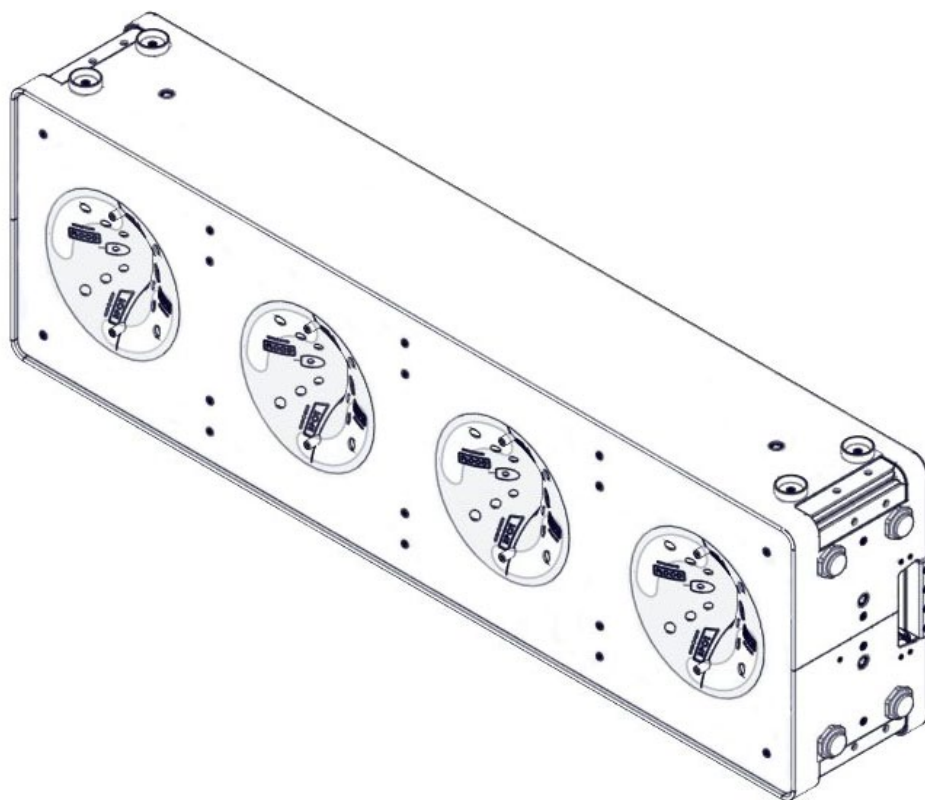




**KH7**  
USER GUIDE  
English



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## SYMBOLS



K-array declares that this device is in compliance with applicable CE standards and regulations. Before putting the device into operation, please observe the respective country-specific regulations!

---



Waste Electrical and Electronic Equipment (WEEE)  
Please dispose of this product at the end of its operational lifetime by bringing it to your local collection point or recycling center for such equipment.

---



This symbol alerts the user to the presence of recommendations about the product's use and maintenance.

---



Warning: DANGEROUS VOLTAGE.  
Terminals marked with this symbol carry a risk of **electric shock**, therefore external wiring connected to these terminals requires installation by a qualified professional or the use of ready-made leads or cords.

---



This symbol alerts the user to the presence of recommendations about product's use and maintenance.

---



This device complies with the Restriction of Hazardous Substances Directive.

---

## 1. INTRODUCTION

The K-array KH7 speaker is a compact, self-powered, weather resistant, mid-high line array element, complying with the highest standards, both in sound quality and SPL. It features four 12" coaxial neodymium magnet woofers, providing multiple setups, including both vertical and horizontal use, with an exceptional peak output of 141 dB SPL.

An integrated, Class D amplifier delivers 4 x 2000W at 4Ω with a max THD of 1% (EIAJ test at 1 kHz, single channel driven). The four discrete amplifier channels are controlled by an integrated DSP providing a hyper-detailed beam steering ability to meet any demanding setup requirement and control sound spillover.

All DSP functions are remotely controlled via software over ethernet.

All KH7's components are designed by the K-array R&D department and custom-made under K-array's quality control system.

## 2. KEY FEATURES

- Unique performance-to-size ratio
- Self powered
- Mechanically variable vertical coverage
- Mechanically variable horizontal coverage
- Integrated DSP with multiple analog and digital inputs
- Digital acoustic steering system
- Straight hanging
- RS485 connectivity for remote control

## 3. APPLICATIONS

- Large scale events
- Touring sound reinforcement
- Theatres, stadiums, concert halls, arenas
- Houses of worship
- Portable and installed AV systems

## 4. SAFETY INFORMATION



Warning: Failure to follow these safety instructions could result in fire, shock or other injury or damage to the device or other property.




This symbol alerts the user to the presence of recommendations about the product's use and maintenance.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of not isolated, dangerous voltage within the product enclosure that may be of magnitude to constitute a risk of electrical shock.

### IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- 
  - Use only the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus.
- Use caution when moving the apparatus with the assistance of a cart to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.



## WARNING



- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as 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.
- Because the device is a CLASS I apparatus, it must be only connected to an AC three-wire grounding outlet. If your outlet isn't grounded, contact a licensed electrician to replace it with a property grounded outlet.
- To reduce the risk of electric shock, unplug the AC mains connector before installing audio cable. Reconnect the power cord only after making all signal connections. Do not use the product if the power cord is broken or frayed. Protect the power cord from being walked upon or pinched.
- To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.
- **Avoiding hearing damage.** Professional loudspeakers are capable of producing extremely high sound levels and should be used carefully. Never stand close to loudspeakers driven at high volume. Set the volume to a safe level. You can adapt over time to a higher volume of sound that may sound normal but can be damaging to your hearing. Hearing loss get worse every time you're exposed to a sound level of 90 dB or over for an extended period of time. If you experience ringing in your ears or muffled speech, stop listening and have your hearing checked. The louder the volume, the less time is required before your hearing could be affected.
- **Voltage requirement.** Make sure that the supplied voltage stays within the specified range. Verify that your mains connection satisfies the power ratings of the device.
- Only connect the power supply to an appropriate power outlet
- Do not install the amplifier in wet or humid locations without using weather protection.
- TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, do not expose this apparatus to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.
- The main plug of the power supply cord shall remain readily accessible.



## CAUTION



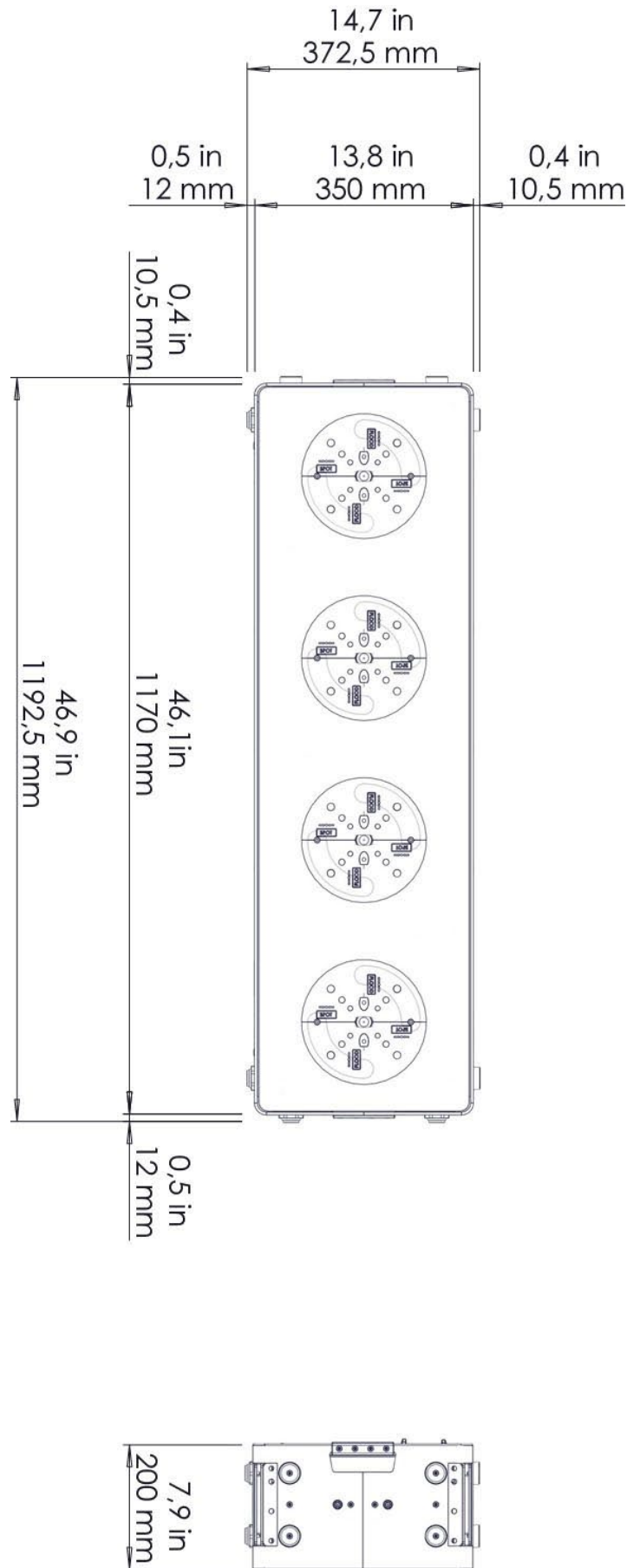
- **Choking Hazards.** This device contains small parts which may present a choking hazard to small children. Keep the device and its accessories away from small children.
- It is important that loudspeaker systems are used in a safe manner.
- **Do not make repairs yourself.** Do not open the device, it contains potentially hazardous voltage and there is risk of electrical shock. Never attempt to disassemble, repair or modify the system yourself. Disassembling the unit may cause damage that is not covered under the warranty. The device contains no user-serviceable parts. **Repairs should only be performed by factory-trained service personnel.** Do not plug the power cord in if you suspect that your device needs service or repair.
- **Sound distortion.** Do not operate speakers for an extended period of time with sound distortion. This is an indication of malfunction, which in turn can generate heat and result in a fire.

