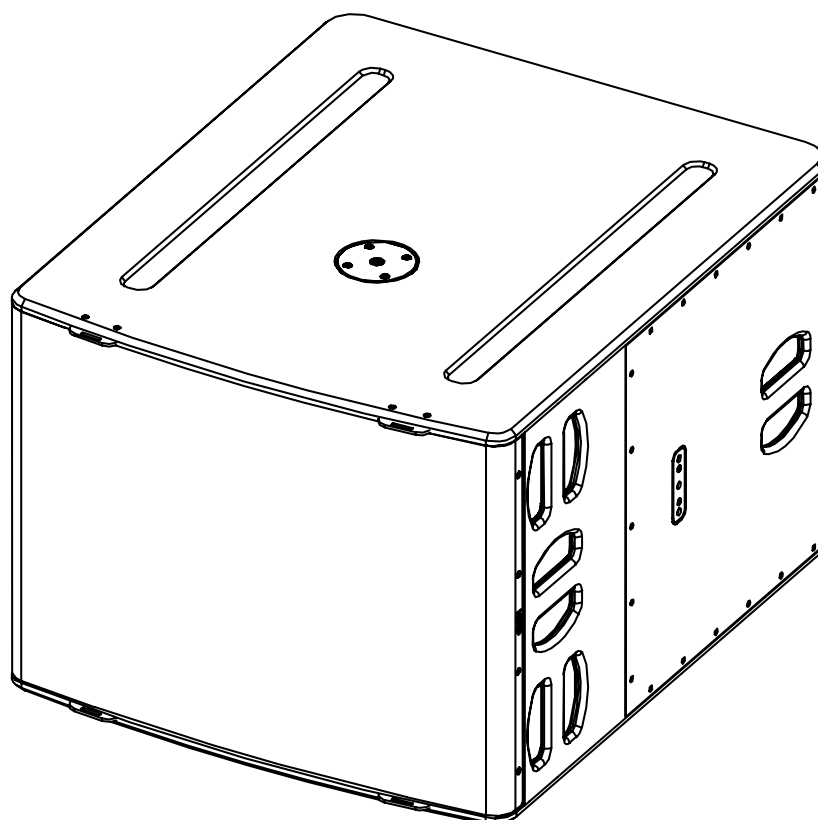


L20



User manual

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WARNINGS

PRECAUTIONS

Do not open the speaker, do not try to disassemble it neither to modify it in any way. The system doesn't include any user-repairable part.

If the system seems to be malfunctioning or damaged, stop using it at once and have it repaired by a NEXO qualified technician.

Do not expose the system directly to the sun or to the rain, do not immerse it into fluids, do not place objects filled with liquid on the system. If a liquid gets into the system, please have it inspected by a NEXO qualified technician.

When flying outdoor systems ensure that the system is not exposed to excessive wind or snow loads and is protected from rainfall.

In case of wind greater than 8 on Beaufort scale (72km/h – 45mph), a touring system has to be landed or an additional securing has to be implanted.

For fixed installations, wind loading has to be taken into account in accordance to the national standards

The connection should be performed by qualified technician, by ensuring that power is off.

Operating temperature with temperate climate: 0°C to +40°C (+32°F to +104°); -20°C à +60°C (-4°F to +140°F) for storage.

SAFETY INFORMATION

Read this manual before using the speaker.

Keep this manual available for further reference.

Observe all warnings and cautions.

Please check the NEXO Web site nexo-sa.com to get the most up-to-date version of this manual.

Ensure you are aware of the safety rules applying to rigging, stacking or installing on tripod or speaker stand. Failure to observe these rules may expose persons to potential wounds or even death.

Only use the system with accessories specified by NEXO.

Please always consult a NEXO-accredited technician if the installation needs architectural works and observe following precautions:

Mounting Precautions:

- Please select screws and mounting location supporting 4 times the system weight.
- Do not expose the system to excessive dust, vibrations, to extreme cold or hot temperatures, to reduce the risk of damaging components.
- Do not place the system in an unstable position: it could fall accidentally.
- If the system is used on a tripod, please ensure the tripod's specifications are adapted and that its height does not exceed 1.40m/55". Do not move the tripod with the system in position.

Connection and Powering Precautions:

- Unplug connected cables before moving the system.
- Power off the system before connecting the system.
- When switching on the installation, the amplifier must be powered last; when switching the installation off, shut off the amplifier first.
- If you work by cold temperatures, progressively raise the level to nominal value during the first minutes of use, to allow the system components to stabilize.

Please check regularly the system condition.

HIGH SOUND PRESSURE LEVELS

Exposure to very high sound pressure levels may cause permanent hearing losses. Degrees of hearing losses may be different from one person to another, but almost everybody will be affected if exposed to high sound pressure levels during a long period of time. The OSHA (Occupational Safety and Health Administration) American Agency specified the following maximal exposures:

Number of Hours	Sound Pressure Level (dBA), Slow Response
8	90
6	92
4	95
3	97
2	100
1 ½	102
1	105
½	110
¼ or less	115

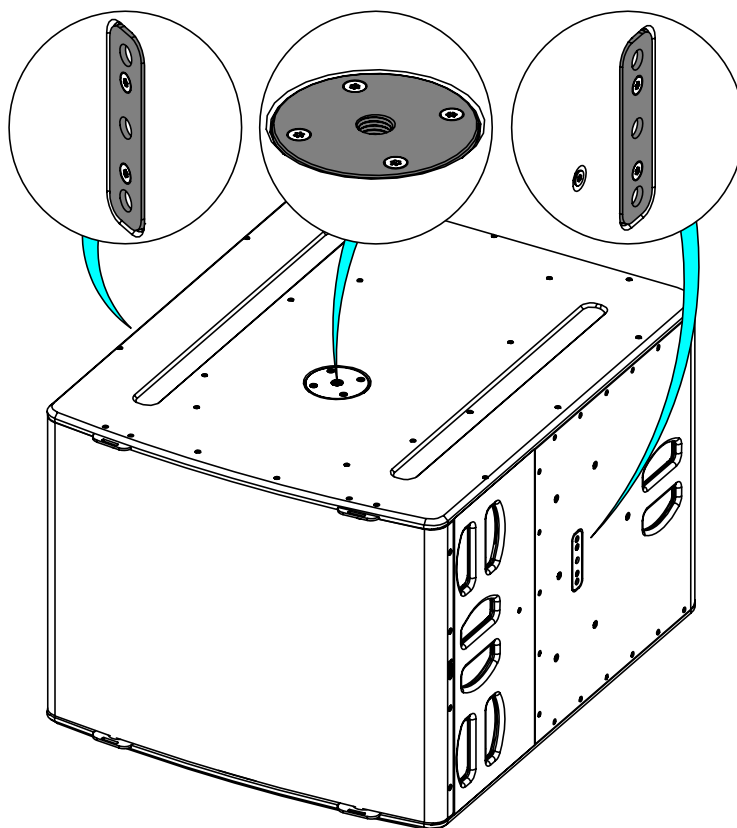
WASTE OF ELECTRIC OR ELECTRONIC EQUIPMENT



This symbol on the product or its packaging indicates that this product must not be treated as household waste. Instead, it is your responsibility to hand it over to a designated collection point for the recycling of waste electrical and electronic equipment. By ensuring your waste equipment is recycled, you will help prevent potential negative consequences for the environment and human health, which could appear if this product was not recycled. Recycling helps spare natural resources. For more information about the recycling of this product, please contact your local city office, your household waste disposal service or your reseller.

