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 GH4 is a high performance ultra compact passive loudspeaker that features a 4" full range driver with a dual coil neodymium magnet and variable impedance (4 Ω – 16 Ω).

The flexibility and compactness of GH4 make it a great choice for fixed installation in a very wide variety of applications, from live and entertainment to hospitality, transportation, broadcast, theaters, HOW and residential.

More GH4 can be combined together to create an array and obtain even higher performance.

GH4A active is equipped with 2 Phoenix connectors (4-pin Euroblock) that host a balanced line input, a mute contact, and an auto ON/OFF switch with selectable thresholds. Additionally, it has a power output that allows you to connect another KGEAR speaker or passive subwoofer from the KGEAR series and drive them with its on-board amplifier, with a minimum load of 4Ω.

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 x GH4 - (GH4A) mini array element
- 1 x Phoenix connector (GH4) - 2x Phoenix connectors (GH4A) (4 pin - Euroblock 1,5/ 4-ST-3,81) with dedicated jumper cables to selectable impedance wiring.
- 1x GF-WALL x GH4 on-wall mounting bracket + screws and plugs

x2
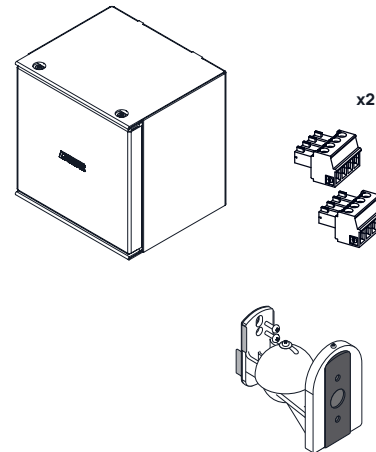
GH4 passive

GH4 passive speaker is equipped with 1x Phoenix connector 4 pin - Euroblock 1,5/ 4-ST-3,81.
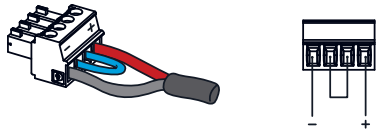
K GEAR
Smart Audio Solutions
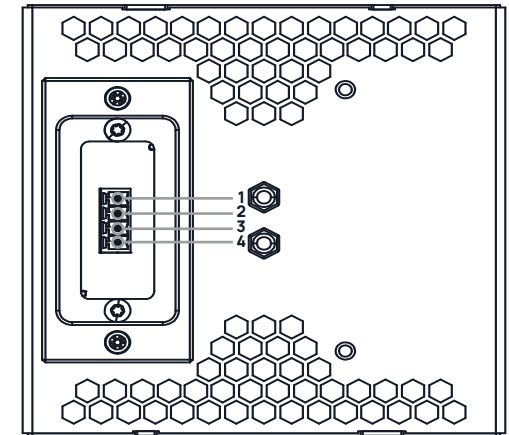
Wiring
Impedance selection

To offer flexibility in impedance settings, the GH4 allows to wire the two voice coils in either parallel or series configuration. Wiring in parallel results in a total impedance of 4Ω, while series wiring yields a total impedance of 16Ω. The chosen impedance value can have an impact on the speaker's performance and compatibility with your audio setup.
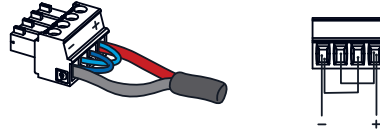
To set the desired impedance value use the dedicated jumper cable:

4Ω Low-Z

4 Ω	
PIN 1	🔴 SIGNAL + parallel(+ 1)
PIN 2	🔵 SIGNAL - parallel(1-)
PIN 3	🔴 SIGNAL + parallel(2+)
PIN 4	🔵 SIGNAL - parallel(2-)

16Ω High-Z

16 Ω		
PIN 1	🔴	SIGNAL + (1+)
PIN 2	🔵	bridged (1- 2+)
PIN 3	🔵	
PIN 4	🔵	SIGNAL - (2-)

GH4A active

Signal polarity Input - mute contact - power output sand ON-OFF switch selector of GH4A.

