KGEAR
Smart Audio Solutions

GF82 I - GF82A I - GF82T I

Column Line Array Speaker 8 × 2" – Passive – Active – Passive with transformer

USER GUIDE

Thank you for choosing KGEAR!

For correct use of the product, please read this manual and the safety instructions carefully. Keep it for future reference. For questions or support, please contact K-array customer service at info@kgear.it or your local distributor.

GF82 I, GF82T I, and GF82A I are compact and robust line array speakers from the GF series, in a column format. Each model integrates 8 x 2" drivers with ferrite magnets, housed in a recycled ABS cabinet and equipped with Pure Array Technology (PAT).

Designed to ensure high speech intelligibility and excellent directivity, they are also ideal for music reproduction when paired with a KGEAR subwoofer.

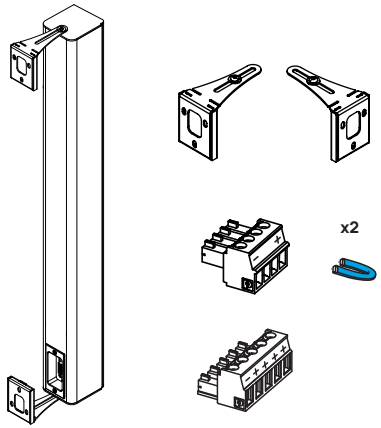
GF82 I: 200W passive element, with selectable impedance 16 Ω / 64 Ω.

GF82T I: with internal transformer, compatible with 70V/100V lines, with selectable taps: 4/8/16/32 W @ 100V or 2/4/8/16 W @ 70V.

GF82A I: active version with integrated amplifier, balanced line input, mute contact, Auto ON-OFF with selectable thresholds, and speaker output for connecting another passive speaker or subwoofer from the GS series.

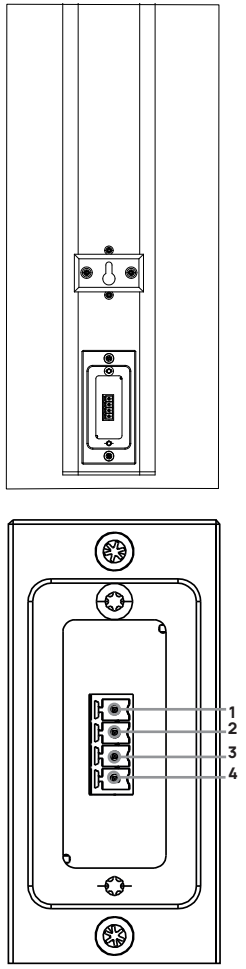
Unpacking

- Each KGEAR device is inspected before leaving the factory. Upon delivery, carefully inspect the packaging and then verify and test the device. In case of damage, contact the courier immediately.
- Ensure that the product is supplied with the following components:
- 1 x GF82 I column line array speaker (or GF82A I or GF82T I)
- 1 x Phoenix connector for GF82 I (Euroblock 1.5 / 4-ST-3.81)
- 2 x Phoenix connectors for GF82A I (Euroblock 1.5 / 4-ST-3.81)
- 1 x Phoenix connector for GF82T I (Euroblock 1.5 / 5-ST-3.81), with dedicated jumpers for impedance and connection selection
- 2 x "L" brackets for wall mounting, complete with screws and covers



GF82 I rear panel

GF82 I passive speaker is equipped with 1x Phoenix connector compatible 4 pin - Euroblock 1,5/ 4-ST-3,81.



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GF82I - Wiring

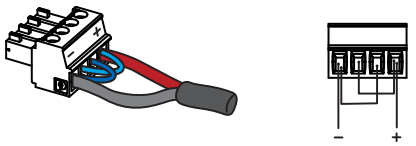
Input signal polarity and passive GF82 loudspeaker connections

GF82 I - Wiring	
PIN 1	SIGNAL -
PIN 2	SIGNAL +
PIN 3	SIGNAL -
PIN 4	SIGNAL +

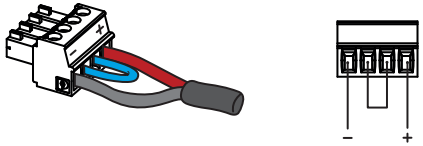
Selection of Impedence

With GF82I passive speaker the user can set the speaker @ Low impedance 16 Ω or @ High impedance 64 Ω. A jumper cable is provided to connect the two central pins of the Phoenix flying connector for the 32Ω configuration.

