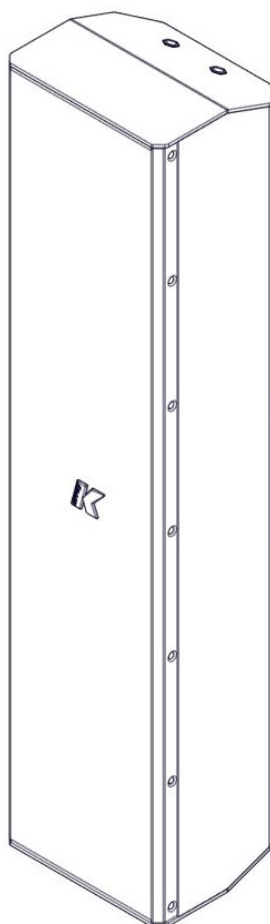




# **KU44**

## USER GUIDE English



## TABLE OF CONTENTS

SYMBOLS .....	3
1. INTRODUCTION .....	4
2. KEY FEATURES .....	4
4. PACKAGE CONTENTS .....	4
3. APPLICATIONS.....	4
5. SAFETY INFORMATION.....	5
6. UNPACKING .....	6
7. PHYSICAL .....	6
7.1 MOUNTING SCREW HOLES FOR ACCESSORIES .....	7
8. WIRING .....	8
8.1 K-2SPK ACCESSORY .....	9
9. SET-UP AND CONFIGURATIONS .....	10
9.1 SUSPENDING FROM THE FLY-BAR .....	10
9.2 HANGING ON THE WALL .....	11
9.3 RUBBER FEET .....	11
10. SERVICE .....	12
11. TECHNICAL SPECIFICATIONS.....	13
12. CERTIFICATION.....	14

## SYMBOLS

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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!

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**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.

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

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Warning! Dangerous voltages: RISK of electric shock.  
Terminals marked with this symbol are HAZARDOUS LIVE and the external wiring connected to these terminals requires installation by a qualified professional or the use of ready-made leads or cords.

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

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This device complies with Restriction of Hazardous Substances Directive.

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## 1. INTRODUCTION

K-array has created a thin subwoofer to complement its notable Slim Array Technology incorporated in its speakers. The KU44 line array element is an extremely compact, array-able bass element designed to combine with mid-high speakers to provide a full range frequency response with prodigious output in a virtually invisible profile.

The line source sub has a frequency range of 50 Hz to 150Hz and is comprised of two 4" neodymium transducers and two 4" passive radiators engineered for maximum linear excursion and minimum residual noise.

For easier use and integration with all KA amplifiers, the KU44 allows the user to choose between two different values of impedance (8/32  $\Omega$ ). At 32  $\Omega$  as many as eight KU44 can be powered off a single KA amplifier channel.

KU44 is made entirely of steel, making it extremely resistant, even when deployed outside in tough weather conditions. This is ideal for water-front environments where ordinary bass speakers would corrode. It cannot be penetrated by foreign objects like dust, sand or water, which over time can damage an ordinary audio element.

A variety of dedicated hardware accessories provide architects with numerous mounting options for permanent and portable installations best suited for theatres and other venues where invisible line arrays are ideal.

Installing a line array of KU44 subwoofers at the side or behind a line array of Kobras allows to create a full range sound source with true line-array characteristics down to 50 Hz.

All KU44 components are designed by the K-array R&D department and custom made under the K-array quality control system.

## 2. KEY FEATURES

- Unique performance-to-size ratio
- Ideal for line-array configurations
- 2 x 4" long-excursion woofers
- 2 x 4" passive radiators
- Extended frequency response
- Selectable impedance (8 $\Omega$  / 32 $\Omega$ )
- Weather proof, suitable for outdoor installations

## 3. APPLICATIONS

- To extend the low range of a line array of mid-high speakers
- Theaters
- Houses of worship, Conference halls
- Portable and installed AV systems

## 4. PACKAGE CONTENTS

- 1 x Subwoofer
- 1 x 4-pin Phoenix connector
- 1 x serial cable

## 5. SAFETY INFORMATION

Read these instructions - Keep these instructions - Heed all warnings



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

### IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep this instructions.
- Heed all warnings.
- Follow all instructions and keep all warnings.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.

