VOID

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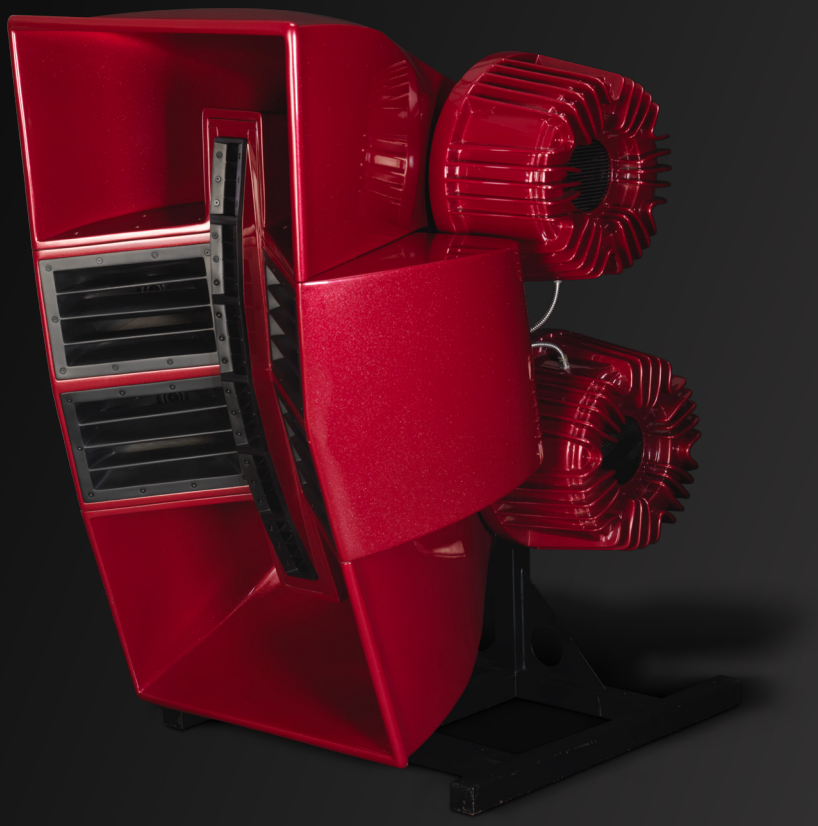


Incubus System

Unparalleled Aesthetics
Untold Sound

USER GUIDE V3.0

UG10570

This user guide is subject to change without notice.
For the latest online version, visit: **www.voidacoustics.com**

Contents

1 Safety and Regulations

1.1 Important safety instructions

The lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Safety instructions - read this first

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat source such as radiators, heat registers, stoves, or other such apparatus that produce heat.
9. Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect power cords from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit the apparatus.
11. Only use attachments and accessories specified by Void Acoustics.
12. Only use with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
13. Unplug the apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Since the mains power supply cord attachment plug is used to disconnect the device, the plug should always be easily accessible.
16. Void loudspeakers can produce sound levels capable of causing permanent hearing damage from prolonged exposure. The higher the sound level, the less exposure needed to cause such damage. Avoid prolonged exposure to the high sound levels from the loudspeaker.

1.2 Limitations

This guide is provided to help familiarise the user with the loudspeaker system and its accessories. It is not intended to provide comprehensive electrical, fire, mechanical and noise training and is not a substitute for industry-approved training. Nor does this guide absolve the user of their obligation to comply with all relevant safety legislation and codes of practice. While every care has been taken in creating this guide, safety is user-dependent and Void Acoustics Research Ltd cannot guarantee complete safety whenever the system is rigged and operated.

1.3 EC declaration of conformity

For EC Declaration of Conformity please go to:

www.voidacoustics.com/eu-declaration-loudspeakers

1.4 UKCA marking

For details of the UKCA marking go to:

www.voidacoustics.com/uk-declaration-loudspeakers

1.5 Warranty statement

For warranty statement go to:

https://voidacoustics.com/terms-conditions/

1.6 WEEE directive

If the time arises to throw away your product, please recycle all the components possible.

This symbol indicates that when the end-user wishes to discard this product, it must be sent to separate collection facilities for recovery and recycling. By separating this product from other household-type waste, the volume of waste sent to incinerators or land-fills will be reduced, and natural resources will thus be conserved.

The Waste Electrical and Electronic Equipment Directive (WEEE Directive) aims to minimise the impact of electrical and electronic goods on the environment. Void Acoustics Research Ltd complies with the Directive 2002/96/EC and 2003/108/EC of the European Parliament directives require producers to finance the treatment and recovery of waste electrical and electronic equipment (WEEE), in order to reduce the amount of WEEE that is being disposed of in land-fill sites. All of our products are marked with the WEEE symbol; this indicates that this product must NOT be disposed of with other waste. Instead, it is the user’s responsibility to dispose of their waste electrical and electronic equipment by handing it over to an approved reprocessor, or by returning it to Void Acoustics Research Ltd for reprocessing. For more information about where you can send your waste equipment for recycling, please contact Void Acoustics Research Ltd or one of your local distributors.

CE

2 Unpacking and Checking

All Void Acoustics products are carefully manufactured and thoroughly tested before being despatched. Your dealer will ensure that your Void products are in pristine condition before being forwarded to you but mistakes and accidents can happen.

Before signing for your delivery:

- Inspect your shipment for any signs of contamination, abuse or transit damage as soon as you receive it
- Check your Void Acoustics delivery fully against your order
- If your shipment is incomplete or any of its contents are found to be damaged; inform the shipping company and inform your dealer.

Air Array loudspeakers are heavy (170 kg (375 lbs)) and require a minimum of seven people to lift, using only the handling points shown in figure 2.1.

- Undo the six butterfly catches on the transport case, then remove the lid, ensuring it is clear before moving it sideways.
- If you need to place the Air Array on a flat surface, ensure you use a lint-free cloth to protect the finish
- When removing the Air Array, take care not to damage the lower tray of the transport case.

Keep the original packaging in case you need to return a product for service later.

See section 1.5 for warranty conditions, and see section 9 if your product needs servicing.

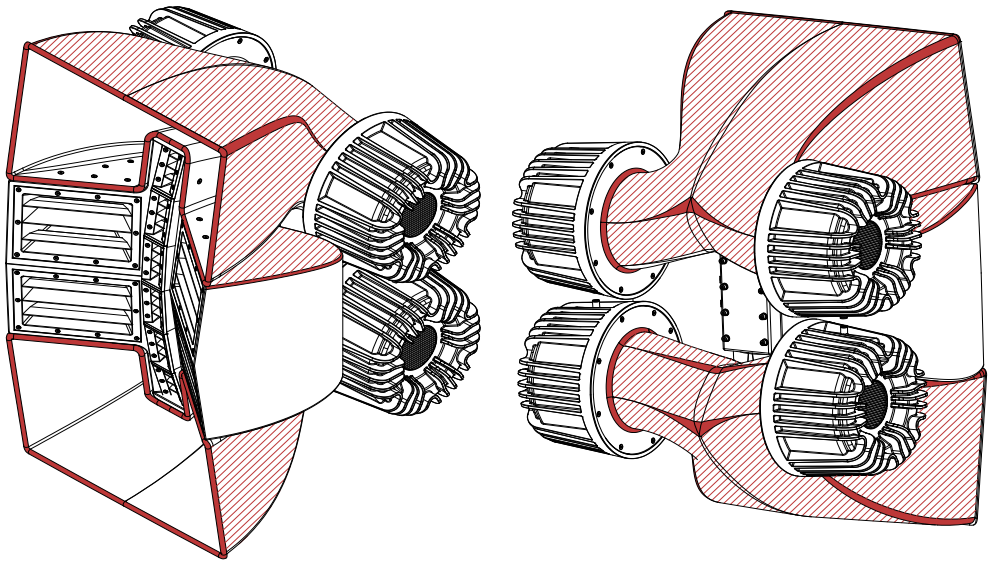


Figure 2.1: Air Array safe handling points marked in red

3 About

3.1 Welcome

Thank you for purchasing the Void Acoustics Incubus Series loudspeaker system. At Void, we design, manufacture and distribute advanced professional audio systems for the installed and live sound market sectors. Like all Void products, our highly skilled and experienced engineers have successfully combined pioneering technologies with ground-breaking design aesthetics, to bring you superior sound quality and visual innovation. In buying this product, you are now part of the Void family and we hope using it brings you years of satisfaction. This guide will help you both use this product safely and ensure it performs to its full capability.

3.2 Incubus series overview

Providing unprecedented levels of control and exceptional sound quality, the Incubus is a leading choice for high-end club sound systems, owing to its striking physical signature and performance. Hearing the highest quality of unadulterated sound through an Incubus makes it possible to feel as though you are inside music, in a fully immersive aural experience.

4 Specifications and Dimensions

4.1 Air Array

4.1.1 Key features

- Three-way sculpted loudspeaker array
- Supports gain shading
- Low-resonance fibreglass composite construction
- 14 discrete proprietary transducers
- Integrated mounting system
- Optional ground stand or fly frame
- Powerful performance in large scale applications
- Available as standard in red
- Custom RAL and KROME finishes are available upon request

4.1.2 Air Array specifications

Frequency response[1]	90 Hz – 20 kHz
Maximum Output[2]	146 dB cont, 152 dB peak
Nominal Dispersion	90°H x 45°V
Sensitivity[3]	LF: 111 dB 1W/1m, MF: 114dB 1W/1m, HF: 116 dB 1W/1m
Driver Configuration	4 x 12” LF, 4 x 3” MF compression driver, 6 x 1” HF compression driver
Power Handling	LF: 3600 W AES, MF: 800 W AES, HF: 320 W AES
Nominal Impedance	LF: 2 x 4 Ω, MF: 2 x 4 Ω, HF: 2 x 5.33 Ω
Suggested Minimum Amplifier	Bias Q5
Weight	170 kg (375 lbs) With ground stack 195 kg (430 lbs)
Connections	2 x 8-pin locking connector
Enclosure	Fibreglass composite
Finish	Smooth cellulose
Mounting	Ground stack or fly frame
Rigging	Integrated mounting system
Height	1234 mm (48.6”) With ground stack 1419.3 mm (55.9”)
Width	945 mm (37.2”)
Depth	816.5 mm (32.1”) With ground stack 1034.3 mm (40.7”)

[1] -10 dB IEC60268-5 [2] Calculated [3] Measured in half space

4 Specifications and Dimensions

4.1.3 Air Array Dimensions

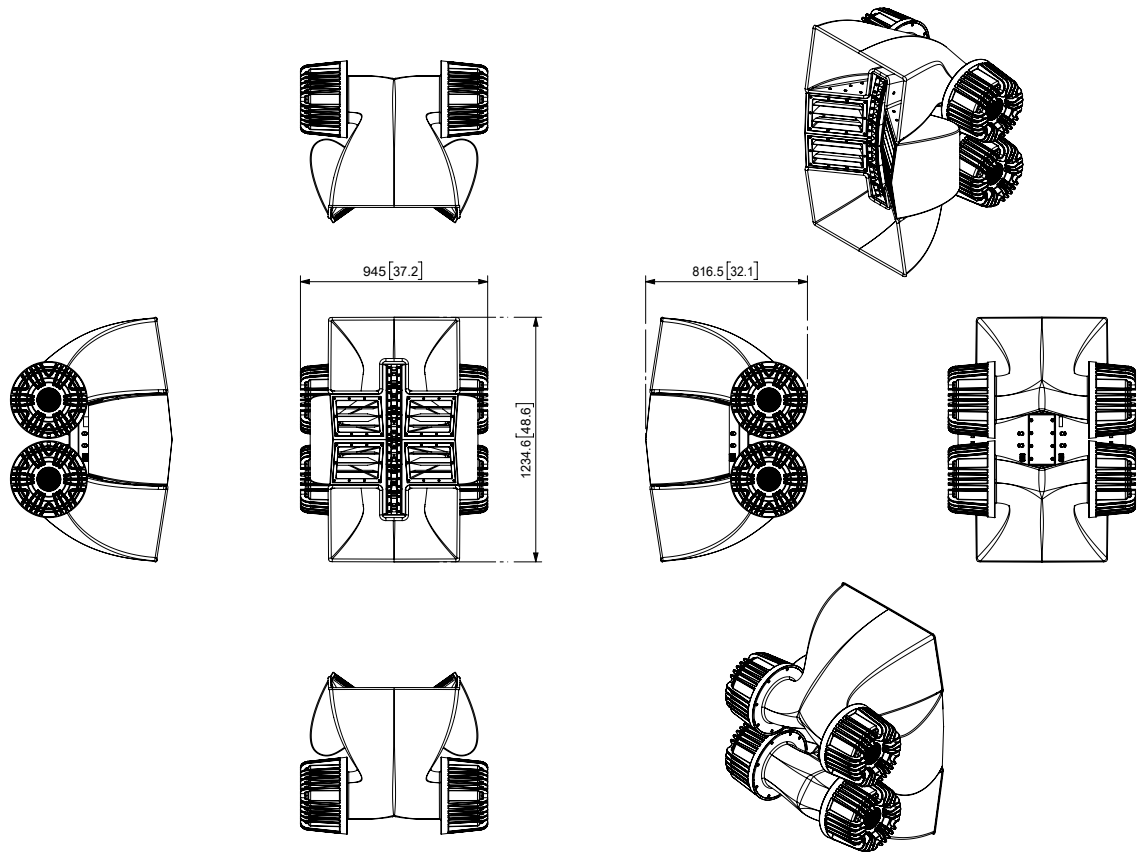


Figure 4.1: Air Array Dimensions

4.1.4 Air Array travel case dimensions

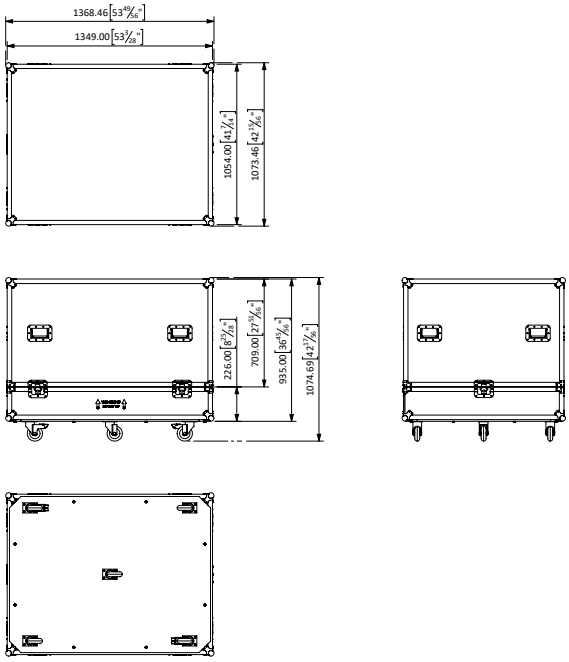


Figure 4.2: Air Array Travel Case Dimensions

Travel case weight: 70kg (155 lbs)