16Ω Low-Z

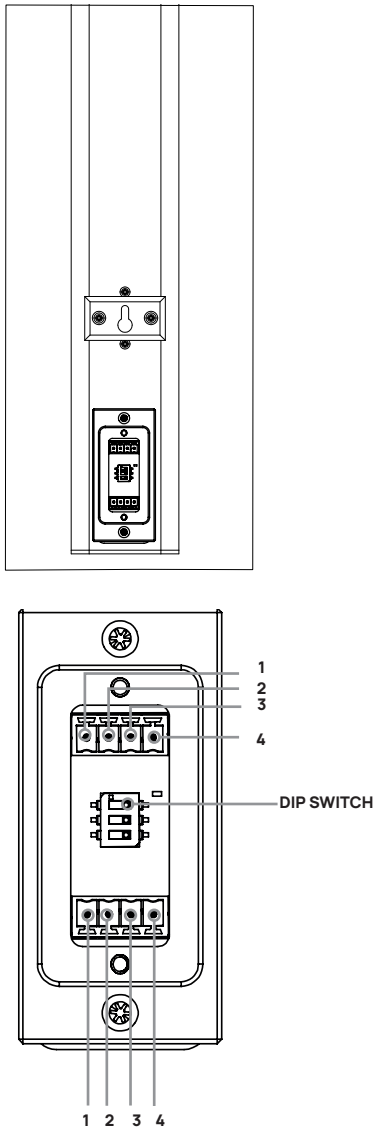


64Ω High-Z



GF82AI Rear Panel

GF82AI: 2x 4-pin Euroblock-compatible Phoenix connectors – Euroblock 1.5 / 4-ST-3.81



GF82AI Cablaggio

GF82A input signal polarity, mute contact, speaker output, and ON/OFF switch selector.

GF82A I - Wiring		
	Connector 1	Connector 2
PIN 1	MUTE	+ DC POWER IN
PIN 2	SIGNAL - BALANCED	- DC POWER IN
PIN 3	SIGNAL +BALANCED	SPK. OUTPUT +
PIN 4	GROUND BALANCED	SPK. OUTPUT -

GF82AI - Controls

The GF82AI is equipped with 2 Phoenix connectors (4-pole Euroblock 1.5 / 4-ST-3.81) with the following functions:

INPUTS:

- 1x balanced line input
- 1x mute contact (normally open) – for more details on mute connection and wiring, please refer to the dedicated section on the next page.

OUTPUTS:

- 1x loudspeaker output, for connecting another KGEAR speaker or a passive subwoofer powered by the integrated amplifier module, minimum load 4 Ω.

CONTROLS:

- 1x auto ON/OFF switch with selectable thresholds
- The DIP switch manages the automatic standby mode of the speaker and can be set to 3 different thresholds – refer to the table on the next page for more information on the ON/OFF switch modes.