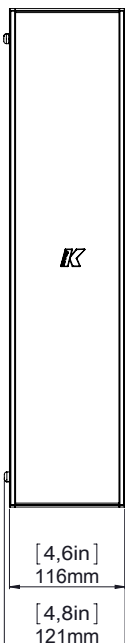
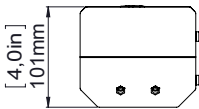
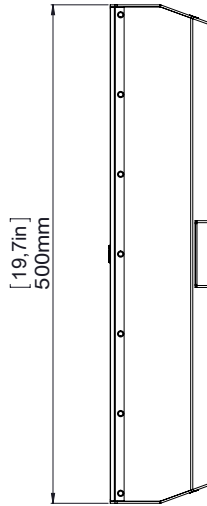
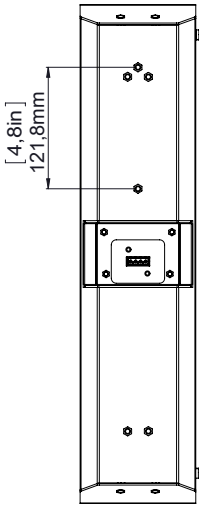


- When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- **Avoiding hearing damage.** Professional loudspeakers are capable of producing extremely high sound levels and should be used carefully. Never stand close to loudspeakers driven at high volume. 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.
- **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.
- **Do not make repairs yourself.** 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.**
- **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.
- **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. 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.

## 6. UNPACKING

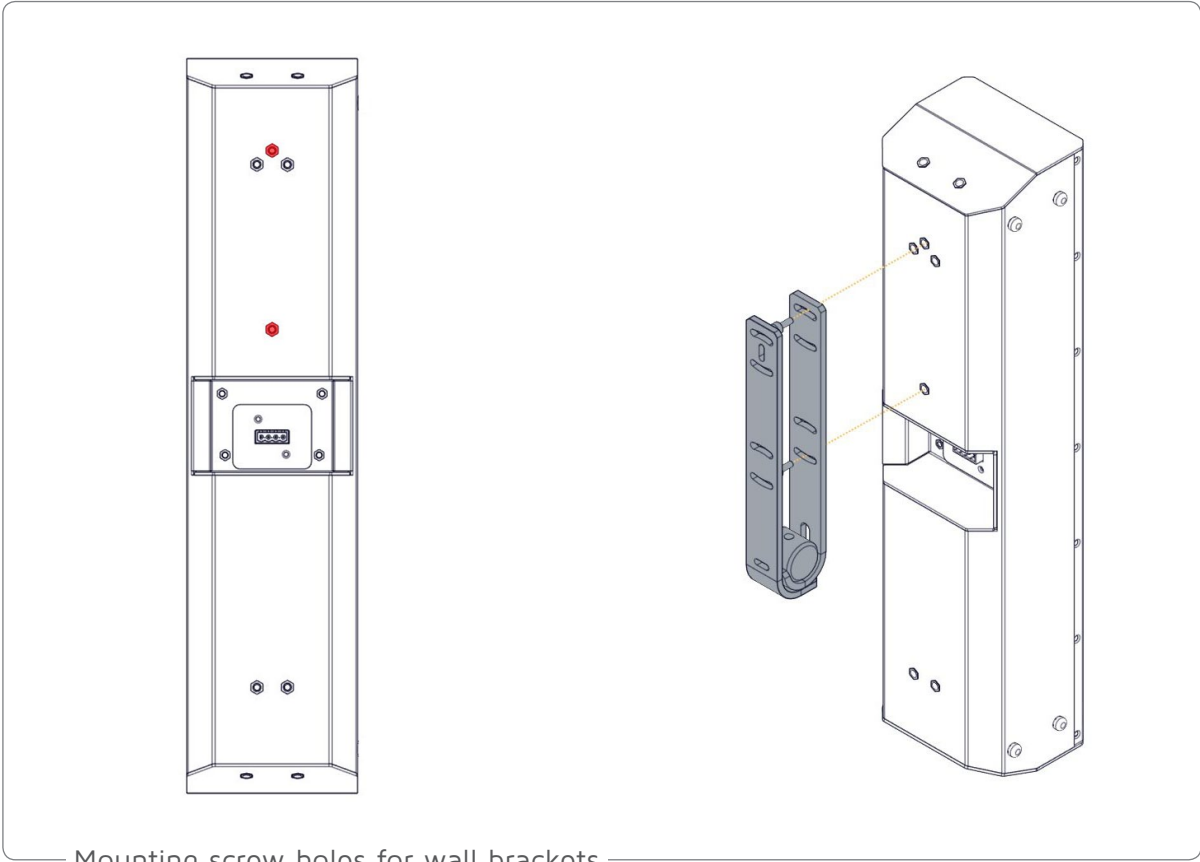
Each K-array speaker is built to the highest standard and thoroughly inspected before leaving the factory. Upon arrival, carefully inspect the shipping carton, then examine and test your new amplifier. If you find any damage, immediately notify the shipping company. Only the consignee may institute a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

