



KU210

USER GUIDE English

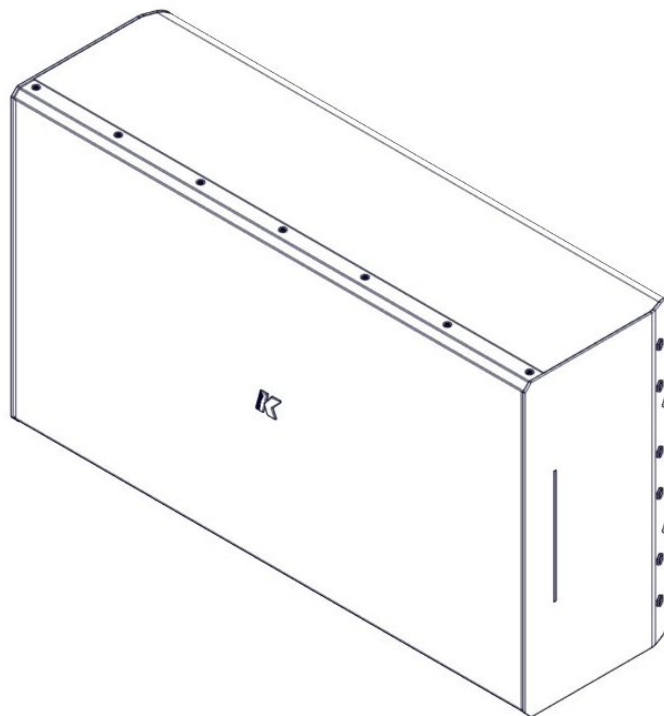


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SYMBOLS



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!



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 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.



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



This device complies with Restriction of Hazardous Substances Directive.

1. INTRODUCTION

The KU210 is an ultra thin, high performance passive subwoofer designed to be the perfect companion to any of the K-array Installed Sound Series. A combination of extended frequency response with prodigious output and a virtually invisible profile make the KU210 an ideal fit even the most ambitious projects.

The Subwoofer is comprised of a 10" neodymium transducer, combined with a 10" passive transducers, instead of a reflex, which ensures that the device remains completely sealed. The unit is engineered for maximum linear excursion and minimum residual noise. Its neodymium transducer has a double voice coil to allow for selectable impedance settings allowing you to combine up to 4 KU210s powered by just one channel of the KA84 amplifier.

KU210 is made entirely of steel, making it extremely resistant, even when deployed outside in tough weather conditions. This makes it ideal for marine environments where ordinary bass speakers would corrode. It cannot be penetrated by foreign objects such as dust, sand or water, which over time can ruin a speaker.

All KU210 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
- High power 127 dB SPL (peak)
- 10" long-excursion woofer
- 10" passive radiator
- Extended frequency response
- Double voice coil (8Ω+8Ω)
- Weather proof, suitable for outdoor installations

3. APPLICATIONS

- Theatre, Club, Churches
- To extend the low range in small and medium rooms
- Portable and installed AV systems
- Stage and AV studio monitoring

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.