- **Cooling.** During use, it is normal for the device to get warm. The exterior of the device functions as a cooling surface that transfers heat from inside the unit to the cooler air outside. The device should be placed in a location that allows proper cooling. For example, the device shouldn't be placed near surfaces that can obstruct with the cooling of the rear panel's radiators. When operating, the device should not be cover with additional protections.
- **Temperature.** Operate the device in a place where the temperature is between -20°C and 35°C (-4°F to 95°F). Avoid dramatic changes in temperature or humidity when using it, as condensation may form on or within the device.
- Take care not to spill any food or liquid through the device's grill. Do not attempt to dry the device with an external heat source, such as a hair dryer.
- **Carrying, handling and installing the device.** The device contains sensitive components. Do not drop, disassemble, open, crush, bend, deform, puncture, shred, incinerate, paint, or insert foreign objects into it. If your device has been dropped or damaged unplug the power cable immediately.
- **Set up.** Set up your device on a stable retaining horizontal surface. If combined or mechanically connected with other products, always verify the stability of the resulted system. Install the unit only in a location that can structurally support the weight of the unit, far away from people who can interfere with the stability of the system. In case of outdoor installation, protect the device from rain and moisture. Assure that the wind does not interfere with the system's stability, taking extra securities like chains, weights, ropes or any other certified anchoring systems. Doing otherwise may result in the unit falling down, causing personal injury or property damage or even death. The system should only be suspended by qualified personnel following safe rigging practices. Secure fixings to the building structure are vital. To clarify any doubt you may have, seek help from architects, structural engineers or other specialists.
- This audio system is not intended for use in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control systems, or for any other uses where the failure of the audio system could lead to death, personal injury, or sever environmental damage.

## 5. UNPACKING

Each K-array speaker is built to the highest standards and thoroughly inspected before leaving the factory. Upon arrival, carefully inspect the shipping carton, then examine and test your new amplifier. If you find any damage, immediately notify the shipping company. Only the consignee may institute a claim procedure regarding the system's electronic equipment.

### 6. PRODUCT OVERVIEW





## 7. AMPLIFIER

### 7.1 AC POWER

The amplifier module and any audio equipment connected to it (mixing consoles, processors, etc.) must be properly connected to the AC power distribution, preserving the AC line polarity. Every grounding point must be connected to a single node or common point using the same cable gauge as the neutral and line cable. Bad grounding connections between speakers and the rest of the equipment may produce noise, hum or serious damage to the input/output stages in the system's electronic equipment.



Before applying AC to any K-array self-powered speaker, ensure that the voltage potential difference between neutral and earth ground is less than 5 VAC.



### 7.2 VOLTAGE REQUIREMENT

The auto-range power supply feature allows the amp unit to operate safely and without any audio discontinuity when the AC voltage stays within a nominal range of 100-240V (operating range 85- 265V) at 50 to 60Hz. Please verify that your AC mains power connections are capable of satisfying the power rating for the device.



CAUTION: Do not connect the system to AC power mains exceeding 265V. Doing so will cause significant damage to the device and create serious risk for users!



### 7.3 CURRENT REQUIREMENT

The amplifier presents a dynamic load to the AC mains power, drawing additional current as operating levels increase. Different cables and circuit breakers heat up at varying rates, so it is essential to understand current ratings and how they correspond to circuit breaker and cable specifications. Maximum Continuous RMS Current — measured over a period of at least ten seconds — is used to calculate the temperature increase in cables, which drives the proper size and gauge cable and rating for slow-reacting thermal breakers. Maximum Burst RMS Current — measured over a period of approximately one second — is used to select the rating for fast reacting magnetic breakers.

For best performance, voltage drops should not exceed 10% at 100V or 10% at 230V. The minimum electrical service amperage required by a K-array loudspeaker system is the sum of their Maximum Continuous RMS Current. K-array recommends allowing an additional 30% above the minimum amperage to prevent peak voltage drops at the service entry.

## 7.4 PROTECTION CIRCUITRY

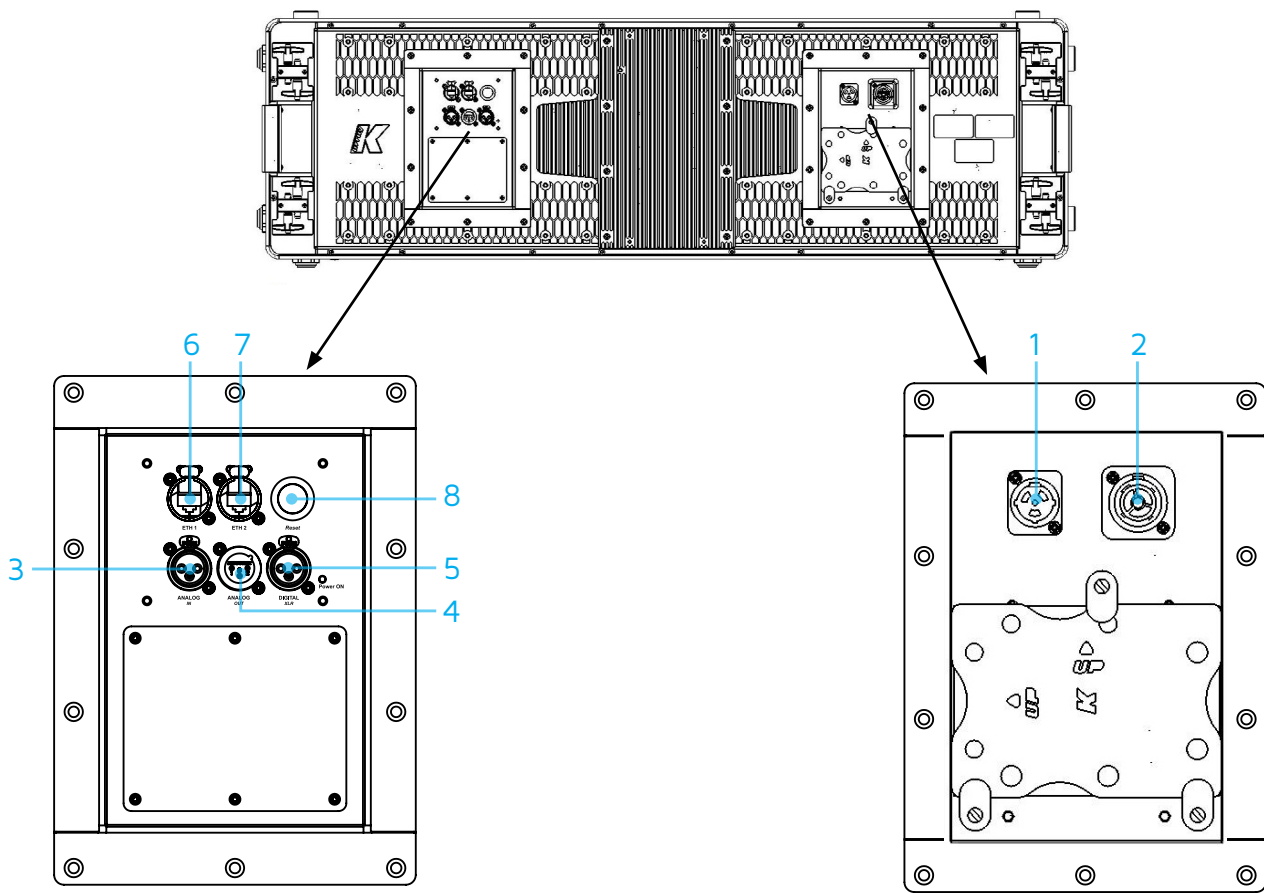
Both the Power supply and the amplifier sections are equipped with several protection circuits.

Power supply protections aim to isolate a faulty section in electrical power system from the rest of the device in order to prevent the propagation of the fault and limit device damages. They comprise overcurrent, overvoltage and thermal protections.

Amplifier protections are triggered by audio signal current and voltage – by comparing input and output – and NTC (Negative Temperature Coefficient) thermistors. A Peak Current Shut Down and a Temperature Protection Limiter protect the output stage.

High frequency stationary signals, like steady sinusoidal signals – improperly referred as continuous or permanent signals – with high amplitude tend to stress the amplifier section of the modules as well as the loudspeaker's voice coils. When a high frequency stationary loud signal is fed into the amplifier, a dedicated limiter restricts its mean current depending on its level and frequency. The process is auto adaptive and frequency driven: at a higher frequency the limiter acts faster.

