

GH12

12" High Efficiency Coaxial Slim Array Element



Thank you for choosing KGEAR!

To ensure proper operation, please carefully read this owner's manual and safety instruction before using the product.

After reading this manual, be sure to keep it for future reference.

If you have any questions about your new device please contact K-array customer service at info@kgear.it or contact the local distributor in your country.

The GH12 is a passive line array element with 12" coaxial transducer housed in a compact stainless steel, weather resistant cabinet that benefits from K-array SAT® Slim Array Technology.

Its cardioid dispersion pattern limits the loss of energy in unwanted directions. More units can be joined together to form an array line and scale up the system.

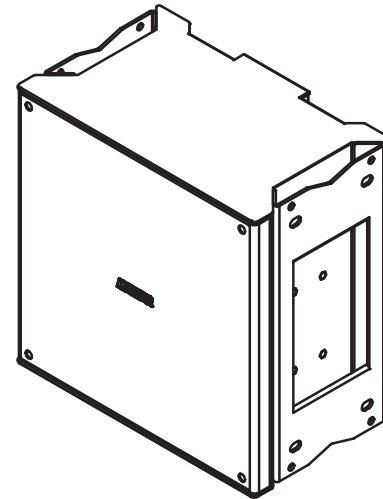
Designed for high performance outdoor/indoor applications both for fixed and moving installation for live events in auditoriums, stadiums, theme parks and clubs.

To ensure a correct performance GH12 must be driven by GA43 or GA46 amplifier from KGEAR amplifiers family.

Unpacking

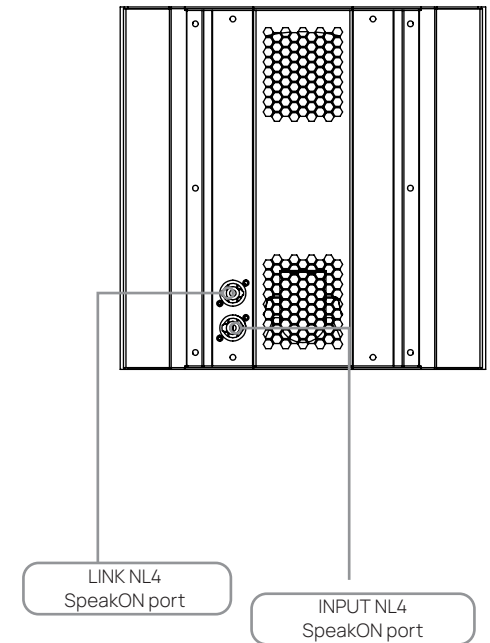
Each KGEAR device is inspected before leaving the factory. Upon arrival, carefully inspect the shipping carton, then examine and test your new device. If you find any damage, immediately notify the shipping company. Check that the following parts are supplied with the product:

1. 1 x GH12



Rear Panel

The rear panel of the speaker hosted 2x SpeakON connector: The connector located at the bottom is used as input connector for the signal coming from an amplifier unit or an active subwoofer, while the one positioned at the top serves as link connector, allowing the signal to be distributed to multiple elements in a line array configuration.



Wiring and connections

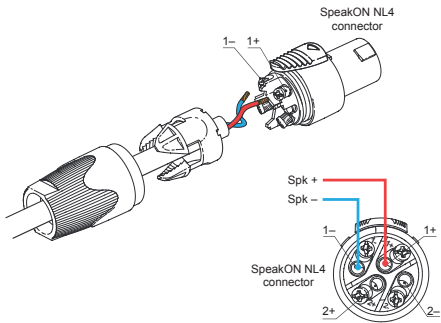
NL4 SpeakON 1+ 1- signal, 2+ 2- trough

GH12 has to be connected to a KGEAR amplifier using a SpeakOn NL4 connector with this wiring configuration:

In a classic configuration, connect the cables coming from the dedicated amplifier to the lower connector of the rear panel of the speaker.

Poles 2+ 2- of the SpeakOn are connected for pass trough function.

SpeakON		GH12	
	1	1+ 1-	trough
	2	2+ 2-	Not connected
	3	1+ 1-	LINK (SIGNAL)
	4	2+ 2-	trough



Rigging and Hanging procedures

Suspended Unit and Array

Key rigging components must be inspected before each use.

Any rigging components found to be defective, or even suspect might be defective should be replaced with equivalent approved part.

Always use properly rated rigging hardware.

K-array is not responsible for any rigging equipment and accessories that are not manufactured by K-array.

K-array loudspeaker and hardware are intended for suspension from approved rigging points only.