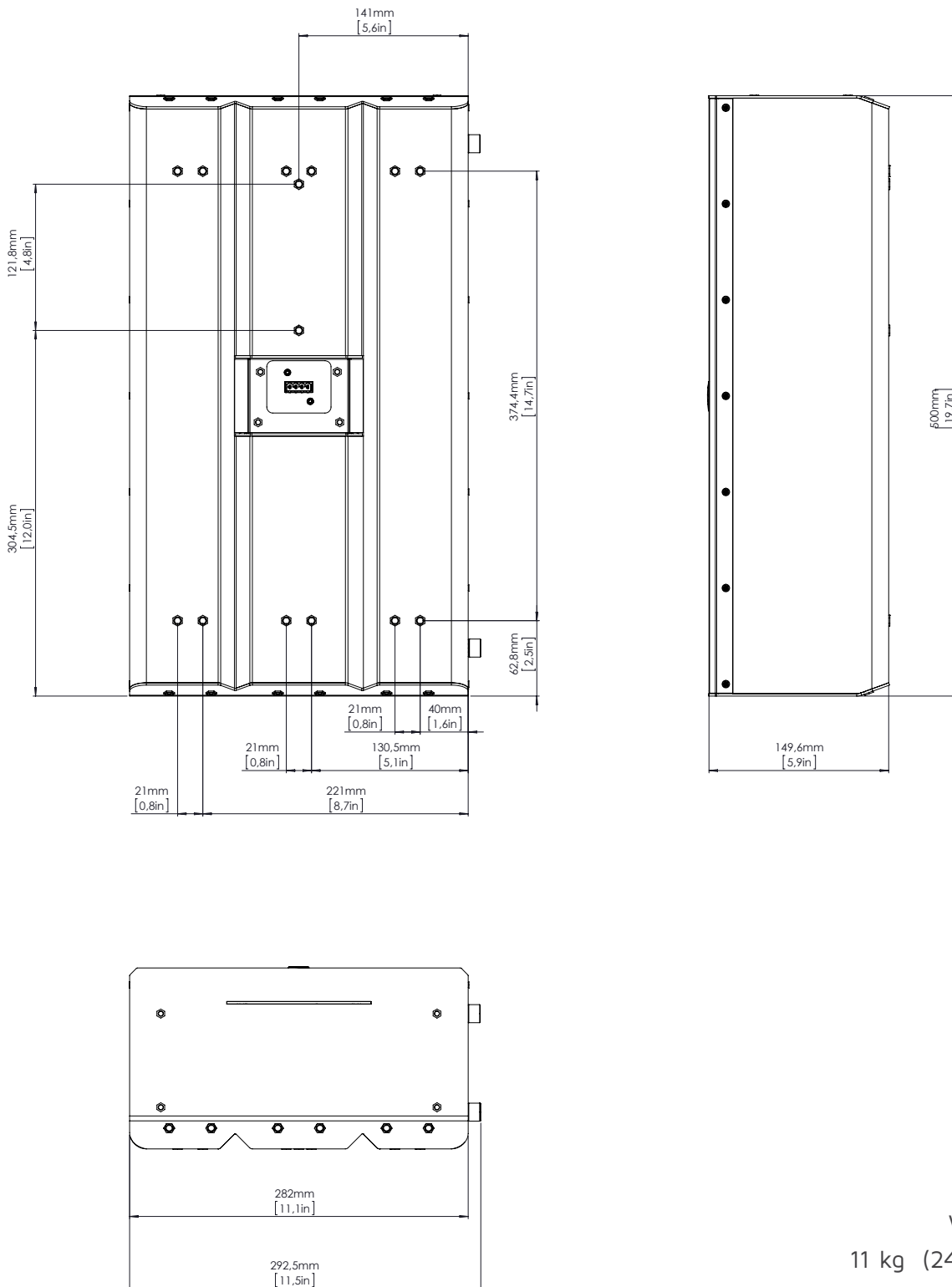
- When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- **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

