

Vyper

Ultra-flat aluminum line array element

USER GUIDE



Vyper-KV25



Vyper-KV52

K-ARRAY
Unique Audio Solutions

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IMPORTANT SAFETY INSTRUCTIONS

Read these instructions - Keep these instructions
Heed all warnings



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

Installation and commissioning may only be carried out by qualified and authorized personnel.



Switch-off the mains power supply before carrying out any connection or maintenance operations.



This fixture is intended for installation in accordance with National Electric Code and local regulation: To assure full compliance with local codes and regulations, check with your local electrical inspector before installation

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.



The lightning 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.



This device complies with Restriction of Hazardous Substances Directive.

General heed and warnings

- Read these instructions.
- Keep this 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.
- 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.
- This loudspeaker system is intended for professional use.
- Beware of sound levels. Do not stay within close proximity of loudspeakers in operation. Loudspeaker systems are capable of producing very high sound pressure levels (SPL) which can instantaneously lead to permanent hearing damage. Hearing damage can also occur at moderate level with prolonged exposure to sound. Check the applicable laws and regulations relating to maximum sound levels and exposure times.
- Before connecting the loudspeakers to other devices, turn off the power for all devices.
- Before turning the power on or off for all devices, set all volume levels to minimum.
- 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 devices.
- 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.
- K-array will not shoulder any responsibilities for products modified without prior authorization.
- K-array cannot be held responsible for damage caused by improper use of the loudspeakers.



Thank you for choosing this K-array product!

To ensure proper operation, please carefully read this reference manual and safety instruction before using the product. After reading this manual, be sure to keep it for future reference.

Should you have any questions about your new device please contact K-array customer service at support@k-array.com or contact the official K-array distributor in your country.

The Vyper line is the latest speaker in the K-array portfolio. The passive speaker system is housed in an elegant and resistant aluminum frame turned on a lathe from a solid metal block.

With closely-spaced cone drivers, the Vyper line – comprised of the half-meter-long KV52 and the 25cm-long KV25 – demonstrates true line array characteristics: phase coherence, low distortion and focused listening in both the near field and at a distance from the speaker. This Pure Array Technology allows the Vyper to cover venues uniformly and provide long throw.

For easier use and integration with other speakers or amplifiers, the Vypers feature selectable impedance and when paired with a subwoofer from the Rumble or Truffle line and powered by a Kommander amplifier with specific presets optimized for the Vyper, the loudspeaker assures excellent coverage of the entire musical frequency range.

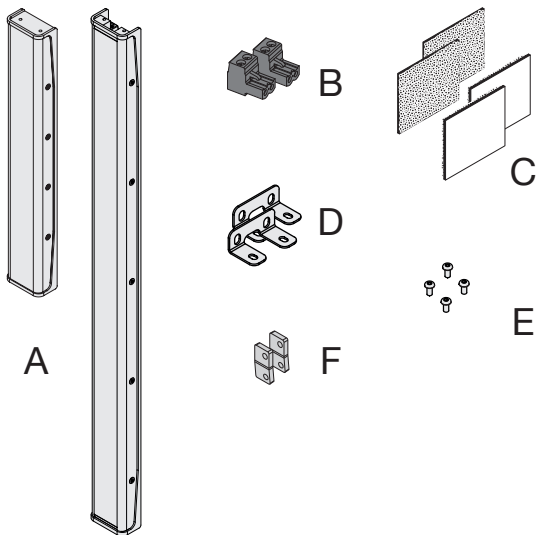
Vyper

User Guide

Unpacking

Each K-array product is built to the highest standard and thoroughly inspected before leaving the factory. Upon arrival, carefully inspect the shipping carton. If you find any damage, immediately notify the shipping company. Check that the following parts are supplied within the package:

- | | |
|--|--|
| A. 1x Vyper-KV25 loudspeaker | A. 1x Vyper-KV52 loudspeaker |
| B. 2x Phoenix
MSTB 2,5/ 2-ST-5,08 BK flying
connectors | B. 2x Phoenix
MSTB 2,5/ 2-ST-5,08 BK flying
connectors |
| C. 4x Reclosable fastener adhesives | C. 4x Reclosable fastener adhesives |
| D. 2x Wall mount brackets | D. 2x Wall mount brackets |
| E. 4x M3x6 mm ISO7380 screws | E. 4x M3x6 mm ISO7380 screws |
| F. 2x Joining plates | |



The accessories including in the packaging provide easy installation in any setup: fixed or temporary.