Ensure that the total weight of the loudspeakers and additional hardware assembly in use is lower than the Working Load Limit (WLL) of the suspension points.

Rigging and flying loudspeaker systems shall be accomplished by knowledgeable and experienced professionals.

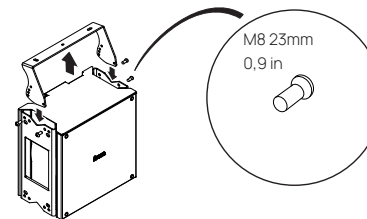
It is the user's responsibility to ensure that the use and suspension of heavy loudspeaker systems conform to all applicable laws and regulations in force at the time and location.

Needed Equipment

Name	Description	Image	Apply to
GH-JOINT	Adjustable Joining Hardware + 2 Lugs + 8 Pins		GH12 GH412
GH-FLY	Stainless Steel Fly Bar		GH12 GH412
GH12-CEILING	Stainless Steel Ceiling Mount Bracket with Adjustable Angle		GH12 GH412

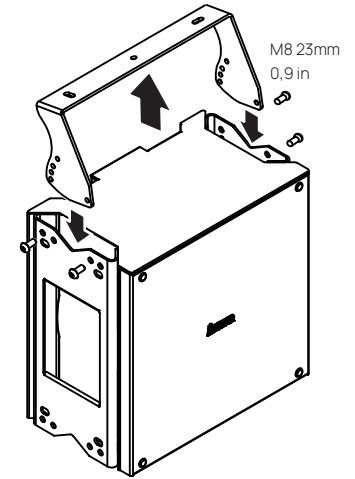
GH12-CEILING

It is possible to hang a single unit on ceiling using the dedicated GH12-CEILING mounting bracket with adjustable angles. To set up the speaker with the desired inclination, use the dedicated 4x M8 screws provided within the accessory's package.

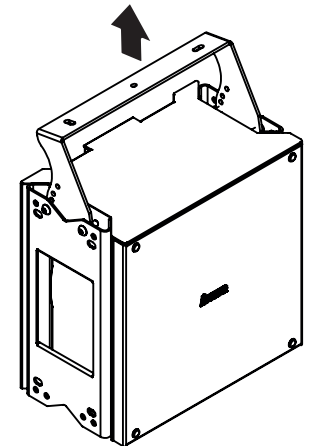


GH12-CEILING

1



2



GH-JOINT & GH-FLY

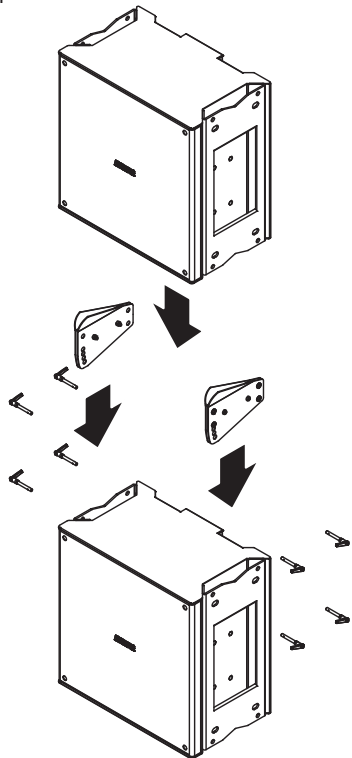
Any GH12 element can be mounted in an array configuration with GH-JOINT & GH-FLY adjustable wall mount bracket accessories. First, the user can join multiple elements together using the dedicated joining kit with 2x lugs and 8x pins.

Then use the GH-FLY bar to suspend the array in vertical or fix it to the wall inserting it into the bracket's rail.

1 Install the GH-JOINT kit on top of the GH12 loudspeaker: insert the four pins on the holes according to the desired tilting angle.