DIP SWITCH
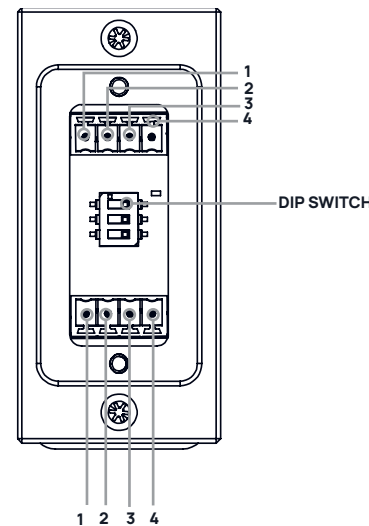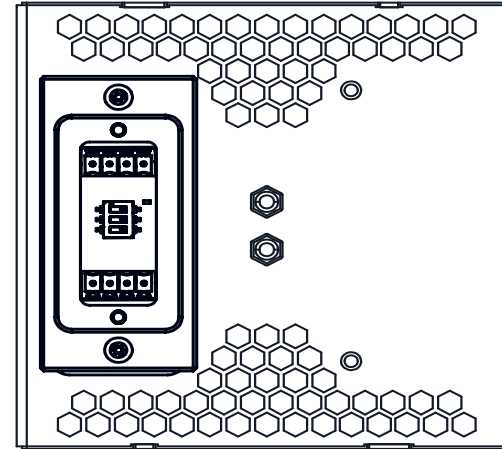
GH4A features 2 x Phoenix connectors (4-pin Euroblock 1,5/ 4-ST-3,81) with:

INPUTS:
- 1x balanced line input
- DC power input (DC+, DC-)
- 1x mute contact (normally open) - more information about mute wiring and connections can be found in the GH4A rear panel section in the next pages.

OUTPUTS:
- 1x power outputs to connect another KGEAR speaker or passive subwoofer driven by the built-in amplifier module, 4 Ω minimum load.

CONTROLS:
- 1x auto ON/OFF switch with selectable thresholds The dip switch controls the auto-standby mode of the speaker and can be set to 3 different thresholds - see the Dip switch modes section.

GH4A - Wiring				
	Connector 1		Connector 2	
PIN 1	POWER OUT -	🔵	GND	⚫
PIN 2	POWER OUT +	🔴	LINE -	🔵
PIN 3	- DC POWER IN	⚫	LINE +	🔴
PIN 4	+ DC POWER IN	🟢	MUTE CONTACT	🟡

It is possible to use the G-AL120 power supply accessory to provide power to the internal amplifier module. This accessory is able to drive up to 1x GH4A amplifier module and 1xGH4 connected with the LOW-Z → 4 Ω impedance selection.

With a minimum load of 4 Ω, the amplifier module is capable of delivering a power of 100 W with a maximum consumption of 6.5 A (Irms).
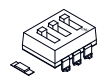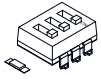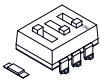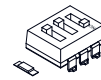
![KGEAR - Smart Audio Solutions]