EQUIPMENT

3 locations for hanging, 1 on the top for speaker stand and on both side.



Assembly on distance rod or speaker stand

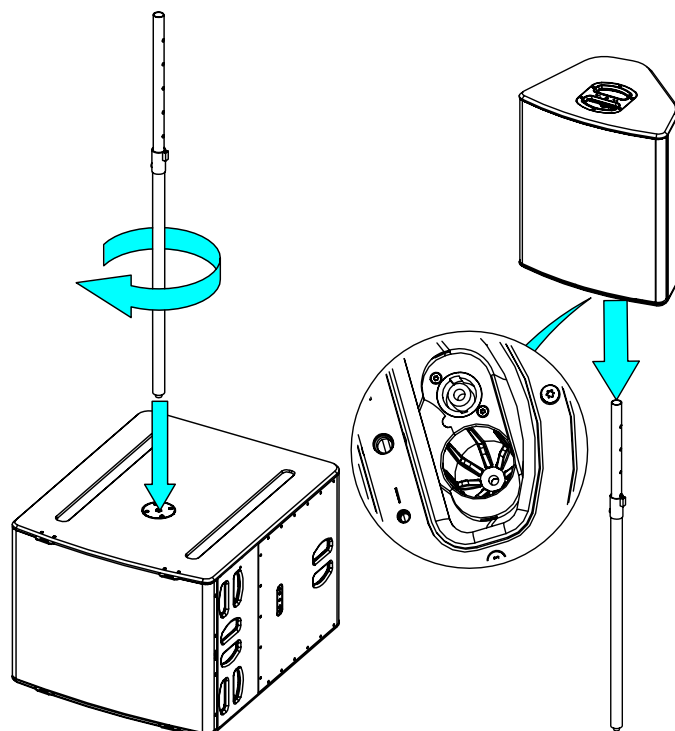
Place distance rod on the connector plate (M20) of the Sub.
Place the main cabinet on the distance rod / monitor stand (diameter of 35mm),

IMPORTANT

Speaker stand must be rated for the weight of the main cabinet.
Speaker stand must always be installed on a horizontal surface.
Stand height and footprint must be defined to prevent assembly from collapsing.

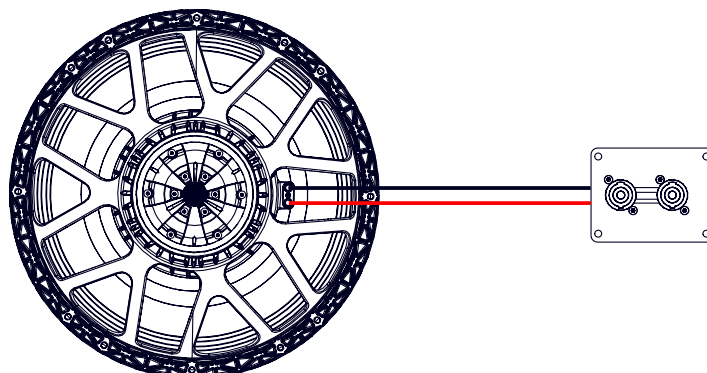
Ensure that audience is not allowed within a safety area which radius is equal or higher than assembly height.

Test steadiness of the assembly by pushing in all directions.



DESCRIPTION

- The L20 is a compact and powerful subwoofer, ideally complementing PLUS serie speakers
- The L20 subwoofer is equipped with two Speakon NL4 connectors, with parallel-wired pins,
- L20 uses the 1+/1- pins, (2+/2- through).



→ Amplification

- The L20 subwoofer must be used with a NEXO processor to handle EQ, phase alignment, crossover and excursion/thermal protection for the system loudspeaker.
- The following table shows the number of L20 subwoofers usable with each solution.

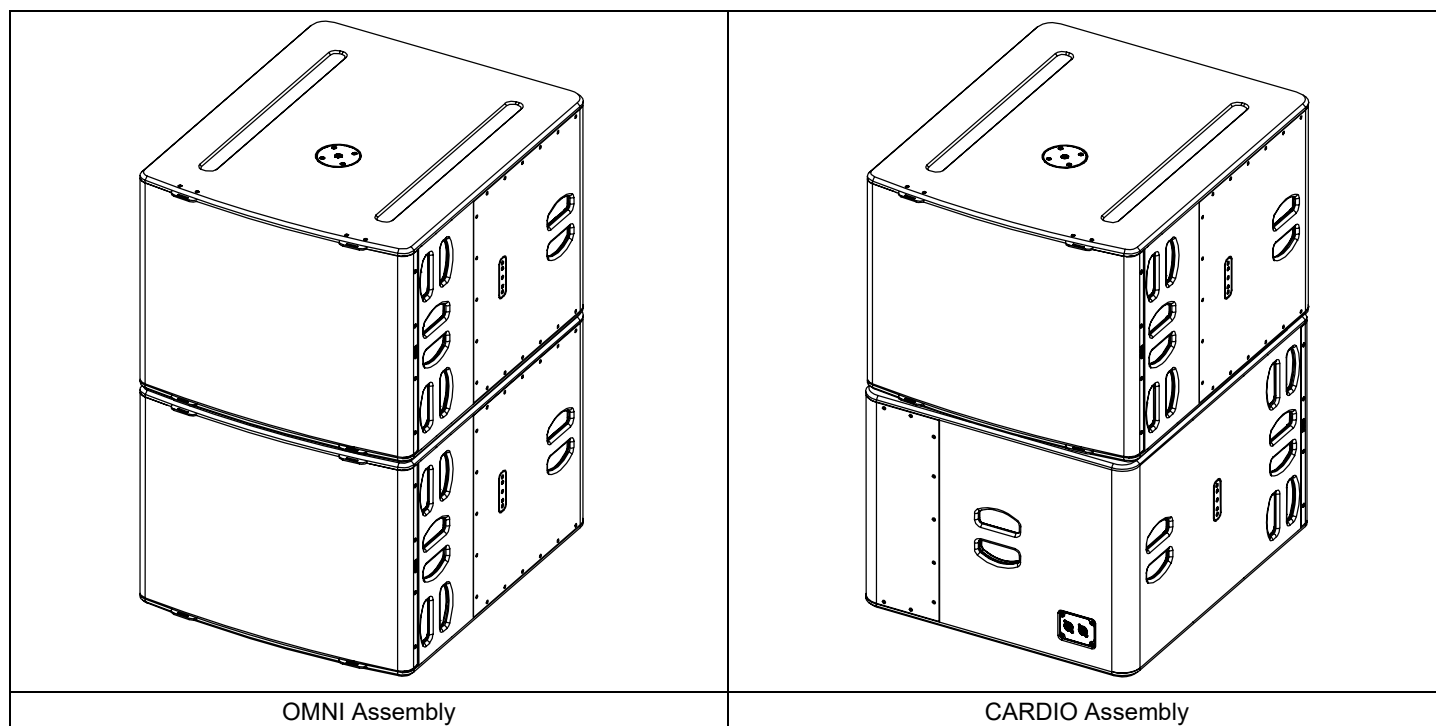
	SPEAKER TYPE	NXAMP4X1mk2	NXAMP4X2mk2	NXAMP4X4mk2
P18	Passive	Up to 2 per bridged channels	1 per channel	Up to 3 per channel
L20	Sub	1 per channel (bridged)	1 per channel (bridged)	Up to 2 per channel

	SPEAKER TYPE	NXAMP4X1mk2	NXAMP4X2mk2	NXAMP4X4mk2
B218	Bass	1 per channel (bridged)	1 per channel (bridged)	Up to 2 per channel
L20	Sub	1 per channel (bridged)	1 per channel (bridged)	Up to 2 per channel
M210	2 ways active	Up to 2 per amplifier	1 on 2 channels	Up to 2 on 2 channels

Please consult nexo-sa.com for NEXO TD Controllers firmware information.