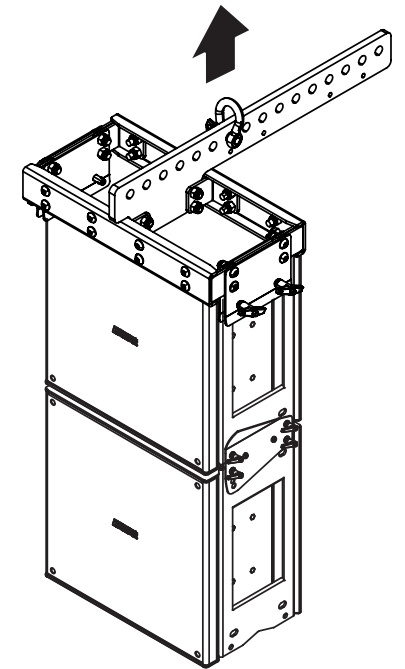
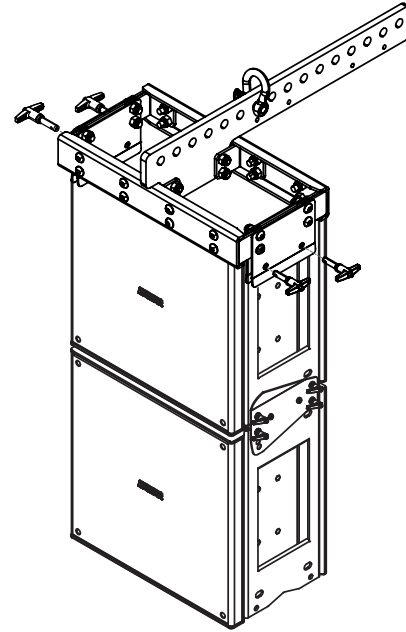
Secure the second GH12 on top of the system using the remaining four pins.

GH-JOINT

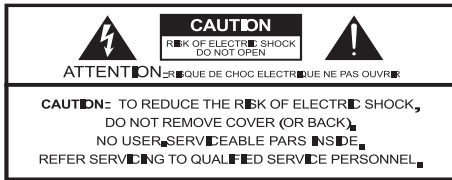


2 Then, fix the GH-FLY bar to the speaker's frame with the provided pins, adjusting the bumper to achieve the desired height and angle, and suspend the array in vertical to the rigging point.

When suspending multiple GH12 units in an array, please ensure strict adherence to the GH-FLY bar's maximum suspension capacity. Utilize certified accessories exclusively to guarantee secure suspension and prevent any equipment damage.



IMPORTANT SAFETY INSTRUCTIONS



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



The lighting flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated, dangerous voltage within the product enclosure that may be of magnitude to constitute a risk of electrical shock.



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



Operator's manual; operating instructions
This symbol identifies the operator's manual that relates to the operating instructions and indicates that the operating instructions should be considered when operating the device or control close to where the symbol is placed.



For indoor use only
This electrical equipment is designed primarily for indoor use.



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 device complies with Restriction of Hazardous Substances Directive.



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

General heed and warnings

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
Only use attachments/accessories specified by the manufacturer.
Clean the product only with a soft and dry fabric. Never use liquid cleaning products, as this may damage the products cosmetic surfaces.
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.  during lightning storms or when unused for long periods of time.
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.
CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

These apparatus are intended for professional use.
Installation and commissioning may only be carried out by qualified and authorized personnel.

WARNING: Only use attachments/accessories specified or provided by the manufacturer (such as the exclusive supply adapter, battery, etc.)
Use only speaker cables for connecting speakers to the speaker terminals. Be sure to observe the amplifier's rated load impedance particularly when connecting speakers in parallel. Connecting an impedance load outside the amplifier's rated range can damage the apparatus.
WARNING: Operation of this equipment in a residential environment could cause radio interference. KGEAR will not shoulder any responsibilities for products modified without prior authorization.

Service

To obtain service:
Please have the serial number(s) of the unit(s) available for reference.
Contact the official KGEAR distributor in your country: find the Distributors and Dealers list on www.kgear.com it website. Please describe the problem clearly and completely to the Customer Service.
You will be contacted back for on-line servicing.
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.

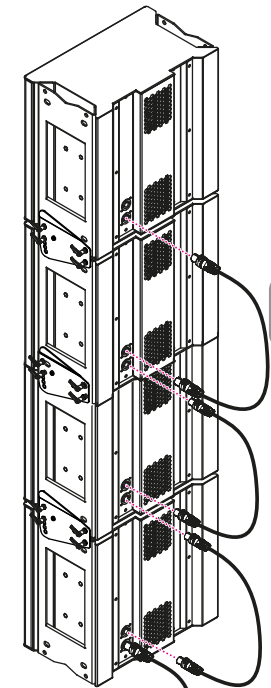
Installation

According to Table 35 of IEC/EN 62368-1:2018, equipments are suitable for mounting at heights ≤ 2 m. Install in a well ventilated location at 35°C (95°F) max environment temperature.

Example of configuration

Multiple GH12 units can be connected together to build a line array configuration: the speaker has a Nominal impedance of 32 Ω that allows to connect up to 8 GH12 in an array line.