## 8. POWER AND AUDIO/DATA CONNECTION



- 1) *AC Power Input*: PowerCon input connector for AC input
- 2) *AC Power Link*: PowerCon output connector for feeding the AC mains power to additional K-array components with a PowerCon AC input socket. Do not link the AC mains power with more than two KH7s (see Section 9.4)
- 3) *Analog Input*: XLR female connector for analog signal
- 4) *Analog Output*: XLR male connector providing a direct signal from the analog input
- 5) *AES/EBU Digital Input*: XLR female connector for AES/EBU digital signal. Please note that the AES/EBU signal can be sent via Ethernet as well, together with the data (see Paragraph 9.1)
- 6) *Ethernet Port 1*: RJ45 connector. Either Ethernet Port 1 and Ethernet Port 2 can be used to connect the unit to an Ethernet-capable PC or router for remote operation via Armonia (see Armonia User Guide). One of the ports can allow another module to be daisy chained. Both Control Data and AES/EBU Digital Signal can travel through the Ethernet network (see Paragraph 9.1)
- 7) *Ethernet Port 2*: Same functions as Ethernet Port 1
- 8) *Reset Button*: Resets the system

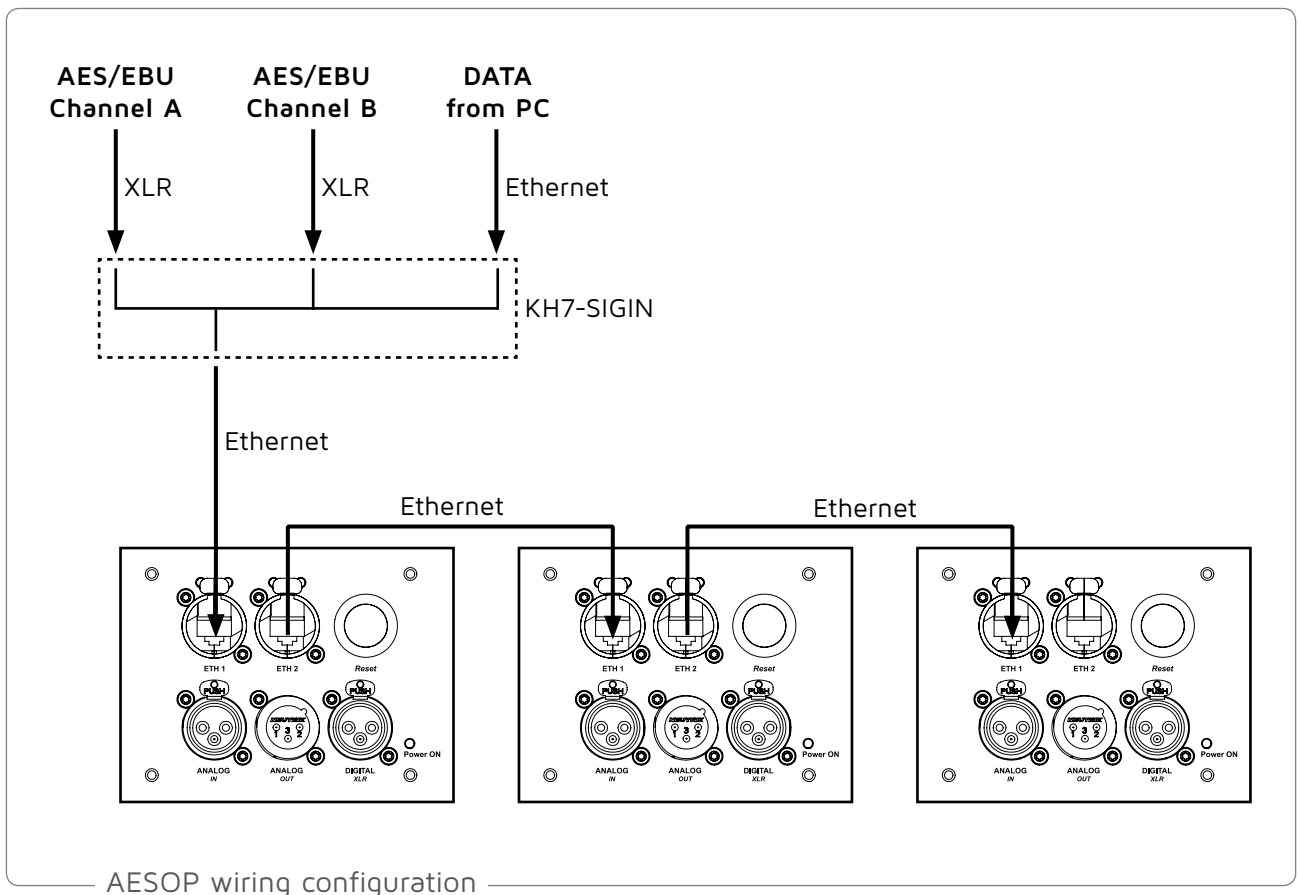
The amplifier manages both one analog input and one digital input. You can connect both types of input sources and later select the source that you want to activate using the Input routing window in Armonia.

### 8.1 AES/EBU VIA ETHERNET — KH7-SIGIN

AESOP (AES Ethernet Simple Open Protocol) is the network dedicated to live applications where high quality audio, easy system configuration and reliability must be guaranteed. Control data and AES/EBU digital signals travel through the same Ethernet cable at 100 Mbit/s. RJ45 dual port design allows daisy chain and redundant ring topologies. Moreover, Fault Bypass Technology overcomes any faulty device in the network, assuring solid connectivity without any audio or control signal loss.

In order to connect your digital source to the unit via Ethernet cable, you need the KH7-SIGIN accessory. It is a cable which features a RJ45 connector at one end and three connectors at the other including 2 female XLR connectors (AES/EBU Channel A and Channel B) and a RJ45 connector (Data).

When using Armonia software to remotely control the device, make sure to select the correct input in the Input Routing page: Digital Network A for AES/EBU channel A or Digital Network B for AES/EBU channel B.

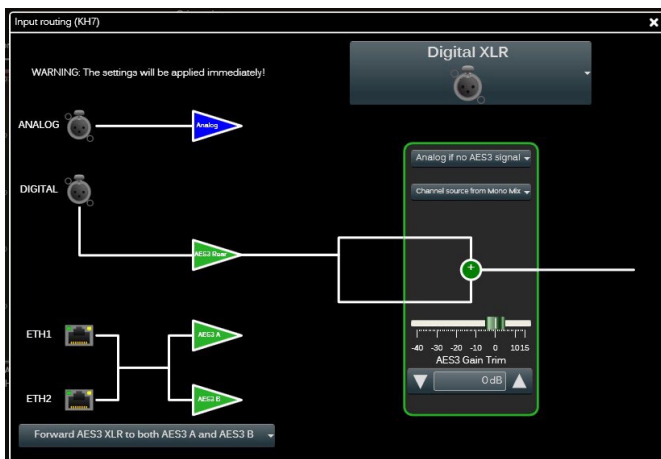
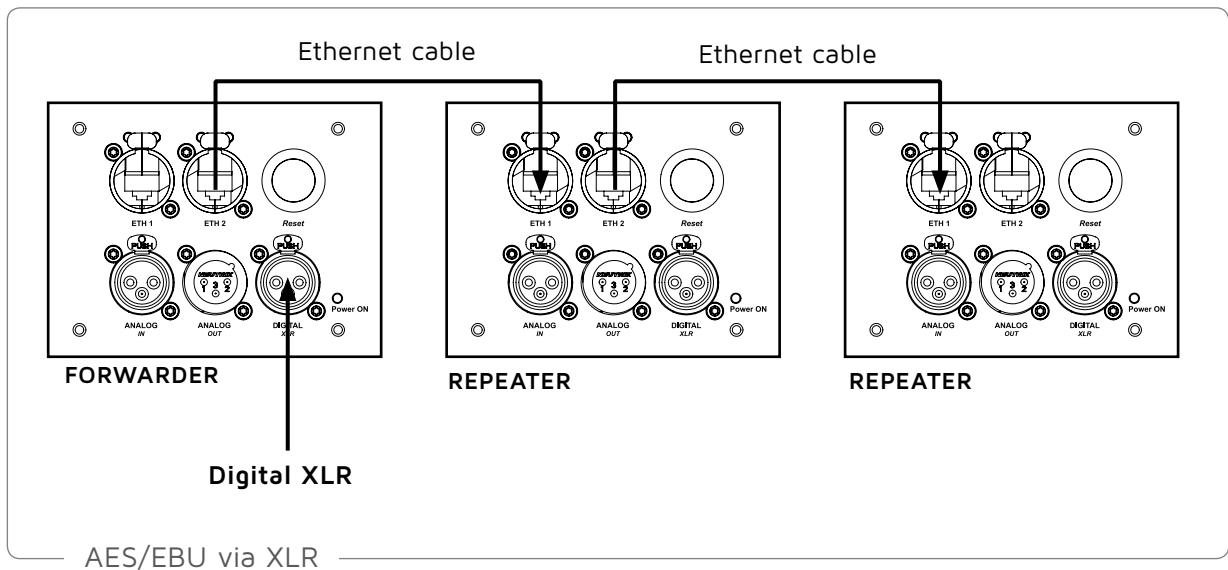


AESOP wiring configuration

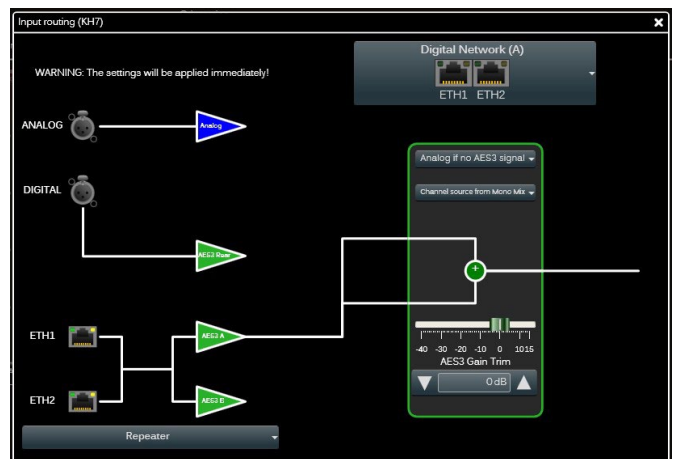
### 8.2 AES/EBU VIA XLR

If you want to connect your digital source to the first KH7 by XLR instead of via the Ethernet, follow the instructions below:

1. Connect the AES/EBU signal by Digital XLR on the audio/data panel of the first KH7 unit in the chain. This unit will behave as the Forwarder module for the digital signal.
2. In the Forwarder module, connect one Ethernet port (choose either Port 1 or Port 2) on the audio/data panel with the Ethernet cable to the next KH7 unit that will behave as a Repeater of the AES/EBU signal.
3. Continue the wiring until you close the chain.
4. Set the AESOP preferences (which module is a Repeater or a Forwarder) via Armonia in the Input Routing Window. By default, every unit is set as a Repeater, so adjust the preferences on the Forwarder module only.