GH4A rear panel

It is possible to connect an external switch to the Mute contact input to close the circuit down and switch the speaker off. For any other connection, power output and balanced input connections, please follow the scheme below.
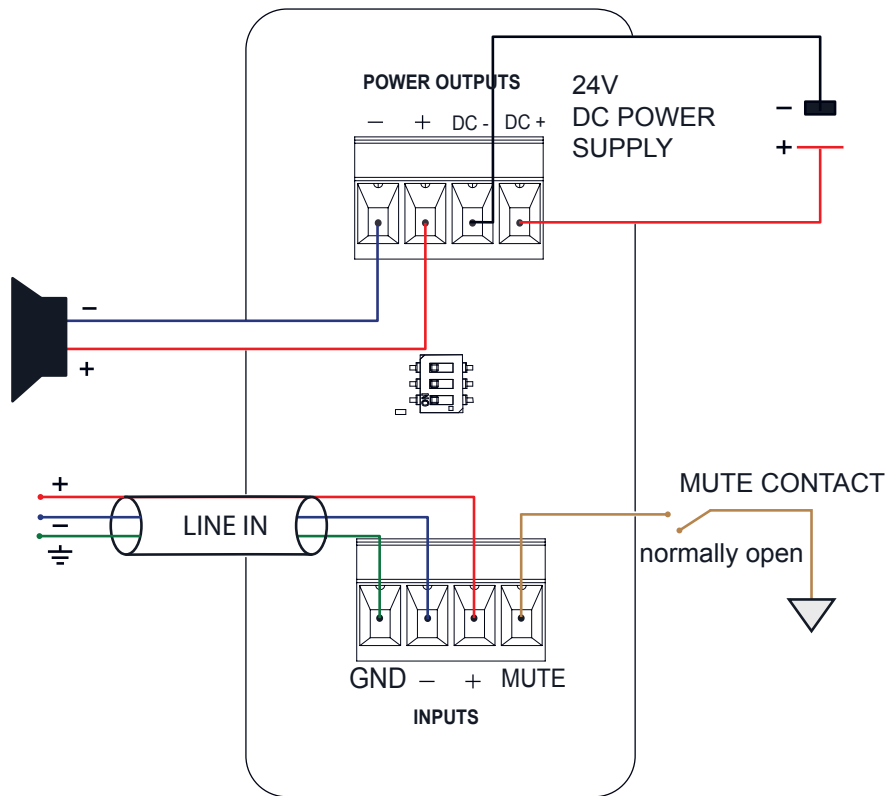
DIP Switch modes

The table below illustrates three different modes along with their corresponding input signal threshold values, which can be used to configure the ON/OFF switch.

ON/OFF SWITCH MODES			
MODES		Thresholds Values	Description
NO THRESHOLDS		/	
HIGH THRESHOLDS LOW + MID + HGH		-42 dBu	The amplifier switches on only after a stronger signal has passed the chosen threshold. This mode is useful to avoid noisy signal to enter the circuit
MEDIUM LOW+MID ON		-46 dBu	This mode requires the input signal to be stable and exceed the minimum threshold for an extended period to keep the speaker switched on.
LOW THRESHOLDS LOW ON		-52 dBu	The amplifier module switches ON immediately when the signal is higher than this minimum threshold, this mode is useful when a quick response is needed.

G-IPCAP1 mounting and speaker wiring

GH4 and GH4A can be protected against external agents, and water using the G-IPCAP1. This is a dedicated IP sealing CAP made by highly resistant and tight rubber, thought to be mounted on the rear panel of the speaker to protect connectors from water.
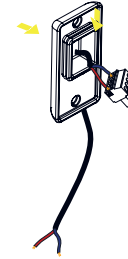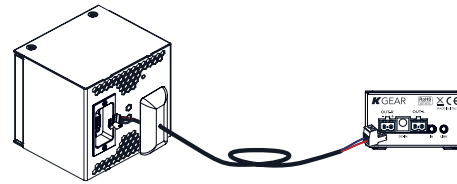
To install GH4 with the dedicated accessory, please follow the procedure shown below:

1. Take the dedicated accessory G-IPCAP1 and make a hole into the rubber material with a cutting saw.
2. Choose a cable with a sheath for greater insulation and pass it through the hole.
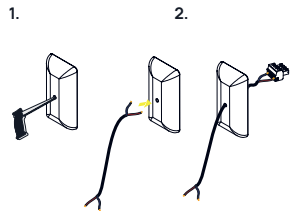

3. Connect the wires to pins 1 - 4 of the provided Euroblock connector and plug it to the speaker's terminals.
4. Use the jumper cables for the desired impedance configuration.