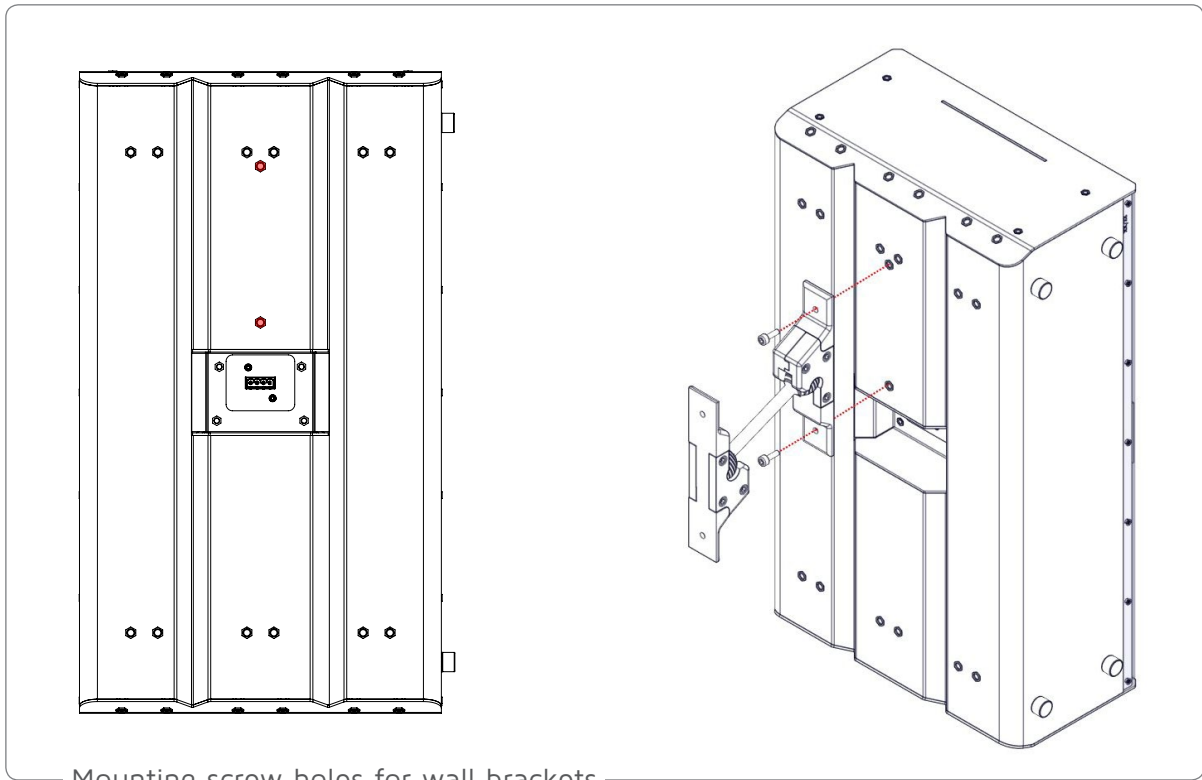
Each K-array speaker is built to the highest standard and thoroughly inspected before leaving the factory. Upon arrival, carefully inspect the shipping carton, then examine and test your new amplifier. If you find any damage, immediately notify the shipping company. Only the consignee may institute a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

7. PHYSICAL

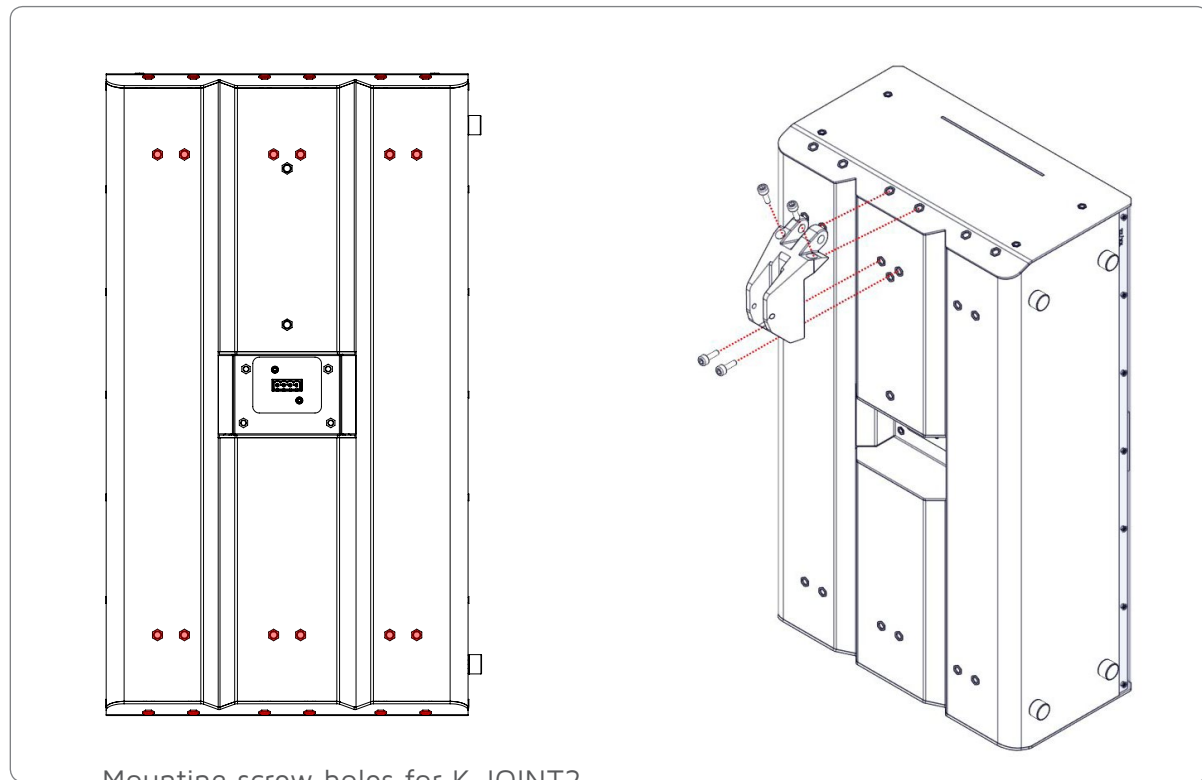


Weight
11 kg (24.2 lbs)