Forwarder configuration



Repeater configuration

### 8.3 NETWORK CONNECTION

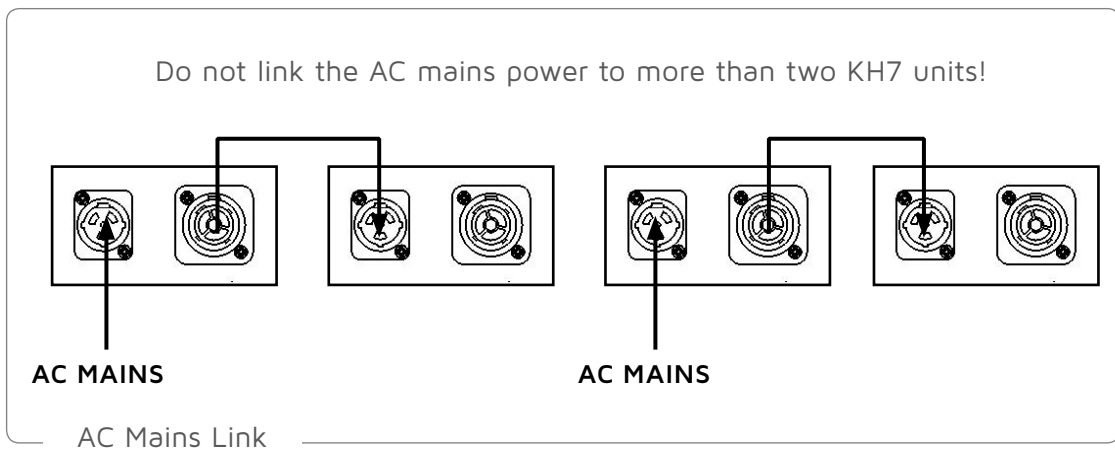
The KH7 amplifier module can be connected to a PC via a standard RJ45 network port. One port of the first unit is connected to a router or PC, while the other port allows another module to be daisy chained to this unit. In this mode, Armonia will be able to control all modules sharing an Ethernet cable connection.

Ethernet communication requires all IP addresses to be set correctly on the PC and on every connected module. The KH7 system may be set to assign IP addresses manually or automatically. See Network Configuration in the Armonia User Guide for further details.

Using an existing LAN (Local Area Network) to exchange data via Ethernet between the PC and the amplifiers is not good practice. The wiring used for such purpose should always be dedicated.

### 8.4 AC MAINS POWER LINK

Each KH7 unit features both a PowerCon input connector for AC input and a PowerCon link connector for feeding AC mains power to another unit.

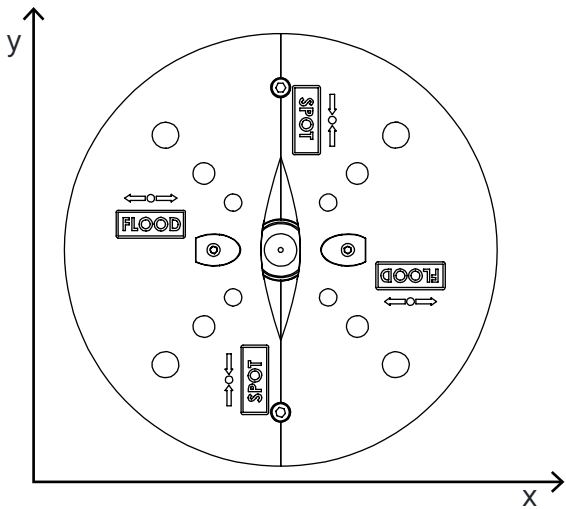
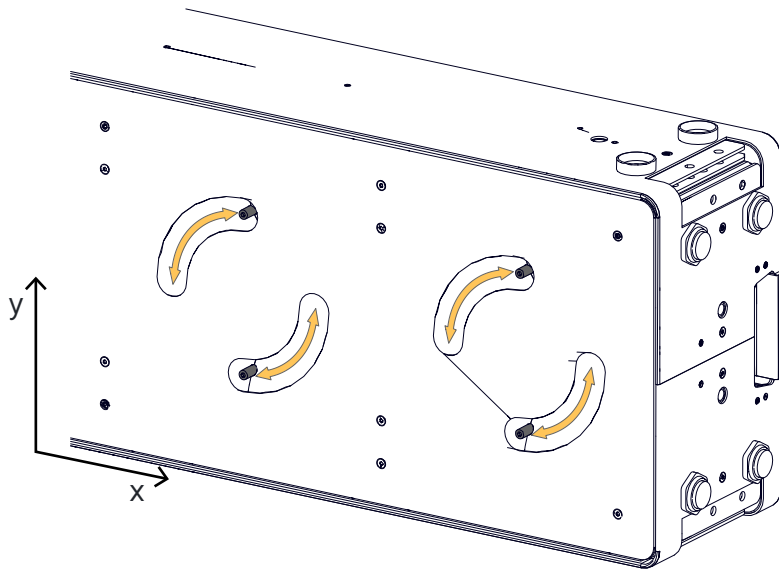


## 9. CONFIGURATIONS

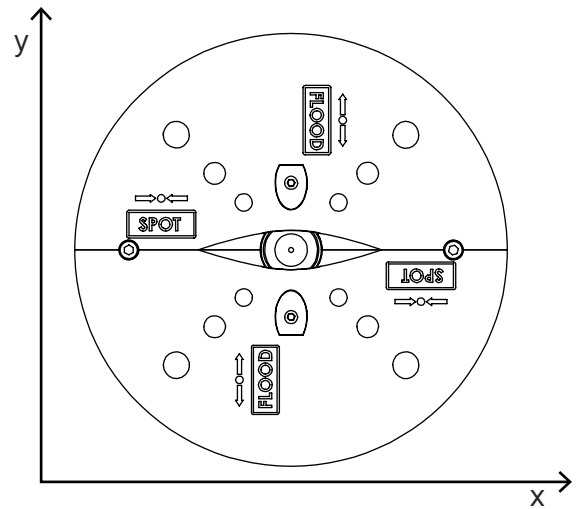
### 9.1 HORN ORIENTATION

KH7 features four loudspeakers, each composed of a 12" woofer coupled to an asymmetric horn which produced a different sound dispersion pattern in respect to its axes. The sound dispersion is wide along the axis labeled FLOOD and narrow along the axis labeled SPOT.

Each horn can be manually rotated 90° using the two handles situated at the front.



In this position, the sound dispersion pattern is wide (FLOOD) in respect to the x-axis and narrow (SPOT) in respect to the y-axis.

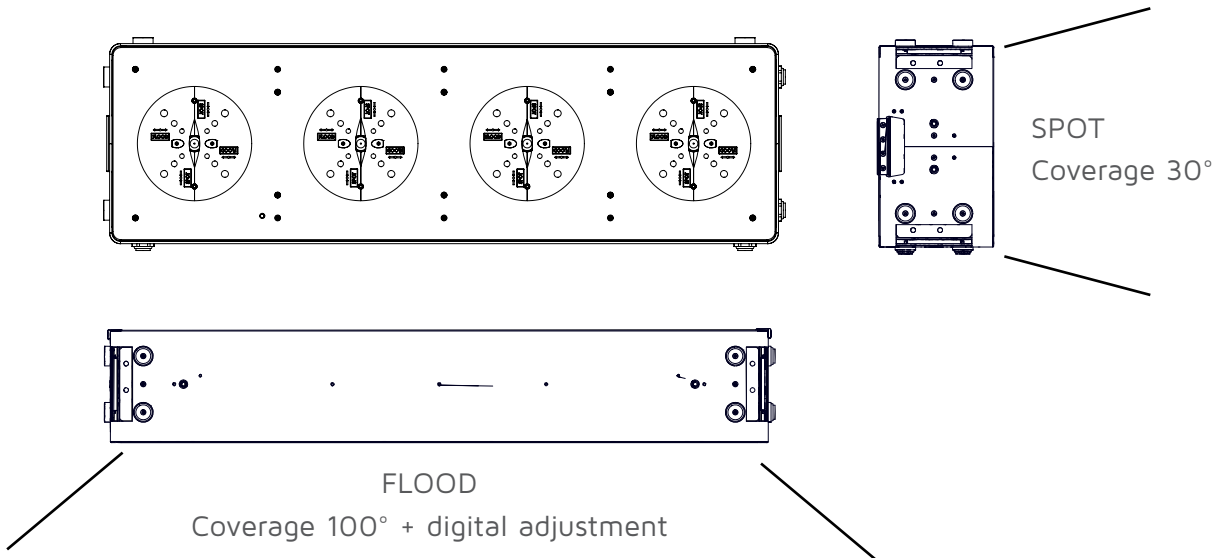


In this position, the sound dispersion pattern is narrow (SPOT) in respect to the x-axis and wide (FLOOD) in respect to the y-axis (SPOT).