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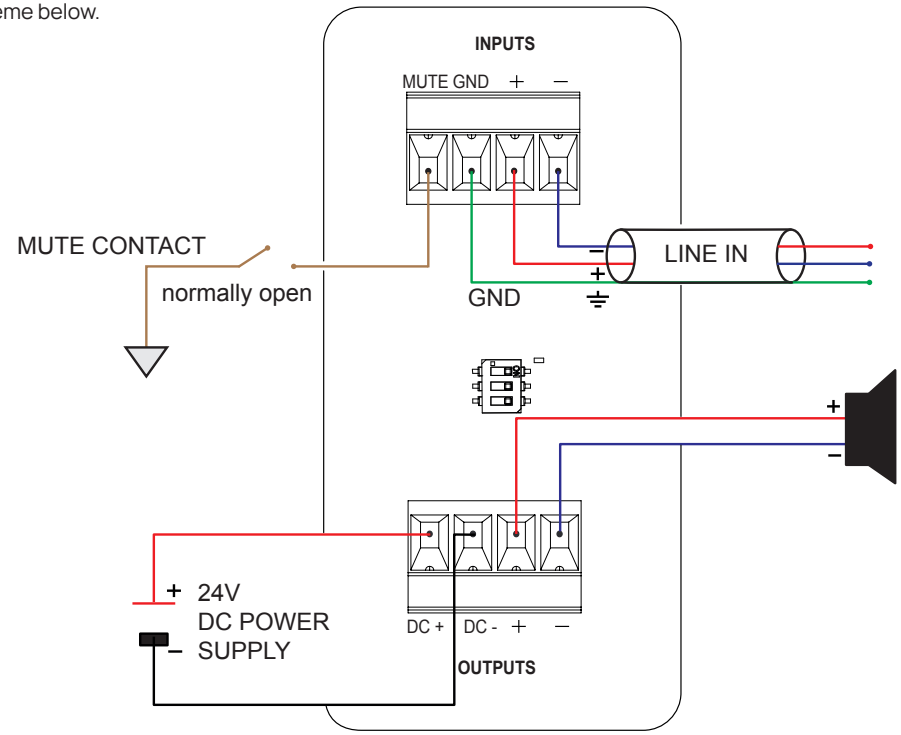
Mute Contact

It is possible to connect an external switch to the Mute contact input to close the circuit down and switch the speaker off. Please follow the wiring scheme below.

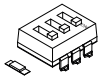
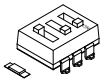
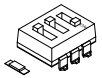


It is possible to use the G-AL120 power supply accessory to provide power to the internal amplifier module. This accessory is able to drive up to 1x GF82AI amplifier module and 4x GF82I connected in parallel with the LOW-Z → 16 Ω impedance selection.

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).

DIP Switch modes

The table below illustrates the three different modes available along with their corresponding input signal values/thresholds 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 ON		-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.

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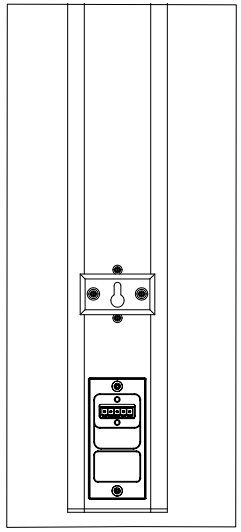
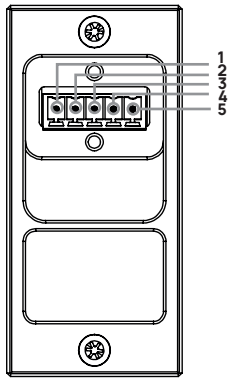
GF82TI - Rear Panel

GF82TI: 1x 5-pin Euroblock-compatible Phoenix connector – Euroblock 1.5 / 5-ST-3.81.





