.com/user/NEXTmanufacturer](https://youtube.com/user/NEXTmanufacturer)