7.1 MOUNTING SCREW HOLES FOR ACCESSORIES



Mounting screw holes for wall brackets



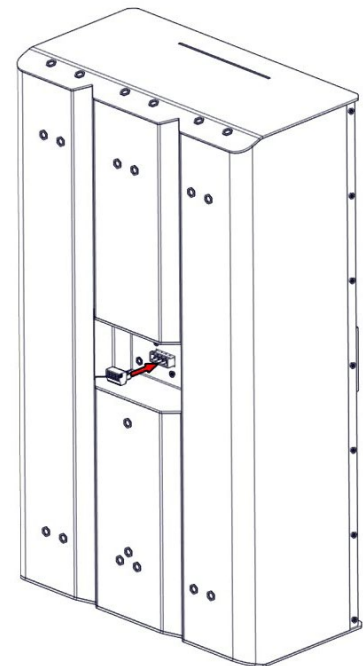
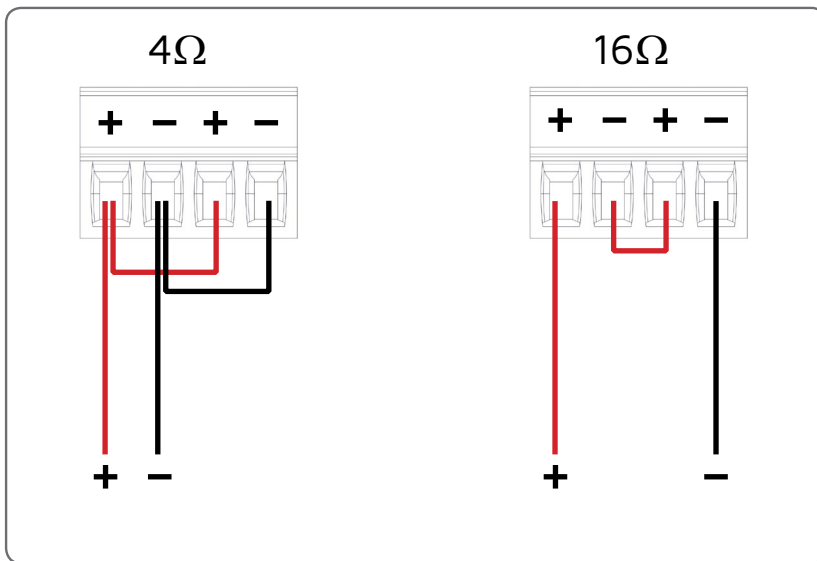
Mounting screw holes for K-JOINT2

8. WIRING

The KU210 is comprised of a neodymium transducer, combined with a 10" passive transducer. The neodymium transducer features a double voice-coil ($8\Omega + 8\Omega$). T

The two voice coils can be wired in parallel (resulting in a 4Ω total impedance) or in serial (resulting in a 16Ω 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 16Ω configuration.