POWER TAPS

GF82T - Wiring		
	70 V	100 V
PIN 1	2 W	4 W
PIN 2	4 W	8 W
PIN 3	8 W	16 W
PIN 4	16 W	32 W
PIN 5	COMMON -	COMMON -

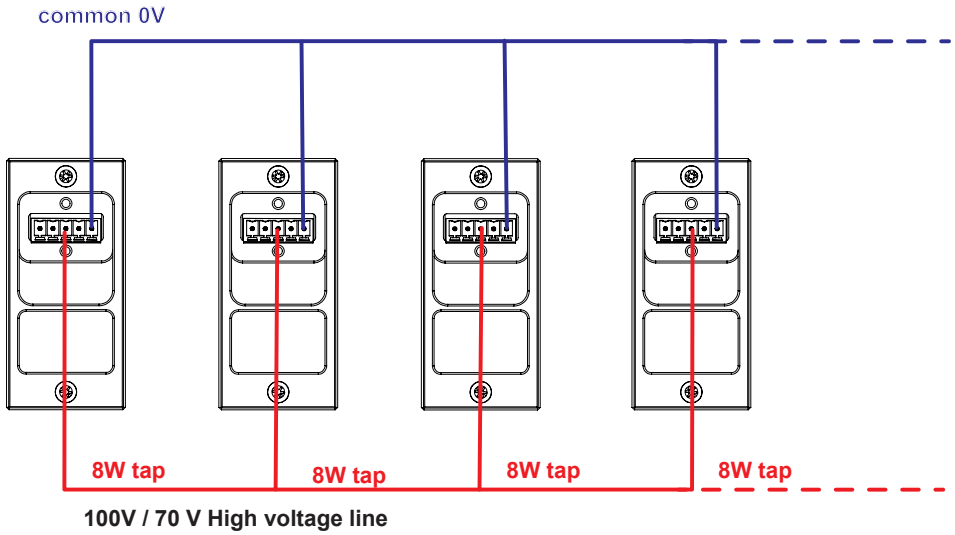
GF82TI - Transformer wiring

The GF82TI is equipped with an internal transformer and is compatible with constant voltage lines at 70V or 100V, offering multiple power taps: 4/8/16/32 W @ 100V or 2/4/8/16 W @ 70V.

This selector allows for easy connection of a large number of loudspeakers in parallel, ensuring high power and efficiency, and enabling different output levels to be set for each loudspeaker depending on the application and installation environment.

The GF82T can be installed using the dedicated IP accessory G-IPCAP2.

Constant voltage line connections



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G-IPCAP – Protection accessory I

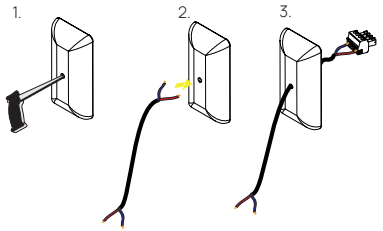
GF82, GF82A, and GF82T loudspeakers can be protected from external agents, salt, chlorine, and water by using the G-IPCAP1 and G-IPCAP2 accessories.

These are dedicated IP sealing caps, made of highly durable and waterproof rubber, designed to be mounted on the rear panel of the loudspeakers in order to protect the connectors from water.

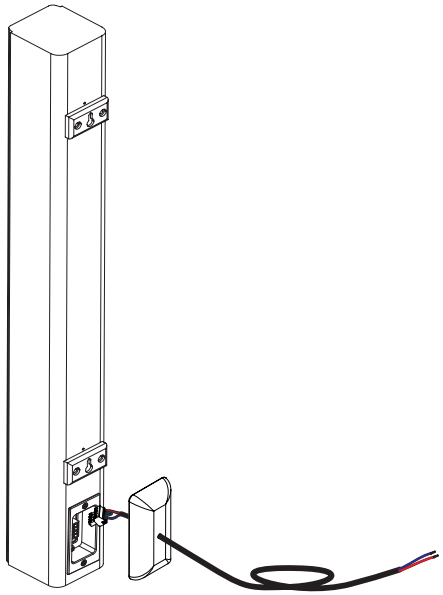
G-IPCAP1 is designed to increase the IP rating of the GF82 (passive) and GF82A (active) loudspeakers, while G-IPCAP2 is specifically intended for the GF82T loudspeaker with transformer.

To install the loudspeakers with the dedicated accessory, follow the procedure below:

1. Take the dedicated G-IPCAP1 accessory and make a hole in the rubber material using a sharp tool.
2. Select a cable with an outer jacket for better insulation and feed it through the hole.

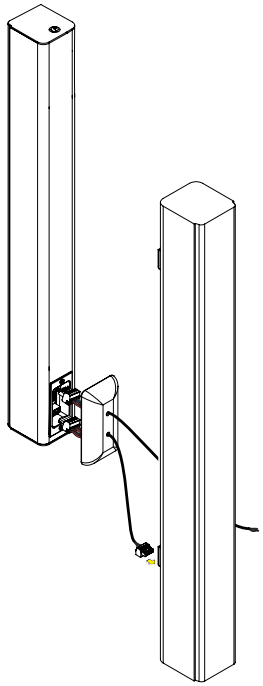


3. Connect the cables to pins 1–4 of the supplied Euroblock connector and insert it into the loudspeaker
4. Use the jumpers to configure the desired impedance.