Setup

The Vyper-KV25 and the Vyper-KV52 loudspeakers perform best when positioned on a planar surface such as a wall. Find the proper installation height, aiming the loudspeaker at the listening position.

We suggest the following configurations:



Seated listening area

H: min height 1,5 m (5 ft) / max height 2 m (6½ ft)



Standing listening area

H: min height 1,7 m (5½ ft) / max height 2,7 m (9 ft)

Quick Start Guide

Vyper-KV25 / Vyper-KV52 single-unit Setup

Follow these instructions to properly install the loudspeaker:

1. Unpack the loudspeaker and set the accessories aside for later use;
2. Find the proper position on the mounting surface and mark the location;
3. Set the proper cable length for connecting the loudspeaker to the amplifier;
4. Connect the cable to the flying connector at the loudspeaker end: see [Connecting](#), p. 9;
5. Set the proper loudspeaker load impedance with respect to the amplifier in use: see [Impedance Settings](#), p. 9;
6. Select the type of installation:
 - [Installation with Reclosable Fastener Adhesive](#), p. 6;
 - [Installation with Brackets](#), p. 6;
 - [Installation without Brackets](#), p. 7;

With respect to the type of installation selected and the actual mounting conditions, you may be requested to plug the flying connector to the loudspeaker before steadily fixing the loudspeaker to the surface.

7. Once the loudspeaker is connected and affixed to the surface, set the connection with the amplifier: see [Connecting the Amplifier](#), p. 10;
8. Switch on the music and enjoy!

Multiple Vyper-KV52 Line Array Setup

Follow these instructions to properly install the loudspeaker:

1. Unpack the loudspeakers and set the accessories aside for later use;
2. Find the proper position on the mounting surface and mark the location;
3. Set the proper cable length for connecting the first loudspeaker of the array to the amplifier;
4. Connect the cable to the flying connector at the loudspeaker end: see [Connecting](#), p. 9;
5. Set the proper loudspeaker load impedance with respect to the amplifier in use: see [Impedance Settings](#), p. 9;
6. Prepare the jumper wires for joining the loudspeakers and connect the loudspeakers to each other: see [Connecting Multiple Vyper-KV52](#), p. 9;
7. Mechanically join the loudspeaker in line array: see [Joining Multiple Vyper-KV52](#), p. 8;
8. Select the type of installation:
 - [Installation with Reclosable Fastener Adhesive](#), p. 6;
 - [Installation with Brackets](#), p. 6;
 - [Installation without Brackets](#), p. 7;

With respect to the type of installation selected and the actual mounting conditions, you may be requested to plug the flying connector to the loudspeaker before steadily fixing the loudspeaker to the surface.

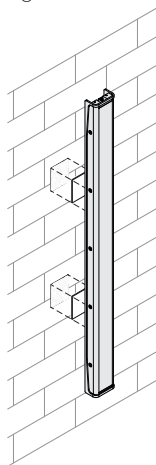
9. Once the loudspeakers are connected and affixed to the surface, set the connection with the amplifier: see [Connecting the Amplifier](#), p. 10;
10. Switch on the music and enjoy!

Installation

Installation with Reclosable Fastener Adhesive

The reclosable fastener adhesive are intended for quick and clean installation on flat surfaces.