4 Specifications and Dimensions

4.2 Hyperfold

4.2.1 Key features

- Compact, folded horn upper-bass loudspeaker
- High-power density in a compact footprint
- Exceptional upper-bass speed and articulation
- Four high-power 15 inch low-frequency transducers
- Distinctive aluminium cabinet bracing
- 18 mm birch plywood construction
- Textured ‘TourCoat’ polyurea finish
- Available as standard in black with a black grille, red horn, and red bracing. White finishes and custom RAL and KROME finishes for the horn and bracing are available upon request

4.2.2 Hyperfold specifications

Frequency response[1]	55 Hz – 135 Hz
Maximum Output[2]	146 dB cont, 152 dB peak
Nominal Dispersion	Array dependent
Sensitivity[3]	110 dB 1W/1m
Driver Configuration	4 x 15” low frequency drivers
Power Handling	4000 W AES
Nominal Impedance	2 x 4 Ω
Suggested Minimum Amplifier	Bias Q5
Weight	150 kg (330.7 lbs)
Connections	2 x 4-pin locking connector
Enclosure	18 mm birch plywood
Finish	Textured ‘TourCoat’ polyurea, smooth cellulose
Height	738 mm (29.1”)
Width	738 mm (29.1”)
Depth	1218 mm (48”) With wheels 1350.1 mm (53.2”)

[1] -10 dB IEC60268-5 [2] Calculated [3] Measured in half space

4 Specifications and Dimensions

4.2.3 Hyperfold dimensions

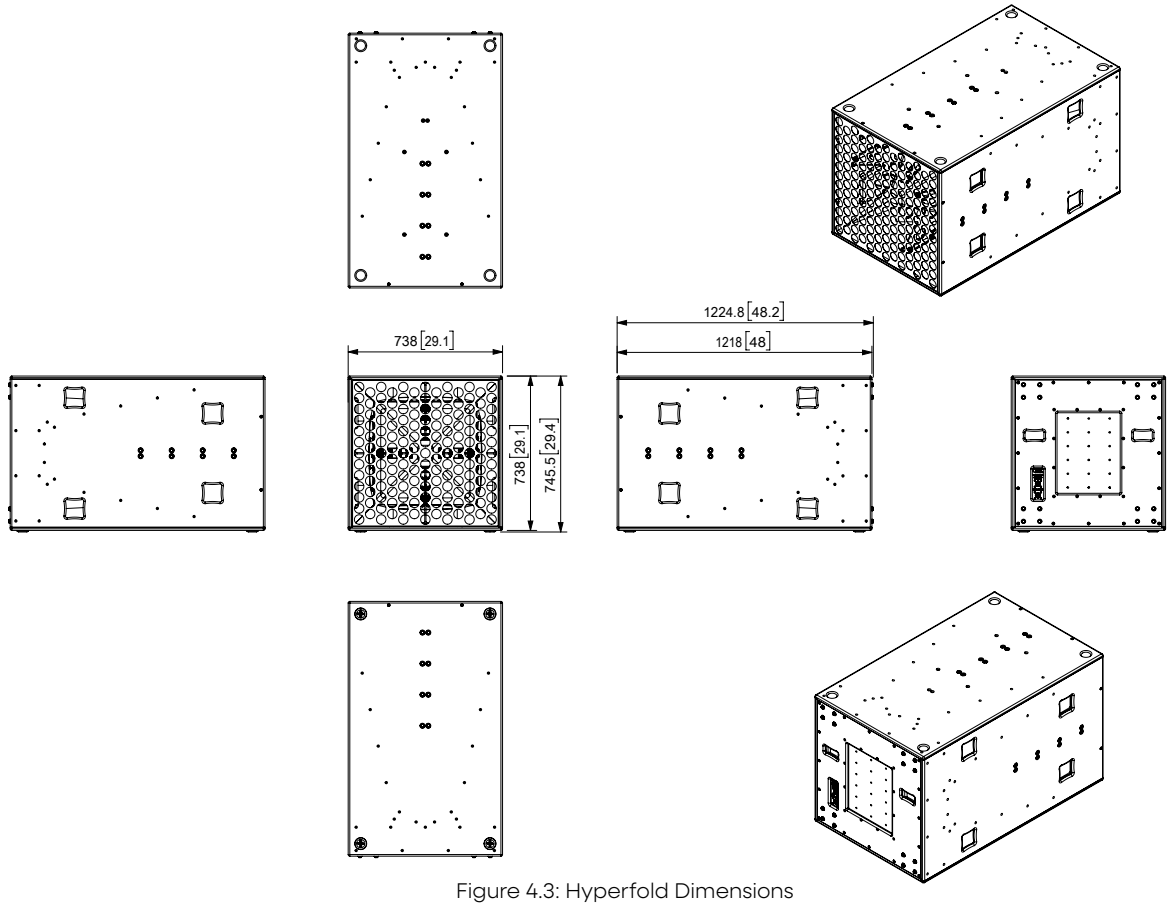


Figure 4.3: Hyperfold Dimensions

4.2.4 Hyperfold impedance graph

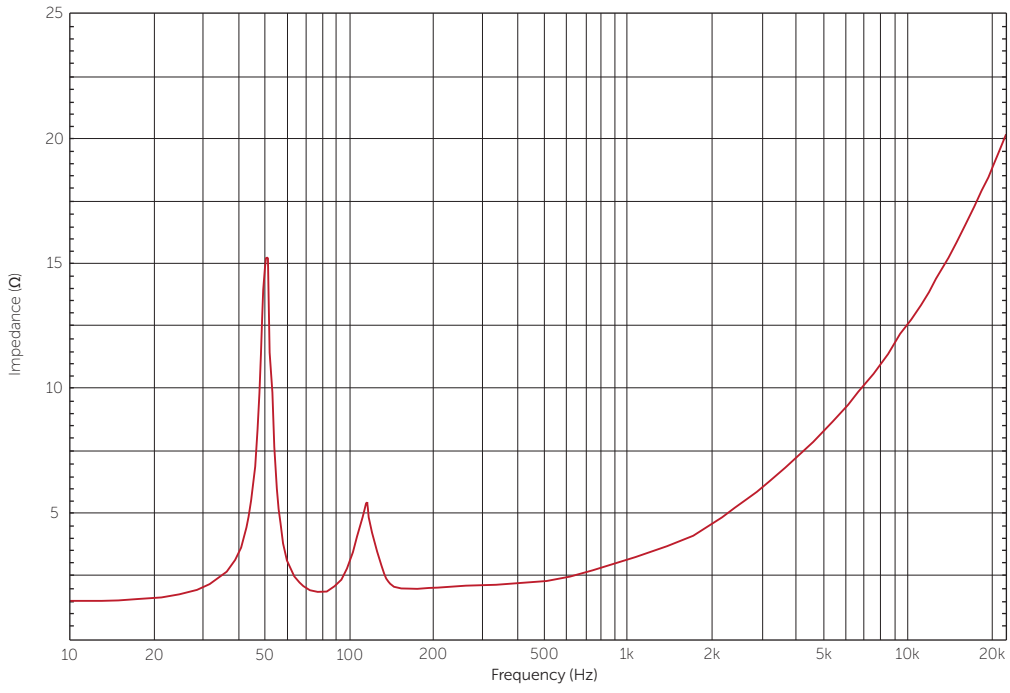


Figure 4.4: Impedance graph

4 Specifications and Dimensions

4.3 Incubus Sub

4.3.1 Key features

- Triple 21 inch hybrid horn-loaded bandpass subwoofer
- Very high power density
- 3 x high-excursion 21 inch low-frequency transducers
- Extended frequency response to 25 Hz
- Distinctive aluminium cabinet bracing
- 18 mm birch plywood construction
- Black textured 'TourCoat' polyurea finish
- Available as standard in black with a black grille and red bracing. White finishes and custom RAL and KROME finishes for the bracing are available upon request

4.3.2 Incubus Sub specifications

Frequency response[1]	25 Hz – Preset dependent
Maximum Output[2]	142 dB cont, 148 dB peak
Nominal Dispersion	Array dependent
Sensitivity[3]	105 dB 1W/1m
Driver Configuration	3 x 21" LF with 6" voice coils
Power Handling	6000 W AES
Nominal Impedance	3 x 8 Ω
Suggested Minimum Amplifier	Bias Q5
Weight	214 kg (471.8 lbs)
Connections	2 x 8-pin locking connector
Enclosure	18 mm birch plywood
Finish	Textured "TourCoat" polyurea, smooth cellulose
Height	703.5 mm (27.7")
Width	1479 mm (58.2")
Depth	1218 mm (48") With wheels 1350.1 (53.2")

[1] -10 dB IEC60268-5 [2] Calculated [3] Measured in half space

4 Specifications and Dimensions

4.3.3 Incubus Sub dimensions

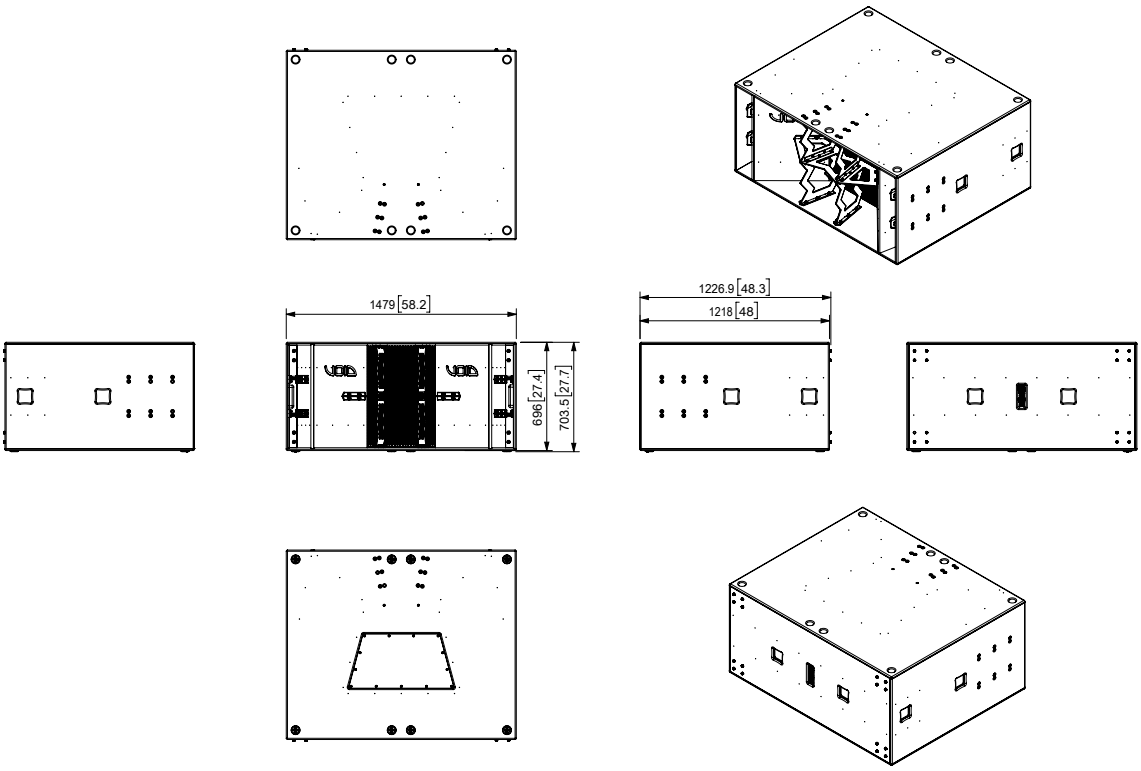


Figure 4.5: Incubus Sub Dimensions

4.3.4 Incubus Sub impedance graph

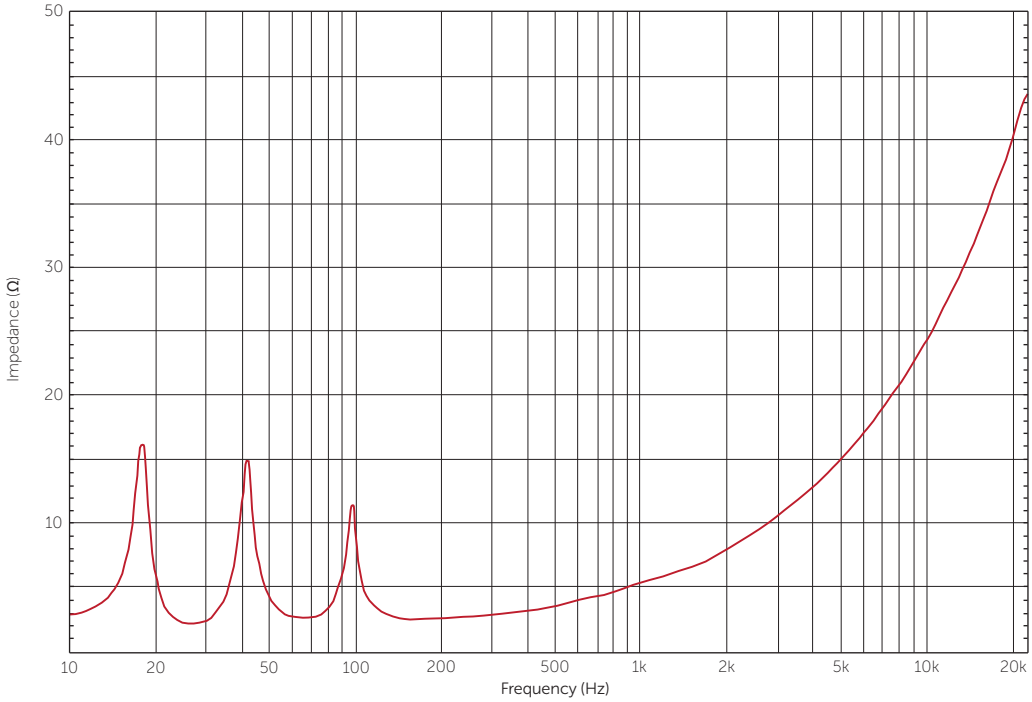


Figure 4.6: Impedance graph

5 Cable and Wiring

5.1 Electrical Safety

To avoid electrical hazards please note the following:

• Do not access the inside of any electrical equipment. Refer servicing to Void-approved service agents

5.2 Cable considerations for fixed installations

We recommend specifying installation-grade Low Smoke Zero Halogen (LSZH) cables for permanent installations. The cables should use Oxygen Free Copper (OFC) of grade C11000 or above. Cables for permanent installations should be compliant with the following standards:

• IEC 60332.1 Fire retardancy of a single cable
• IEC 60332.3C Fire retardancy of bunched cables
• IEC 60754.1 Amount of Halogen Gas Emissions
• IEC 60754.2 Degree of acidity of released gases
• IEC 61034.2 Measurement of smoke density

We suggest using the following maximum copper cable lengths to keep level losses below 0.6 dB.