## 7. PHYSICAL

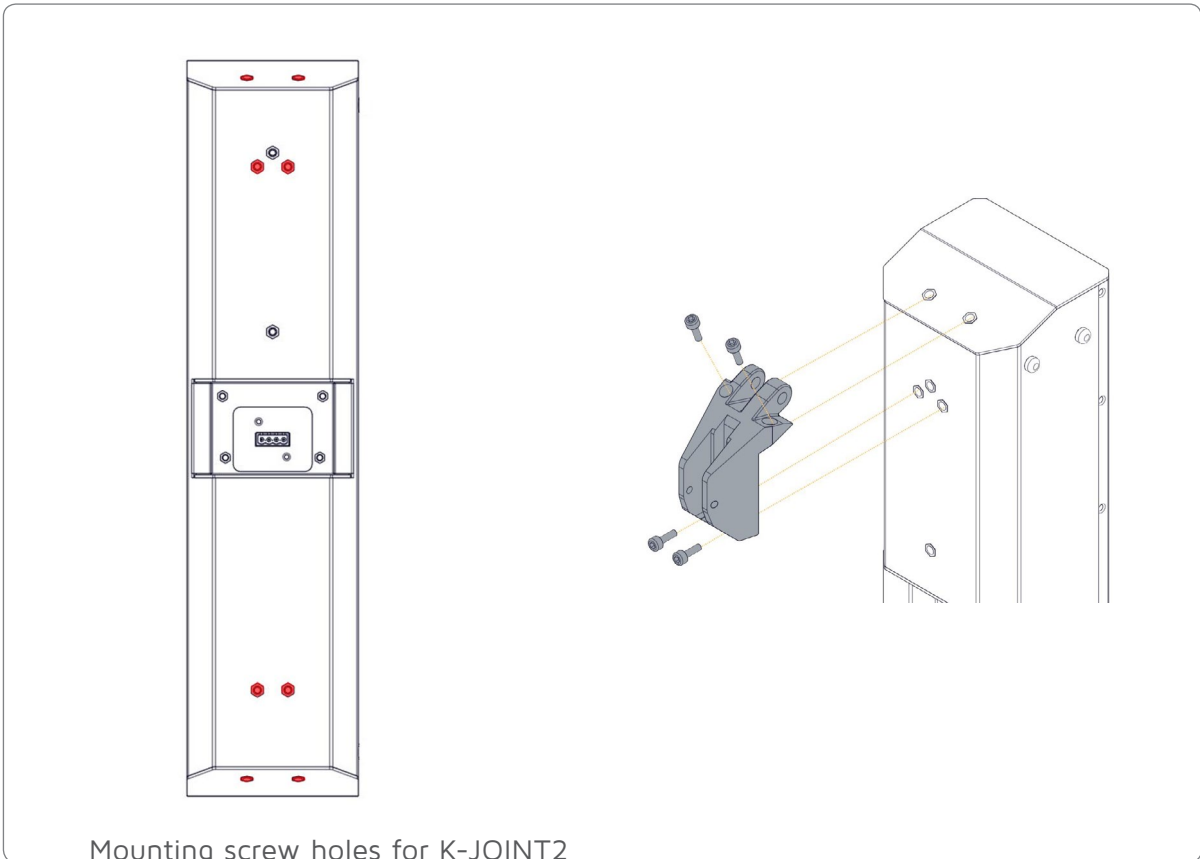


Weight  
5.9 kg (13.0 lbs)

### 7.1 MOUNTING SCREW HOLES FOR ACCESSORIES



Mounting screw holes for wall brackets

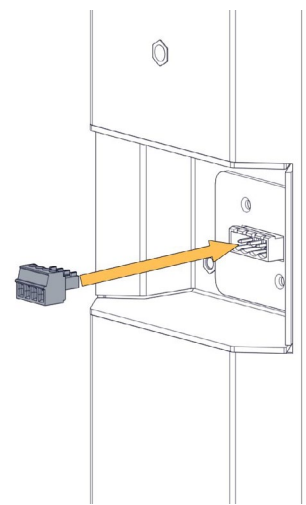
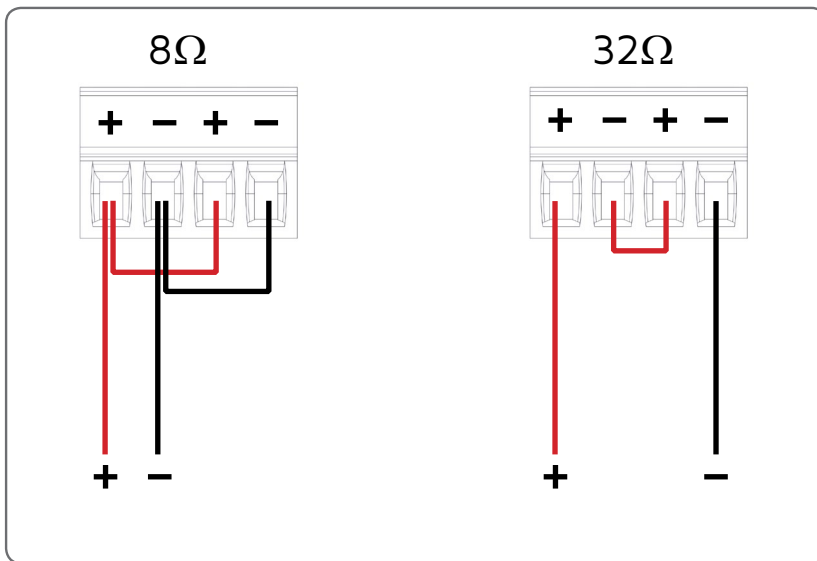


Mounting screw holes for K-JOINT2

## 8. WIRING

The KU44 is comprised of two 4" neodymium transducers, combined with two 4" passive transducers. The two transducers can be wired in parallel (resulting in a 8Ω total impedance) or in serial (resulting in a 32Ω total impedance). To do this, we provide a 4-pin female Phoenix connector where users can make the wiring; then the female Phoenix connector is plugged into the male Phoenix connector situated at the back of the speaker.

We provide also a "serial cable" that can be used to connect the two central pins of the phoenix connector in the 32Ω configuration.