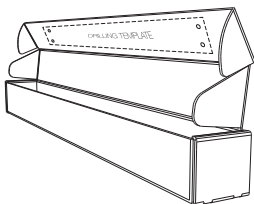
Two couples of adhesives are provided, ensuring strong, reliable and durable fastening that can be opened and closed multiple times, for either fixed and temporary installations. The white, acrylic, conformable foam tape bonds to a variety of substrates, including metals and plastics.



Installation with Brackets

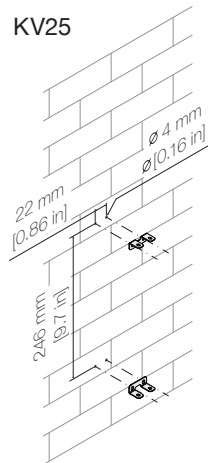
For permanent installation a kit including a couple of brackets is provided. A drilling template is printed inside the packaging box. Follow these operating instructions:

1. Cut out the drilling template from the packaging box;

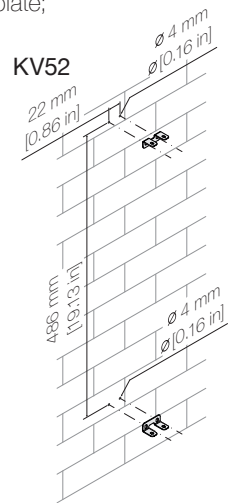


2. Drill four 4 mm (0.15 in) diameter holes in the surface following the drilling template;

KV25

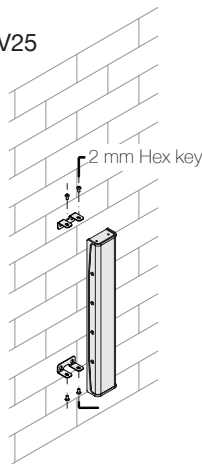


KV52

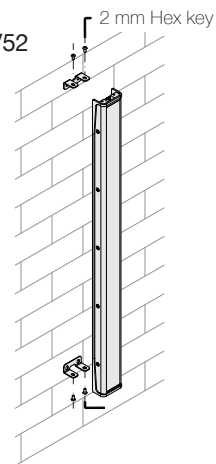


3. Install the loudspeaker.

KV25



KV52

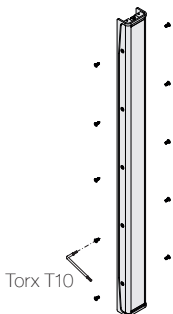


Installation without Brackets

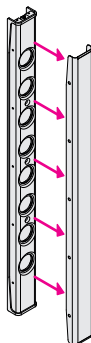
The Vyper-KV25 and the Vyper-KV52 loudspeakers can be eventually installed without brackets, taking advantage of the M5 through holes hidden by the outer grill. This entitles to use either a proper screw with 4 mm (0,16 in) max diameter, or a M5 bolt, according to the mounting surface.

Follow the instructions for wall mounting the Vyper-KV52 loudspeaker without brackets; the procedure is the same for the Vyper-KV25.

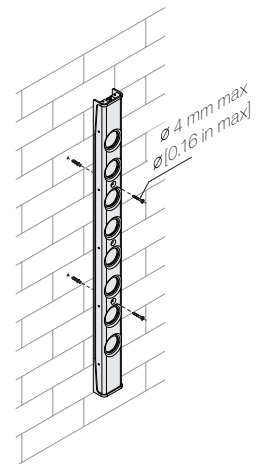
1. Unscrew the M3x6mm screws that tighten the grill from the sides of the loudspeaker, using a Torx T10 screwdriver;



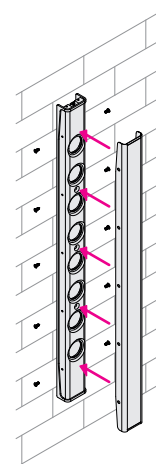
2. Gently remove the grill from the loudspeaker;



3. Use the proper screw and plug for mounting the loudspeaker on the surface;



4. Reposition the outer grill on the loudspeaker and tighten the screws.



Vyper

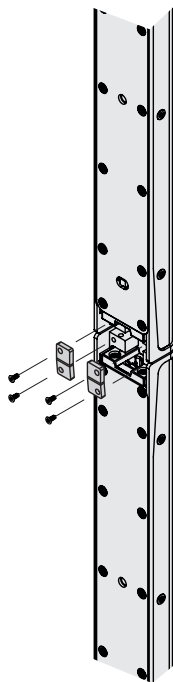
User Guide

Joining Multiple Vyper-KV52

The two included joining plates allow to join two Vyper-KV52 units together to create a longer array. Use four M3x6mm screws included in one package to join the two speakers.