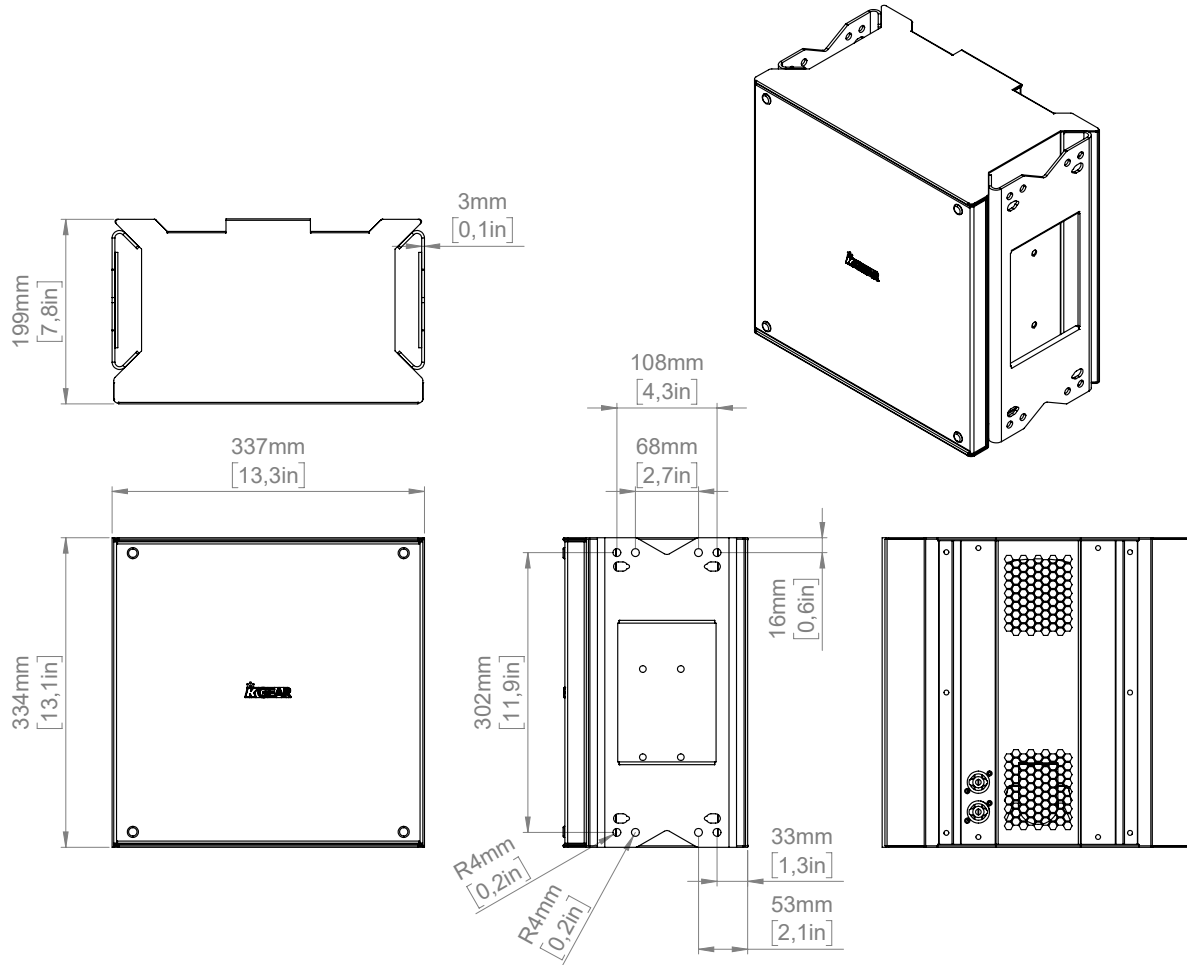
...up to 8x GH12 in array configuration driven by 1x Ch of a GAX amplifier



Signal pass through on NL4 2+ 2-

Signal from CH of GAX amplifier to NL4 1+1-

Mechanical Drawings



Technical specifications

Type	Passive loudspeaker
Transducer	12" ferrite magnet woofer - 1" compression driver
Frequency Response ¹	125 Hz - 20 kHz (-6dB)
Max SPL ²	129 dB Peak
Power Handling	400 W
Coverage	V.30 H.90°
Connectors	SpealOn NL4 1+ 1- (signal) 2+ 2- through
Nominal Impedance	32Ω
IP-rating	IP54

Handling & Finishes

Dimensions (WxLxH)	327 x 198 x 198mm (12.8 x 7.7 x 13.15 in)
Weight	13.8 kg (30.43 lb)
Material	Stainless Steel
Color	Black

¹ With dedicated preset
² Maximum SPL is calculated using a signal with crest factor 4 (12 dB) measured at 8 m then scaled at 1 m

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