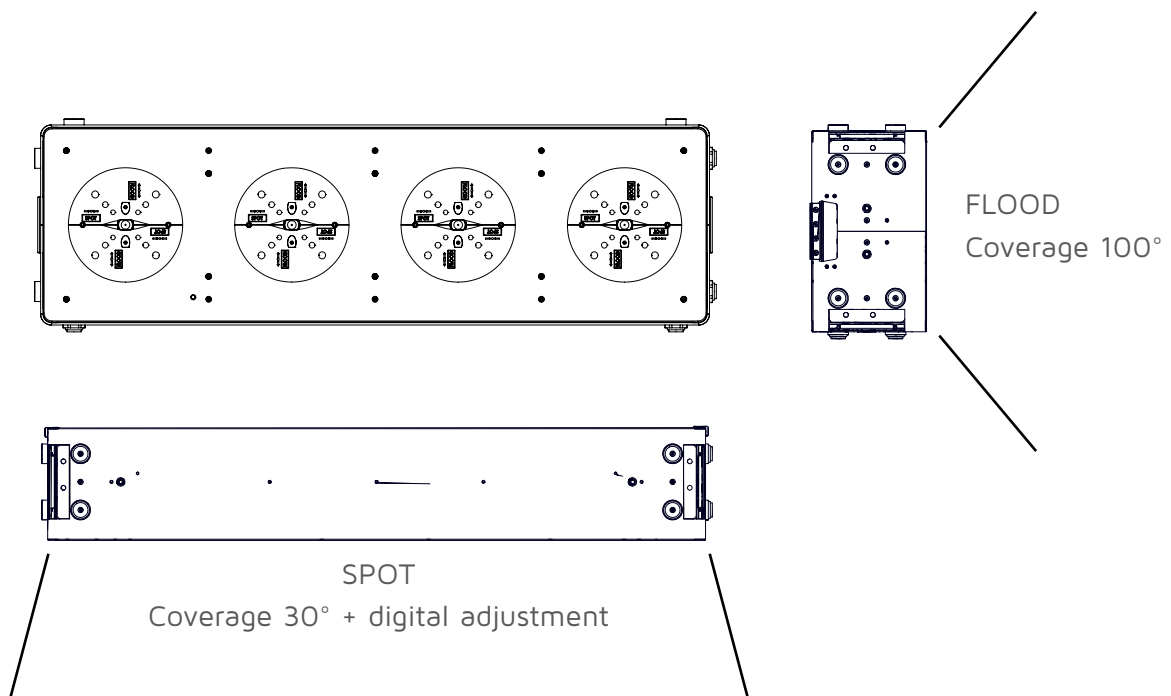
### 9.2 SINGLE UNIT CONFIGURATIONS

As shown in the figures below, the coverage angle of a single KH7 can be digitally adjusted along the axis of the four loudspeakers. Along this axis, KH7 behaves like a line array and can be digitally steered since each loudspeaker is controlled by a dedicated DSP channel of the amplifier (see Chapter 10).

A horizontal KH7 with vertically oriented horns



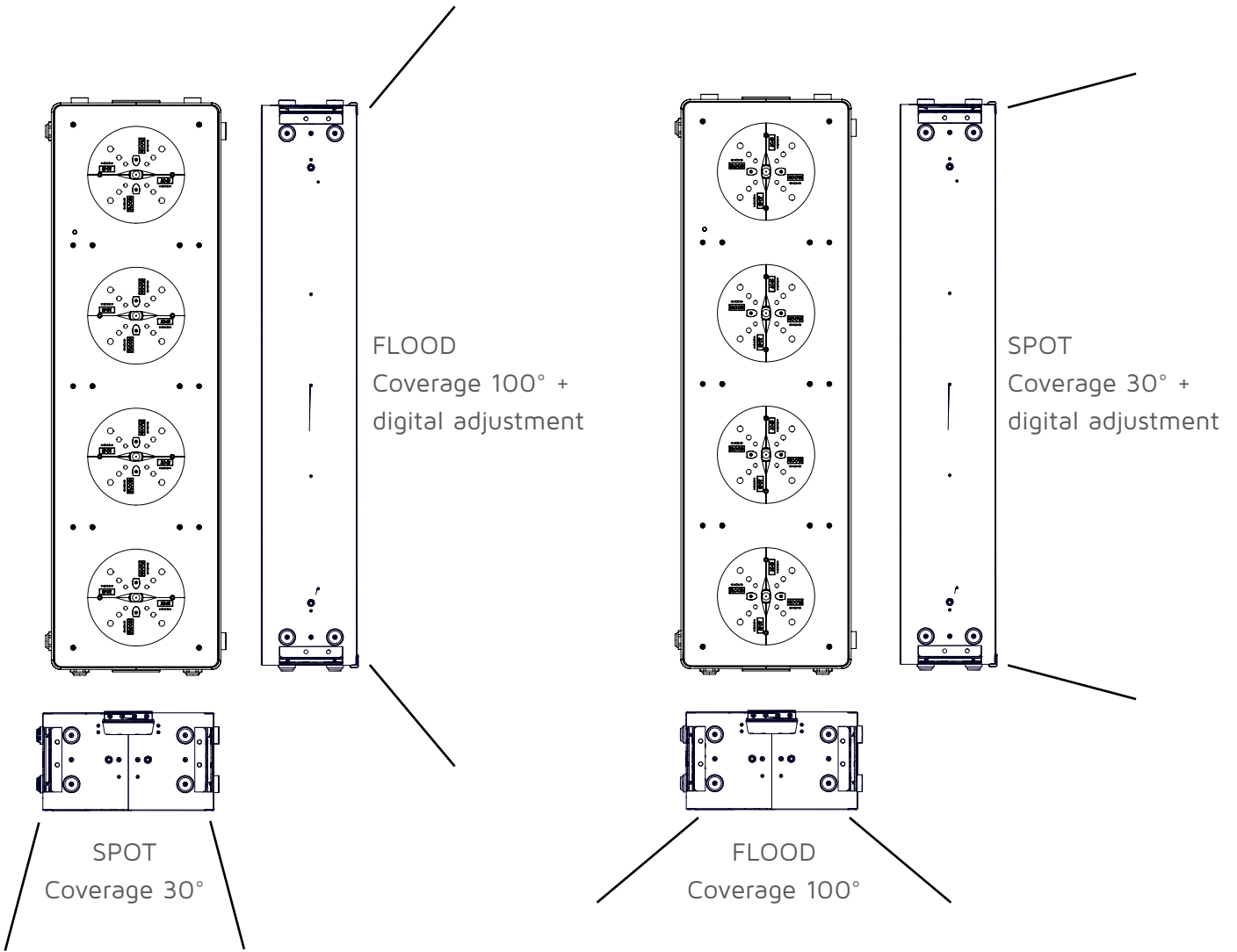
A horizontal KH7 with horizontally oriented horns





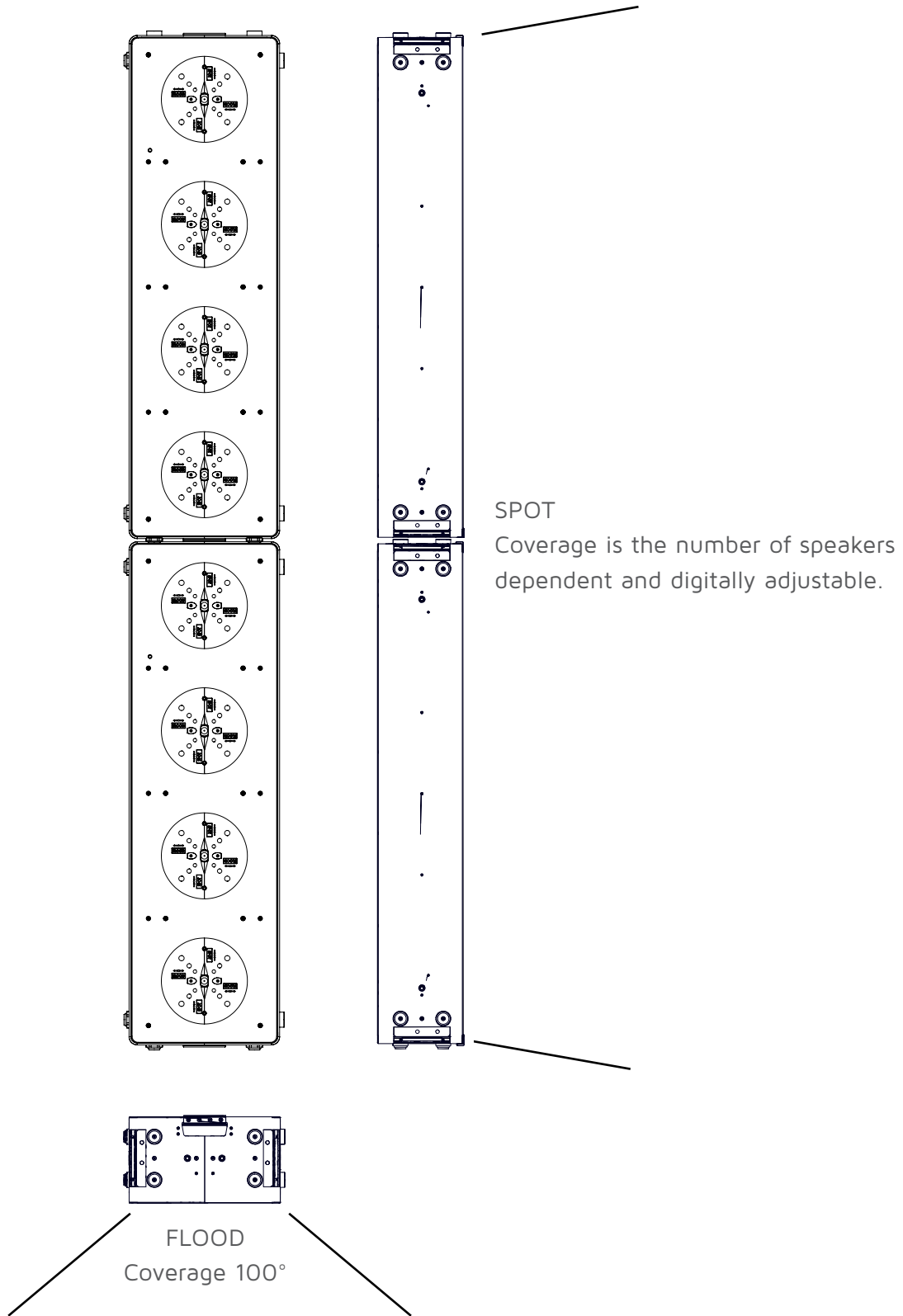
A vertical KH7 with horizontally oriented horns