GH4

5. GH4A connections and shown in the picture below . For external input and DC power connection, connect the wires to line+ line- and GND (balanced line input) as shown in the scheme in the previous page, and DC- DC+ for external
6. Take the power from out- out+ for power connection to drive an other speaker .

GH4A

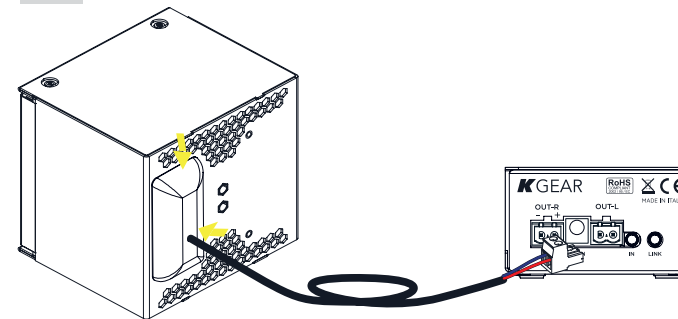7. Ensure a secure fit by firmly pressing down the accessory's gasket to close the connector compartment.

8. For GH4 passive speaker - connect the speaker to the dedicated amplifier channel. GH4 is finally installed with its dedicated G-IPCAP1 accessory.

GH4

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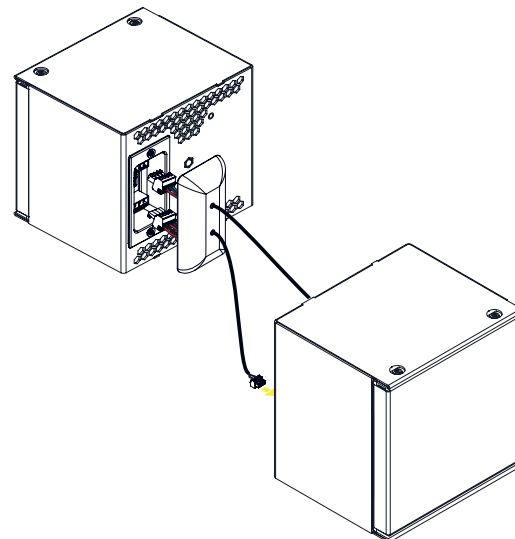
Example of configuration

It is possible to mount more GH4 elements in array configuration, using the Euroblock connector w/ 16Ω selection of impedance. In this example, 4x GH4 are connected in parallel driven by GA43/GA43L/GA46/GA46L Amplifiers. Connect the 1+ 1- wires of Euroblock terminals to the terminals of 1x NL2 SpeakOn connector.

Euroblock connector to SpeakON
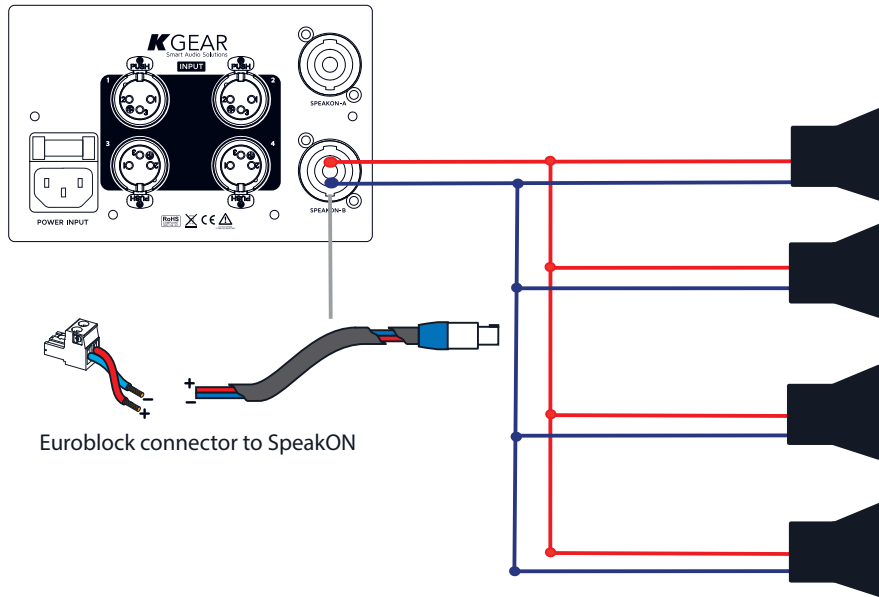
On-wall installation