Metric mm^2	Imperial AWG	8 Ω load	4 Ω load	2 Ω load
2.50 mm^2	13 AWG	36 m	18 m	9 m
4.00 mm^2	11 AWG	60 m	30 m	15 m

5.3 Recommended Amplifier Model and Quantity by Application.

For **touring** applications, eight (8) Bias Q5 amplifiers are recommended.
These should be installed across two racks of four (4), allowing shorter cable runs to each side of the system.

For fixed **installations,** seven (7) Bias Q5 amplifiers are recommended.
A 1U ventilation gap must be left after every four units, as outlined in the Bias Q5 user guide.

5 Cable and Wiring

5.4 Air Array layout

For clarity throughout this guide, the 8-pin locking connections on the rear of the Air Array will be referred to as 8-pin locking connector A for the left and 8-pin locking connector B for the right as shown in figure 6.1.

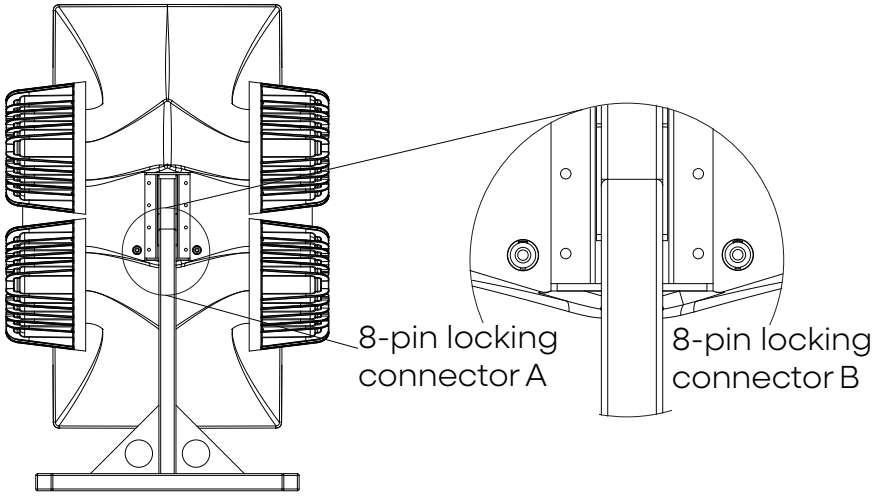


Figure 5.1: 8-pin locking connector layout

A further aid given will be a diagrammatic representation of which drivers would be engaged within the loudspeaker for each section. So, for example, figure 5.3 below shows the section for the low frequency drivers.

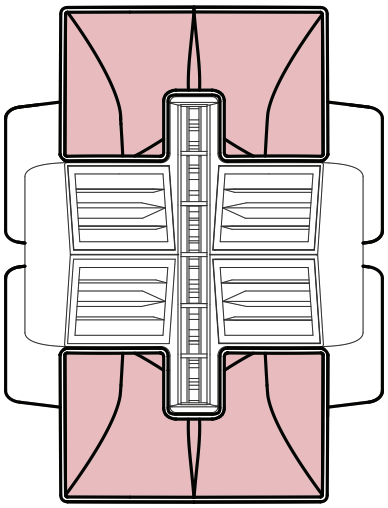


Figure 5.2: LF drivers

5 Cable and Wiring

5.5 Air Array wiring diagram

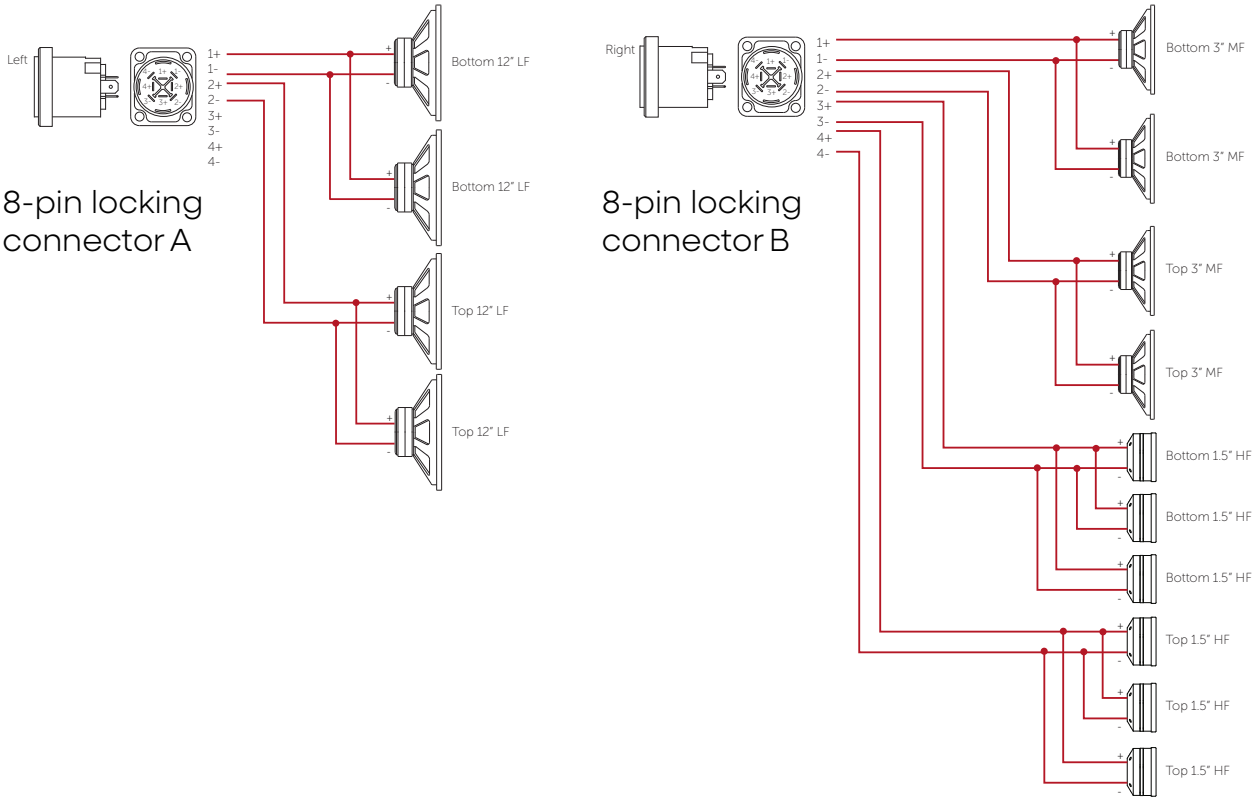


Figure 5.3: Air Array wiring diagram

8-pin locking connector A			
Pins	Driver	Power handling	Impedance
+/-1	Bottom 2 x 12”	1800 W AES	4 Ω
+/-2	Top 2 x 12”	1800 W AES	4 Ω

8-pin locking connector B			
Pins	Driver	Power handling	Impedance
+/-1	Bottom 2 x 3”	400 W AES	4 Ω
+/-2	Top 2 x 3”	400 W AES	4 Ω
+/-3	Bottom 3 x 1”	160 W AES	5.3 Ω
+/-4	Top 3 x 1”	160 W AES	5.3 Ω

5 Cable and Wiring

5.6 Air Array LF Bias Q5 8-pin locking connector A wiring

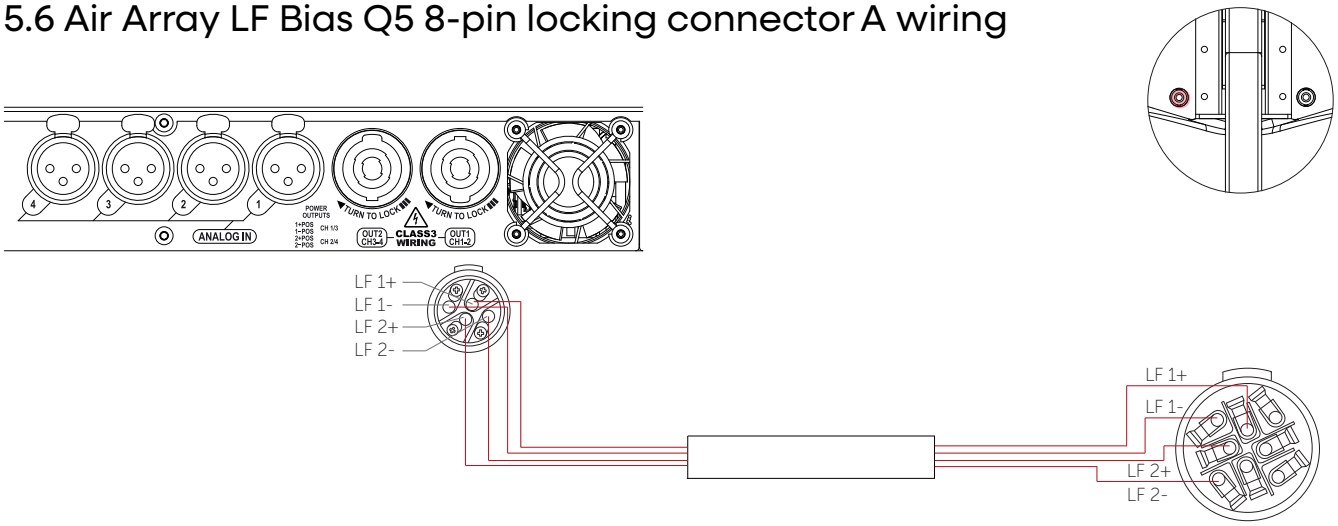
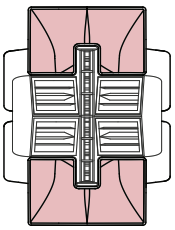


Figure 5.4: Bias Q5 left 8-pin locking connector A connection
(Note: Pins +/-3 and +/-4 are not connected)

Air Array 8-pin locking connector A		
Bias Q5	Output 1	
Channel	Channel 1	Channel 2
Ways	Bottom 2 x 12” LF	Top 2 x 12” LF
Amplifier 4-pin locking connector pins	1+/1-	2+/2-
8-pin locking connector A pins	1+/1-	2+/2-



5 Cable and Wiring

5.7 Air Array MHF Bias Q5 8-pin locking connector B wiring

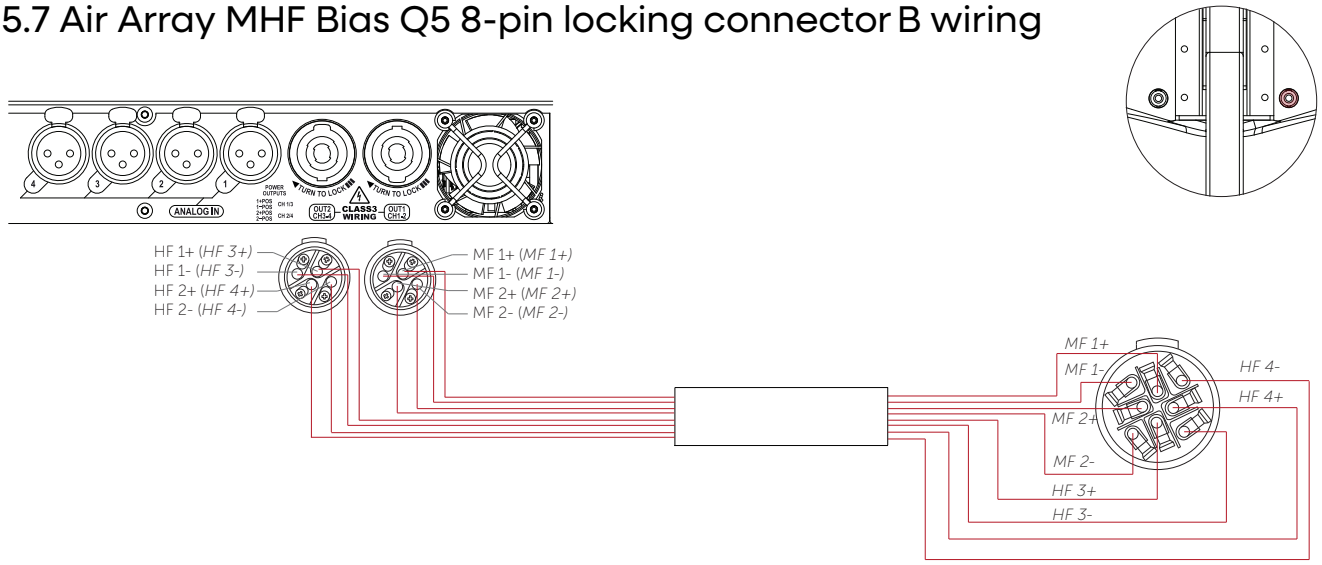
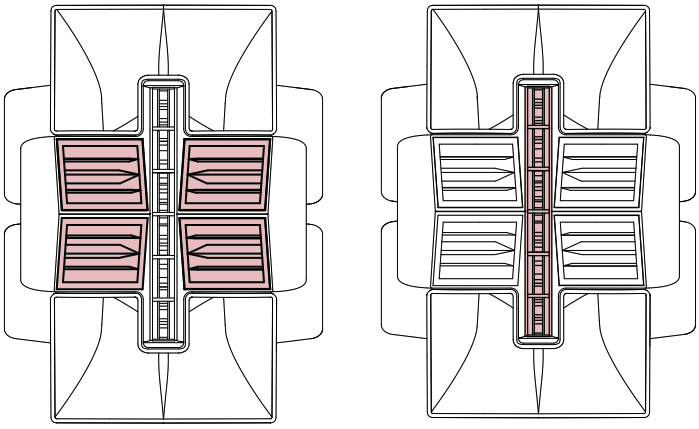


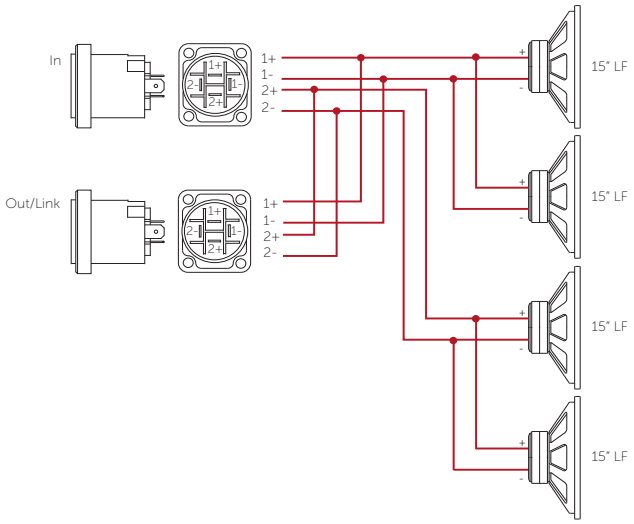
Figure 5.5: Bias Q5 (right 8-pin locking connection)