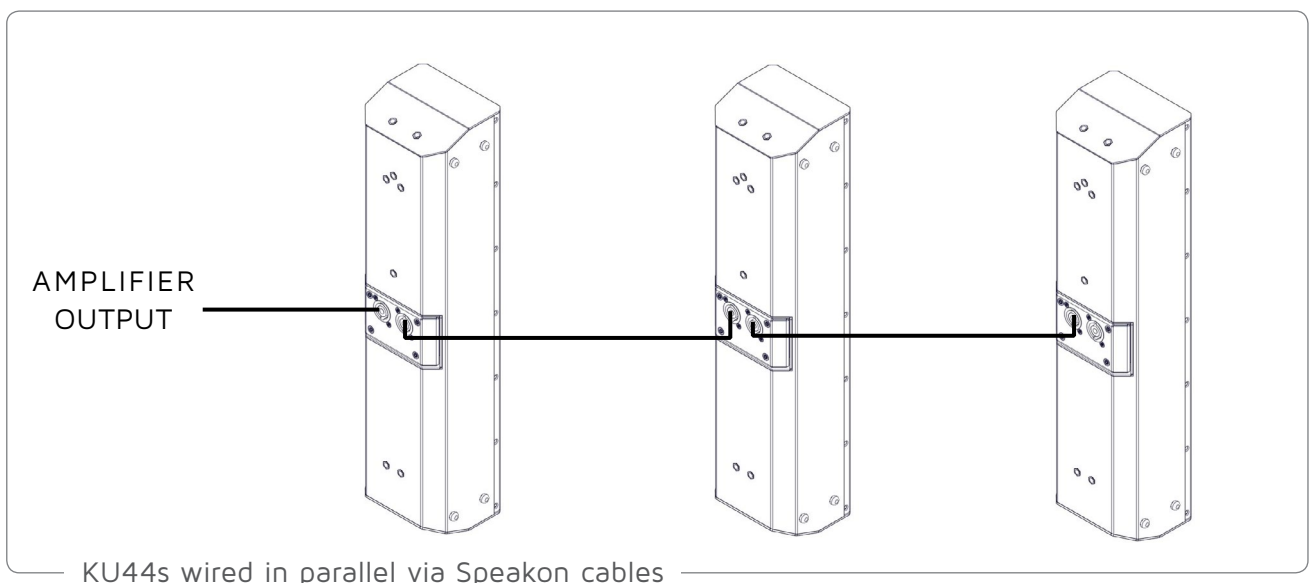
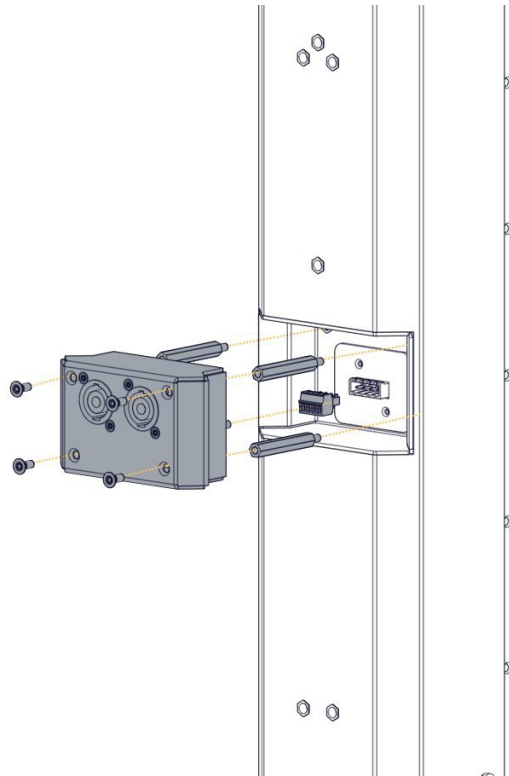
**NOTE**

The K-array KA84 amplifier can drive up to eight KU44 at 32Ω per channel. The K-array KA24 and KA14 amplifiers can drive up to two KU44 at 8Ω per channel.