Any GH4 element comes included with a dedicated mounting bracket for on-wall installation (GF-WALL), with M4 12mm (0,5 in) screws provided for easy mounting. To install the speaker with the dedicated GF-WALL accessory please follow these easy steps:

1. Be sure to have all the GF-WALL components required for the installation
2. Find the proper position on the wall according to the listening area that needs to be covered

GF-WALL Bracket x GH4
M4 (12mm) screws
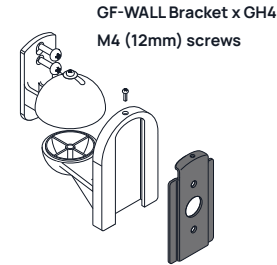
3. Mount the bracket to the rear panel of the speaker using the dedicated M4 screws provided
4. Finally install the speaker to the wall and connect the speaker with the provided Euroblock connector taking care of the impedance settings.

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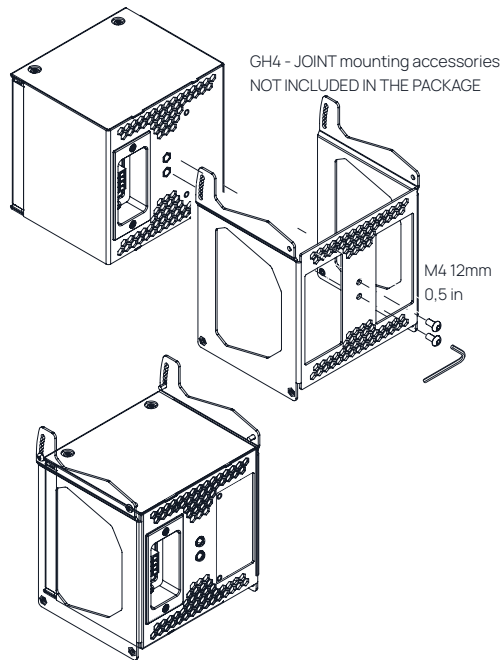Smart Audio Solutions
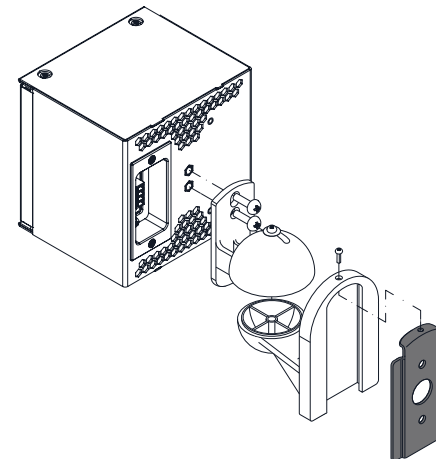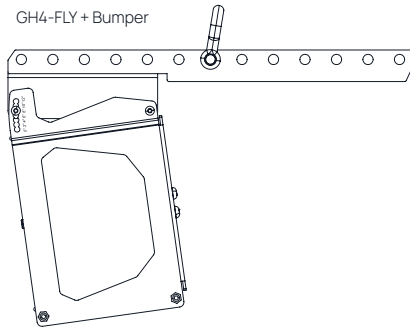
Rigging / Array Mounting

2

Any GH4 element can be mounted in array configuration with GH4-JOINT & GH4-FLY adjustable wall mount bracket accessories. (To be purchased separately).