There are two setting range for surrounding speaker L20:

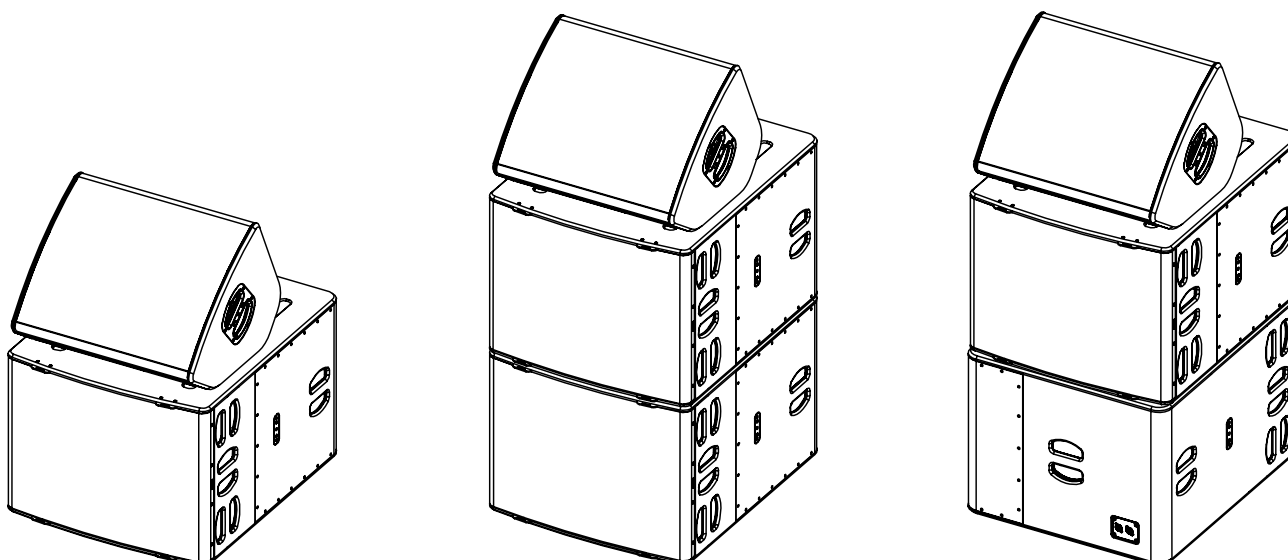
- “OMNI” Setups; For a traditional use of the subwoofer in omnidirectional radiation (require at least one subwoofer and a channel of amplifier).
 - Omnidirectional Main setup, with low-pass at 60, 85 or 120 Hz.
 - Omnidirectional Monitor setup, with low-pass at 60, 85 or 120 Hz.
- “CARDIO” Setups; For a directional use (cardioid) of subwoofers (require at least two subwoofers and two channels of amplifier).
 - Cardioid back and front setups, with low-pass at 60, 85 or 120 Hz.
 - Setup « FR » (Front) for the subwoofer pointed at the audience.
 - Setup « BA » (Back) for the subwoofer turned around.
 - The ideal ratio for a directional use is 2x L20 in CARDIO FRONT mode on top of 1x Reversed L20 in CARDIO BACK mode. From 1:1 to 3:1 ratio can be used.



Among all DSP Presets available for the L20 subwoofer in the amplifier platform NEXO NXAMPmk2, only two are compatible with the NEXO Alpha+ system:

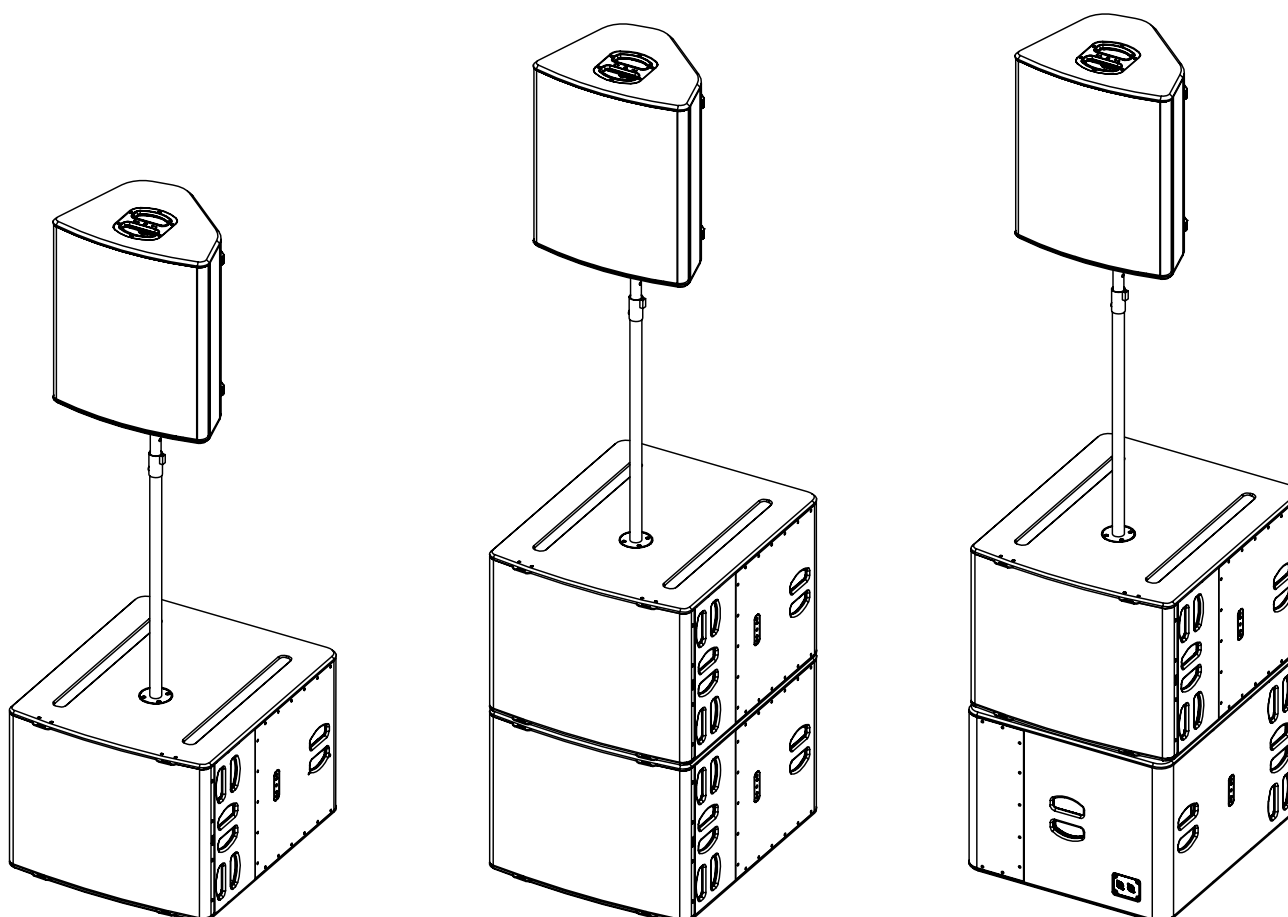
- Preset name '**L20 Alpha+ Fr/Om**', crossover 28-85 Hz, for Front/Omnidirectional operation.
- Preset name '**L20 Alpha+ Back**', crossover 28-85 Hz, for Cardioid operation.