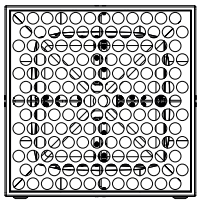
Air Array 8-pin locking connector B				
Bias Q5	Output 1		Output 2	
Channel	Channel 1	Channel 2	Channel 3	Channel 4
Ways	MF (2x3”)	MF (2X3”)	HF	HF
Amplifier 4-pin locking connector pins	1+/1-	2+/2-	1+/1-	2+/2-
8-pin locking connector B Pins	1+/1-	2+/2-	3+/3-	4+/4-



5 Cable and Wiring

5.8 Hyperfold wiring diagram





Pins 1+/1- Left / Right

Pins 2+/2- Top / Bottom

Figure 5.6: Wiring diagram

	4-pin locking connector pins +/-1	4-pin locking connecto pins +/-2
In	LF (2 x 15”)	LF (2 x 15”)
Out	LF link	LF link

5.9 Hyperfold Bias Q5 4-pin locking connector wiring

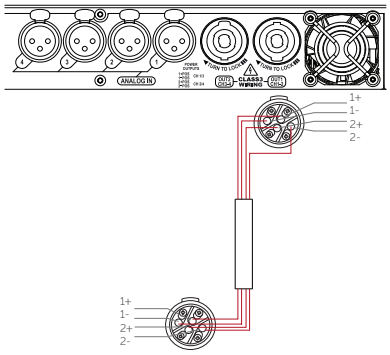


Figure 5.7: Bias Q5

Hyperfold		
Bias Q5	Output 1	
Channel	Channel 1	Channel 2
Ways	SB	SB
Amplifier 4-pin locking connector pins	1+/1-	2+/2-
Amplifier 4-pin locking connector pins	1+/1-	2+/2-
Max parallel units	2 (2 Ω load to amplifier)	2 (2 Ω load to amplifier)

5 Cable and Wiring

5.10 Incubus Sub wiring diagram

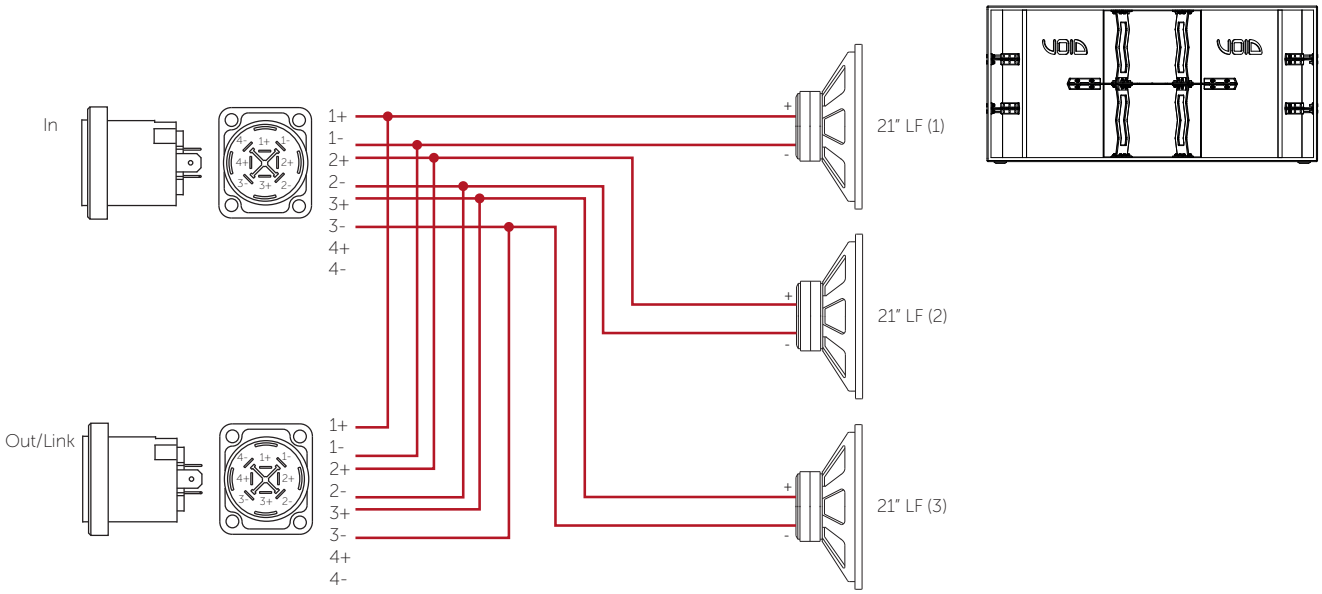


Figure 5.8: Wiring diagram

8-pin locking connector pins	+/-1	+/-2	+/-3	+/-4
In	21" LF (1)	21" LF (2)	21" LF (3)	n/c
Out	LF link	LF link	LF link	n/c

5.11 Incubus Sub Bias Q5 8-pin locking connector wiring

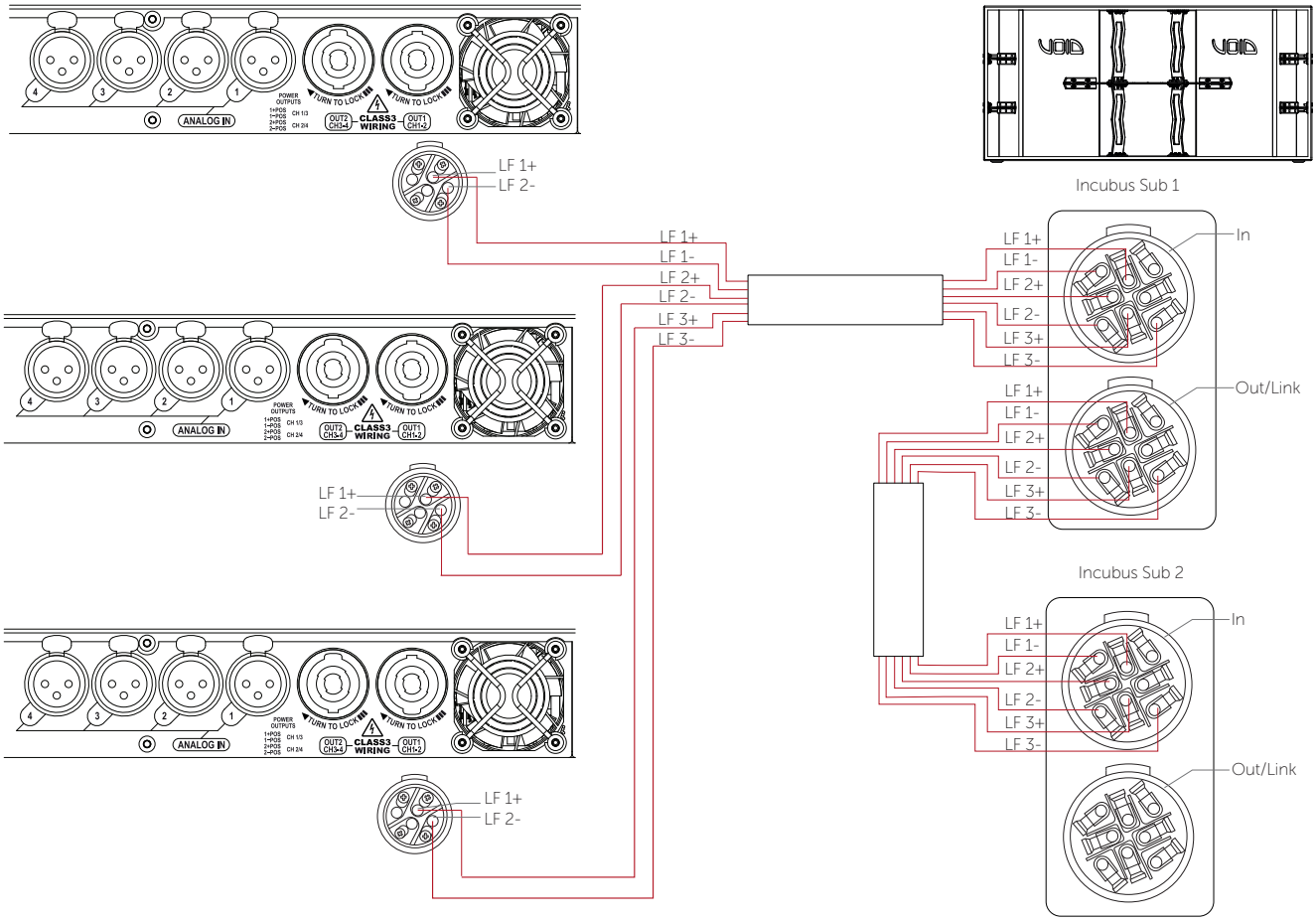


Figure 5.9: Bias Q5

Incubus Sub		
Bias Q5	Output 2	
Channel	Channel 3	Channel 4
Ways	SB	
Amplifier 4-pin locking connector pins	1+/2- [BRIDGED]	
8-pin locking connector pins	[1]: 1+/1-	
	[2]: 2+2-	
	[3]: 3+/3-	
Max parallel units	2	

6 Application and Control

6.1 Incubus System Presets

Void Acoustics provides official loudspeaker presets that are available for download through the ArmoníaPlus Marketplace. These presets have been specifically designed and tested for use exclusively with Void Acoustics branded amplifiers.

To ensure optimal performance and system protection, only Void Acoustics presets running on Void amplifiers should be used. The use of third-party amplifiers or modified presets is not supported and will void the product warranty.

By adhering to this policy, you ensure that your Void system operates to the highest performance.

It is essential to use Void Acoustics Bias series amplifiers and use the dedicated Incubus series presets within ArmoníaPlus. These presets manage all digital crossover processing, provide limiter protection, and deliver optimised EQ with full-time alignment for each element of the Incubus system.

6.1.1 Air Array Presets

Ensure to use the Air Array “Default” preset within ArmoníaPlus. The preset has 6 channels (LF, LF, MF, MF, HF, HF), so it will be required to use the “Split Mode” function when linking each way of the enclosure to the corresponding channel on the Bias Q5 amplifiers.

6.1.2 Hyperfold Presets

Hyperfold has two available presets depending on amplifier configuration and available channels.

- **Dual Channel** is the default preset, and corresponds to the wiring shown previously in this document, with 2 channels driving a maximum of 2 linked cabinets.

- **Single Channel** is intended to be used when only a single cabinet needs to be driven from 1 channel to optimise power and efficiency. A cable linking pins 1+ to 2+ and 1- to 2- will be required for use with the single channel preset.

6.1.3 Incubus Sub Presets

Incubus Sub has a single preset. It is required to utilise both “Bridge” and “Split Mode” to assign the channels in ArmoníaPlus as per the wiring shown in this document. To bridge two channels, select both channels on the amplifier and click “Bridge”. The two channels will graphically link to show it has been bridged.

Bridging combines two amplifier channels into a single higher-power output channel. This is required to deliver sufficient power to the Incubus Sub drivers.

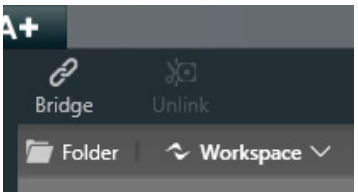


Figure 6.1: Bridged Channels in ArmoníaPlus

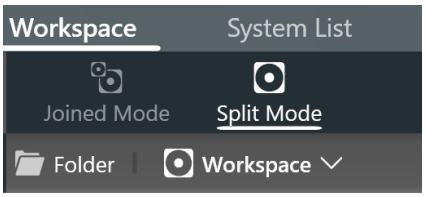


Figure 6.2: Split Mode in ArmoníaPlus

6.2 Amp Channel Allocation - Touring

Below is a summary of the standard channel allocations for one half of the Incubus system. This needs to be duplicated for a full left and right system set up.

	Channel 1	Channel 2	Channel 3	Channel 4
Bias Q5 1	Air Array MF 1 (8-pin locking connector B)	Air Array MF2 (8-pin locking connector B)	Air Array HF 1 (8-pin locking connector B)	Air Array HF 2 (8-pin locking connector B)
Bias Q5 2	Air Array LF 1 (8-pin locking connector A)	Air Array LF 2 (8-pin locking connector A)	Incubus Sub LF (1) (4-pin - 8-pin locking connector)	
Bias Q5 3	Hyperfold LF 1 (Cabinet 1) (4-pin locking connector)	Hyperfold LF 2 (Cabinet 1) (4-pin locking connector)	Incubus Sub LF (2) (4-pin - 8-pin locking connector)	
Bias Q5 4	Hyperfold LF 1 (Cabinet 2) (4-pin locking connector)	Hyperfold LF 2 (Cabinet 2) (4-pin locking connector)	Incubus Sub LF (3) (4-pin locking connector - 8-pin locking connector)	

The standard channel allocations shown below in ArmoníaPlus correspond to those listed in the table above.