1. First, the user can join multiple elements together thanks to the dedicated joining frame with (M4) screws GH-JOINT accessory to be mount to the rear panel of the speakers.
2. Then use the GH4-FLY bar to suspend the array in vertical or fix it to the wall inserting it into GH4-WALL bracket's rail.

GH4-FLY + Bumper

Mechanical Drawings - GF-WALL

60mm
[2,7in]

40mm
[1,5in]

5,9mm
[0,23in]

0,5mm
[0,019in]

70mm
[3in]

70mm
[3in]

41mm
[1,6in]

50mm
[1,7in]

30mm
[1in]

1

GH4 - JOINT mounting accessories
NOT INCLUDED IN THE PACKAGE

M4 12mm
0,5 in

Rigging Hardware -
GH4-JOINT + GH-FLY

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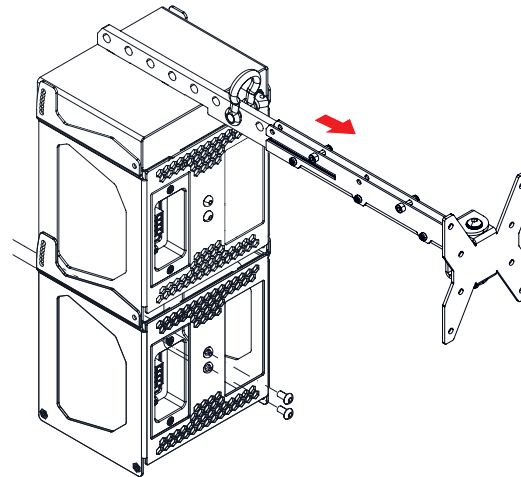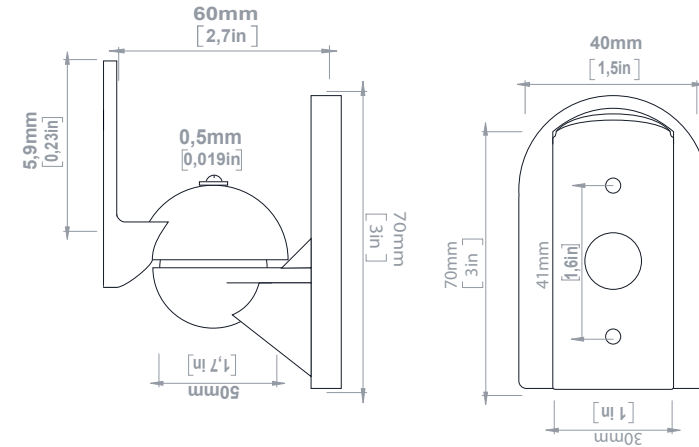
Mechanical Drawings - GH4 - GH4A

95mm
[3,7in]

12mm
[0,5in]

M4

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112mm
[4,4in]

112mm
[4,4in]

12mm
[0,5in]

M4
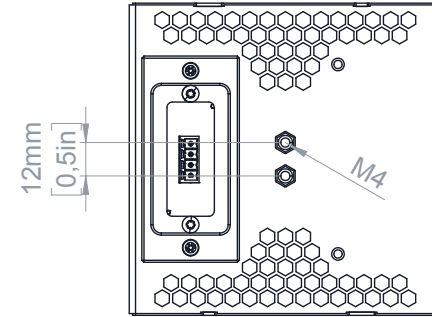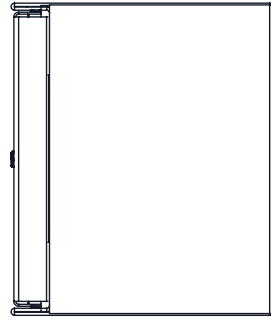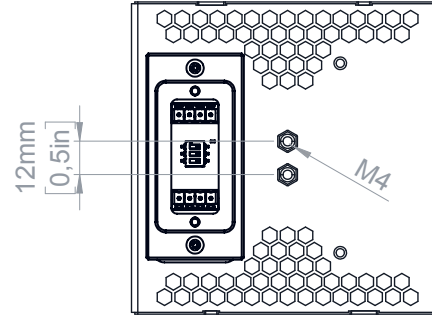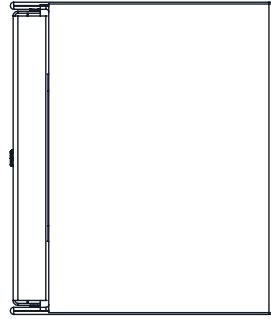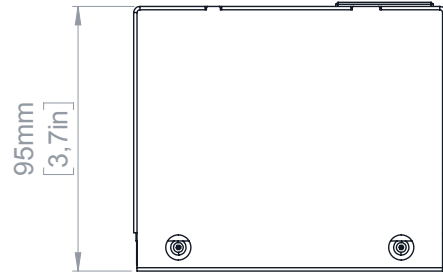
IMPORTANT SAFETY INSTRUCTIONS