➤ **With P18 in stage monitor**



Stage monitor applications with Subs (OMNI or CARDIO modes)

➤ **With P18 in front of house**



Front of house applications with Subs (OMNI or CARDIO modes)

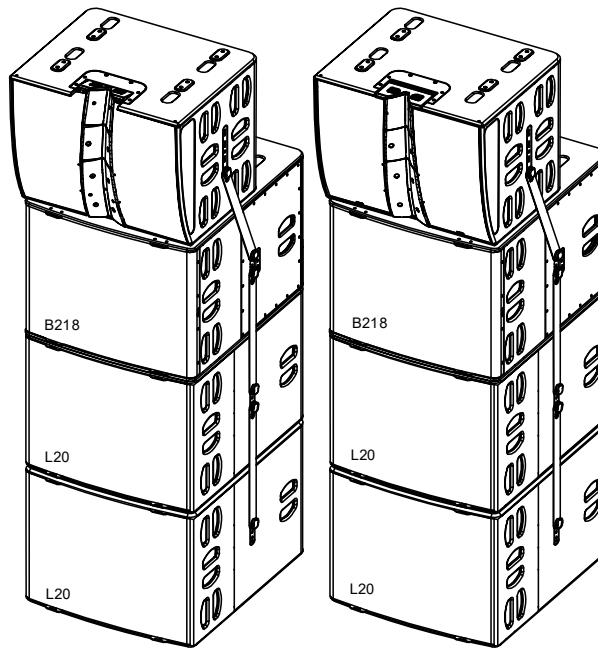
PRESET

The Alpha+ M210 must always be used with its companion bass module the B218
(ratio :1x B218 for 1x M210)

2x M210 Main modules can also be coupled upside down. In that case the 2x B218 should be immediately next to the 2x M210 modules or just below depending on stack height need.

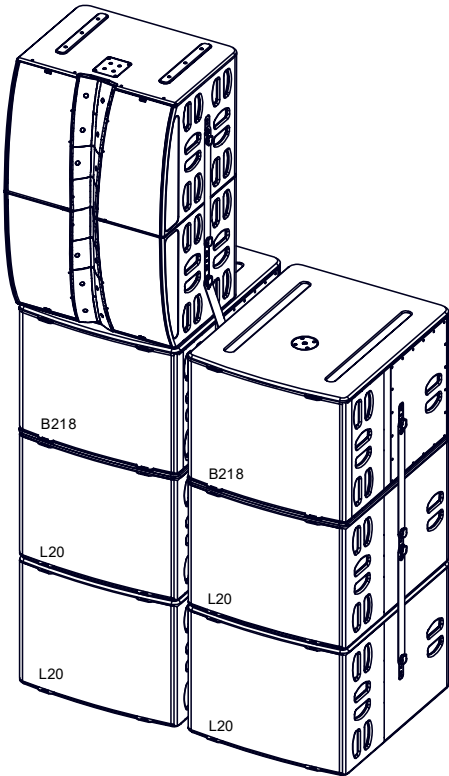
➤ STACK 1 Column:

1 or 2x L20 / 1x B218 / 1x M210 (Narrow – Wide)

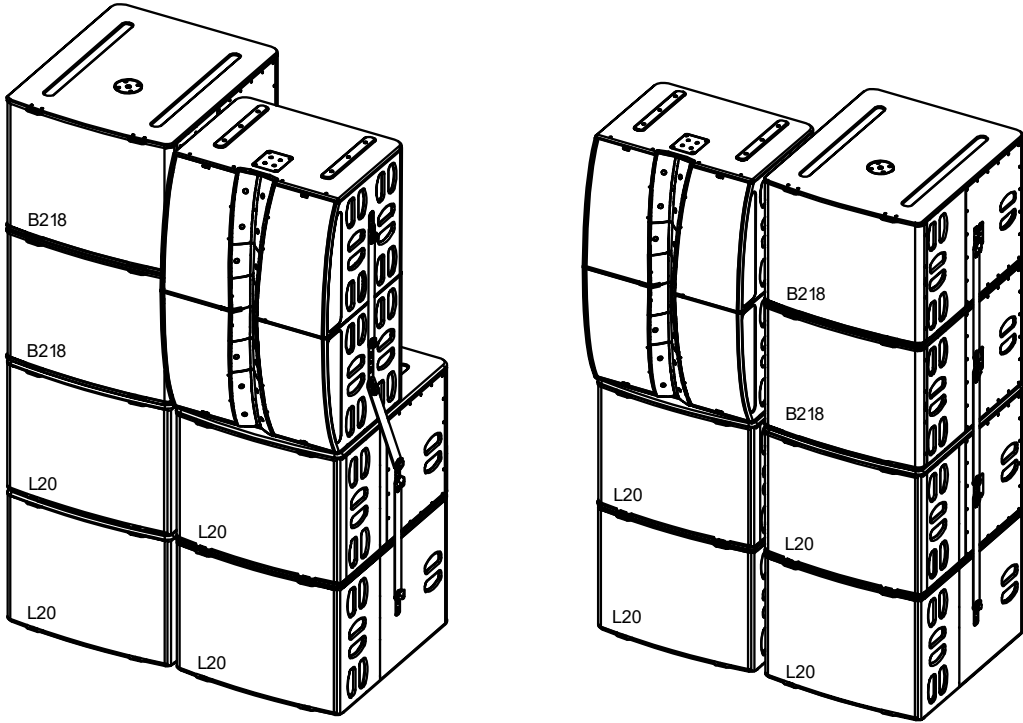


➤ STACK 2 Columns

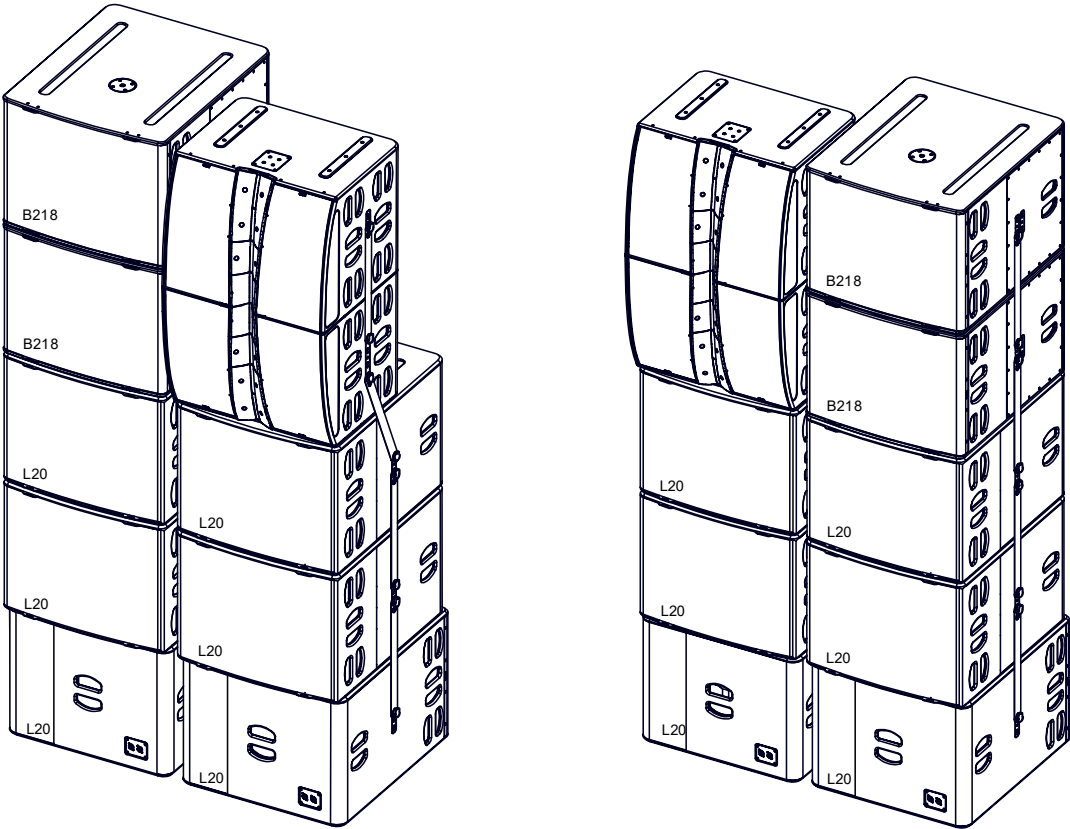
4x L20 / 2x B218 / 2x M210 (Narrow)