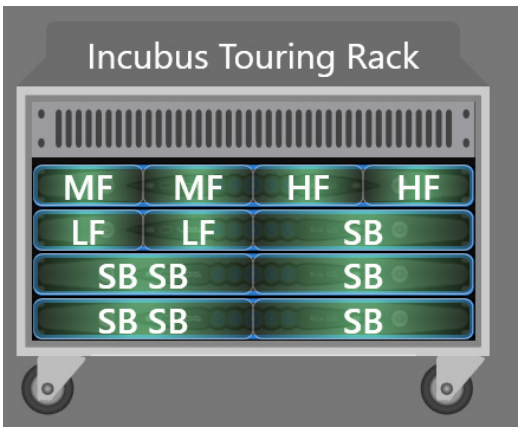


Figure 6.2: Fully assigned typical touring rack in ArmoníaPlus

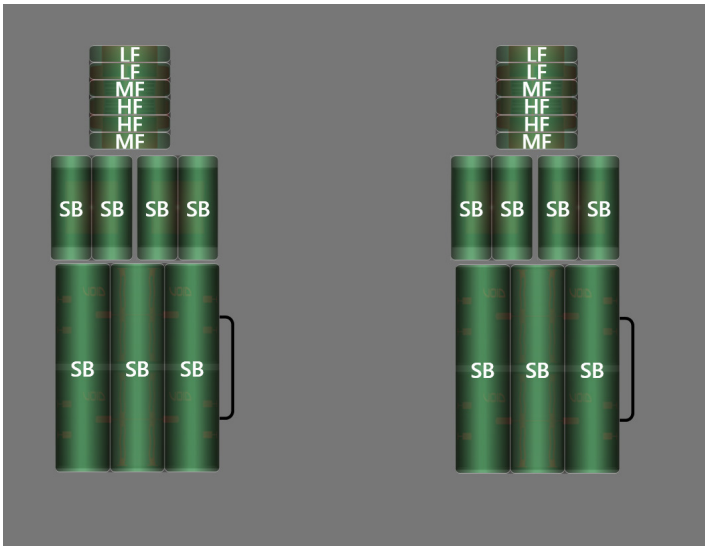


Figure 6.3: Fully assigned typical touring set up in ArmoníaPlus

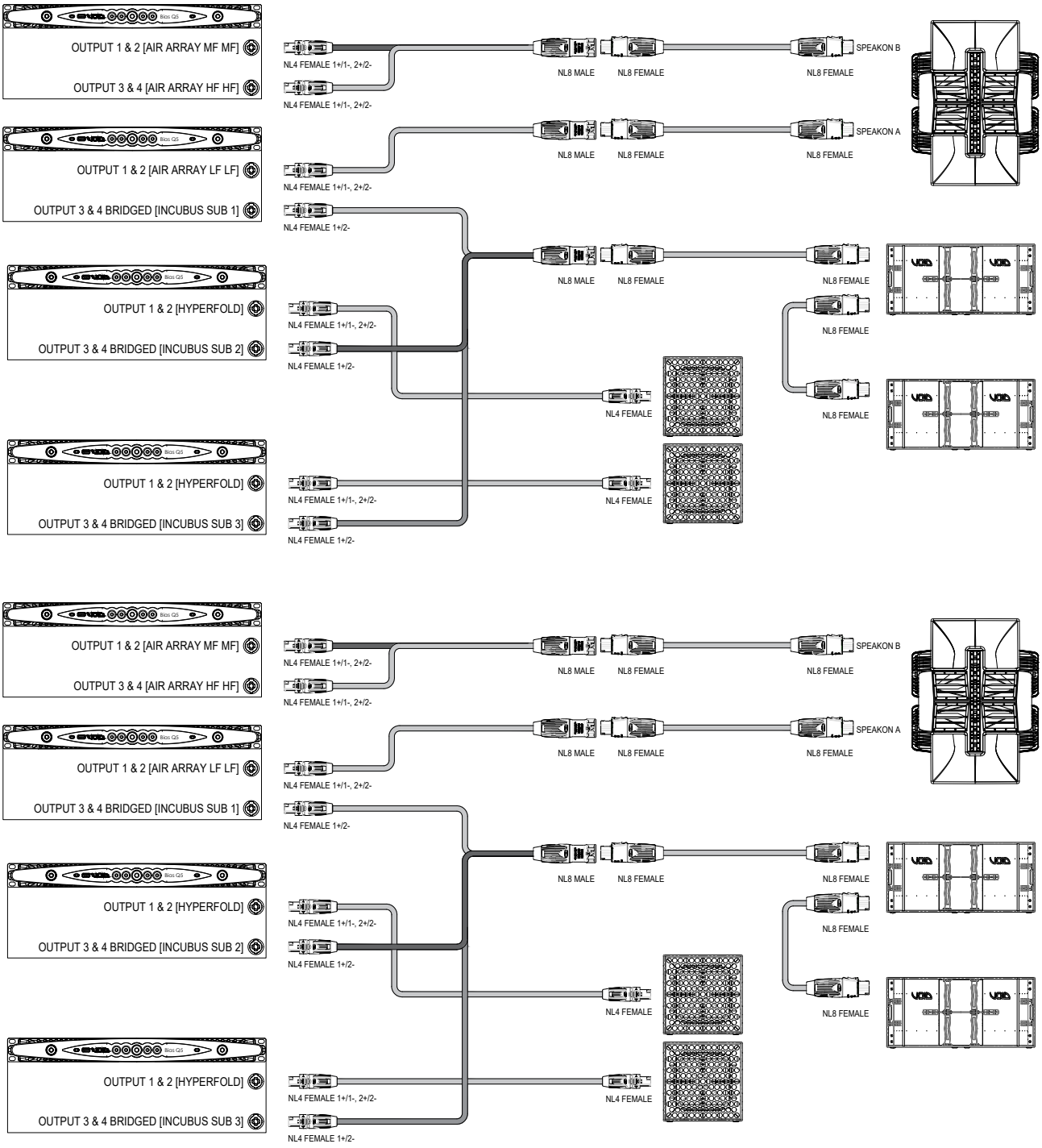


Figure 6.4: Full wiring diagram for Touring Incubus System

6.3 Amp Channel Allocation - Install

Below is a summary of the standard channel allocations for an Incubus system install.

	Channel 1	Channel 2	Channel 3	Channel 4
Bias Q5 1	Hyperfold L LF 1 (Cabinet//1+2 4-pin locking connector)	Hyperfold L LF 2 (Cabinet//1+2 4-pin locking connector)	Hyperfold R LF (Cabinet//3+4 4-pin locking connector)	Hyperfold R LF 2 (Cabinet//3+4 4-pin locking connector)
Bias Q5 2	Air Array L HF 1 (8-pin locking connector B)	Air Array L HF 2 (8-pin locking connector B)	Incubus Sub LF (L) (4-pin - 8-pin locking connector)	
Bias Q5 3	Air Array L MF 1 (8-pin locking connector B)	Air Array L MF 2 (8-pin locking connector B)	Incubus Sub LF (L) (4-pin - 8-pin locking connector)	
Bias Q5 4	Air Array L LF 1 (8-pin locking connector A)	Air Array L LF 2 (8-pin locking connector A)	Incubus Sub LF (L) (4-pin - 8-pin locking connector)	
Bias Q5 5	Air Array R HF 1 (8-pin locking connector B)	Air Array R HF 2 (8-pin locking connector B)	Incubus Sub LF (R) (4-pin - 8-pin locking connector)	
Bias Q5 6	Air Array R MF 1 (8-pin locking connector B)	Air Array R MF 2 (8-pin locking connector B)	Incubus Sub LF (R) (4-pin - 8-pin locking connector)	
Bias Q5 7	Air Array R LF 1 (8-pin locking connector A)	Air Array R LF 2 (8-pin locking connector A)	Incubus Sub LF (R) (4-pin - 8-pin locking connector)	

The standard channel allocations shown below in ArmoníaPlus correspond to those listed in the table above.

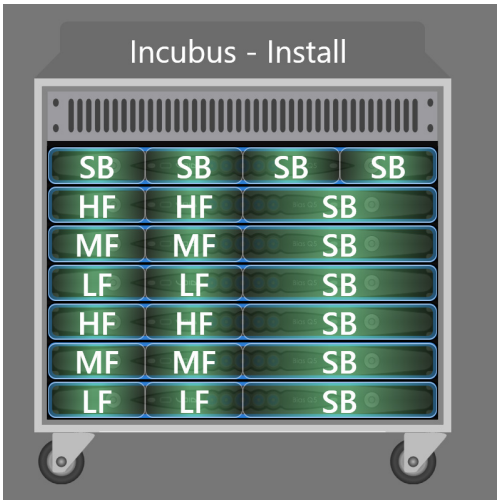


Figure 6.5: Fully assigned typical Install rack in ArmoníaPlus

6 Application and Control

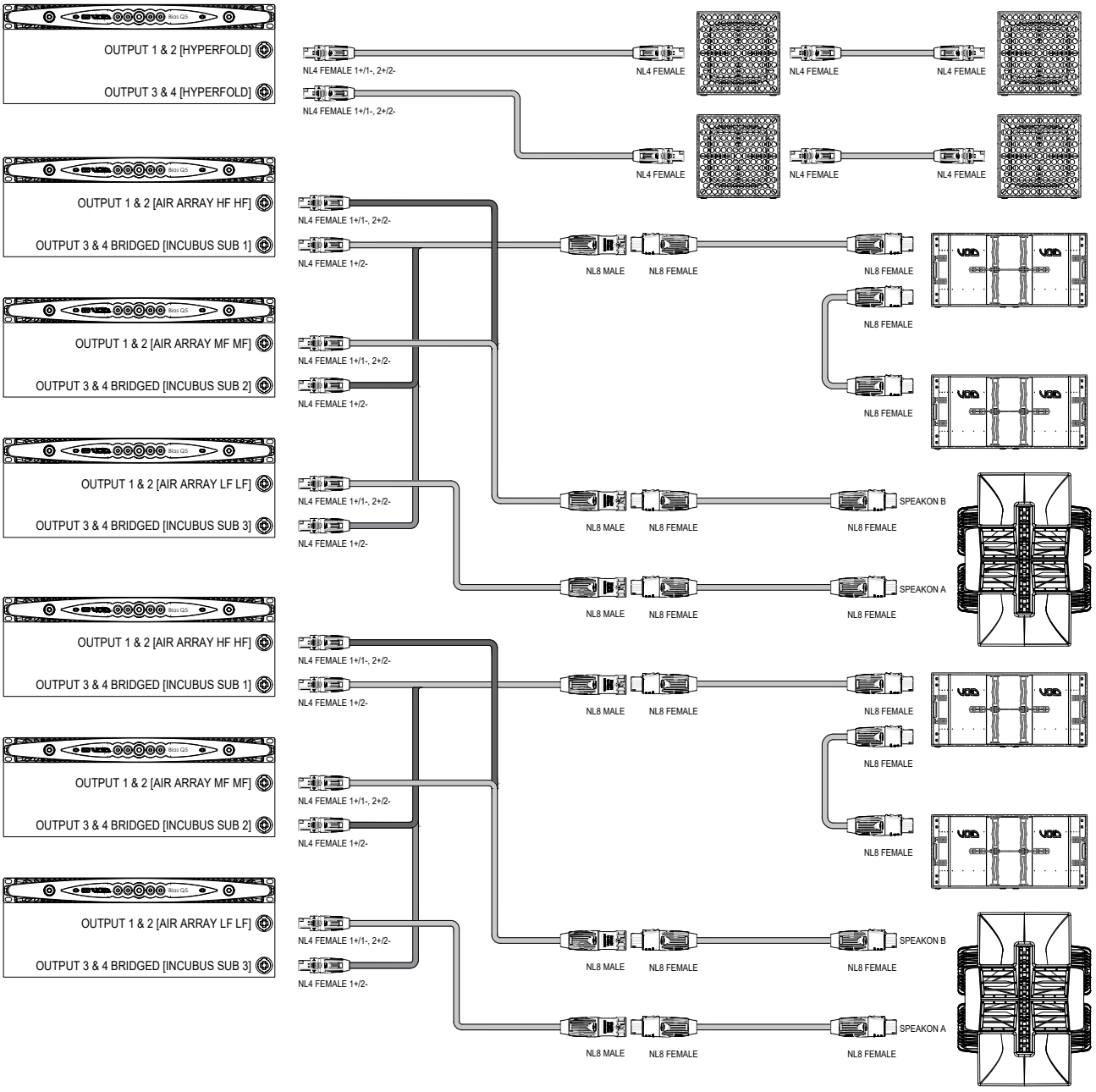


Figure 6.6: Full wiring diagram for Install Incubus System

7 Mounting

Tools required

- 19 mm & 13 mm ratchet spanner/wrench
- 6 mm & 4 mm hex key

7.1 Installation safety

To avoid mechanical hazards, please note the following:

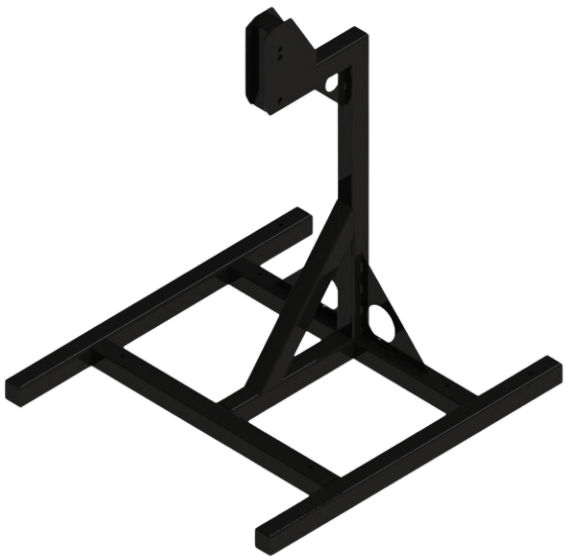
- Safety regulations vary in different regions. Full compliance with those regulations must be your priority.
- Installations must only be undertaken by fully qualified and experienced engineers and technicians who understand local regulations.
- This may include consulting a structural engineer before installation of wall brackets.
- Remember that all personnel have a duty of care to themselves, to their assistants, to the venue staff and to the public.
- Before lifting any part of the system above head height, check the whole rig for loose tools or other items that may fall and cause injury.
- Do not use a telephone (even if hands-free) whilst installing. Always concentrate fully on the installation operation.
- Do not install equipment that is worn, damaged, corroded, mishandled or over-stressed in any way.
- Use only Void-approved mounting equipment and accessories.
- Secondary safeties should be provided in all instances where cabinets are flying or fixing overhead and should conform to local regulations.

The Air Array ground stack bracket is not designed or certified for flying or suspending loudspeakers. Using this product to suspend loudspeakers or any other load is unsafe and may result in serious injury or death. Do not use as flying hardware. All rigging, suspension, and lifting operations must be performed by qualified personnel using certified flying hardware and in full compliance with applicable local safety regulations.

7.2 Ground Stack

Equipment List

Accessory	IT Number	Quantity
Air Array	IT1575	1
Rear Bracket (Included with Air Array)	IT3714	1
Air Array Ground Stack	IT3374	1
M12X90 Hex Bolt (Included with Air Array)	N/A	2
M12 Nyloc Nut (Included with Air Array)	N/A	2
M12 Conical Spring Washer (Included with Air Array)	N/A	2
M12 Flat Washer (Included with Air Array)	N/A	4



Risks

- **Adjusting Angle** - Bottom lip of Air Array will hit the ground stand if dropped or if not using designated holes illustrated in Section 7.3.

7.2 Ground Stack Bracket

Step 1

Using a 19 mm ratchet spanner, remove the two M12 bolts from the Air Array backing plate, and lift and secure ground stack on to the Air Array, whilst it's still in the travel case.

Note: Air Array loudspeakers are heavy and require a minimum of seven people to lift. It is therefore recommended to secure the ground stack onto the Air Array whilst still laying down in its travel case.