The remaining M3x6mm screws from the second loudspeaker package can be used for wall mounting the array with a couple of brackets.

More than two units can be joined together in order to obtain long line array.



For setting the signal routing between the arrayed loudspeakers, please refer to the paragraph [Connecting Multiple Vyper-KV52](#), p. 9.

Connecting

The Vyper-KV25 and Vyper-KV52 feature euroblock 2 pin Phoenix inlet for easy connectivity and link.

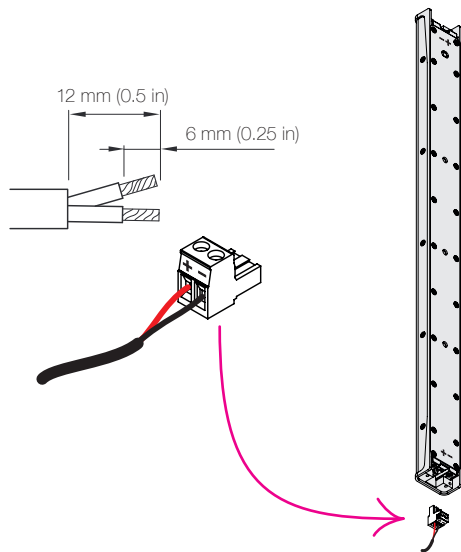
Caution must be taken when connecting the loudspeaker cable to the flying connector to match the signal polarity:

+	HOT	red wire
-	COLD	black/blue wire

If a label with signal polarity is not present on the flying connector, please refer to the label on the loudspeaker rear panel.

For a cable run of up to 5 m (16.4 ft) use wire gauge of 0,75 mm² (18 AWG) at least.

For longer cable runs a wider gauge is recommended.



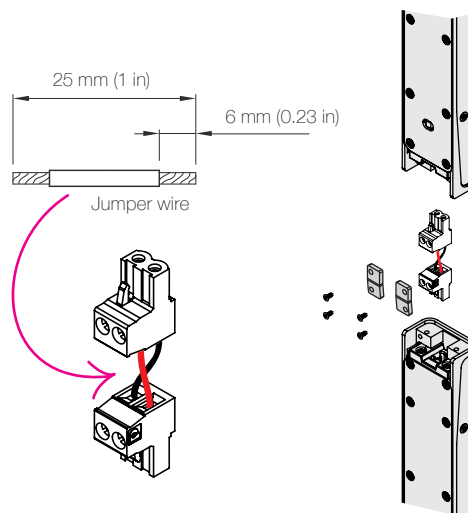
For the Vyper-KV52, the input signal can be fed either in the top or in the bottom input connector.

Connecting Multiple Vyper-KV52

The top and the bottom connectors of the Vyper-KV52 are paralleled so that the input signal can pass through the loudspeaker to feed another Vyper-KV52.

A proper jumper wire must be prepared to feed the signal in the loudspeaker joined in line array configuration (see [Joining Multiple Vyper-KV52](#)).

Joining the loudspeakers set them in parallel (see paragraph [Loudspeakers in Parallel](#), p. 10).



Impedance Settings

Both the Vyper-KV25 and the Vyper-KV52 feature selectable impedance. Selecting the proper impedance allows the loudspeaker to match the amplifier requirements, especially when connecting multiple loudspeakers in parallel (see paragraph [Loudspeakers in Parallel](#), p. 10).