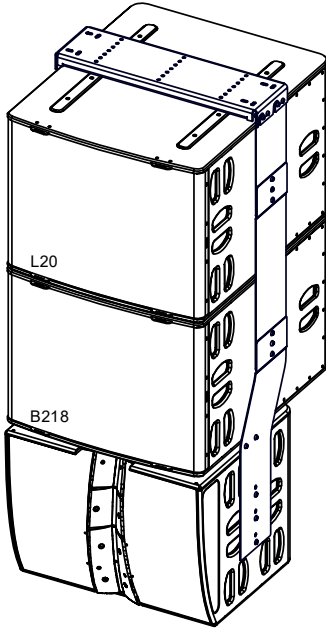
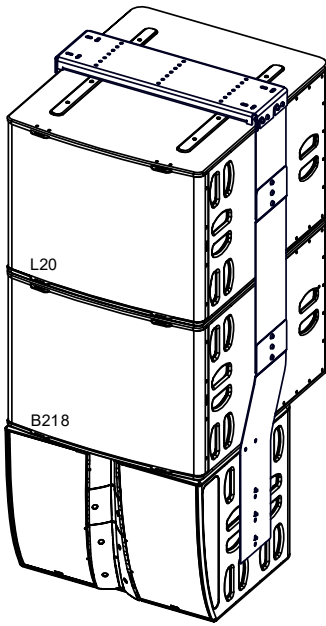
4x L20 / 2x B218 / 2x M210 (Narrow)



6x L20 / 2x B218 / 2x M210 (Narrow)



➤ **FLOWN 4: 1x L20 + 1x B218 or 2x B218 / 1x M210 (Narrow – Wide)**



WARNINGS

All L20 accessories are specifically rated in agreement with structural computations.

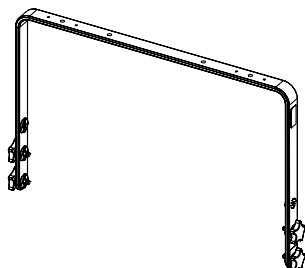
Never use other accessories – including push-pins – when assembling L20 cabinets than the ones provided by NEXO: NEXO will decline responsibility over the entire L20 accessory range if any component is purchased from different supplier.

All L20 accessories have been designed so that cabinet are arrayed vertically.

PROHIBITED: L20 below L20 or PLUS serie below L20 without dedicated accessory

VNU-HBRK01 (LNU-HBRK20)

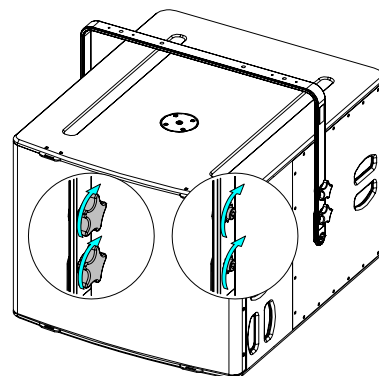
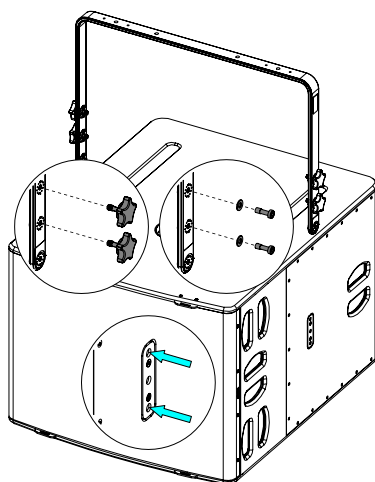
Horizontal Cradle, use with L20 CLADAPT.



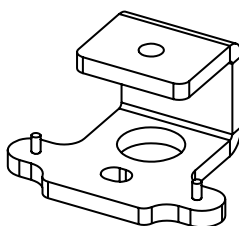
Place VNU-HBRK01 on L20, use only fasteners provided.

Tight properly.

Refer to the Product Data Sheet.

**VNI-CLADAPT (PNI-CLADAPT)**

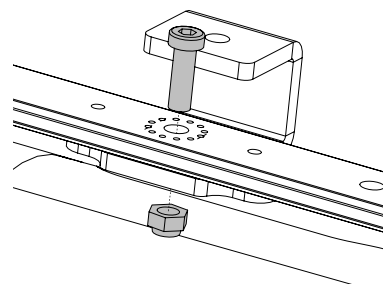
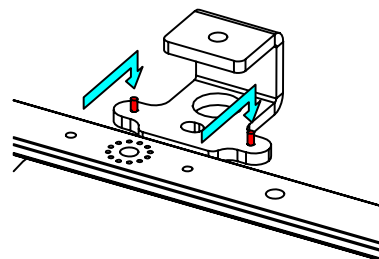
Ceiling adapter, use with VNU-HBRK01.



Screw CLADAPT to the ceiling (fasteners not provided).

Place the assembly on CLADAPT, use the 2 guides. Tight with the fasteners provided with CLADAPT.

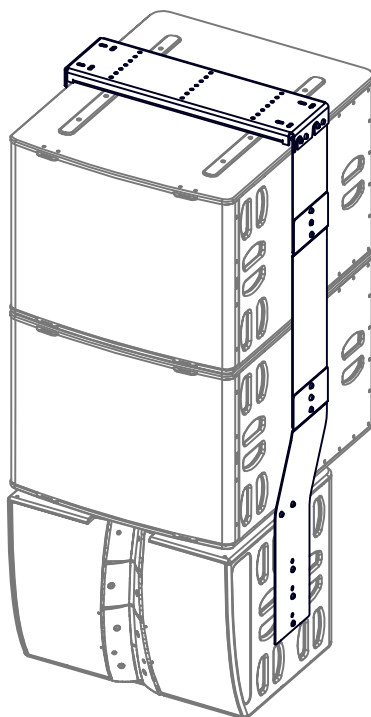
Refer to the Product Data Sheet.



ANI-LK03

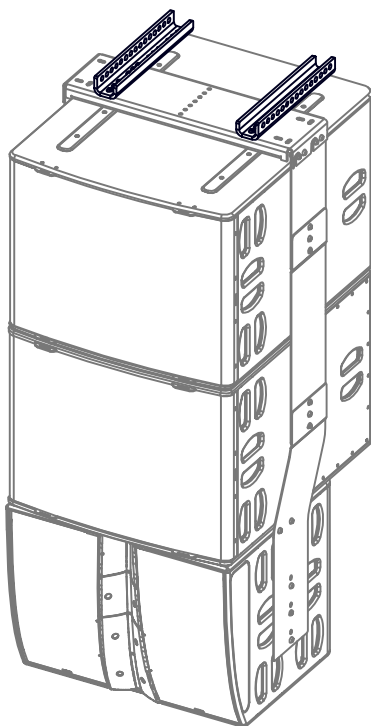
Rigging System M210 under B218/L20

Refer to the Product Data Sheet.