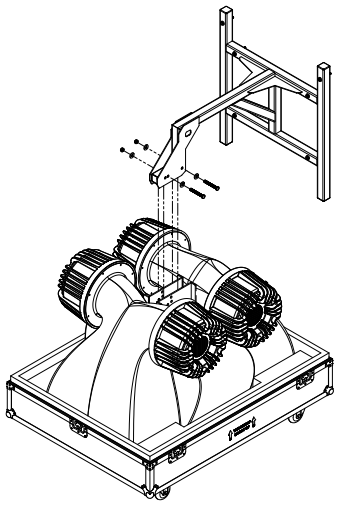


Figure 7.1: Securing ground stack to Air Array

Step 2

Setting the desired angle first, then secure the M12 bolts through the backing plate and ground stack, then retighten the nuts to firmly fasten the ground stack to the Air Array.

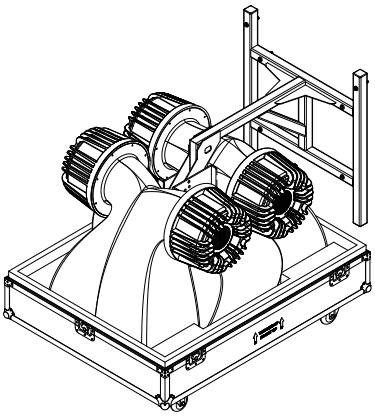


Figure 7.2: Ground stack secured to Air Array

Step 3

Using a suitable hoist where available (recommended), carefully lift the Air Array from the hole in the ground stack indicated by the arrow in the image. If a hoist is not available, manually handle and lift the Air Array with appropriate care, ensuring safe lifting practices are followed at all times.

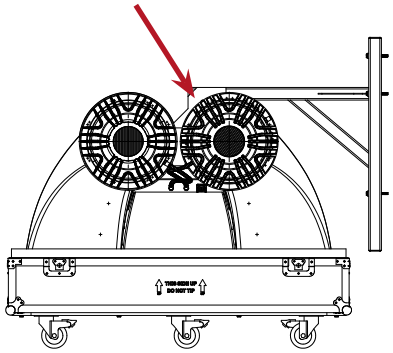


Figure 7.3: Hoist hole location on ground stack

7.2 Ground Stack Bracket

Step 4

Carefully lift and rotate the Air Array, remove the travel case, and place the Air Array upright.

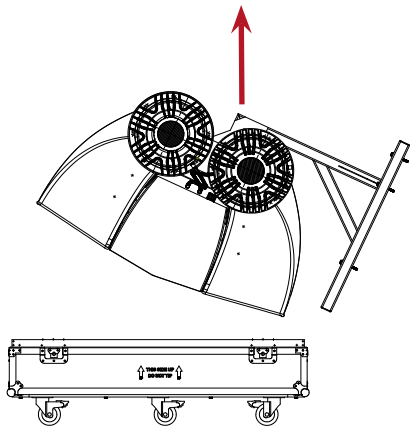


Figure 7.4: Air Array positioning

Step 5

Check angle of Air Array is suitable.

We recommend setting the desired angle of the Air Array prior to lifting as adjusting the angle while the Air Array is upright or suspended may cause the Air Array to swing or drop unexpectedly, creating a risk of injury or equipment damage.

To adjust angle of the Air Array, remove one M12 bolt and position accordingly.

To avoid damaging the bottom lip of the Air Array, only use the designated holes illustrated in Section 7.3.

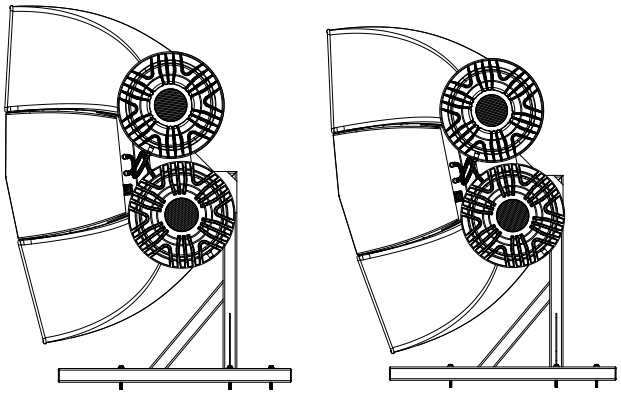


Figure 7.5: Vertical angle positioning

7.3 Ground Stack Bracket Hole & Angle

Hole	Hole Description
1	0° Downtilt
2	6° Downtilt
3	12° Downtilt
4	17° Downtilt
5	NOT TO BE USED FOR GROUND STACK
6	NOT TO BE USED FOR GROUND STACK
7	NOT TO BE USED FOR GROUND STACK
8	PIVOT HOLE Always to be used

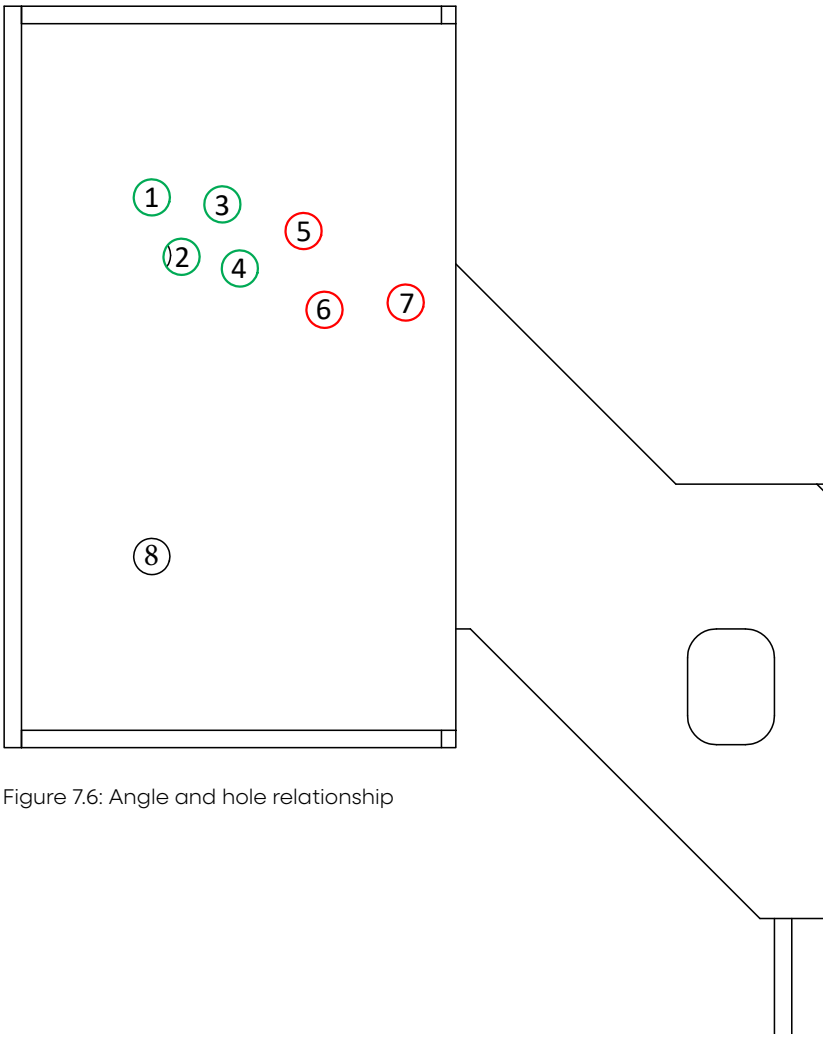


Figure 7.6: Angle and hole relationship

7.4 Complete Stack Assembly

The complete Void Acoustics Incubus Stack features two Incubus Subs, two Hyperfolds and one Air Array per stack.

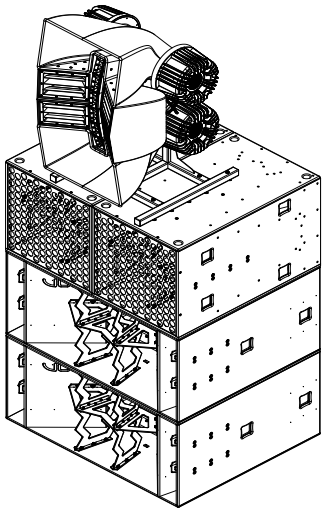


Figure 7.7: Complete Incubus Stack

Step 1
Begin by finding flat, level ground on which to place the entire stack. If using a full pull through ratchet strap, place two down on the ground now.

Step 2
Place the first Incubus Sub horizontally, as per the image below, and ensure all rubber feet are in contact with the ground.

The Incubus Sub is heavy (214 kg (471.8 lbs)) and requires eight people to lift.

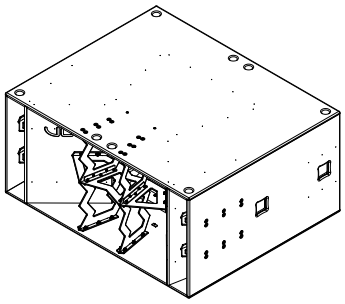


Figure 7.8: One Incubus Sub

7.4 Complete Stack Assembly

Step 3
Place an additional Incubus sub on top, ensuring that the rubber feet “lock” into place before moving on to the next step.

Note: Only lift the Incubus Sub using the dedicated handles around the cabinet. Do not lift from the bottom edge of the cabinet to avoid pinching fingers between the two cabinets.

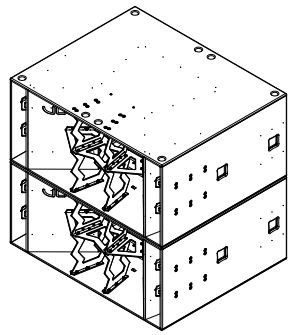


Figure 7.9: Two Incubus Subs Stacked

Step 4
Place two Hyperfold Enclosures on top. Ensure that the rubber feet “lock” into place on the Incubus Sub directly below before moving on to the next step.

Hyperfold is heavy (150 kg (330.7 lbs)) and requires six people to lift.

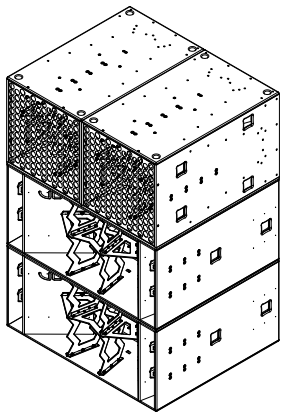


Figure 7.10: Two Incubus Subs + Two Hyperfold

Step 5
Before installation, remove three M8 Countersunk bolts from each of the Hyperfolds. Ensure the bolts are the ones closest to the centre of the stack as shown in figure 7.11. Store the bolts in a safe place to be replaced later.

7.4 Complete Stack Assembly

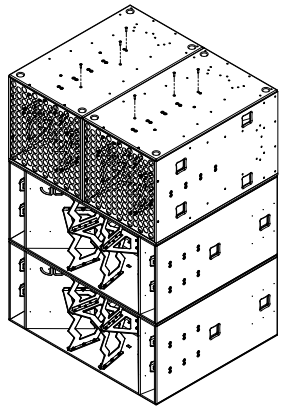


Figure 7.11: Removal of M8 Countersunk Bolts

Step 6
Carefully lift the Air Array and bracket assembly on top of the Hyperfold enclosures, and secure in place using the M8 Hex Head bolts and washers. Ensure the bolts are finger tight before tightening with a 13mm spanner/wrench.

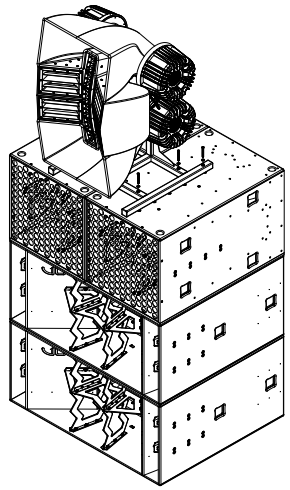


Figure 7.12: Additional of securing Bolts to Air Array Ground Stack Bracket

Step 7
Secure the entire array. When securing an Air Array, Hyperfold, and Incubus Sub stack, use 50 mm polyester ratchet load straps rated to a minimum lashing capacity of 5000kg.

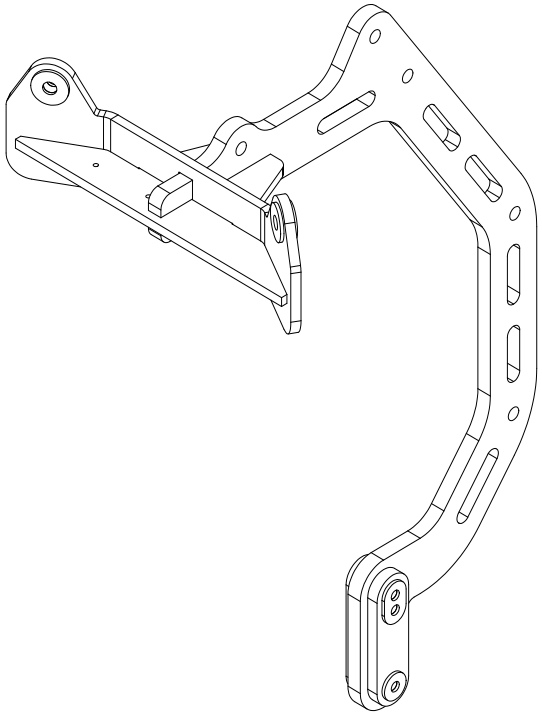
Apply a minimum of two straps per stack using corner protectors to prevent damage to the enclosures. Straps must never be used for lifting or suspension. Secure the straps over the ground stack bracket.

Note: If using hooked straps, make sure these are properly seated within the handles of the lower Incubus Sub.

7.5 Fly Frame & Rigging

Equipment List

Accessory	IT Number	Quantity
Air Array	IT1575	1
Rear Bracket (Included with Air Array)	IT3714	1
Fly frame	IT6530	1
GreenPin Shackle WLL 2T (Included with fly frame)	N/A	5
3 Leg Master Link Sling (custom size) **(Not Supplied)**	N/A	1
1 Leg Master Link Sling (custom size) **(Not Supplied)**	N/A	1
Safety Chain / Wire (custom size) **(Not Supplied)**	N/A	1
M12X90 Hex Bolt (Included with Air Array)	N/A	2
M12 Nyloc Nut (Included with Air Array)	N/A	2
M12 Conical Spring Washer (Included with Air Array)	N/A	2
M12 Flat Washer	N/A	4



Risks

- **Falling Objects** - Verify that no unattached items remain on the product or assembly.
- **Secondary Safety** - Use dedicated hole on the fly frame to implement a secondary safety.
- **Array Orientation** - The fly frame should not be flown in any other configuration other than what has been stated in the user guide.

