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User's manual

N6P/8

N6P/16

N26P/8

N26P/16

N12P

N12PR

N15P

N15PR

NITID
#purelynitid

October 2019

Amate Audio S.L.

EXPORT & CUSTOMER SERVICE
Perpinyà, 25 · Polígon Industrial Nord
08226 Terrassa · Barcelona – SPAIN
T. +34 93 735 65 65
export@amateaudio.com

R&D, FACTORY AND MANAGEMENT
Violinista Vellsolà, 18
08222 Terrassa · Barcelona – SPAIN
T. +34 93 736 23 90
info@amateaudio.com

Safety Instructions

1. All safety instructions must be read before using this device.

2. Keep and follow these instructions

3. Heed all warnings

4. The exclamation mark in the triangle indicates internal components which if replaced can affect safety.

5. The lightning symbol within the triangle indicates the presence of dangerous uninsulated voltages.

6. Only clean the device with a dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install the device near heat sources such as radiators, heaters or other heat-emitting elements.

9. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus

10. The equipment must be repaired by qualified technical service personnel when:
A. The mains supply cable is damaged, or
B. Any object or liquid has damaged the device; or
C. The equipment does not function normally or correctly; or
D. The equipment has been exposed to the rain; or
E. The chassis is damaged

11. Disconnect the device in the case of electric storms or during long periods of disuse.

12. WARNING – To reduce the risk of fire or electric shock, do not expose this device to rain or moisture

13. The equipment shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the device.

14. For hanging and installation, use manufacturer recommended accessories only.

1. INTRODUCTION

1.1. General

Amate Audio would like to thank you for your confidence in our NITID Series. We suggest you to carefully read the following instructions in order to obtain the best results in performance.

1.2. Features and presentation

N6P

- Passive acoustic system
- NL4MP Speakon input & parallel output
- 200 W program power
- Sensitivity 1 W / 1 m: 92 dB
- 1 x 6" neodymium magnet woofer with 1.5” voice coil and fibre cone
- 1" titanium diaphragm neodymium magnet tweeter
- 8Ω and 16Ω available

N26P

- Passive acoustic system
- NL4MPR Speakon input & parallel output
- 400 W program power
- Sensitivity 1 W / 1 m: 95 dB
- 2 x 6" neodymium magnet woofers with 1.5” voice coil and fibre cone
- 1" titanium diaphragm neodymium magnet tweeter
- 8Ω and 16Ω available

N12PR

- Passive acoustic system
- NL4MPR Speakon input & parallel output
- 400 W program power
- Sensitivity 1 W / 1 m: 97 dB
- 1 x 12" woofer with 2” voice coil
- 1.4" PETP diaphragm driver
- 50º to 100º (H) x 55º (V) asymmetrical dispersion horn

N12P

- Passive acoustic system
- NL4MPR Speakon input & parallel output
- 1000 W program power
- Sensitivity 1 W / 1 m: 98 dB
- 1 x 12" woofer with 3” voice coil
- 1.75" PETP diaphragm neodymium magnet driver
- 50º to 100º (H) x 55º (V) asymmetrical dispersion horn

N15PR

- Passive acoustic system
- NL4MPR Speakon input & parallel output
- 800 W program power
- Sensitivity 1 W / 1 m: 99 dB
- 1 x 15" woofer with 3” voice coil
- 1.75" PM4 diaphragm ferrite magnet driver
- 60º (H) x 50º (V) dispersion horn

N15P

- Passive acoustic system
- NL4MPR Speakon input & parallel output
- 1200 W program power
- Sensitivity 1 W / 1 m: 100 dB
- 1 x 15" neodymium magnet woofer with 3” voice coil
- 2.5" titanium diaphragm neodymium magnet driver
- 60º (H) x 50º (V) dispersion horn

2. CONNECTIONS

2.1. Connection description

A) SPEAKON: All models use two NL4MPR or NL4MP Speakon terminals and are duly prepared for a perfect connection in a parallel system. Terminal Pins +1/-1 must be always used, disregarding the +2/-2 which are not internally connected. Respect always the polarity +/-.

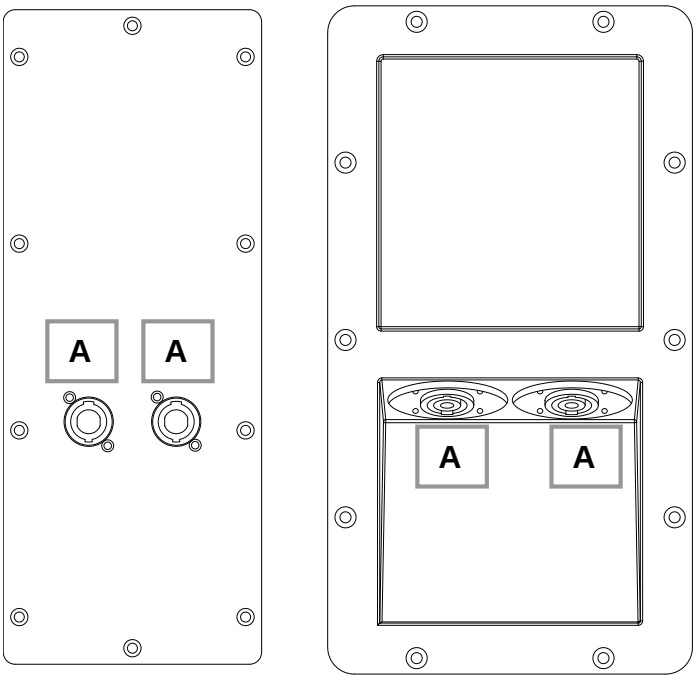


Fig. 1. NITID (passive) connectors

It is strongly recommended to use a two-conductor high quality wire, non-shielded and two-coloured. We recommend using a minimum section of 4 mm^2 for each conductor. Avoid long wire distances as they induce to important power and quality losses.

2.2. Configurations

2.2.1. Full-range stereo configuration

Connect each output of the amplifier LEFT/RIGHT to each cabinet using two independent wires.

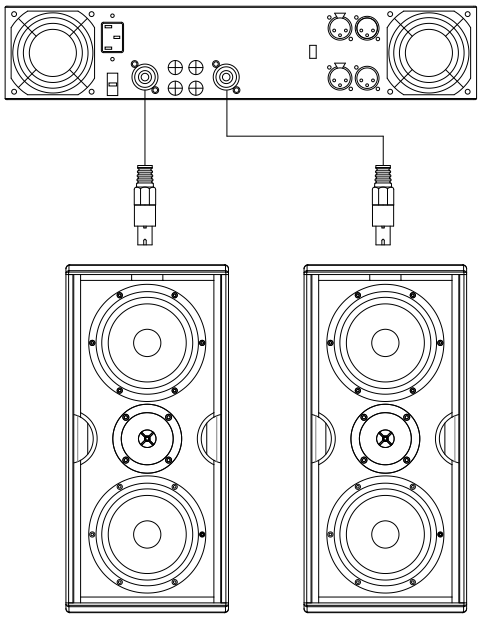


Fig. 2. Full-range stereo configuration

2.2.2. Full-Range parallel stereo configuration

Connect the amplifier's output to the Speakon's input of the first cabinet, always respecting the polarity positive +1, negative -1. Then, make a bridge from the first cabinet to the second one.