A switch on the rear panel toggles the loudspeaker's load impedance between two values.

Vyper-KV25	Low: 8 Ω	High: 32 Ω
Vyper-KV52	Low: 16 Ω	High: 64 Ω

Connecting the Amplifier

K-array's Kommander line of amplifiers featuring built-in DSP will operate the Vyper-KV25 and Vyper-KV52 at their optimized performance only with the proper preset.

Load the device preset according to the connected loudspeaker before applying any signal to the unit.

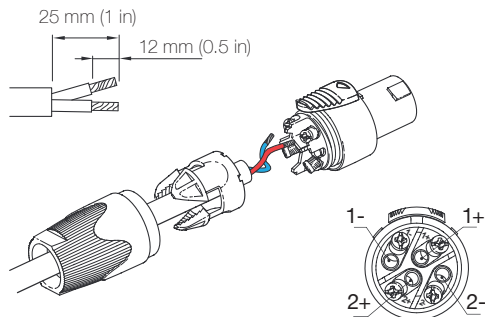


Set the dedicated Vyper-KV25 / Vyper-KV52
DEVICE PRESET on the amplifier DSP
BEFORE applying any signal to the loudspeaker

Before connecting the loudspeaker cable to the amplifier:

- ensure the loudspeaker impedance matches the amplifier channel rated loading impedance, especially when connecting multiple loudspeakers in parallel (see next paragraph);
- ensure that the amplifier is switched off.

When connecting the wires to a SpeakOn NL4 connector, screw the HOT+ wire to the terminal 1+ or 2+ and the COLD- wire to the terminal 1- or 2-.



Loudspeakers in Parallel

By connecting the loudspeakers in parallel it is possible to drive many loudspeakers with the same audio signal by means of a single amplifier output channel.

The parallel connection lowers the total load impedance. Caution must be taken to maintain the load impedance of the paralleled loudspeakers above the amplifier's minimum loading impedance.

Use the table below to match the number of loudspeakers at the specified impedance that can be connected to K-array's Kommander amplifiers.

		KA02	KA14	KA24	KA84
Vyper-KV25	8 Ω	2	2	–	–
	32 Ω	–	–	8	8
		KA02	KA14	KA24	KA84
Vyper-KV52	16 Ω	–	4	4	–
	64 Ω	–	–	–	16

Service

To obtain service:

1. Please have the serial number(s) of the unit(s) available for reference.
2. Contact the official K-array distributor in your country: find the Distributors and Dealers list on [K-array website](#). Please describe the problem clearly and completely to the Customer Service.
3. You will be contacted back for online 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.

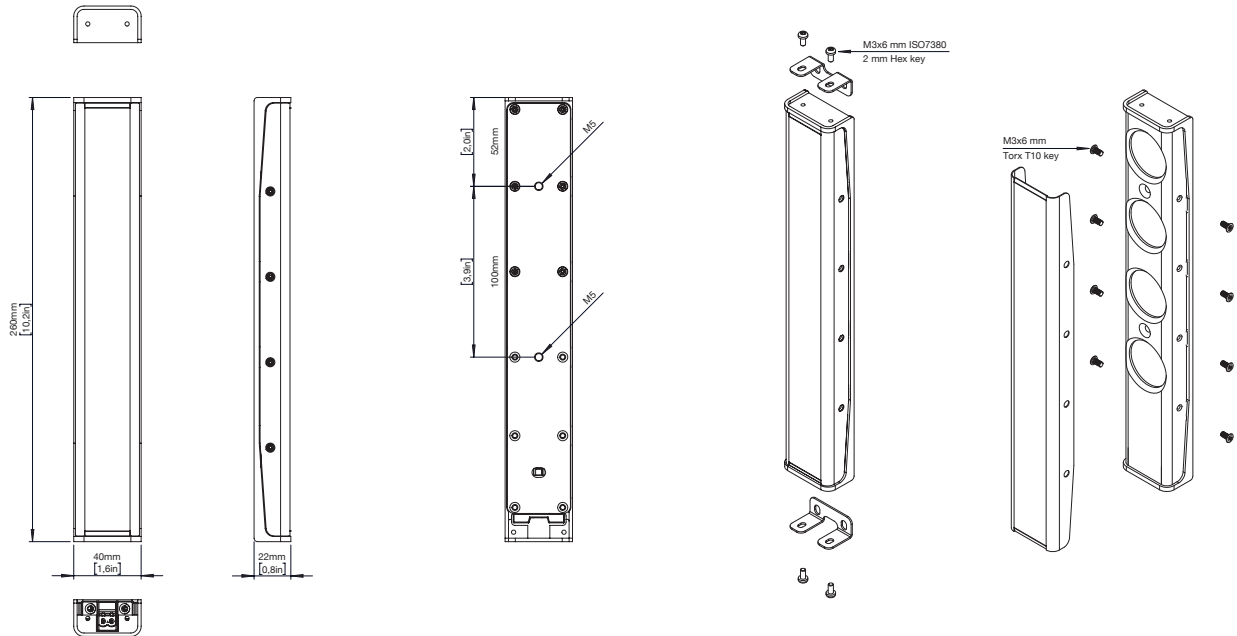
Any attempt to modify or replace components of the device will invalidate your warranty. Service must be performed by an authorized K-array service center.