**ANI-EXB01**

Extensions bars for ANI-LKxx

Refer to the Product Data Sheet.



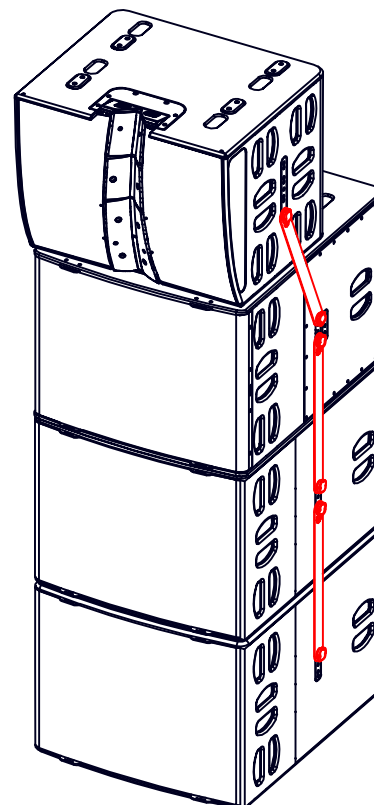
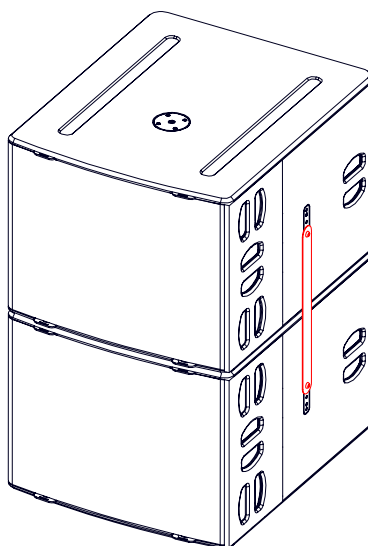
ACCESSORIES

VNI-CPL03

VNT-CPL04

Link bars

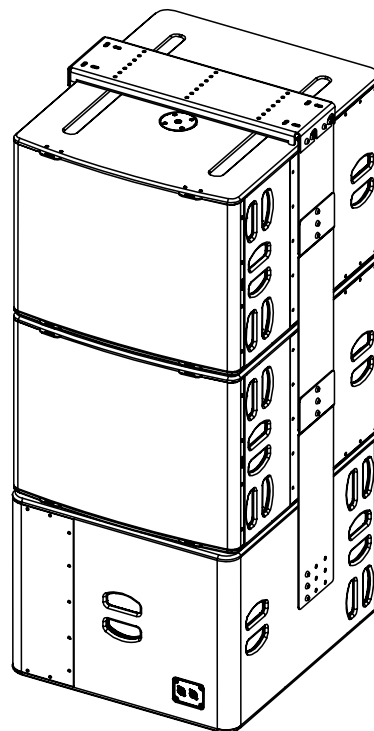
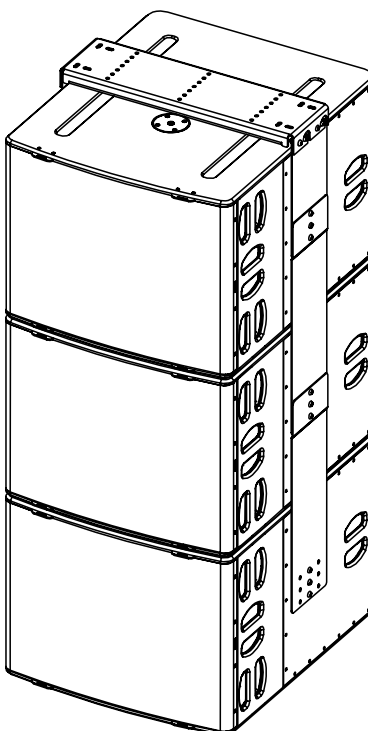
Refer to the Product Data Sheet.



LNI-3L20

L20 Rigging system (up to 3; Cardio or Omni)

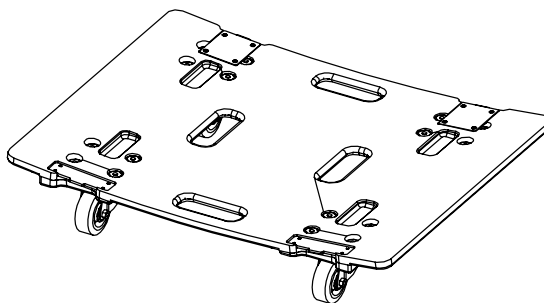
Refer to the Product Data Sheet.



**VNT-WB01 (LNT
-WB20)**

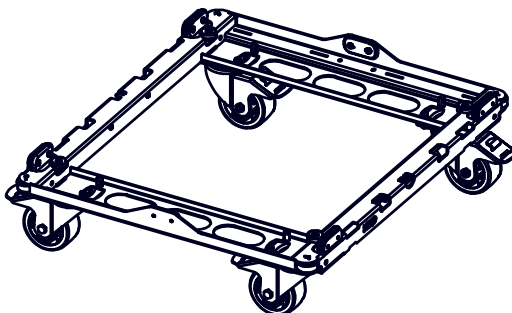
Wheelboard

Refer to the Product Data Sheet.