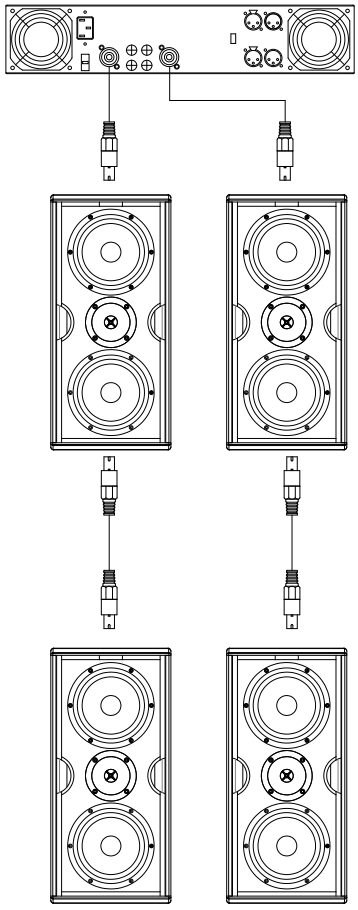


Fig. 3. Full-range parallel stereo configuration

2.2.3. Passive configuration with subwoofer

There will be times when you will be interested in reinforcing your NITID Systems with subwoofer units, in passive mode. In this case only one amplifier will be used for the whole system.

Connect one of the outputs of the amplifier to the subwoofer through a wire. Then, make a bridge from the link Speakon connector of the subwoofer to its respective mid-high top unit, always respecting the correct polarity between both systems. Do the same with the other channel.

It is also correct, if the installation requires so, to make the connection in the opposite way, that is, from the amplifier to the top cabinet and then to the subwoofer.

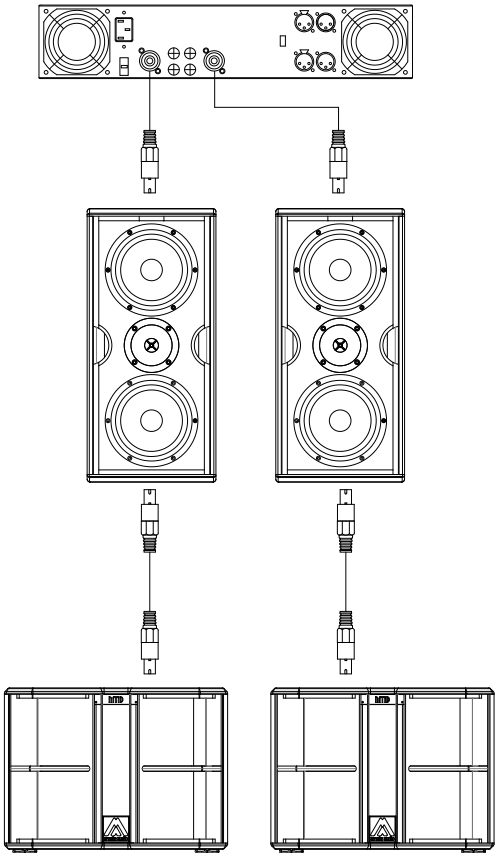


Fig. 4. Passive configuration with subwoofer

2.2.4. Bi-Amplified configuration with subwoofer

A wire with the maximum available section (4mm^2 minimum) should link the low frequencies output channel of the amplifier to one of the subwoofers. Two subwoofers can be also connected by bridge one to another, as long as the polarity is strictly respected.

Connect the other output of the amplifier to the Full-Range cabinets.

It is also possible to use only one amplifier for the low reinforcement, connecting each one of the subwoofers to the two outputs of the amplifier and consequently, connecting the Full Range cabinets to a second amplifier.

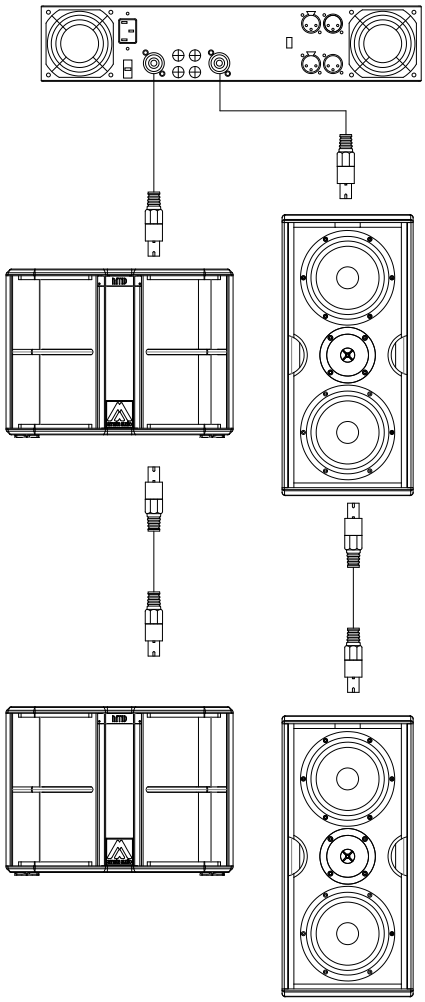


Fig. 5. Bi-amplified with subwoofer configuration (option 1)