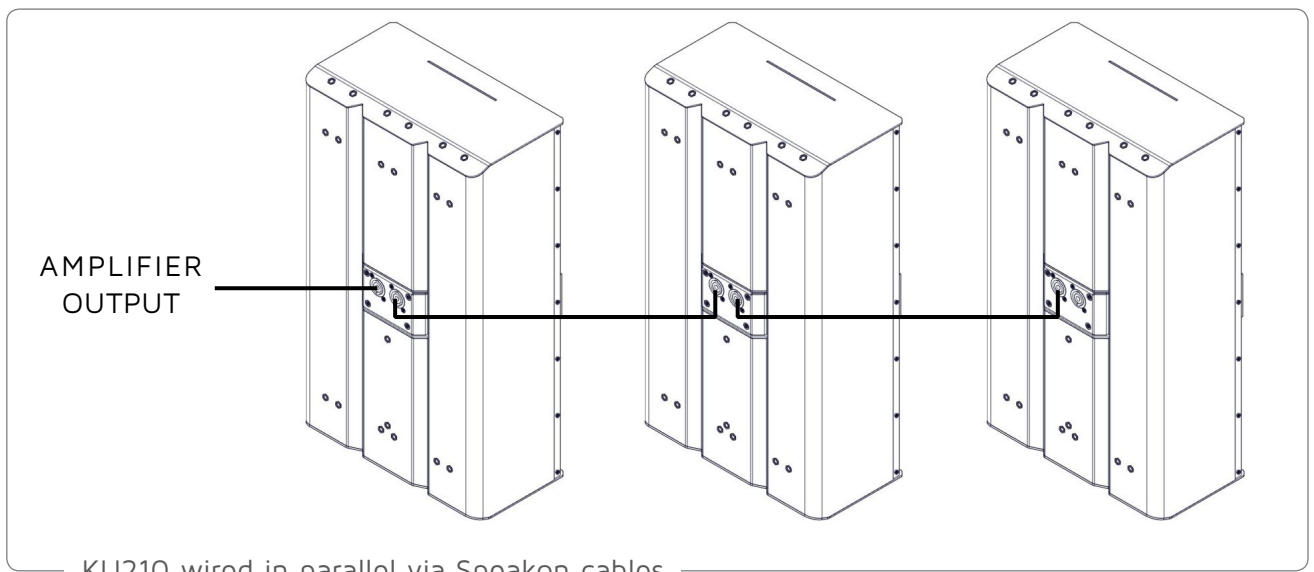
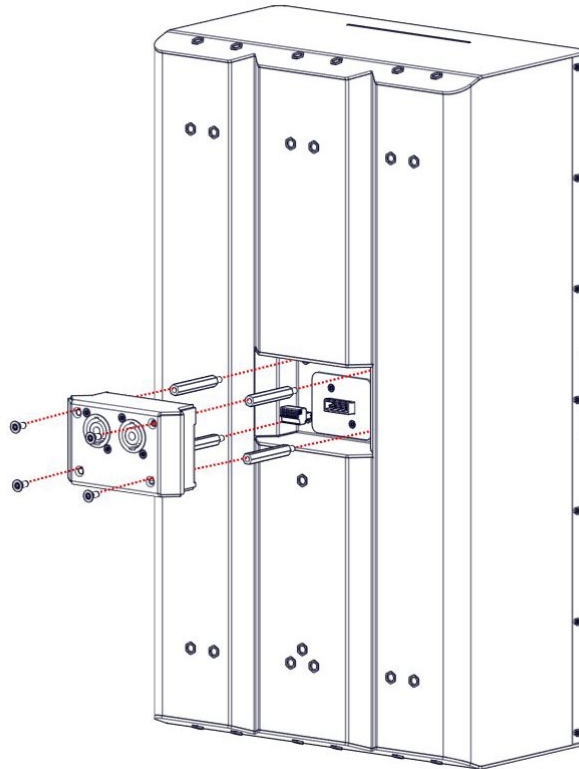


NOTE. The K-array KA84 amplifier can drive up to four KU210s@ 16Ω per channel. The K-array KA24 amplifier can drive one KU210@ 4Ω per channel.

8.1 K-2SPK ACCESSORY

This accessory is used to connect a Speakon cable to a KU210. It features two Speakon connectors wired in parallel giving you the possibility to wire two or more KU210s 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. Use the four screws and the four hexagonal spacers included to mount the K-2SPK on the KU210.