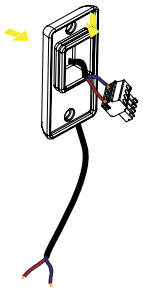


5. The connections of the GF82A are shown in the image below.

For connecting the external input and the DC power supply, attach the cables to the supplied connector and insert it into the loudspeaker terminals located at the top of the rear panel.



6. Make sure the connector compartment is properly sealed by firmly pressing the accessory gasket.



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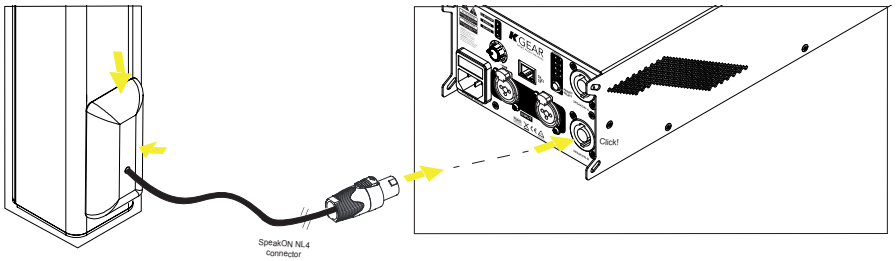
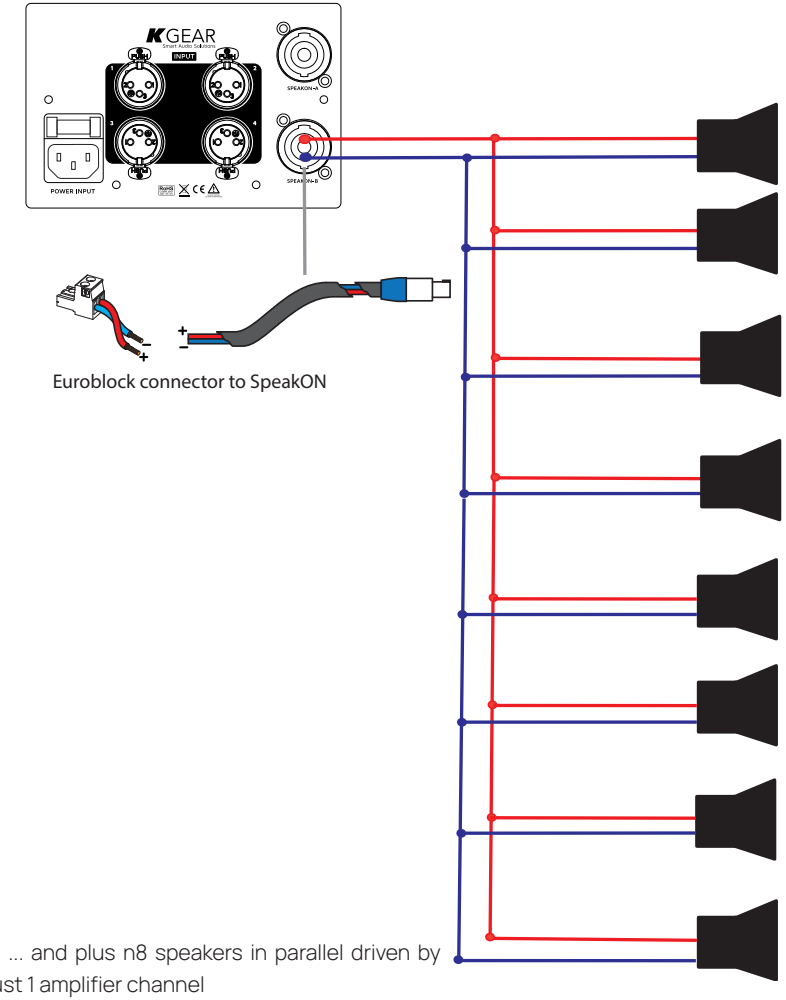
7. Connect the speaker to the dedicated amplifier channel. The GF42I is now installed with its dedicated G-IPCAP1 or G-IPCAP2 accessory.