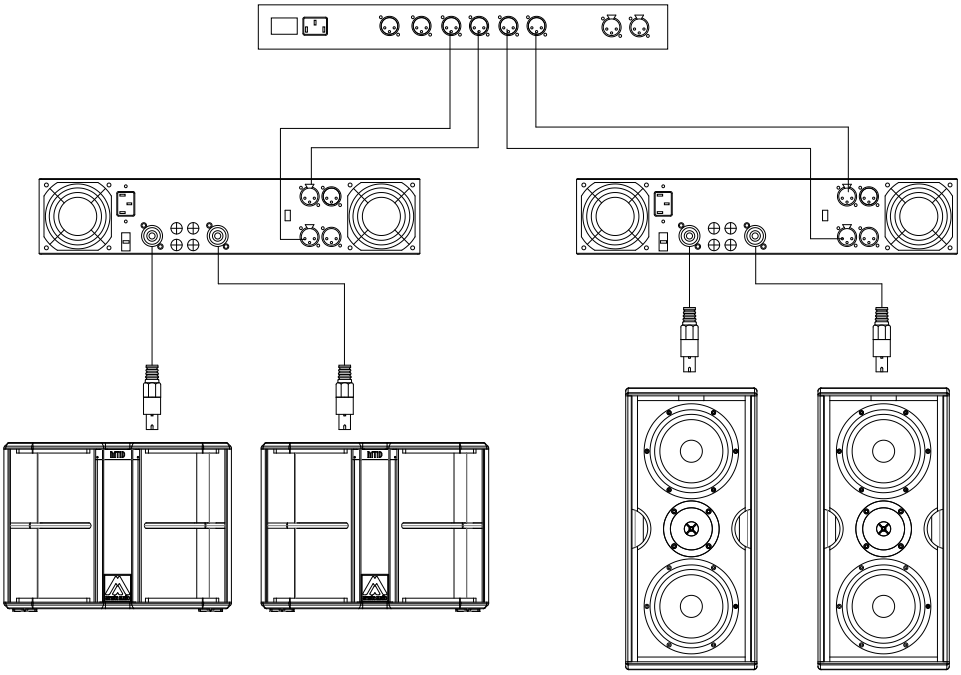


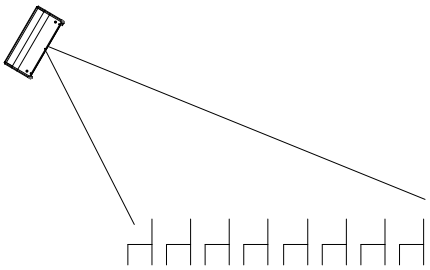
Fig. 6. Bi-amplified with subwoofer configuration (option 2)

In order to allow a bridge connection between cabinets, each one of them has been provided with two Speakon connectors that allow the Input / Output function indistinctly. Terminal Pins +1/-1 must be always used, disregarding the +2/-2 which are not internally connected.

3. MOUNTING AND PLACEMENT

For a proper installation of the acoustic cabinet systems, it is strongly recommended to carefully read the following advices.

3.1. Placement

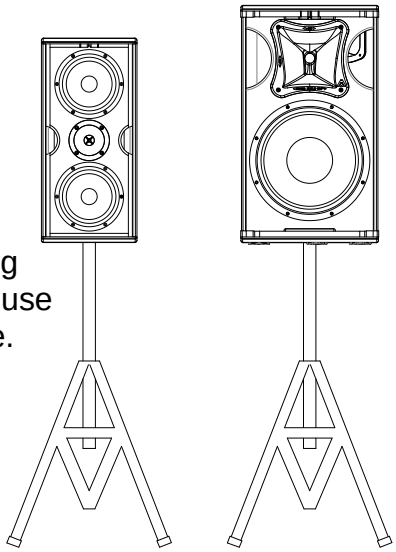


When possible, cabinets should be located in a high position, slightly inclined to the audience. If the loudspeakers are located too low, the listeners at the end of the room will not hear a good sound quality.

Fig. 7. Flying placement

3.2. Use with subwoofer or tripod

All models are equipped with a 35 mm socket for mounting the speaker on a subwoofer or tripod. Be careful not to use this system on non-flat surfaces as it may become unstable.



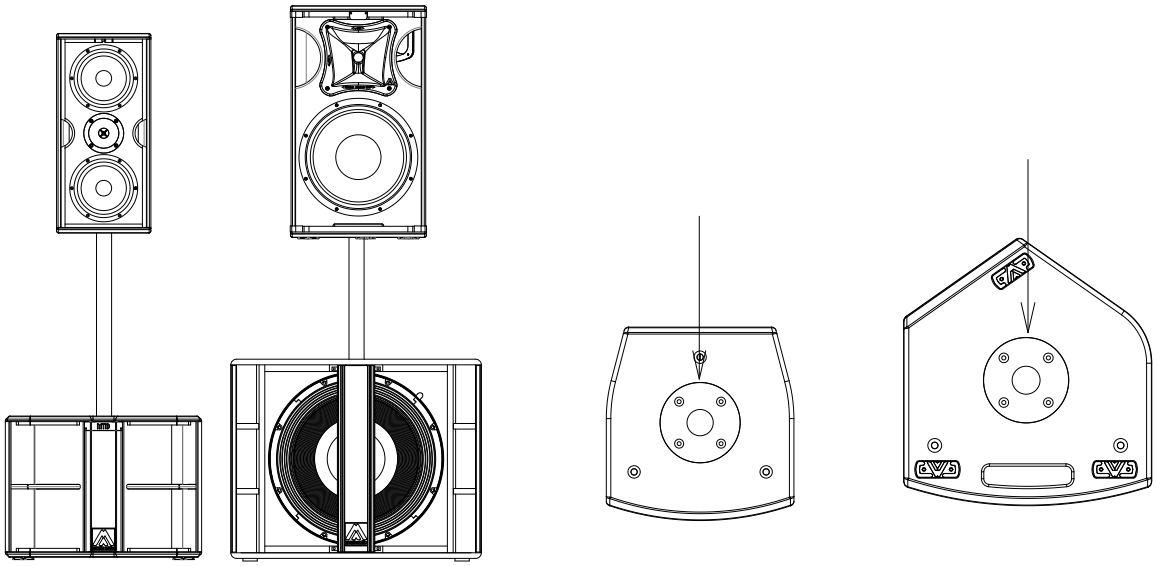


Fig. 8. Use with subwoofer and tripod

3.3. Asymmetrical and rotatable horns

The N12P and N12PR incorporate an asymmetrical dispersion horn which will optimise coverage. To rotate the horn, unscrew the frontal grille, and then, unscrew the four fixing screws of the horn. Rotate it 180 degrees taking care of the wires. Screw the horn again and finally place the frontal grille in its right position.
Good coverage of audiences often is a conflicting combination of:

- wide coverage for the closest audience (short throw)
- narrow coverage for distant areas (long throw)

The asymmetrical dispersion horn coverage varies from "short throw" to "long throw" along the vertical axis (keeping a constant vertical directivity). In conclusion, directivity feature of (50º to 100º (H), 55º (V)) can be seen as if the horn itself had "two" horizontal directivities, which depend on the distance. For short distances the horn should be used with its "wide" dispersion (100º). For long distances the horn should be used with its "narrow" dispersion (50º). We suggest you to pay attention to the following examples.

3.3.1. Vertical-Positioned Cabinets (Flown and aiming to the audience)

We need wide coverage (100º) for the closest listeners and narrow coverage for the distant audience.