A vertical KH7 with vertically oriented horns



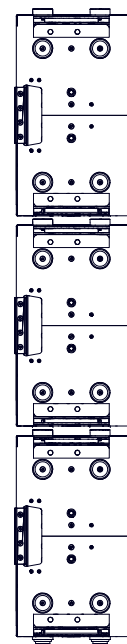
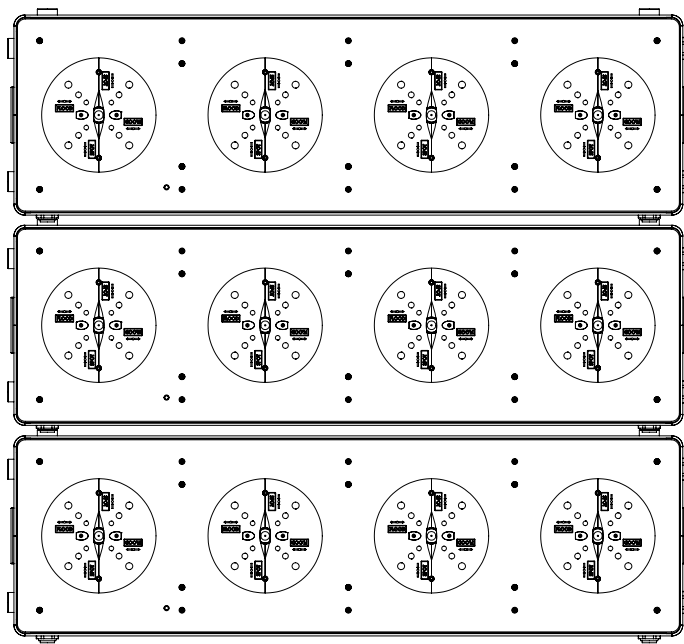
### 9.3 ARRAY CONFIGURATIONS

Vertical array of a vertical KH7



In this configuration the cluster behaves as a vertical line array. The coverage along the vertical axis depends on the number of speakers flown and is digitally adjustable via software.

Vertical array of a horizontal KH7



SPOT  
Coverage is number of  
speakers dependent  
and digitally adjustable.



FLOOD  
Coverage 100° + digital adjustment

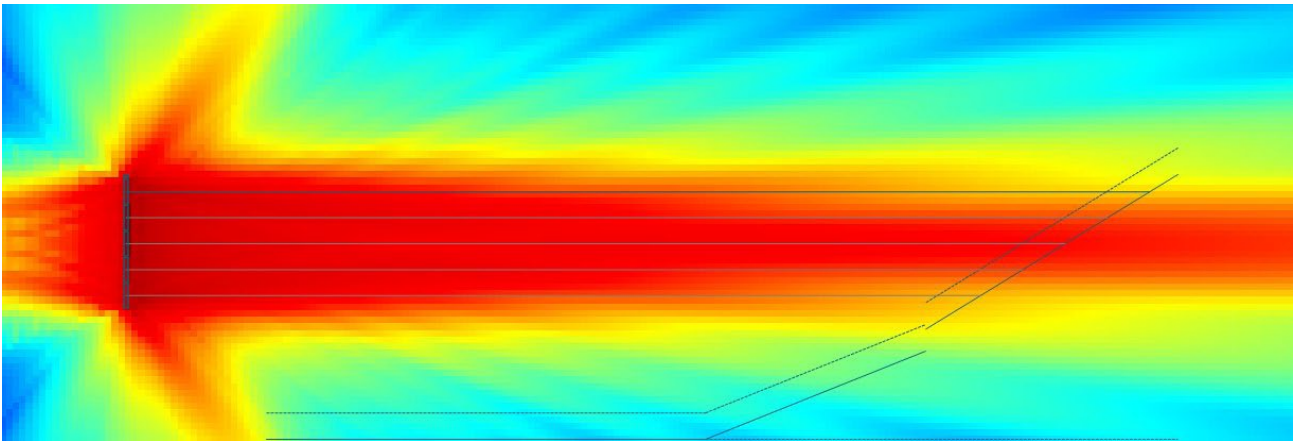
In this configuration the cluster behaves as a matrix of loudspeakers. That allows the user to digitally adjust both the horizontal and the vertical coverage.

## 10. DIGITAL STEERING - EASE FOCUS

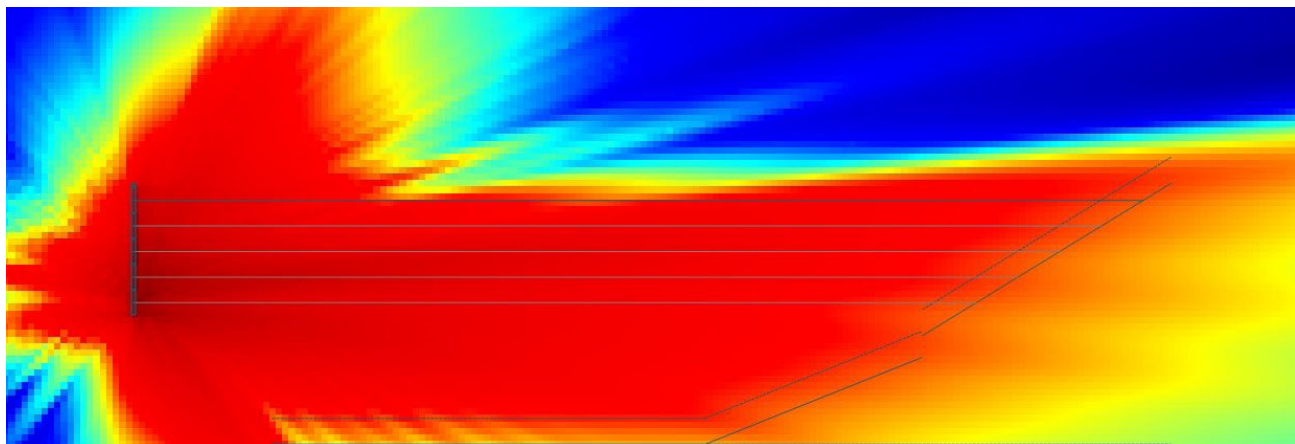
Acoustic steering is a feature that allows you to guide a speaker's sound beam through the interaction of several loudspeakers. The full potential of this technique can truly be maximized only when there is a system that allows you to precisely and independently control each element of the array. A powerful software that can optimize all the parameters in order to obtain the desired acoustic result is required.

With this capability, each KH7 has an onboard DSP designed to load FIR filters to achieve the best and most accurate steering results. FIR coefficients can be easily calculated with EASE Focus, the most accurate acoustic simulation software available in the market. Based on input data describing location geometry and sound sources, the software computes optimal filter transfer functions that can be automatically converted to FIR filters.