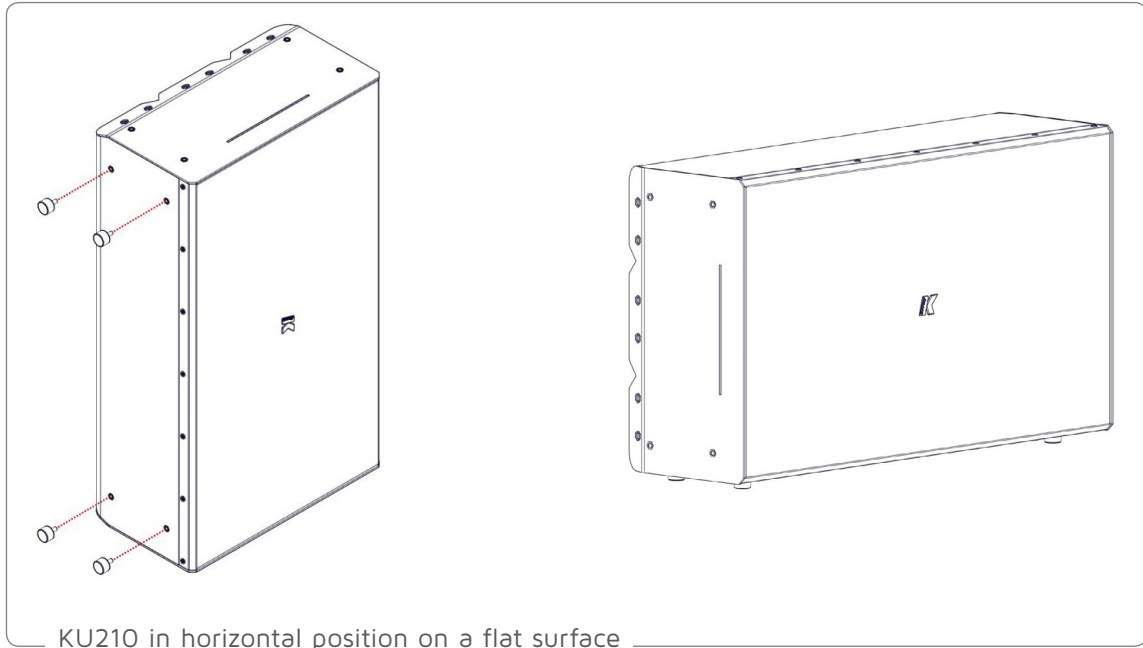


KU210 wired in parallel via Speakon cables

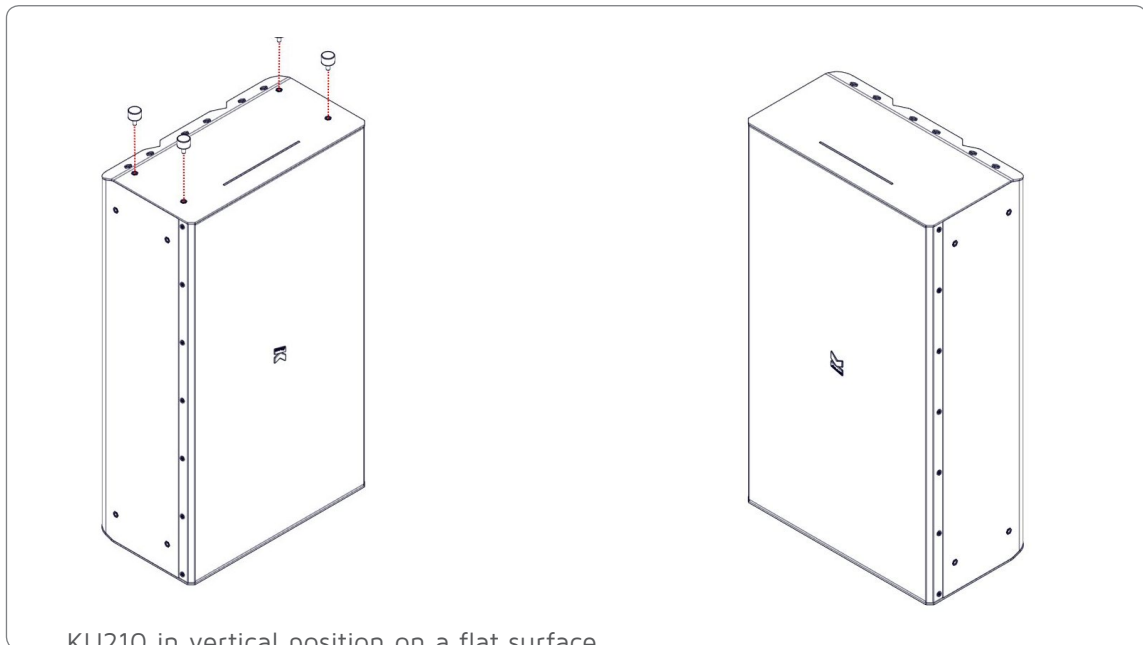
9. SET UP

9.1 RUBBER FEET MOUNTING

KU210 can be positioned on a flat surface both in horizontal and in vertical position thanks to the four rubber feet included.