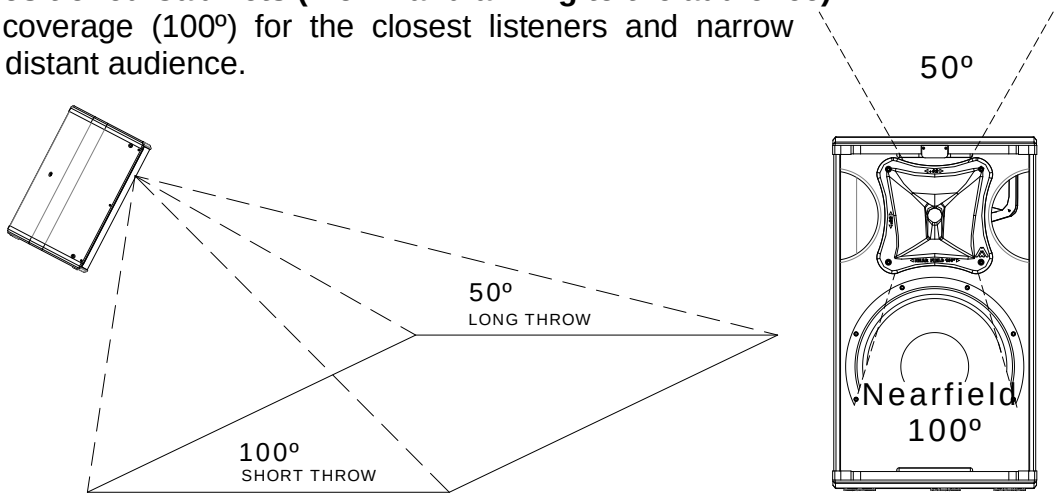


Fig. 9. Vertical position

3.3.2. Horizontal-Positioned Cabinets (Flown and aiming to the audience)

We need wide coverage (100º) for the closest listeners and narrow coverage for the distant audience.

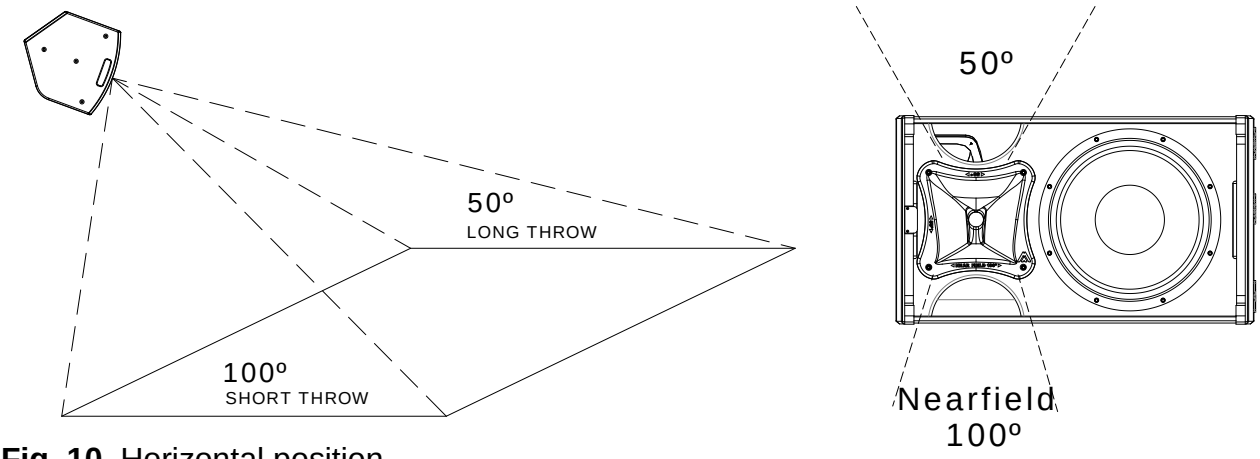
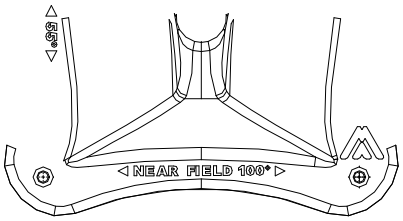


Fig. 10. Horizontal position



The horns have the "Nearfield" mark printed on the 100º horizontal coverage side.

Fig. 11. “Near Field” logo

3.3.3. Stage monitor use

Case 1

We need wider coverage (100º) when musicians are closer to the cabinet than when they move away from it (50º).

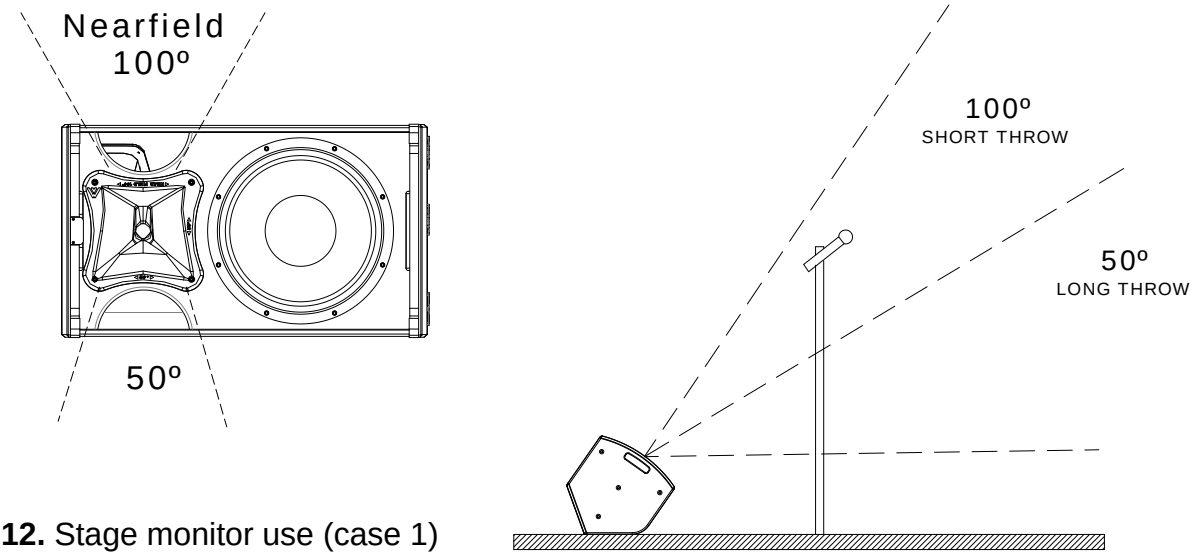
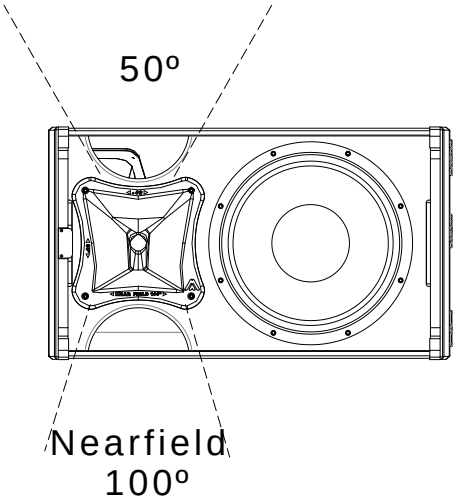


Fig. 12. Stage monitor use (case 1)

Case 2

We need wider coverage (100º) when performers move away from the cabinet (long stages) than when they are close to it (50º).