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
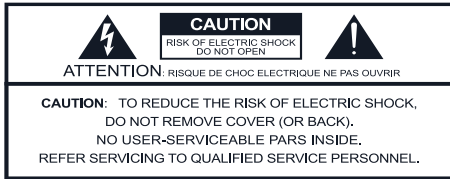
This symbol alerts the user to the presence of recommendations about the product's use and maintenance.

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.

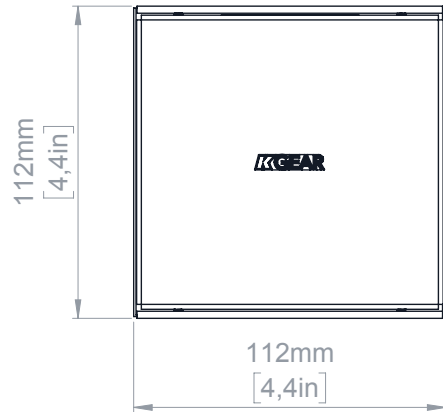The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in this guide.

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.
- Unplug this apparatus 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.

KGEAR will not shoulder any responsibilities for products modified without prior authorization.

Service

To obtain service:

1. Please have the serial number(s) of the unit(s) available for reference.
2. Contact the official KGEAR distributor in your country: or KGEAR headquarter at info@kgear. it. Please describe the problem clearly and completely to the Customer Service.
3. You will be contacted back for on-line servicing.
4. 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.

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GH4

Technical specifications

Type	Passive loudspeaker
Transducer	4" neodymium magnet full range driver
Frequency Response[1]	150 Hz - 20 kHz (-6dB)
Max SPL[2]	122 dB (peak)
Power Handling	140 W
Coverage	V.90 I H.90°
Connectors	1x Phoenix connector (4-pin Euroblock)
Nominal Impedance	4 Ω - 16 Ω selectable
IP Rating	IP64

Handling & Finishes

Dimensions (WxLxH)	60 x 590 x 72 mm (2.36 x 23.22 x 2.83 in)
Weight	1,6 kg (2.87 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

GH4A

Technical specifications

Type	Active loudspeaker
Transducer	4" neodymium magnet full-range driver
Frequency Response[1]	150 Hz - 20 kHz (-6dB)
Max SPL[2]	116 dB (peak)
Coverage	V.90 I H.90°
Connectors	2x Phoenix connector (4-pin euroblock)
	Balanced line in
	Mute Contact
	Power out
	24V DC IN (power supply not included)
Controllers	Auto ON/OFF with selectable threshold
Amp Module	1-channel Class D amplifier
Output Power	100W @ 2 Ω (24V power)
Power Consumption	30W Power Load 1/8 Max Power
Protections	Thermal Protections
	(Power-Limiting - Thermal Shutdown)
	Short - circuit/overload output protections
Operating Range	12-24 V DC
IP Rating	IP64

Handling & Finishes

Dimensions (WxLxH)	112 x 112 x 94 mm (4.4 x 4.4 x 3.70 in)
Weight	1,2 kg (2.87 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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