7.5 Fly Frame & Rigging

Notes

- A 450 mm 3-leg master link sling produces an angle of approximately 60° for the three point lift, which is the minimum recommended angle. Longer sling lengths are recommended.
- **The top of the fly frame must be kept level when in final position.**
- This system is only suitable for lifting Void Acoustics Air Array or Nexus 6 units. Do not use it to lift any other equipment.
- Do not suspend or attach any additional items beneath or to the fly frame.
- Three additional holes are provided for tie-down purposes to help minimise movement or swinging.
- Do not permanently install in an outdoor environment.
- Do not attach shackles or any other lifting equipment through the slots

7.5 Fly Frame & Rigging

Step 1

Remove the two M12 bolts from the Air Array backing plate

Note: Air Array loudspeakers are heavy and require a minimum of seven people to lift. It is therefore recommended to secure the fly frame onto the Air Array whilst still laying down in its travel case.

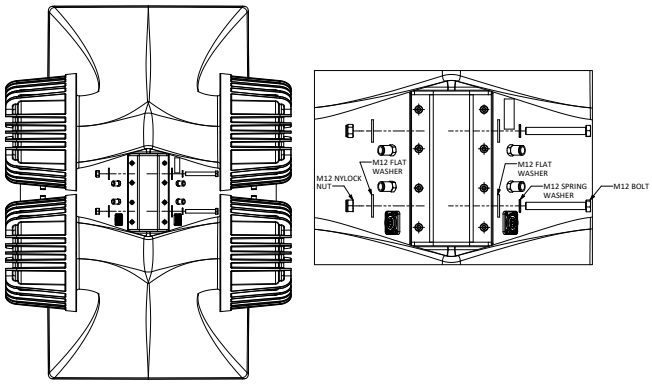


Figure 7.13: Removing M12 bolts from Air Array

Step 2

Through the rear bracket and fly frame, secure one M12 bolt through pivot hole 8 without tightening. Then set the desired angle, and secure the second M12 bolt. Finally, retighten the nuts to firmly fasten the fly frame to the Air Array.

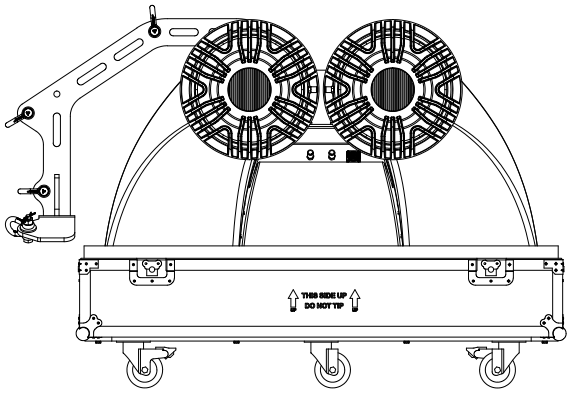


Figure 7.14: Fly frame secured to Air Array

Step 3

Attach the 3-leg master link to the shackles on the fly frame indicated by the green arrows, and the safety wire to the shackle indicated by the red arrow.

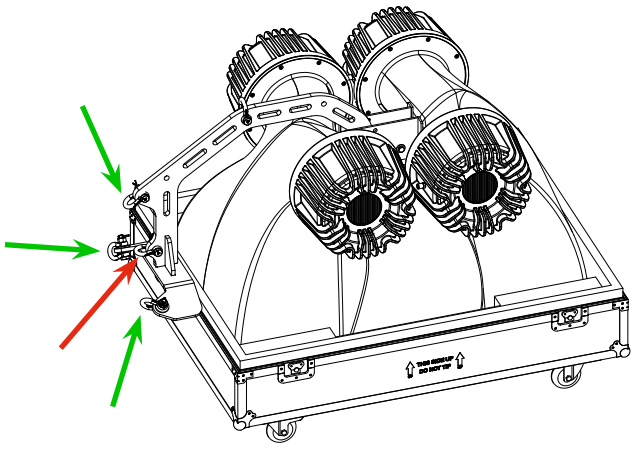


Figure 7.15: Hoist shackle points

7.5 Fly Frame & Rigging

Step 4

Lift the Air Array into position using the hoist attached to the 3-leg master link sling, then secure the safety wire.

The yellow arrow shackle is optional, and is used to anchor the speaker in case of swaying or swinging of the Air Array, or to pan or toe-in as required.
This is not used to tilt the fly frame, the top of the fly frame must be kept level.

Using a shackle on one of the three remaining holes, attach a 1-leg sling to secure the fly frame if needed.

For further information refer to section 7.6.

Note: Ensure the hoist meets local regulations and take care when lifting to not scratch the Air Array on the travel case.

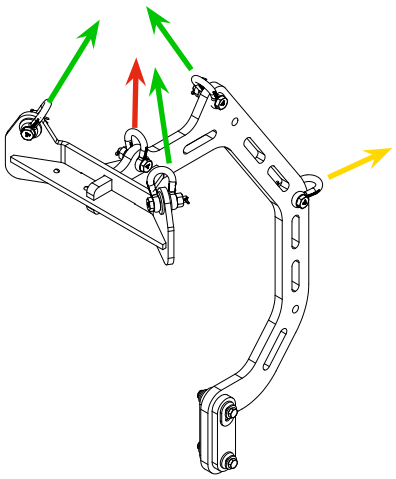
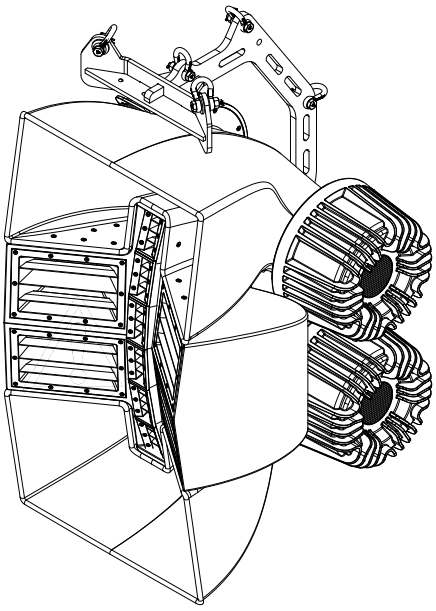


Figure 7.16: Shackle positions



Step 5

Double check that the position and angle of the Air Array is suitable.

To adjust the angle, land the unit into the travel case and return to Step 2.

Do not try to adjust the angle while the Air Array is upright or suspended as this may cause the Air Array to swing or drop unexpectedly, creating a risk of injury or equipment damage.

7.6 Fly Frame Bracket Hole and Angle

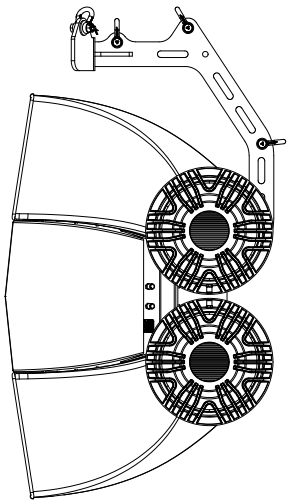


Figure 7.17: Hole 1 = 0°

Hole	Speaker Angle
1	0°
2	-6°
3	-12°
4	-17°
5	-25°
6	-35°
7	-45°

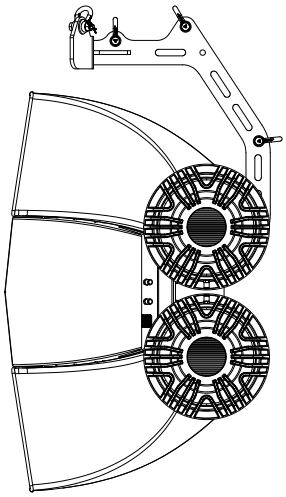


Figure 7.18: Hole 2 = -6°

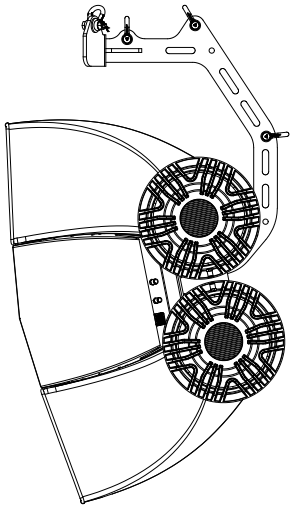


Figure 7.19: Hole 3 = -12°

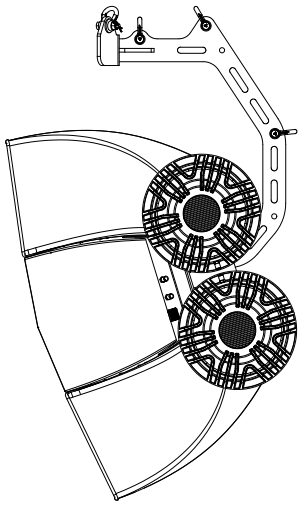


Figure 7.20: Hole 4 = -17°

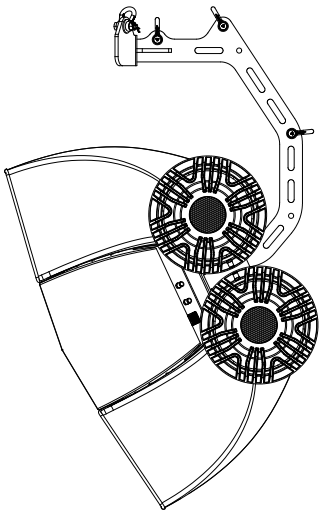


Figure 7.21: Hole 5 = -25°

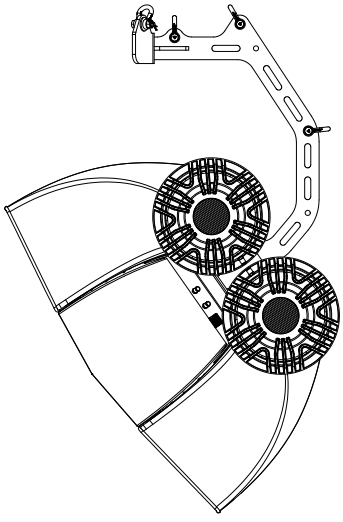


Figure 7.22: Hole 6 = -35°

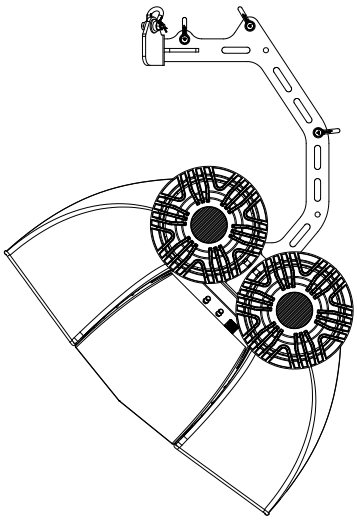


Figure 7.23: Hole 7 = -45 °

7.7 Fly Frame Secondary & Anchor Points

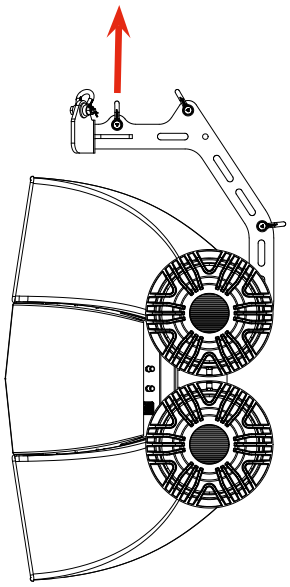


Figure 7.24: Secondary attachment point

Secondary Attachment Point

Make sure the secondary attachment point is not connected to the same hoist as the 3-leg master. It should also be secured with minimal slack.

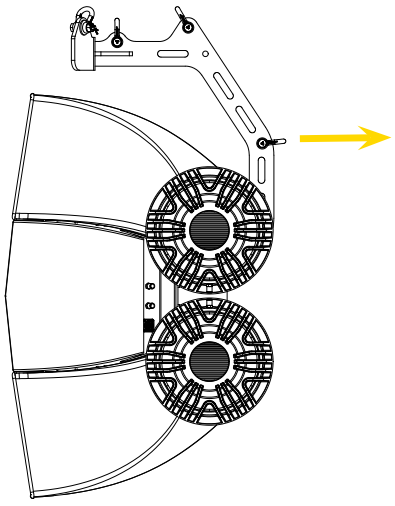


Figure 7.25: Anchor / anti sway attachment point

Anchor / Anti sway Attachment Point

This designated attachment point is used to help stabilise the system and minimise unwanted sway or pivoting. This point may be used at any angle; however, it must not be tensioned to the extent that it relieves or increases load for the primary lifting points of the Air Array.

7.8 Rigging Safely & Compliance

To avoid mechanical hazards, please note the following

- Safety regulations vary in different regions. Full compliance with those regulations must be your priority
- Keep clear of rigging operations if you are tired, distracted, unwell or suffering from the effects or after-effects of medication, alcohol or drugs
- Rigging must only be undertaken by fully qualified and experienced riggers in full compliance with local, national and international regulations
- Remember that all personnel have a duty of care to themselves, to their assistants, to the venue staff and to the public
- Before lifting any part of the system check the whole rig for loose tools or other items that may fall and cause injury
- Ensure that you watch the rig and its motors during motor operations
- Do not use a telephone (even if hands-free) whilst rigging. Always concentrate fully on the rigging operation
- Do not rig equipment that is worn, damaged, corroded, mishandled or over-stressed in any way
- Use only Void-approved accessories where applicable

We conform with the relevant Union Harmonised Legislation
2006/42/EC: Machinery Directive

The following harmonised standards and technical specifications have been applied:
BS EN 13155:2020+A1:2025
ISO 12100:2010

The Fly frame has been designed in accordance with BS EN 13155 and intended for use in professional entertainment rigging. Installation and use must comply with local regulations and industry standards such as DGUV 17/18, EN 17206, or equivalent where applicable.

7.9 Inspection and Preventive Maintenance

Inspect the system before each deployment and after any corrective maintenance operation. Preventive maintenance must be carried out at least once per year.

Rigging and Hardware

- Inspect each rigging part individually
- Perform a full rigging system check
- If any component shows signs of damage, do not use it. Contact your Void Acoustics representative for further guidance.

Rigging Part Inspection

For critical rigging components, refer to the inspection reference images for comparison and handling guidance.

The term “rigging part” comprises:

- Lifting accessories such as clamps and shackles
- Rigging accessories such as rigging frames, rigging interfaces, and brackets
- Fasteners used for assembling two products together such as ball-locking pins, rigging axes, and safety pins and bolts.
- Rigging elements integrated in the product such as rigging arms and rails
- Transportation accessories

This inspection procedure covers only Void Acoustics products.

To inspect other products that are part of the lifting chain, refer to the manufacturer’s instructions.

Prerequisite

- Ensure the inspection is carried out in a well-lit environment

Procedure

- Verify that all rigging components are present.
- Where applicable, remove the rigging component from the enclosure or rigging accessory
- Check that all tethers are intact and securely fastened.
- Inspect each component thoroughly from all sides.
  Compare the condition of each part against the reference images.