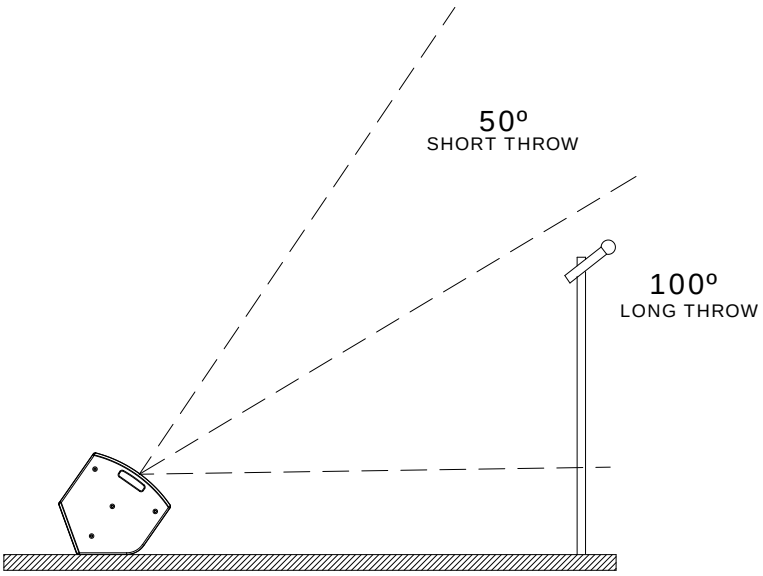


Fig. 13. Stage monitor use (case 2)

3.4. Rotatable logo

All grille's logo can be rotated.

3.5. Stage monitor use

The wedge shape of N12P, N12PR, N15P and N15PR units allows for use as onstage monitor without the need of incorporating any other accessory.

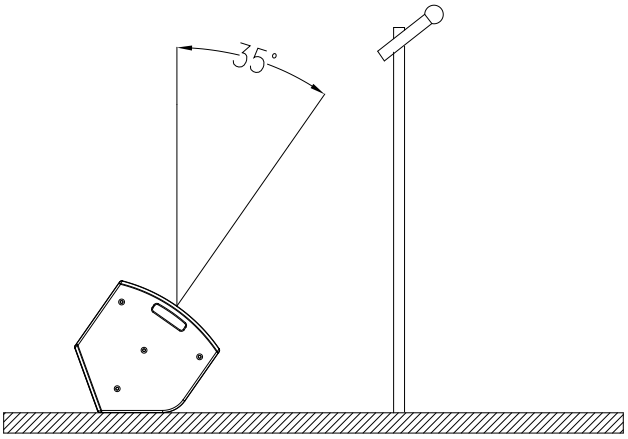


Fig. 14. Use as on-stage monitor

3.6. Flying

Only experienced people should fly speaker cabinets. Extreme care should be taken to assure the load bearing capabilities of the structures where the cabinets will be placed. Hanging hardware (as chains, eyebolts, lock pins...) should be regularly inspected and replaced if in doubt.

DO NOT SUSPEND THE CABINETS FROM THE HANDLES

3.6.1 Horizontal flying with U-BL wall-mount bracket

N26P, N12P, N12PR, N15P and N15PR may be wall-mounted by the UB-L wall-mount bracket accessory. Refer to "U-BL instructions manual" for more information

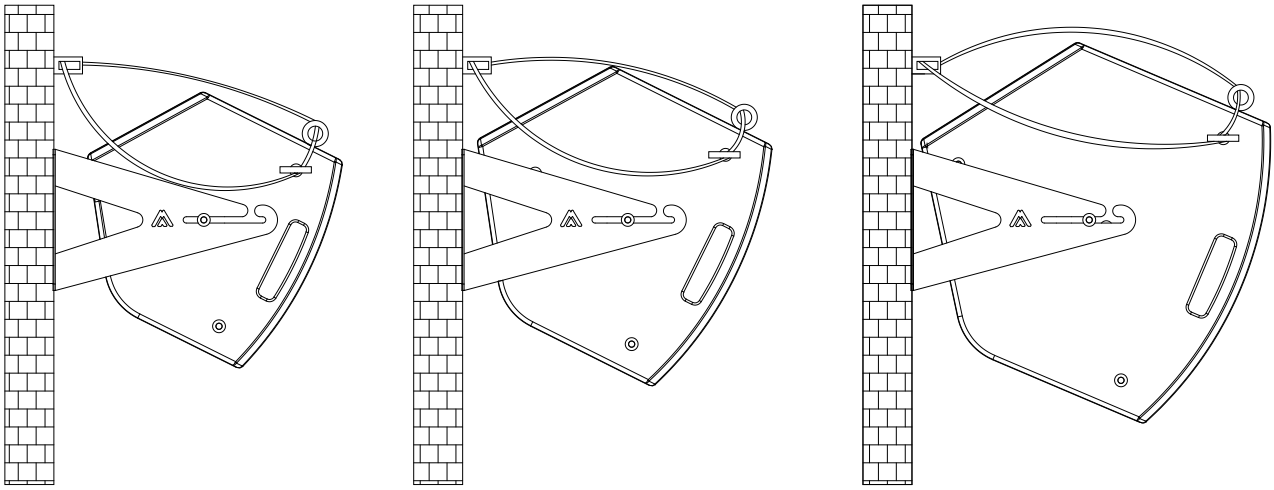


Fig. 15. U-BL bracket

3.6.2 Vertical and horizontal flying with ACR-M8 eyebolts

All models provide several M8 flying points. Their correct use will permit the flying in horizontal or vertical position.

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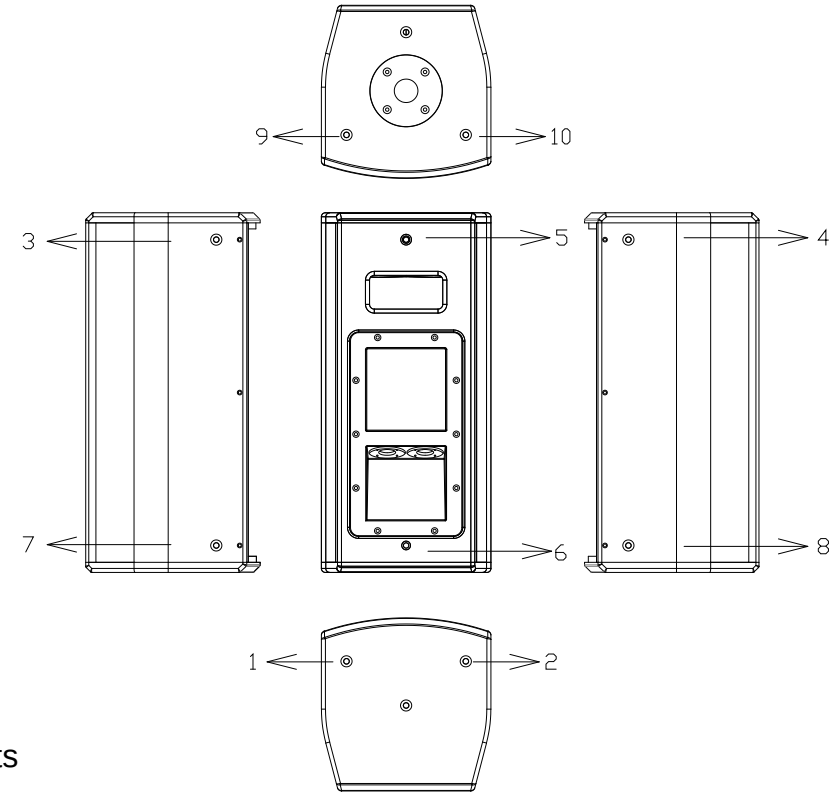