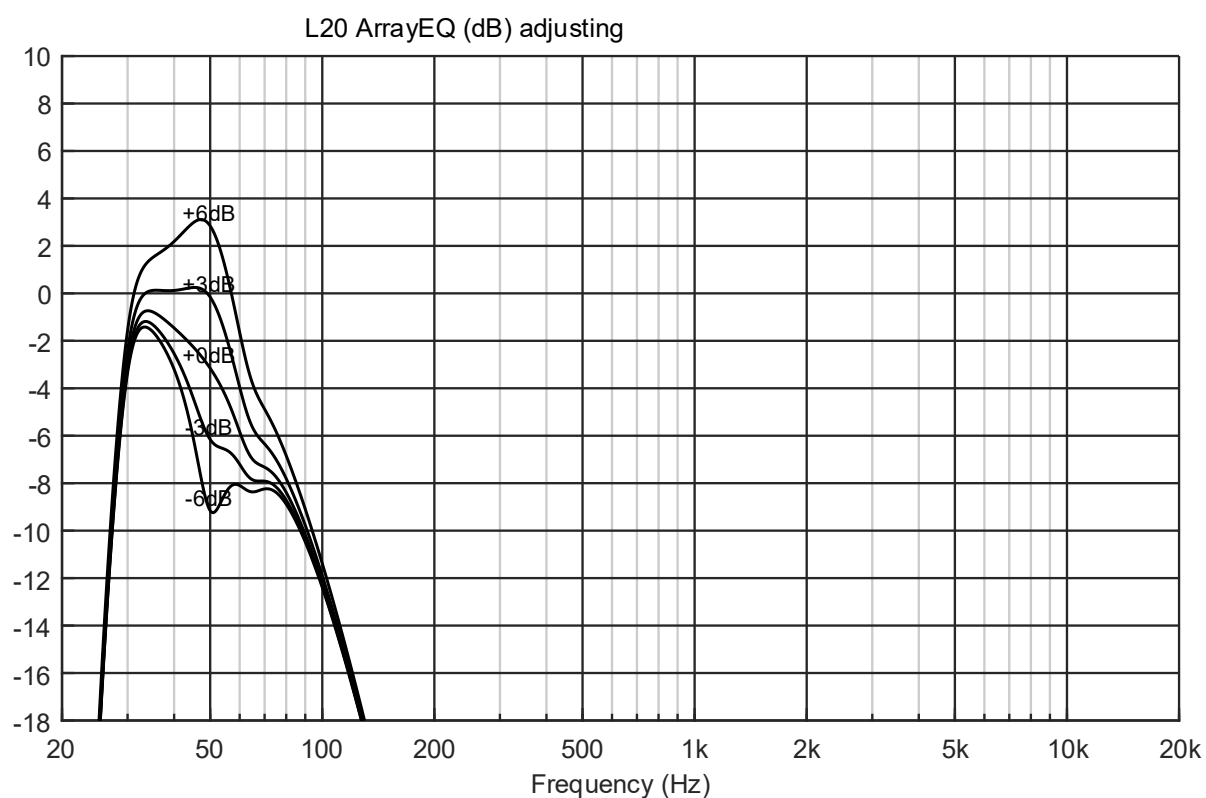
**VNT-DOLLY01**

Dolly for 2 or 3 L20

Refer to the Product Data Sheet.

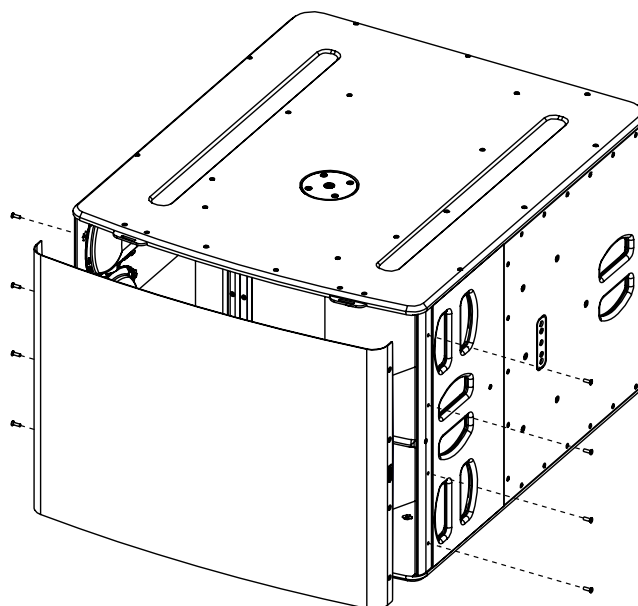
**LNT-COV20: COVER FOR L20 ON VNT-WB01****VNT-COV02: COVER FOR 2X L20 ON VNT-DOLLY01****VNT-COV03: COVER FOR 3X L20 ON VNT-DOLLY01**

The ArrayEQ allows to adjust the system frequency response in its lower range
(see curves below, with different ArrayEq values):



MAINTENANCE

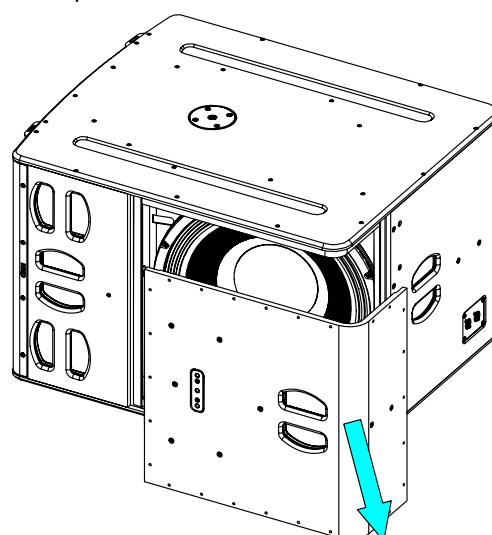
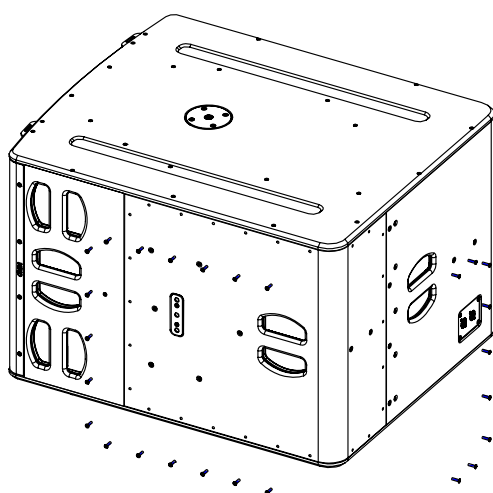
Grille Changing: Remove 8 screws



21" Driver

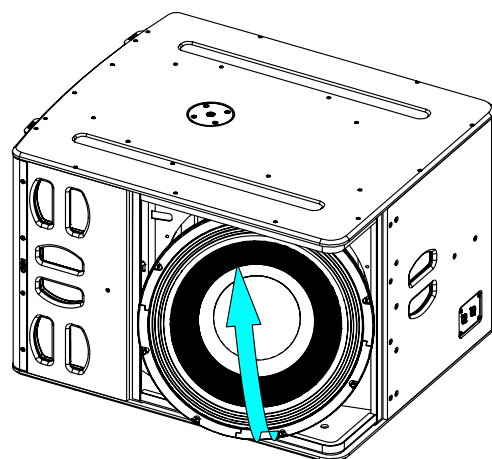
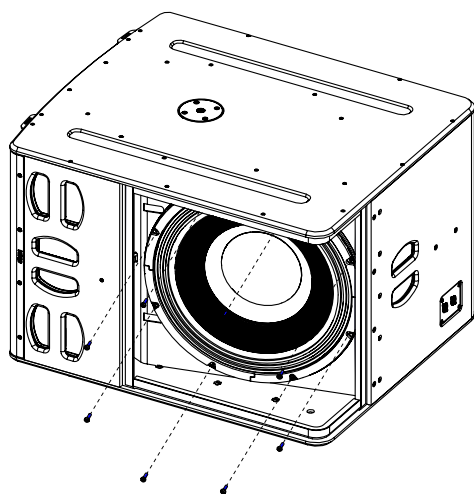
Remove 26 screws

Remove the trap



Remove 8 screws.

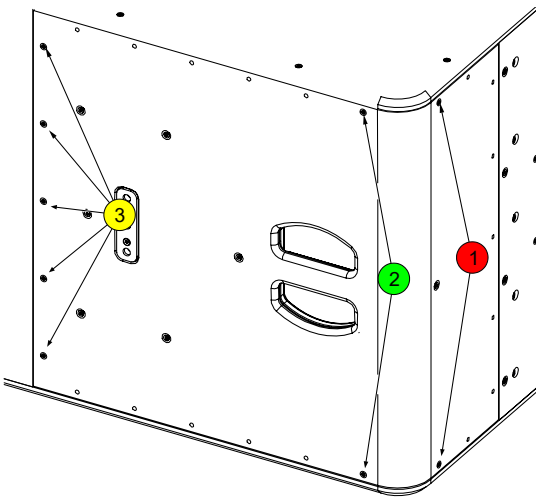
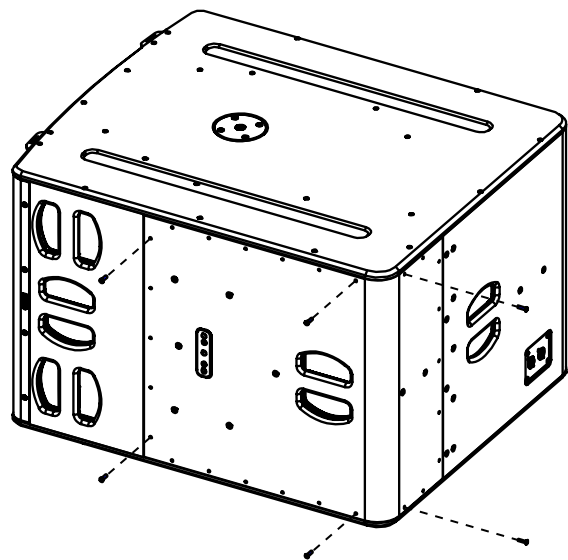
Remove the driver.