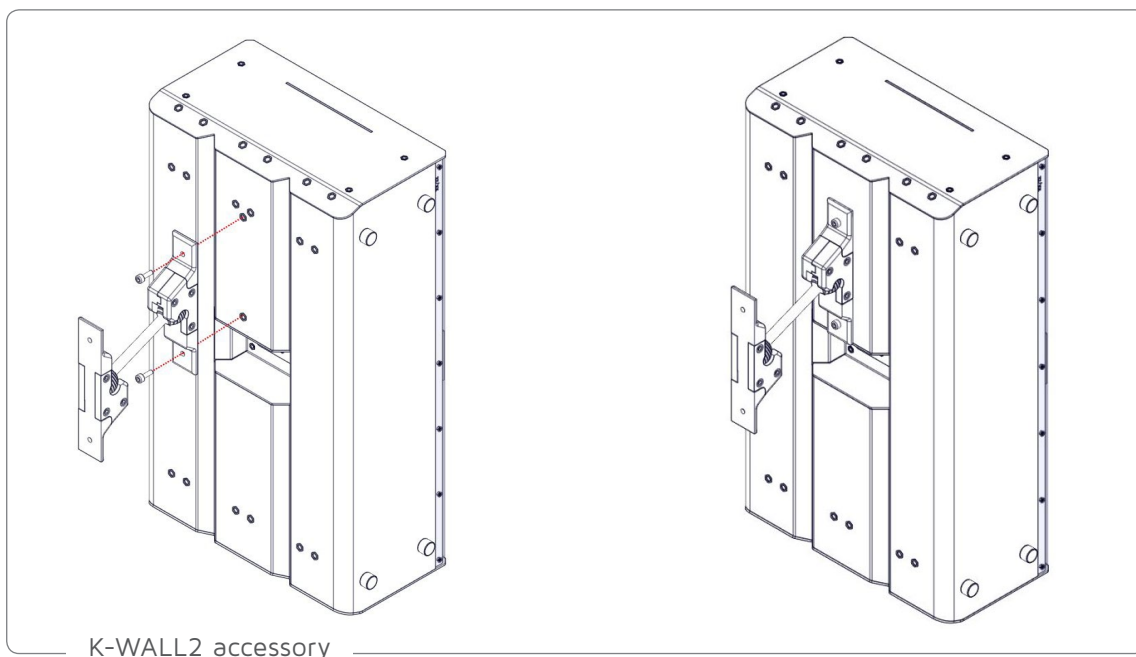
KU210 in horizontal position on a flat surface



KU210 in vertical position on a flat surface

9.2 HANGING ON THE WALL

The KU210 can be mounted on the wall with the K-WALL2 accessory (not included).



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

	ACOUSTICS
Power handling	2 x 160 W
Impedance	4 / 16 Ω selectable (2 x 8 Ω)
Frequency range (-10 dB)	40 Hz – 300 Hz ⁽¹⁾
SPL 1W/1mt	94 dB ⁽²⁾
Maximum SPL	121 dB (cont.) – 127 dB (peak) ⁽³⁾
	COVERAGE
Horizontal	omni
Vertical	omni
	CROSSOVER
Type	External crossover required
Frequency	Low pass @ 150 Hz suggested
	TRANSDUCERS
Type	1 x 10" Neodymium magnet with 2" voice coil
Type	1 x 10" passive transducer
	POWER AUDIO IN/OUT
Connectors	1 x 4-pin phoenix connector
Wiring	Pin 1=Ch 1+, Pin 2=Ch 1-, Pin 3=Ch 2+, Pin 4=Ch 2-
	RECOMMENDED AMPLIFIERS
Type	KA24, KA84
	CERTIFICATION
IP	54
	PHYSICAL
Dimensions	50.0 cm x 28.2 cm x 15.0 cm (19.7" x 11.1" x 5.9")
Weight	11 kg (24.3 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: 05 / 05 / 2015
Model(s) Code: KU210 – KU210W
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.

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Signed by:

Franco Spataro
 Technical Manager

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