Fig. 16. N26P rigging points

	N26P
Horizontal flying	3&7 or 4&8 or 1&9 or 2&10 (front rigging points) 5&6 (back tilt points)
Vertical flying	1&2 or 3&4 (front rigging points) 5 or 6 (back tilt points)

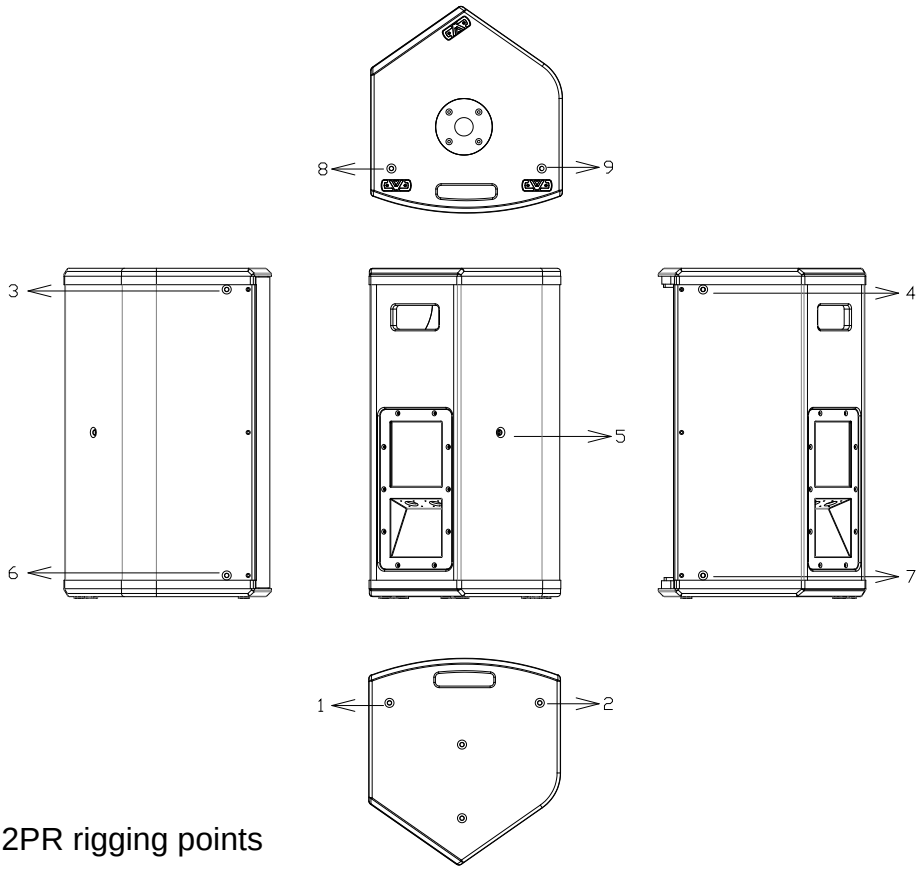

Fig. 17. N12P and N12PR rigging points

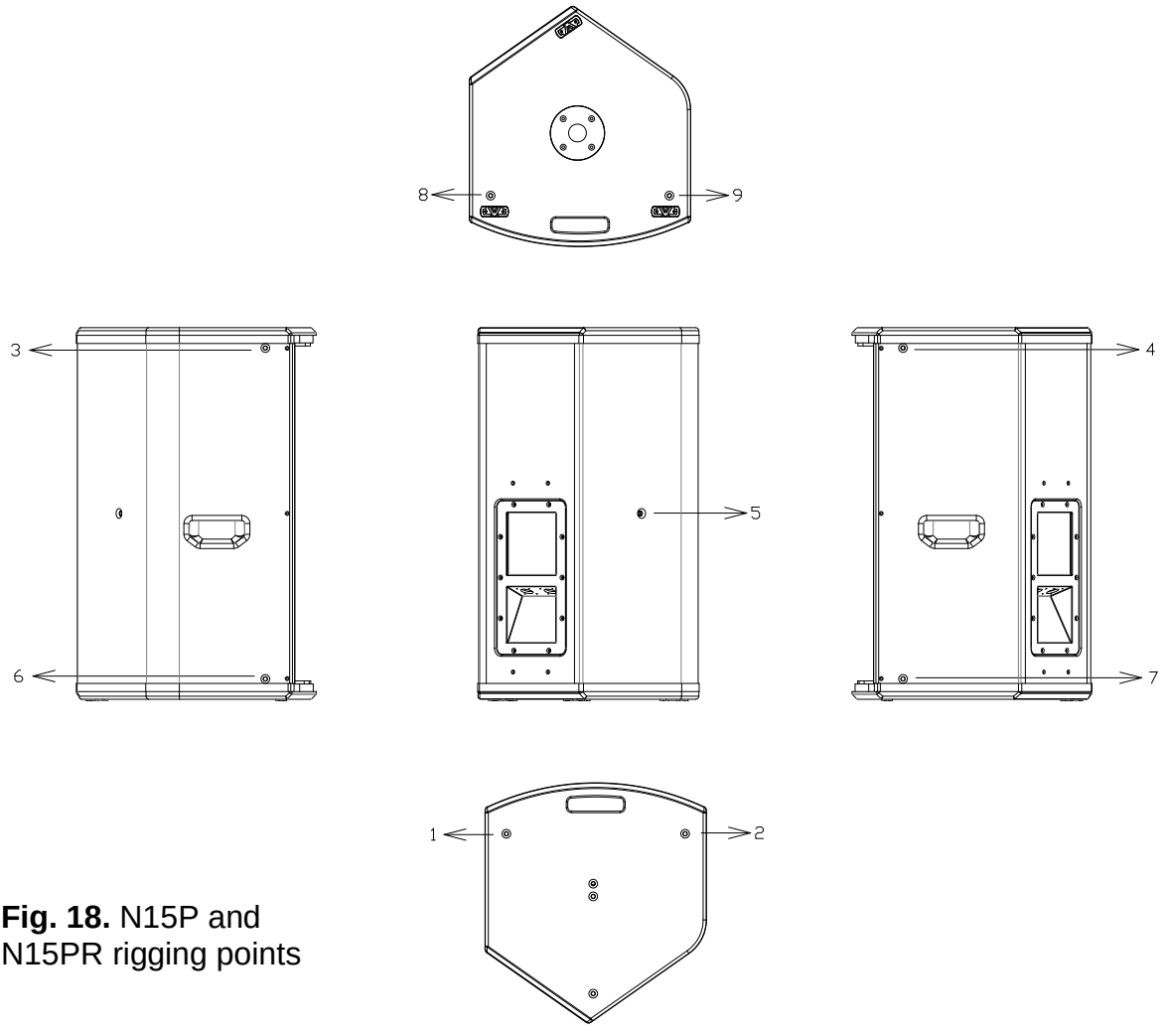

Fig. 18. N15P and N15PR rigging points

	N12P & N12PR & N15P & N15PR
Horizontal flying	3&6 or 4&7 or 1&8 or 2&9 (front rigging points) 5 (back tilt point)
Vertical Flying	1&2 or 3&4 (front rigging points) 5 (back tilt point)

3.6.3 Vertical flying with HR bar

For N26P, use HR-C or HR-C/GT flying bar for vertical flying. Refer to “HR-C instructions manual” and “HR-C/GT instructions manual” for more information.