Parallel wiring

It is possible to mount multiple GF82 units in an array configuration by connecting each loudspeaker in high-impedance mode.

In this example, 16 GF82 loudspeakers are connected with the selected impedance and powered by a single channel of the GA43L/GA46L amplifier.



... and plus n8 speakers in parallel driven by just 1 amplifier channel

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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

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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GF82 I - GF82A I- GF82T I

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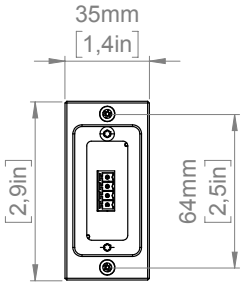
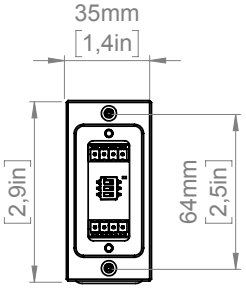
Mechanical Drawings

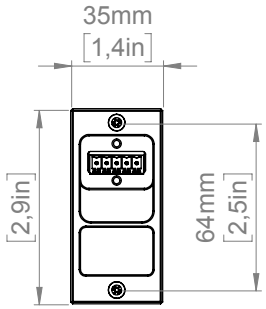
GF82 I

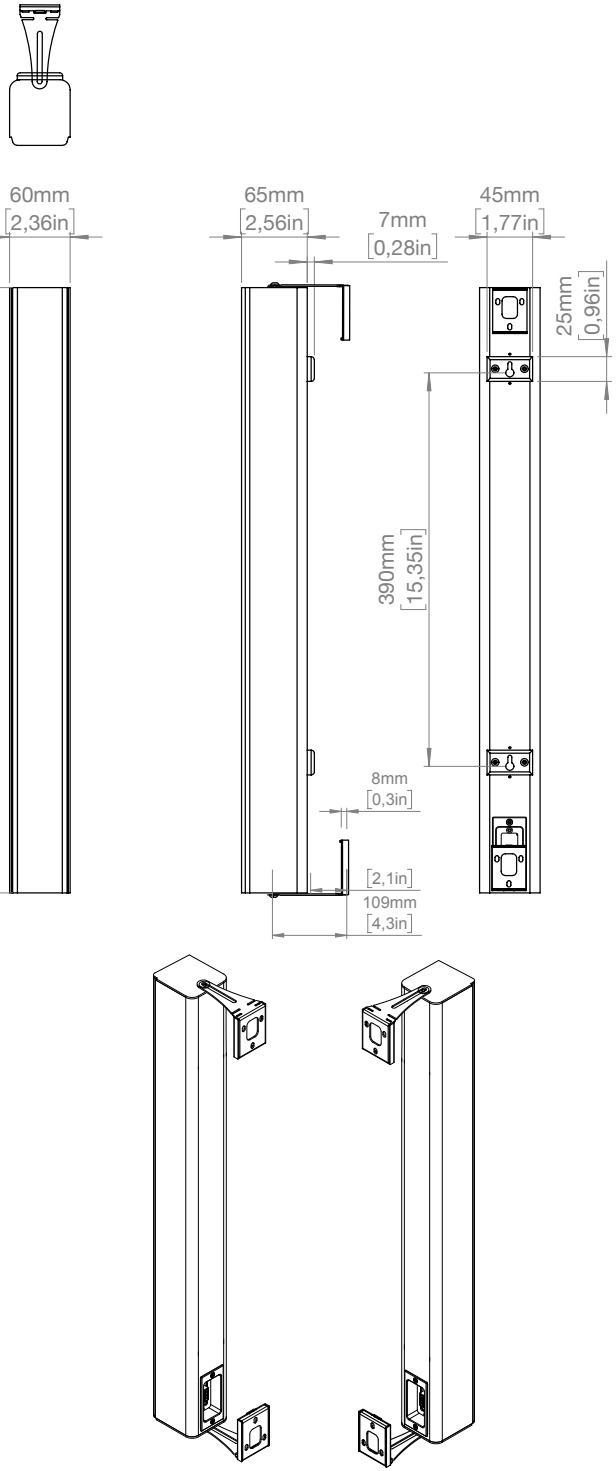


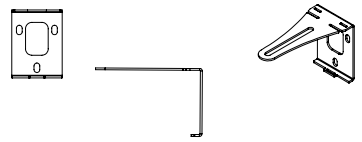
GF82A I

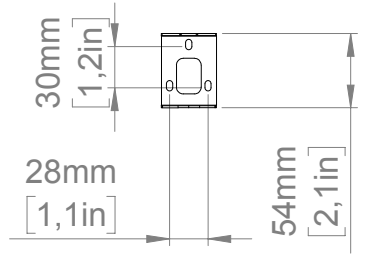


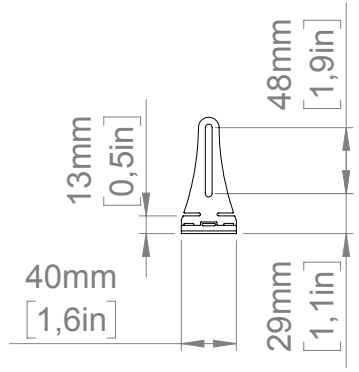
GF82T I











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GF82

Technical Specifications

Type	Passive line array element
Transducer	8 x 2" ferrite magnet woofers
Frequency Response[1]	150 Hz - 20 kHz (-6dB)
Max SPL[2]	119 dB Peak
Power Handling	200 W
Coverage	V.15° I H.90°
Connectors	1x Phoenix connector (4-pin euroblock)
Nominal Impedance	16Ω - 64Ω
IP Rating[3]	IP54

Handling and finishes

Dimensions (WxHxD)[4]	60x600x65 mm (2.36x23.62x2.56 in)
Weight	1,6 kg (3.5 lb)
Material	ABS
Color	Black - White (GF82W)

1 With dedicated preset
2 The maximum SPL is calculated using a test signal with a crest factor of 4 (12 dB), measured at 8m and then scaled to 1 m
3 IP55 with dedicated G-IPCAP1 accessory