EASE Focus software and its User Guide can be downloaded from the AFMG website: [focus.afmg.eu](http://focus.afmg.eu)



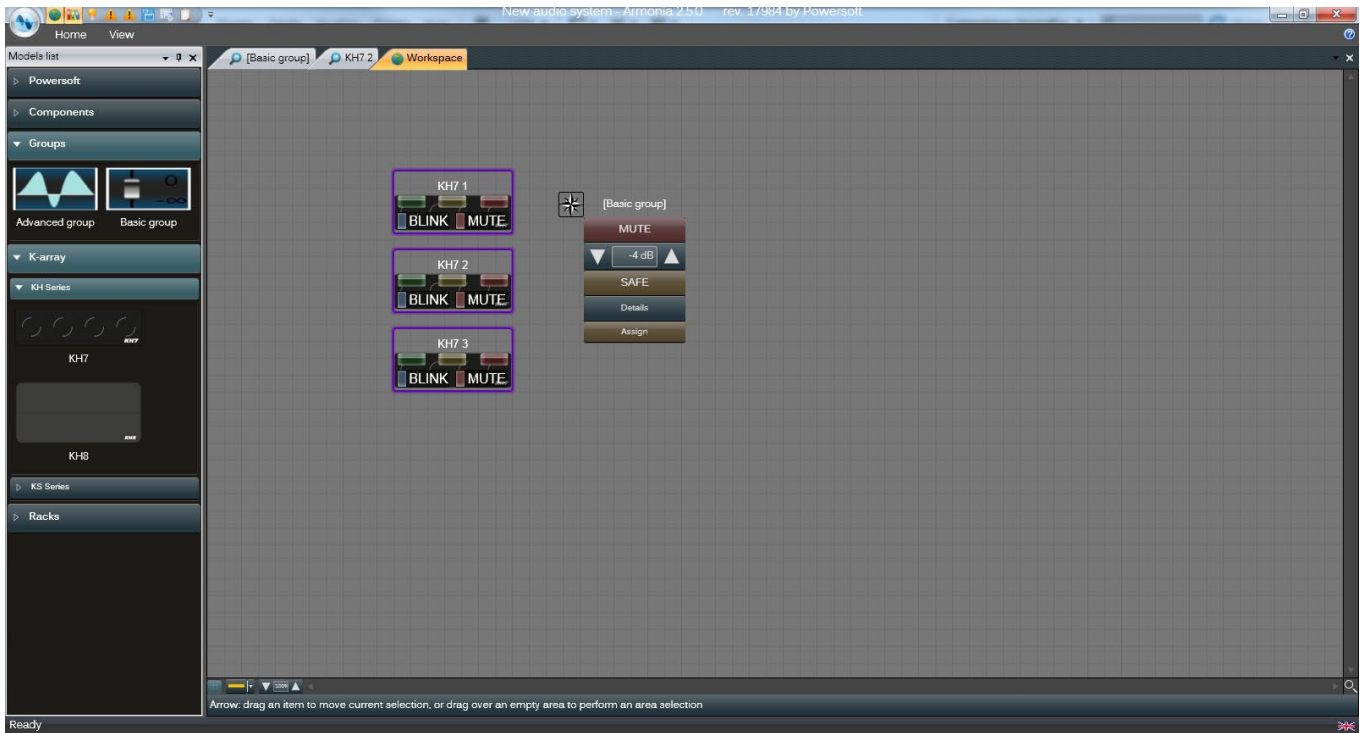
**BEFORE FIR CALCULATION**



**AFTER FIR CALCULATION**

## 11. REMOTE CONTROL - ARMONIA

All DSP functions, including system EQ, delay and the loading of FIR filters calculated with EASE Focus, can be controlled with Armonia software. Please refer to Armonia User Guide downloadable from the [Powersoft website](#) for detailed instructions.

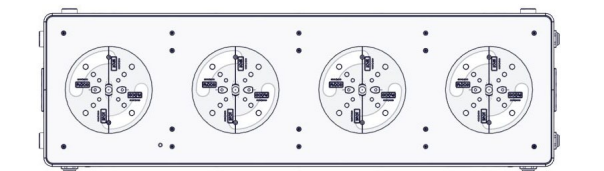
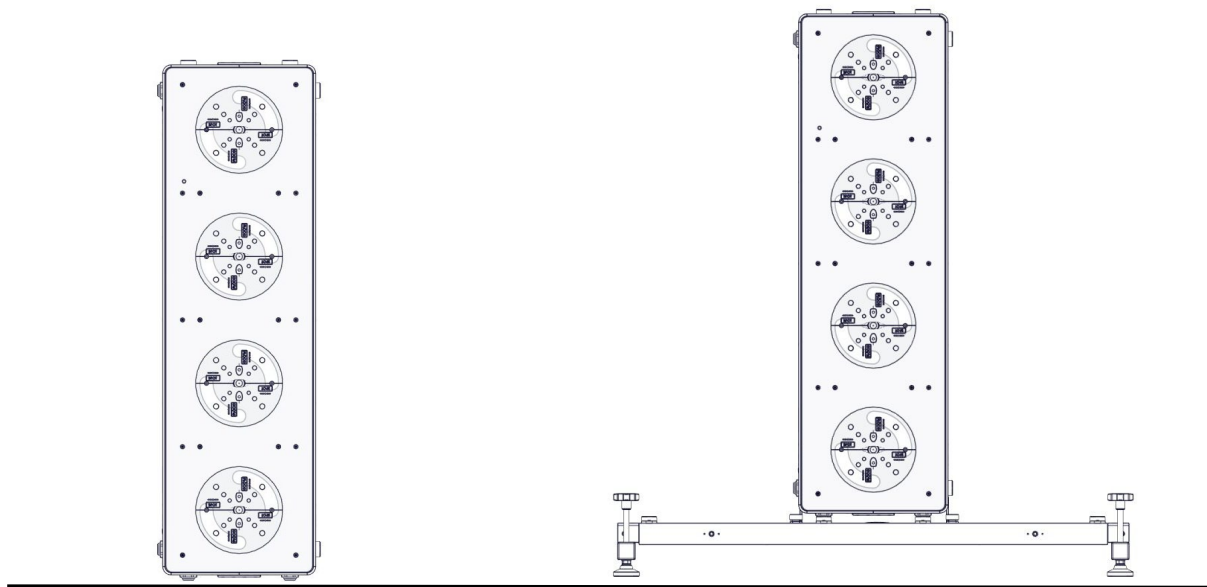


## 12. RIGGING

KH7 is suitable for a wide range of applications ranging from permanent installations to large touring applications. Please check all the available accessories on the [KH7 web page](#).

### 12.1 INSTALLING ON A FLAT SURFACE

A single KH7 unit can be positioned on a flat surface in horizontal position without any additional accessories. Ensure that the rubber feet are resting on the floor. To place a single unit in vertical position or to ground stack a KH7 cluster, use the accessory shown in the picture below. Up to 3 units can be stacked in horizontal position and up to two units can be stacked in vertical position.



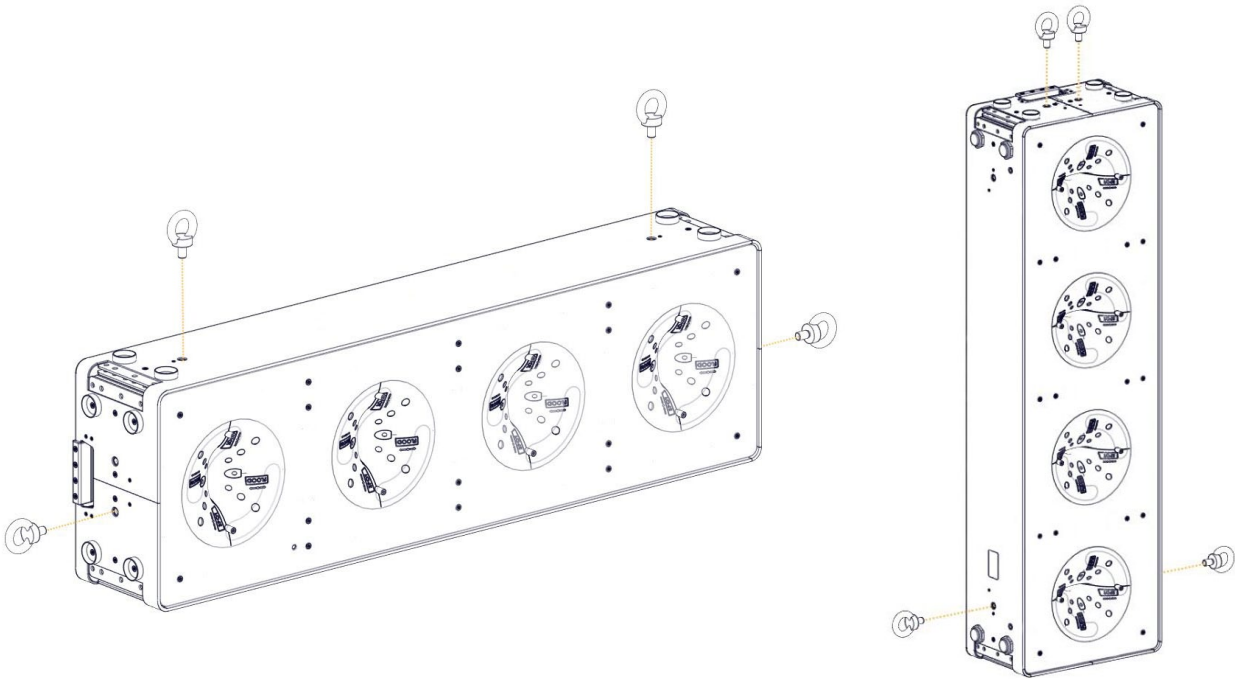
**WARNING!**



- Do not install a KH7 unit in vertical position without the KH7-BASE accessory.
- Do not stack KH7 units without using KH7-BASE accessory.
- Please refer to the *KH7 Rigging Manual* for operation instruction and safety information.

### 12.2 HANGING POINTS

Fasten at least four standard M8 eyebolts to hang a KH7 unit from the dedicated threaded points on the chassis (see the picture). Then use appropriate steel cables sturdy enough to hold KH7's weight.



K-array is not responsible for any rigging equipment and accessories that are not manufactured by K-array. It is the user's responsibility to ensure that the Working Load Limit (WLL) of all the additional rigging hardware accessories is greater than the total weight of the system in use.