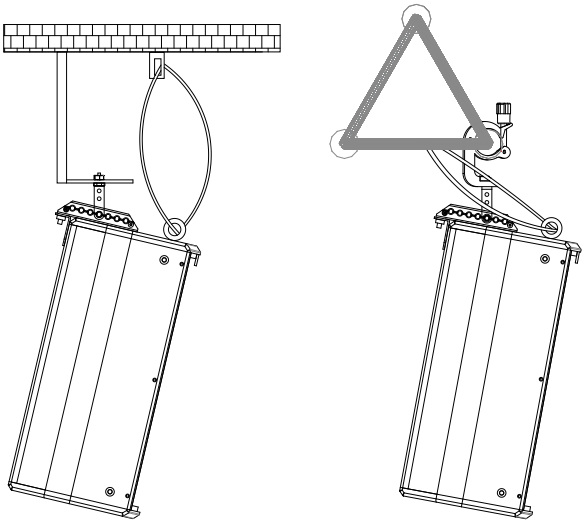

Fig. 19. HR-C and HR-C/GT flying bar for N26P

For N6P, use HR-S or HR-S/GT flying bar for vertical flying. Refer to “HR-S instructions manual” and “HR-S/GT instructions manual” for more information.

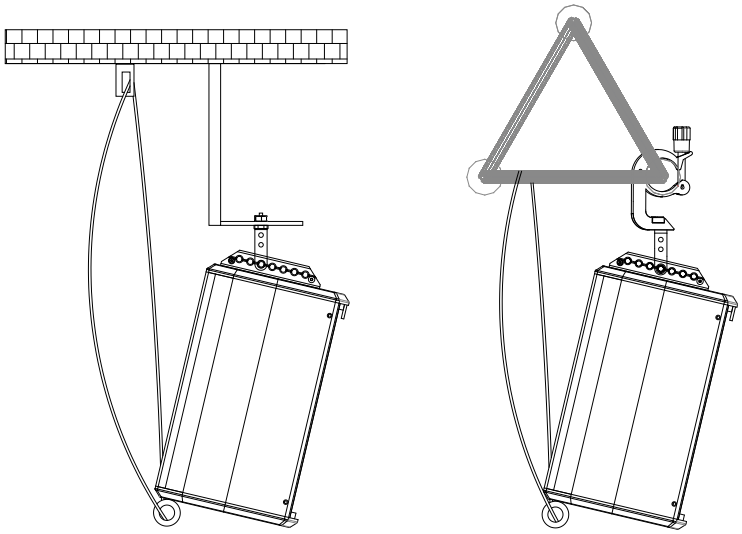

Fig. 20. HR-S and HR-S/GT flying bar for N6P

For N12P and N12PR, use HR-S or HR-S/GT flying bar for vertical flying. Refer to “HR-S instructions manual” and “HR-S/GT instructions manual” for more information.

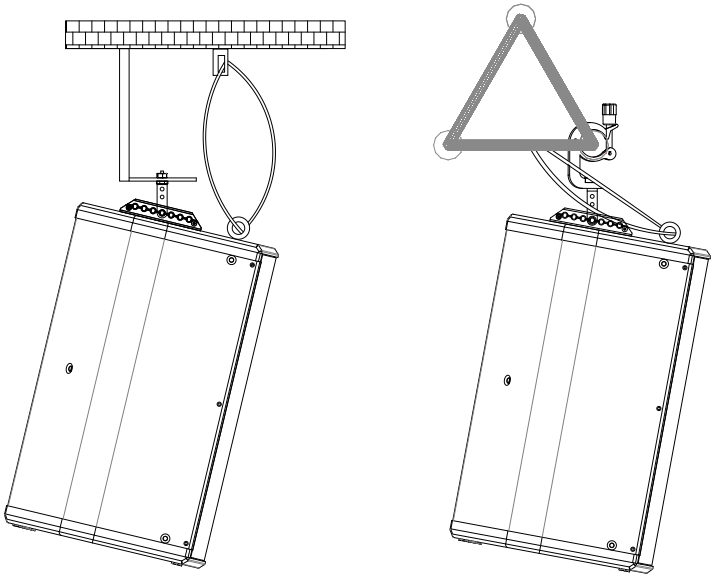

Fig. 21. HR-S and HR-S/GT flying bar for N12P and N12PR

For N15P and N15PR, use HR-L or HR-L/GT flying bar for vertical flying. Refer to “HR-L instructions manual” and “HR-L/GT instructions manual” for more information.