### 8.1 K-2SPK ACCESSORY

This accessory is used to connect a Speakon cable to a KU44. It features two Speakon connectors wired in parallel giving you the possibility to wire two or more KU44s in parallel using only Speakon cables. The two wires situated at the back of the K-2SPK carry the signal from the 1+ contact (red wire) and 1- contact (black wire) of the Speakon connector. Wire them to the phoenix connector as shown in the previous section (by default, they are wired in serial configuration). Use the four screws and the four hexagonal spacers included to mount the K-2SPK on the KU44.

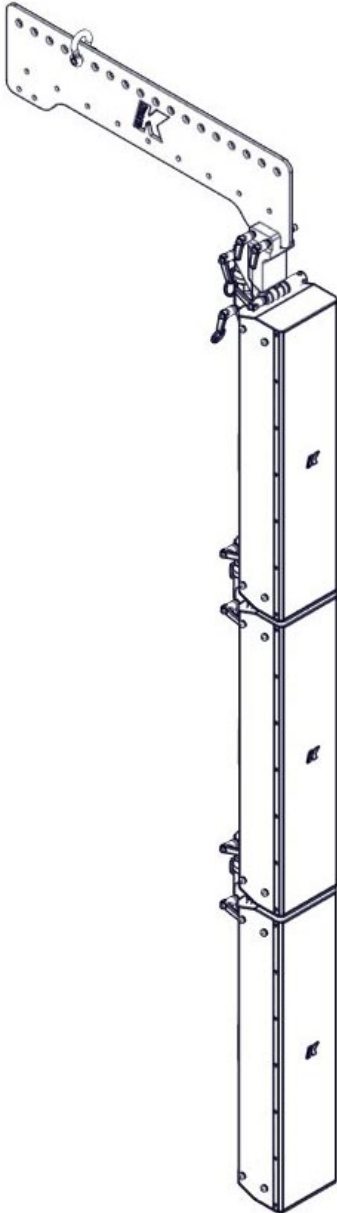


## 9. SET-UP AND CONFIGURATIONS

K-array offers a variety of dedicated accessories to mount and interconnect the speakers for a wide range of applications.

### 9.1 SUSPENDING FROM THE FLY-BAR

up to 12 KU44 units can be suspended using the K-FLY2 accessory (fly-bar) and the K-JOINT2 accessory (hardware used to connect together two units or to connect a unit to the fly-bar).



#### FAQ

Question: How many K-JOINT2 do I need?

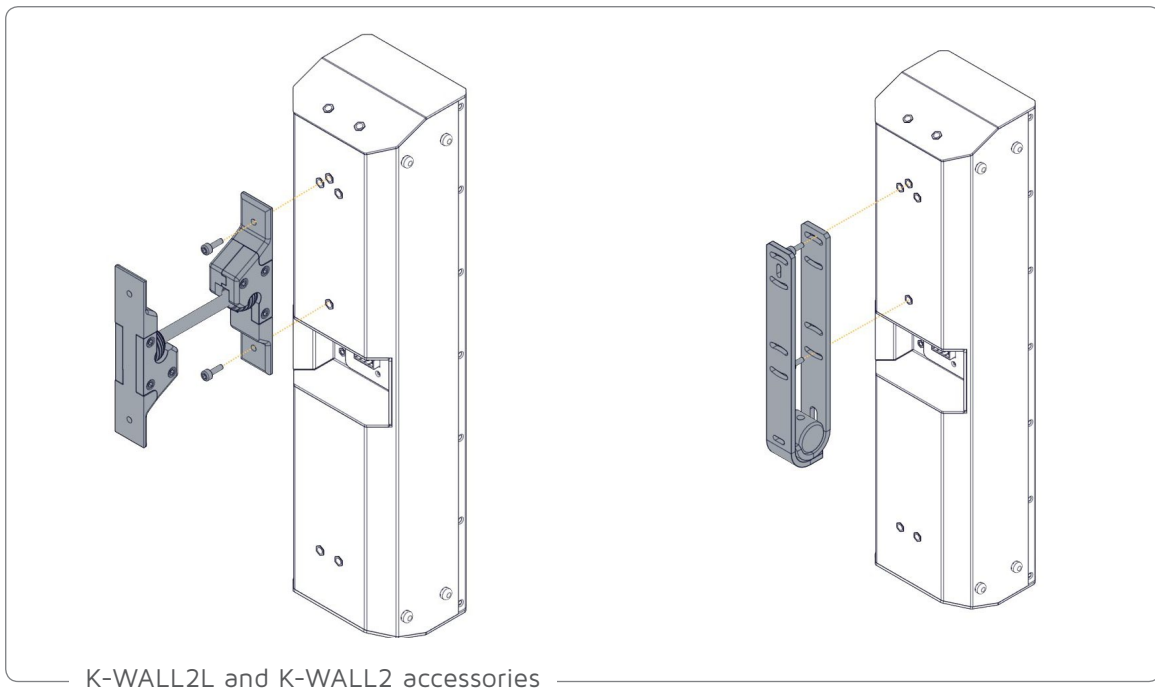
Answer: One per unit. If you want to fly a cluster composed of 4 x KU44, you'll need 4 x K-JOINT2.