### 12.3 SUSPENDING A CLUSTER OF KH7 UNITS

KH7 units can be suspended using KH7-FLYH or KH7-FLYV accessories. Please refer to *KH7 Rigging Manual* for operation details, safety information and available configurations.

## 13. SERVICE

To obtain service:

- 1) Contact the official K-array distributor in your country. Your local distributor will direct you to the appropriate service center.
- 2) If you are calling for service, please have the serial number(s) of the unit(s) available for reference. Ask for Customer Service, and be prepared to describe the problem clearly and completely.
- 3) If the problem cannot be resolved over the phone, you may be required to send the unit in for service. In this instance, you will be provided with an RA (Return Authorization) number which should be included on all shipping documents and correspondence regarding the repair. Shipping charges are the responsibility of the purchaser.

Any attempt to modify or replace components of the device will invalidate your warranty. Service must be performed by an authorized K-array service center.



Cleaning:

Use only a soft, dry cloth to clean the unit. Do not use any solvents, chemicals, or cleaning solutions containing alcohol, ammonia, or abrasives. Do not use any sprays near the product or allow liquids to spill into any openings.



## 14. TECHNICAL SPECIFICATIONS

	<b>ACOUSTICS</b>		<b>AMPLIFIER</b>
Power handling	1800 + 800 W	Type	1 module class D with PFC - DSP controlled
Max power	4000 W <sup>(1)</sup>	Nominal Power Output	4 X 2000 W @ 4 Ω 1% THD + NOISE <sup>(5)</sup>
Frequency range (-10 dB)	60 Hz – 18 kHz <sup>(2)</sup>	Protections	Over Temp.(Power Limiting – Thermal Shutdown), Short Circuit/Overload Output Protection, Power Limiting, Clip Limiter/Permanent Signal Limiter, High Frequency Protection
SPL 1W/1mt	101 dB (low) - 118 dB (high) <sup>(3)</sup>	Frequency response	20 Hz – 20 kHz (+0 -1 dB) for 1 W @ 8 Ω
Maximum SPL	141 dB <sup>(4)</sup>	Damping factor @ 100 Hz	>10000
	<b>COVERAGE</b>	THD+N 1kHz,1 W	0.2%
Horizontal	100° / 30° + digital adjustment	Thermal dissipation	1/4 of max output power @ 4 Ω • @230V = 1123 BTU/h (283 KCal/h) • @115V = 1150 BTU/h (290 KCal/h)
Vertical	30° / 100° + digital adjustment	Nominal power requirements	100 - 240 Vac ± 10% 50-60 Hz
	<b>CROSSOVER</b>	Operating Range	90 – 264 Vac
Type	DSP controlled + passive filter	Power factor (cos φ)	>0.90 @ 4Ω full power
Frequency	1200 Hz	1/8 rated power (pink noise)@ 8Ω	600 W
	<b>TRANSDUCERS</b>		<b>CERTIFICATION</b>
Type	4 X 12" coaxial Neodymium magnet woofer	IP	53
	<b>AUDIO IN/OUT</b>		<b>PHYSICAL</b>
Analog connectors	1 Male + 1 Female XLR IN/OUT	Dimensions	117 cm x 35 cm x 20 cm (46.06" x 13.78" x 7.87 ")
Digital connectors	1 Female XLR AES/EBU IN	Weight	52 Kg (114.64 lb)
	<b>REMOTE CONTROL INPUT</b>		
Connectors	2 x RJ45 ethernet		

### Notes for data

1. Maximum RMS applicable power for a musical signal. The reference signal is the one proposed by EIAJ standard
2. With dedicated preset;
3. Measured @ 4m then scaled @ 1m;
4. Measured with musical signal
5. EIAJ Test Standard, 1kHz, 1%THD

New materials and design are introduced into existing products without previous notice. Present systems may differ in some respects from those presented in this catalogue.

## 15. CERTIFICATIONS



<b>DECLARATION OF CONFORMITY</b>
----------------------------------

**Manufacturer/Importer:** K-array s.u.r.l.

**Brand:** K-ARRAY  
**Address:** via Paolina Romagnoli 17 50038 Scarperia e S. Piero Firenze ITALY

**Date of Issue:** 03 / 06 / 15

**Model Code:** KH7  
**Declaration:** Complies with safety essential requirements of Council Directive

2004/108/EC on the approximation of the Laws of the Member States relating to electromagnetic compatibility.

2006/95/EC on the harmonisation of the laws of member state relating equipment designed for the use within certain voltage limits

This declaration applies to all specimens manufactured in accordance with the attached manufacturing drawings which form part of this declaration. Assessment of compliance of the product with the requirements relating to electromagnetic compatibility and low voltage directive was based on the following standards:

EMC:

EN 55103-1:2009  
 EN 55103-2:2009  
 EN 61000-3-2:2006+A1+A2  
 EN 61000-3-3:2008

Safety:

EN 60065:2002+A1+A11+A2+A12

**Marking:**



**Applying Year:** 2015

**Applied by:** K-array s.u.r.l.  
 Via Paolina Romagnoli 17  
 50038 Scarperia e S. Piero  
 Firenze Italy  
 Tel. +39 055 8487222  
 Fax +39 055 8487238




**Signed by:**

**Franco Spataro**  
 Technical Manager

K-array s.r.l. a socio unico società soggetta alla attività di direzione e coordinamento di HP Sound Equipment spa  
 P. IVA / VAT / CF 06206990480 - R.E.A. 609589 Cap. soc. i.v. € 100.000,00

Sede legale: via Paolina Romagnoli 17 50038 Scarperia e San Piero - Firenze - ITALY tel +39 055 8487222 fax +39 055 8487238

[k-array@pec.it](mailto:k-array@pec.it) [www.k-array.com](http://www.k-array.com)

		Ref. Certificate No. NL-36225
IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME		SYSTEME CEI D'ACCEPTATION MUTUELLE DE CERTIFICATS D'ESSAIS DES EQUIPEMENTS ELECTRIQUES (IECEE) METHODE OC
CB TEST CERTIFICATE		CERTIFICAT D'ESSAI OC
Product Produit	Professional active speaker	
Name and address of the Applicant Nom et adresse du demandeur	K-ARRAY S.u.r.l. Via P. Romagnoli, 17 50038 Scarperia e S. Piero (FI) Italy	
Name and address of the manufacturer Nom et adresse du fabricant	K-ARRAY S.u.r.l. Via P. Romagnoli, 17 50038 Scarperia e S. Piero (FI) Italy	
Name and address of the factory Nom et adresse de l'usine	K-ARRAY S.u.r.l. Via P. Romagnoli, 17 50038 Scarperia e S. Piero (FI) Italy	
Rating and principal characteristics Valeurs nominales et caractéristiques principales	100-240 V~; 50-60 Hz , 100-120 V~; 50-60 Hz (for Canada and United States only), 600 W	
Trademark (if any) Marque de fabrique (si elle existe)	K-ARRAY	
Type of manufacturer's Testing Laboratories used Type de programme de laboratoire d'essais constructeur		
Model / Type Ref. Réf. de type	KH7	
Additional information (if necessary may also be reported on page 2) Les informations complémentaires (si nécessaire, peuvent être indiquées sur la 2ème page)		
A sample of product was tested and found to be in conformity with IEC Un échantillon de ce produit a été essayé et été considéré conforme à la CEI	60065(ed.7);am1;am2	
National differences / Comments Les différences nationales / Commentaires	EU Group Differences, EU Special National Conditions, EU A-Deviations, AR, AU, CA, CN, JP, KR, US	
As shown in the test report Ref. No. which forms part of this certificate Comme indiqué dans le rapport d'essais numéro de référence qui constitue partie de ce certificat	TRP_188_14	
This CB Test Certificate is issued by the National Certification Body:  DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem The Netherlands		Ce Certificat d'essai OC est établi par l'Organisme National de Certification  
Date: 2015-06-03	Signature: M. Triulzi 	
		page 1 of 1

# Certification Record

Listing# E113572  
 Original Certification: June 5, 2015  
 Revised Certification: N/A

This Certification is issued to:  
 K-ARRAY S.u.r.l.  
 Via P. Romagnoli,  
 17 50038 Scarperia e S. Piero (FI)  
 ITALY

  
**MET**  
 MET Laboratories, Inc.  
 First in Certification



For the product(s):  
 Professional Active Speaker,  
 Model KH7

Has been certified to the following standard(s):  
 UL 60065 Ed. 7: Standard for Audio, Video and Similar Electronic Apparatus - Safety Requirements,  
 Rev. July 24, 2013  
 CSA C22.2 No.60065, Audio, Video and Similar Electronic Apparatus - Safety Requirements,  
 R2012



Rick Cooper  
 Director of Laboratory Operations,  
 Safety Laboratory

*All changes proposed in the previously identified product that affects the above information must be submitted to MET for evaluation prior to implementation to assure continued MET Certification status.*

*The covered product(s) shall be subject to follow-up inspections to ensure that the Certified product(s) are identical to the product sample evaluated by MET Laboratories, Inc. and that all manufacturer's responsibilities are being fulfilled as specified in the Manufacturer's Responsibility section of the Certification report. The applicant named above has been authorized by MET Laboratories, Inc. to represent the product(s) listed in this record as "MET Certified" and to mark this/these product(s) according to the terms and conditions of the MET Applicant Contract, MET Listing Reports, and the applicable marking agreements. Only the product(s) bearing the MET Mark and under a follow-up service are considered to be included in the MET Certification program. This certification has been granted under a System 3 program as defined in ISO Guide 67.*



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**NRTL**