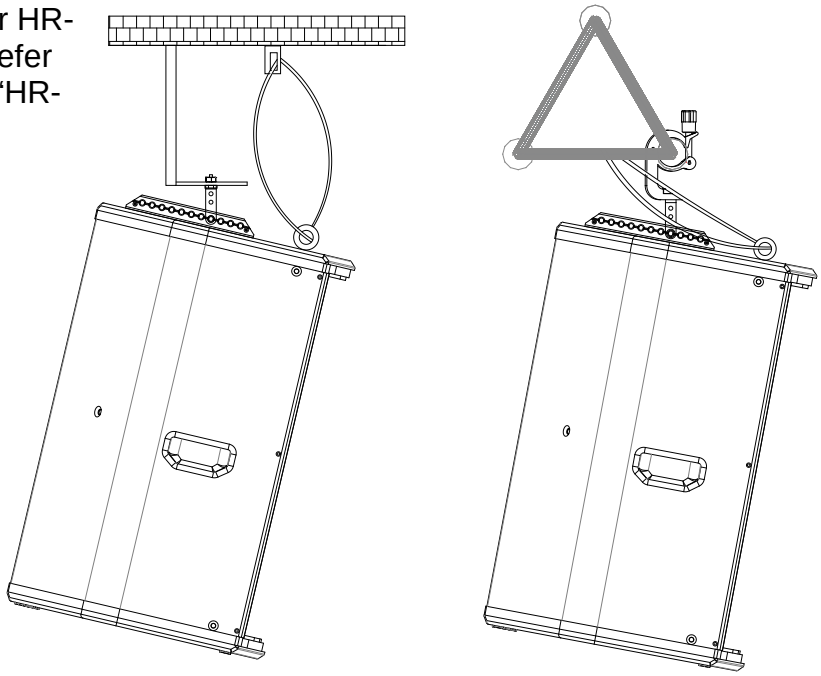

Fig. 22. HR-L and HR-L/GT flying bar for N15P and N15PR

3.6.4 Vertical flying with SP-6N

For N6P, use SP-6N bracket. Refer to “SP-6N instructions manual” for more information.

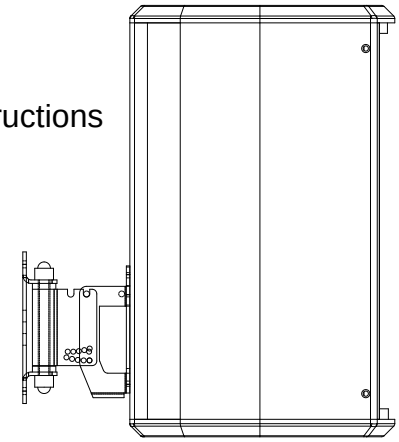

Fig. 23. SP-6N bracket for N6

3.7. NITID GRILLE

To remove the front grille, first remove the screws on both the left and right side. Insert two bent paper clips into the holes in the grille and carefully pull it off.

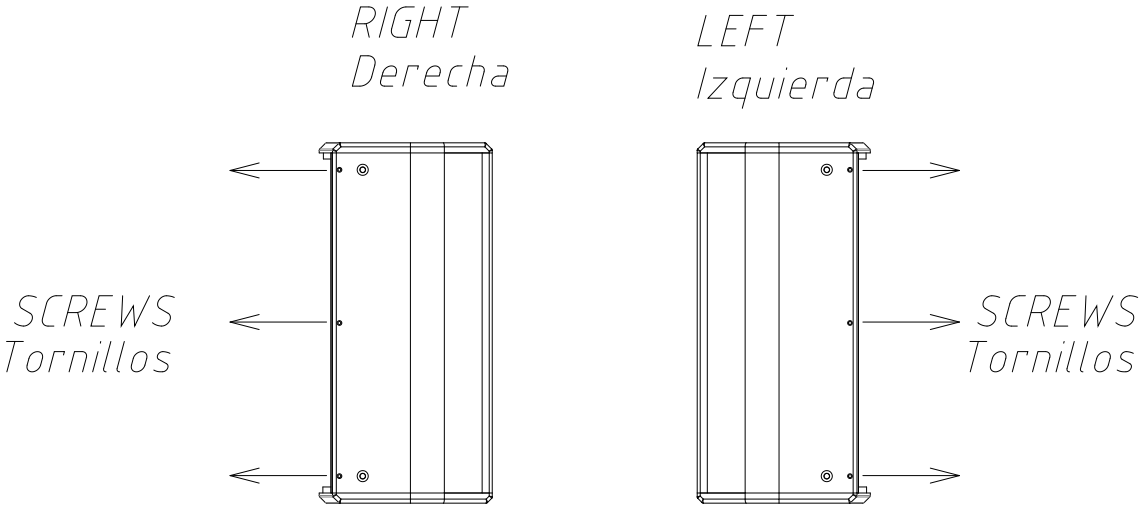

Fig. 24. Grille screws

4. TECHNICAL FEATURES

	N6P	N26P	N12PR	N12P	N15PR	N15P
Impedance						
Nominal	8 Ω or 16 Ω		8 Ω		8 Ω	
Power						
R.m.s	100 W	200 W	200 W	500 W	400 W	600 W
Program	200 W	400 W	400 W	1000 W	800 W	1200 W
Connectors	1 x Speakon NL4MP input 1 x Speakon NL4MP link		1 x Speakon NL4MPR input 1 x Speakon NL4MPR link			
Audio Performance						
Frequency response (-10 dB usable bandwith)	64 Hz – 20k Hz	62 Hz – 20k Hz	55 Hz – 19k Hz	52 Hz – 19k Hz	50 Hz – 18k Hz	50 Hz – 18k Hz
SPL (1W / 1m)	92 dB	95 dB	97 dB	98 dB	99 dB	100 dB
Nominal directivity (-6dB)	90º x 70º		50º to 100º (H) x 55º (V)		60º x 50º	
Components						
LF	1 x 6” neodymium woofer (1.5” voice coil) with carbon fibre cone	2 x 6” neodymium woofer (1.5” voice coil) with carbon fibre cone	1 x 12” woofer (2” voice coil)	1 x 12” woofer (3” voice coil)	1 x 15” woofer (3” voice coil)	1 x 15” neody-mium woofer (3” voice coil)
HF	1 x 1” titanium diaphragm neodymium tweeter		1 x 1.4” PETP diaph. driver	1 x 1.75” PETP diaph. neo. magnet driver	1 x 1.75” PM4 diaph. gm driver	1 x 2.5” titanium diaph. neo. magnet driver
Cabinet						
Type	Bass-reflex					
Height	370 mm	534 mm	623 mm		733 mm	
Width	220 mm	250 mm	360 mm		435 mm	
Depth	226 mm	258 mm	390 mm		473 mm	
Weight (net)	5,9 Kg	8,9 Kg	18,2 Kg	19,7 Kg	27,8 Kg	26,5 Kg
Material	Multilayer birch plywood					
Finish	Hi-resistance black matt Polyurea coating 1.5 mm steel front grille with black acoustic mesh		Hi-resistance black matt Polyurea coating. 2 mm steel front grille with black acoustic mesh			

Note: Specifications subjected to change without prior notice.

The **NITID** loudspeaker systems have been designed, engineered and manufactured in Barcelona – SPAIN by

Amate Audio S.L.
Perpinyà, 25 · Polígon Industrial Nord · 08226 Terrassa
T. +34 93 735 65 65 – F. +34 93 735 60 48 –
info@amateaudio.com

R&D and FACTORY:
Violinista Vellsolà, 18 · 08222 Terrassa
T. +34 93 736 23 90 – F. +34 93 786 47 00

Barcelona – SPAIN

www.amateaudio.com