4 Brackets not included in measures – for further details, please refer to the mechanical drawings

GF82

Technical specifications

Type	Active line array element with built-in amplifier
Transducer	8 x 2" ferrite magnet woofers
Frequency Response[1]	105 Hz - 20 kHz (-6dB)
Max SPL[2]	105 dB
Coverage	V.15° 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 input signal–dependent adjustable thresholds
Amp Module	Classe D - amplifier with 1 channel
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[3]	IP54

Handling and finishes

Dimensions (WxLxH)[4]	60x600x65 mm (2.36x23.62x2.56 in)
Weight	1,6 kg (3.35 lb)
Material	ABS
Color	Nero - Bianco (GF82AW)

1 With dedicated preset
2 The maximum SPL is calculated using a test signal with a crest factor of 4 (12 dB), measured at 8m and then scaled to 1 m
3 IP55 with dedicated G-IPCAP1 accessory
4 Brackets not included in measures – for further details, please refer to the mechanical drawings

GF82T

Technical specifications

Type	Passive line array element with transformer
Transducer	8 x 2" ferrite magnet woofers
Frequency Response[1]	150 Hz - 20 kHz (-6dB)
Max SPL[2]	119 dB Peak
Power Handling	200 W
Transformer Taps	2/4/8/16 W @ 70 V 4/8/16/32 @ 100 V
Coverage	V.15° I H.90°
Connectors	1x Phoenix connector (4-pin euroblock)
IP-Rating[3]	IP54

Handling and finishes

Dimensions (WxHxD)[4]	60x600x65 mm (2.36x23.62x2.56 in)
Weight	2,2 kg (4.85lb)
Material	ABS
Color	Black - White (GF82TW)

1 With dedicated preset
2 The maximum SPL is calculated using a test signal with a crest factor of 4 (12 dB), measured at 8m and then scaled to 1 m
3 IP55 with dedicated G-IPCAP1 accessory
4 Brackets not included in measures – for further details, please refer to the mechanical drawings

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