Please read carefully the K-FLY2 User Guide downloadable from our website for installation details and important safety instruction:

<http://www.k-array.com/en/kfly2.html>

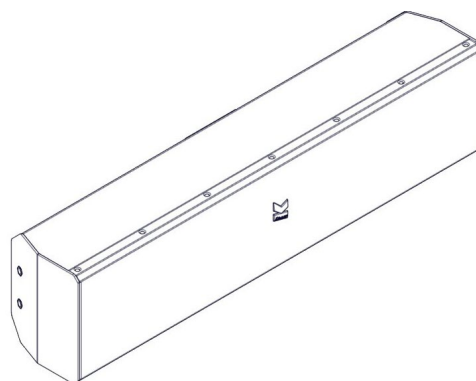
### 9.2 HANGING ON THE WALL

The KU44 can be mounted on the wall with the K-WALL2L or K-WALL2 accessories (not included).



### 9.3 RUBBER FEET

KU44 can be positioned on a flat surface in horizontal position thanks to the four rubber feet included. If necessary, the rubber feet can be easily removed.



## 10. 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 housing. 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.

# 11. TECHNICAL SPECIFICATIONS

	<b>ACOUSTICS</b>
Power handling	2 x 60 W
Impedance	8 / 32 Ω selectable (2 x 16 Ω)
Frequency range (-10 dB)	50 Hz – 150 Hz <sup>(1)</sup>
SPL 1W/1mt	84 dB <sup>(2)</sup>
Maximum SPL	110 dB (cont.) – 116 dB (peak) <sup>(3)</sup>
	<b>COVERAGE</b>
Horizontal	omni
Vertical	omni
	<b>CROSSOVER</b>
Type	External crossover required
Frequency	Low pass @ 150 Hz
	<b>TRANSDUCERS</b>
Type	2 x 4" neodymium magnet woofers with 1" voice coil
Type	2 x 4" passive transducer
	<b>POWER AUDIO IN/OUT</b>
Connectors	1 x 4-pin phoenix connector
Wiring	Serial or parallel
	<b>RECOMMENDED AMPLIFIERS</b>
Type	KA14, KA24
	<b>CERTIFICATION</b>
IP	54 (Full water protection with K-KUIP4 accessory)
	<b>PHYSICAL</b>
Dimensions	11.6 cm x 50.0 cm x 10.1 cm (4.6" x 19.7" x 4.0")
Weight	5.9 kg (13.0 lbs)

Notes for data

- 1. With dedicated preset;
- 2. Measured @4 mt then scaled @1 mt;
- 3. Measured with musical signal

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.

## 12. CERTIFICATION




### DECLARATION OF CONFORMITY

**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:** 01 / 10 / 2015  
**Model Code:** KU44, KU44W

**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)