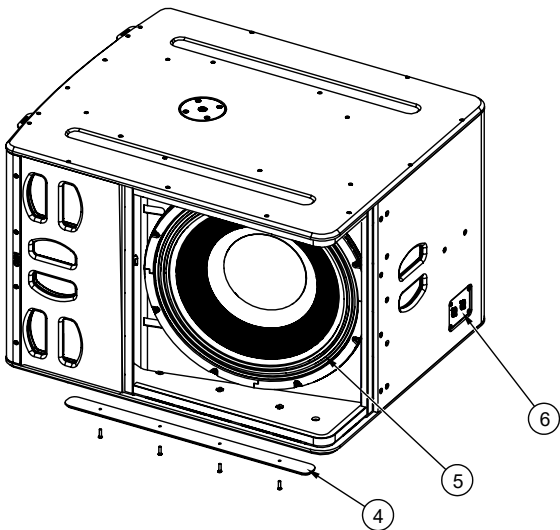
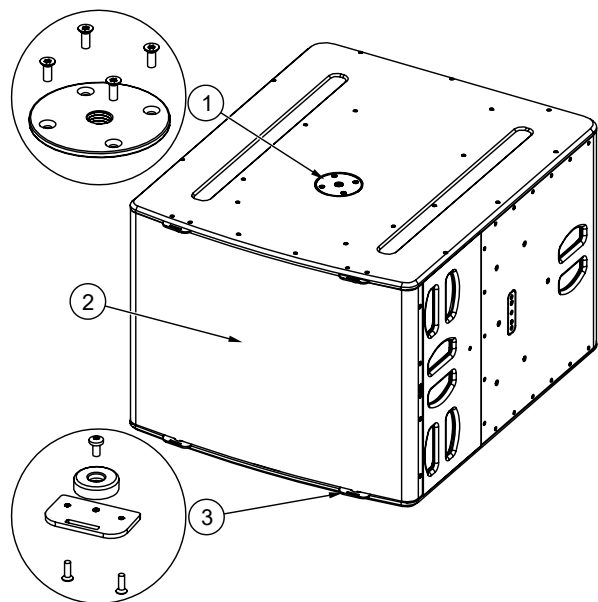
MAINTENANCE

Place 6 screws.
Tightening torque: 3.0 Nm (Thread Locker: Loctite 242)

Follow the sequence below to tight the screw.Place and tight the 12 others screws.



Spare parts



MARK	QUANTITY	REFERENCE	DESIGNATION
1	1	05DOUILM20N	Connector Plate M20 Black (with fasteners)
	1	05DOUILM20W	Connector Plate M20 White (with fasteners)
2	1	05L20UA	Complete grille Black (with fasteners)
	1	05L20UA-PW	Complete grille White (with fasteners)
3	4	05AMPLAVER02	Wheelboard attachment Black (with fasteners)
	4	05AMPLAVER02-PW	Wheelboard attachment White (with fasteners)
4	2	05PATIN01	Rubber Skid Black (with fasteners)
	2	05PATIN01-PW	Rubber Skid White (with fasteners)
5	1	05HPB20-4	HP 20" BASS NEODYNIUM 4 Ohms QUAD 4.5" VOICE COIL
	1	05HPB20-4R/K	HPB20-4 RECONE KIT
6	1	05CNX02	Connection plate Black without lexan (with fasteners)
	1	05CNX02-PW	Connection plate White without lexan (with fasteners)
6a	1	05LEXCNX-L20	Lexan CNX L20 Black
	1	05LEXCNX-L20PW	Lexan CNX L20 White
6b	2	05CNXNL4MDV-1	Speakon NL4 MDV1

TECHNICAL SPECIFICATIONS

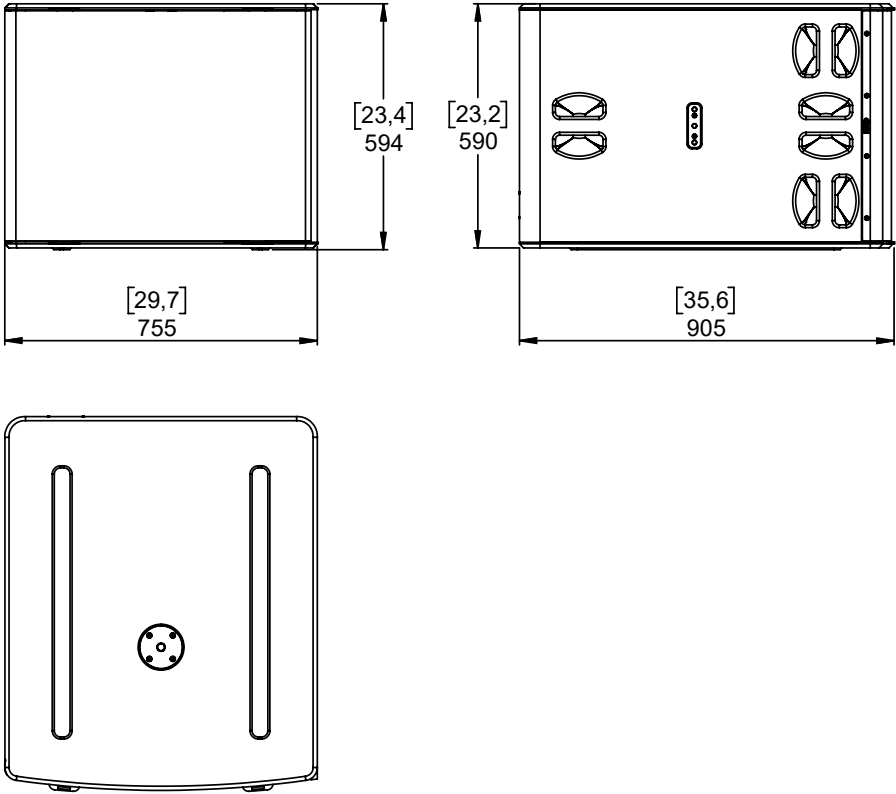
L20 WITH NEXO ELECTRONICS

Model	L20
Frequency range (±6dB)	28Hz – 120Hz
Peak SPL Level (1m)	141 dB Peak
Operating voltage	80 Vrms (180 Vpeak)
Crossover Frequency	60 Hz; 85Hz; 120Hz
Nominal Impedance	4Ω

SPECIFICATIONS

Model	L20
Components	1x 20" – 4 ohms – Long excursion – Neodymium driver
Material	Baltic birch / Poplar plywood
Finish	Black or white structural paint
Front finish	Magnelis® steel front grille
Fittings	Handles on both sides Threated inserts on both sides for connection of mounting accessories Stand fitting M20
Connector	2x NL4, 4 poles connectors
Weight	59 kg / 130 lb

Dimensions



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