7.9 Inspection and Preventive Maintenance

Check for:

- Corrosion
- Wear, cracks or fractures
- Bends and dents
- Elongated or damaged holes
- Missing safety features or retaining elements
- Missing or illegible identification markings
- Missing, loose, or damaged bolts, safety pins or other fasteners

Replacing screws

- If a screw is loose, remove and replace it using a new screw from the approved repair kit
- If a replacement screw is not available, apply a suitable medium-strength (blue) thread-locking compound before reusing the screw
- Do not exceed the specified tightening torque

Geometry

- Check the geometry of the part for signs of deformation
- Place the rigging component on a flat surface or use a straight edge or level to verify alignment

Moving parts

- Inspect all moving parts to ensure they operate correctly
- Confirm that all mechanisms engage, lock, and release as intended

If a problem is detected

- Carry out only authorised maintenance procedures
- If the issue cannot be resolved, contact your Void Acoustics representative for further assistance

7.9 Inspection and Preventive Maintenance

Shackle

- Ensure the pin is screwed fully into the shackle eye
- Verify that the thread is fully engaged within the shackle
- Ensure the nut is correctly seated against the end of the thread, not against the shackle eye
- Confirm that a split cotter pin is correctly fitted before lifting operations

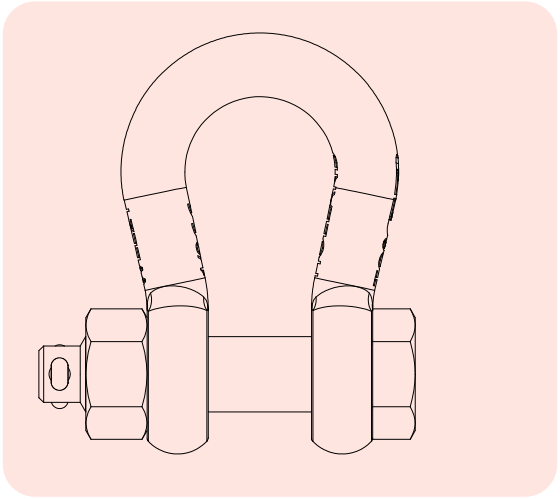
Pre-Use Inspection

If any of the following defects are identified, remove the shackle from service and refer to a competent person

- Missing or out-of-date inspection report
- Illegible or unclear Safe Working Load (SWL) markings
- Distorted, worn, stretched, or bent body or pin
- Damaged or incomplete thread forms
- Nicks, gouges, cracks, or corrosion
- Incorrect or mismatched pin

Maintenance

- Keep the shackle clean
- Ensure threads are free from debris
- Apply appropriate protection to prevent corrosion



8 Adjustments

To avoid damage when making adjustments please note the following:

- Removing the grille can cause debris to collect within the enclosure, take care to remove anything that may have collected internally.
- Do not use impact tools.

8.1 Wheel removal

Step 1:
Remove all four M6 bolts with a 13 mm spanner/wrench.

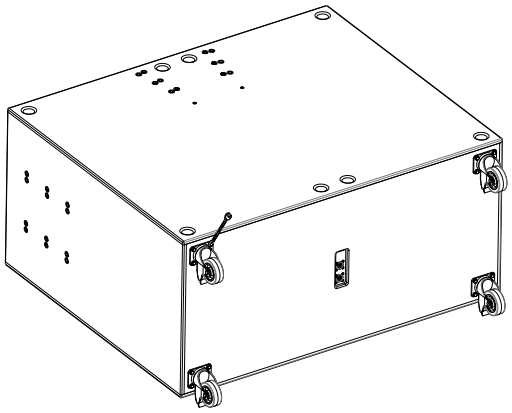


Figure 8.1: Bolt removal

Step 2:
Remove/add the wheels and keep in a safe place. Repeat the process for the other three wheels.

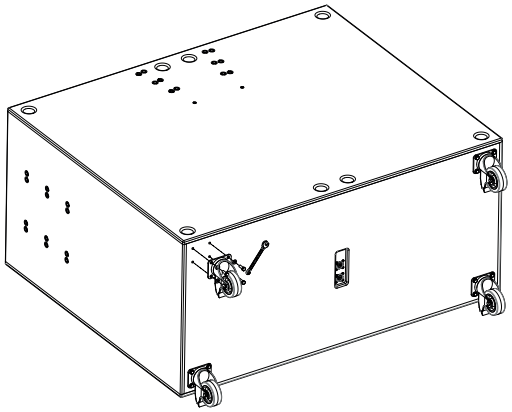


Figure 8.2: Wheel removal

Step 3:
Replace the M8 bolts by hand until finger tight before using hand tools.

Note: Replacing bolts is of particular importance as without them there can be air leakage and detuning of the acoustic volume within the cabinet.

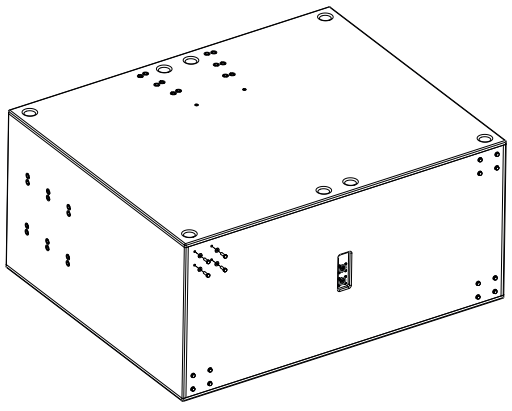


Figure 8.3: Bolt tightening

8 Adjustments

8.2 Hyperfold grille removal

Step 1:
Undo all eight M6 tab bolts using a 4 mm hex key

Note: Take care not to remove the tab bolts as they may become lost within the enclosure.

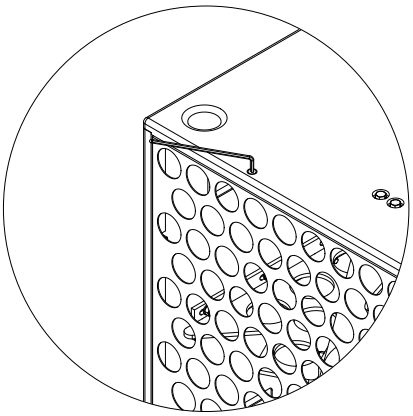


Figure 8.4: Bolt removal

Step 2:
Remove grille.

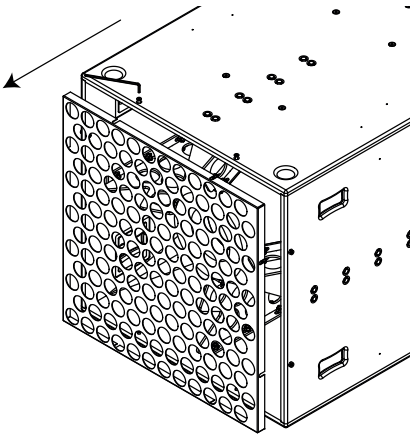


Figure 8.5: Grille removal

Step 3:
Replace the M6 bolts by hand until finger tight before using hand tools.

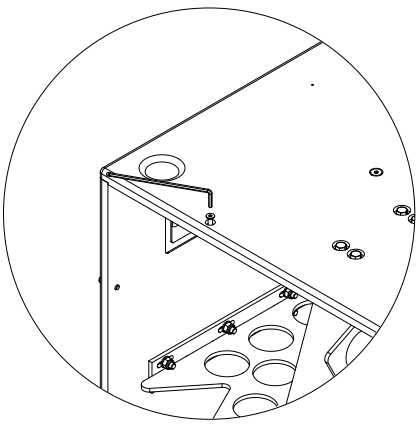


Figure 8.6: Bolt replacement

9 Service

Void Incubus System loudspeakers should only be serviced by a fully-trained technician.

No user serviceable parts inside. Refer servicing to your dealer.

9.1 Return authorisation

Before returning your faulty product for repair, please remember to get an R.A.N. (Return Authorisation Number) from the Void dealer who supplied the system to you. Your dealer will handle the necessary paperwork and repair. Failure to go through this return authorisation procedure could delay the repair of your product.

Note that your dealer will need to see a copy of your sales receipt as proof of purchase so please have this to hand when applying for return authorisation.

9.2 Shipping and packing considerations

- When sending a Void Incubus System loudspeaker to an authorised service centre, please write a detailed description of the fault and list any other equipment used in conjunction with the faulty product.
- Accessories will not be required. Do not send the instruction manual, cables or any other hardware unless your dealer asks you to.
- Pack your unit in the original factory packaging if possible. Include a note of the fault description with the product. Do not send it separately.
- Ensure safe transportation of your unit to the authorised service centre.

10 Appendix

Air Array architectural specifications

The loudspeaker shall be a three-way system with independent dedicated amplification consisting of four high power 12” (304.8 mm) horn loaded low frequency (LF) transducers, a mid frequency section consisting four 3” (76.2 mm) mid frequency (MF) compression drivers with attached waveguides and six 1” (25.4 mm) high frequency (HF) compression driver mounted on a waveguide to allow constant directivity.
Two hyperbolic horns fed from a split manifold and driven by the four LF transducers shall provide the low frequency section. Each LF transducer shall be enclosed in an independent moulded fibreglass enclosure featuring a heatsink cooling system to reduce power compression levels. Mid frequency transducers are in a sealed enclosure mounted in a V baffle configuration for a more coherent radiation pattern over frequency range. HF transducers shall be arranged in a line source configuration positioned on a physical arc, providing a virtual common feed point, resulting in an improved directivity pattern control and higher SPL over the high frequency range. Line source behavioural conditions are met by all sections hence allowing frequency and power shading within a single enclosure.
The LF transducers shall be constructed on a cast aluminium frame, with a treated paper cone, 101.6 mm (4”) voice coil, wound with copper wires on a high quality voice coil former and neodymium magnets, for high power handling and long term-reliability. Each 3” MF transducer shall have a 6” diaphragm reproducing frequencies down to 500 Hz, and shall be mounted on a high standard waveguide with path length compensation for a better directivity pattern control over the frequency spectrum. The HF transducers shall project sound through a high precision planar waveguide to achieve pattern control and low distortion.

Performance specifications for a typical production unit shall be as follows: the usable on-axis bandwidth shall be 90 Hz to 20 kHz, with an average 45° directivity pattern on the vertical axis and 90° on the horizontal axis (-6 dB down from on-axis level) from 1 kHz to 12 kHz; maximum SPL of 152 dB peak measured at 1 m using IEC268-5 pink noise. Power handling shall be 3600 W AES for the LF section at a rated impedance of 2 x 4 Ω, 800 W AES for the MF section at a rated impedance of 2 x 4 Ω and 320 W AES for the HF section at a rated impedance 2 x 5.3 Ω. The system shall be powered by its own dedicated power amplification modules with DSP management, from which crossover points will also be set. The wiring connection shall be via two 8-pin locking connector. The left 8-pin locking connector shall be used to power the LF section and the right one shall power the MHF section.
The enclosure shall be of a fibreglass composite with a smooth cellulose finish of any RAL colour. The system shall be stack mounted with a dedicated stand or can also be flown with a load tested suspension system. The external dimensions of the enclosure shall be (W) 944 mm x (H) 1240 mm x (D) 813 mm (37.2” x 48.8” x 32”). Weight shall be 170 kg (375 lbs) - with ground stack 195 kg (430 lbs).

The loudspeaker shall be the Void Acoustics Air Array.

10 Appendix

Hyperfold architectural specifications

The loudspeaker shall be an active manifold horn loaded sub system consisting of four high power 15” (381 mm), long excursion, low frequency (LF) transducers mounted in a birch plywood enclosure.

Each low frequency transducer shall be constructed on a cast aluminium frame, with a treated paper cone, 101.6 mm (4”) voice coil, wound with copper wires on a high quality voice coil former for high power handling and long-term reliability.

Performance specifications for a typical production unit shall be as follows: the usable bandwidth shall be 55 Hz to 135 Hz; maximum SPL of 152 dB peak (146 dB continuous) measured at 1 m using IEC268-5 pink noise. Power handling shall be 4000 W AES at a rated impedance of 2 Ω (2 x 4 Ω) with pressure sensitivity at 110 dB measured at 1W/1m. The system shall be powered by its own dedicated power amplification module with DSP management. The wiring connection shall be via two 4-pin locking connector (one for input and one for loop-out to another speaker), allow for pre-wiring of the connector before installation.

The enclosure shall be constructed from 18 mm multi-laminate birch plywood coated with textured polyurea with a smooth cellulose finish. It shall have a lightweight aluminium bracing and external dimensions of (H) 748 mm x (W) 738 mm x (D) 1218 mm (29.4” x 29.1” x 47.9”). Weight shall be 150 kg (330.7 lbs).

The loudspeaker shall be the Void Acoustics Hyperfold.

10 Appendix

Incubus Sub architectural specifications

The loudspeaker shall be an active bandpass-horn hybrid system consisting of three high power 21” (533.4 mm), long excursion, low frequency (LF) transducers mounted in a rectangular enclosure.

Each low frequency transducer shall be constructed on a cast aluminium frame, with a treated paper cone, 152.4 mm (6”) voice coil, wound with copper wires on a high quality voice coil former for high power handling and long-term reliability.

Performance specifications for a typical production unit shall be as follows: the usable bandwidth of 25 Hz to preset dependent (-10 dB), with a maximum SPL of 148 dB peak (142 dB continuous) measured at 1 m using IEC268-5 pink noise. Power handling shall be 6000 W AES at a rated impedance of 3 x 8 Ω and a pressure sensitivity of 105 dB measured at 1W/1m. The system shall be powered by its own dedicated power amplification module with DSP management. The wiring connection shall be via two 8-pin locking connector (one for input and one for loop-out to another speaker), to allow for pre-wiring of the connector before installation.

The enclosure shall be constructed from a 18 mm multi-laminate birch plywood finished in a textured ‘TourCoat’ polyurea. It shall have lightweight aluminium bracing and external dimensions of (H) 704 mm x (W) 1479 mm x (D) 1218 mm (27.7” x 58.2” x 48”). Weight shall be 214 kg (471.8 lbs).

The loudspeaker shall be the Void Acoustics Incubus Sub.

10.1 Changelog

Version	Notes
3.0	New wiring diagrams, new amp allocations, Armonia instructions, install and tour set up information, updated diagrams and images, stacking instructions, Air Array Fly Frame information. General overall updates.

NORTH AMERICA

Void Acoustics North America

Call: +1 630 686 6616
Email: sales.usa@voidacoustics.com

HEAD OFFICE

Void Acoustics Research Ltd
Unit L, The Fulcrum
Vantage Way
Poole, Dorset
BH12 4NU
United Kingdom

Call: +44(0) 1202 666006
Email: hello@voidacoustics.com

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