Cleaning

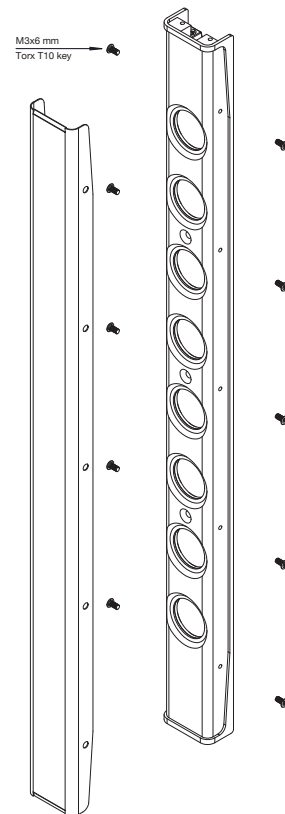
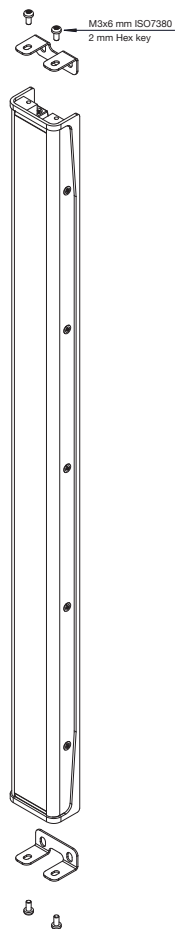
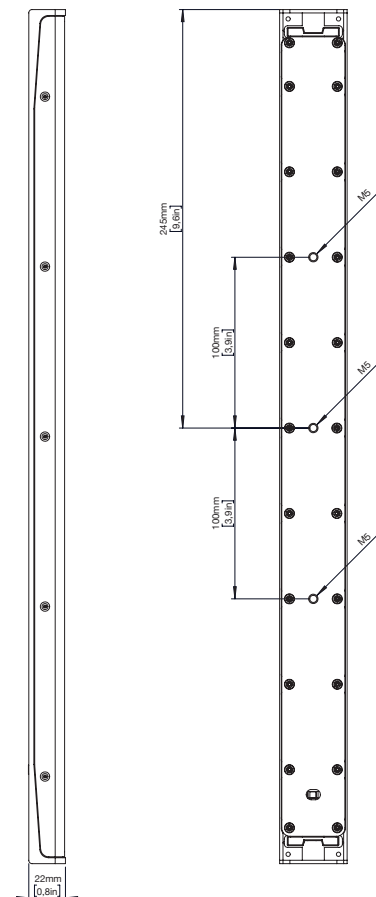
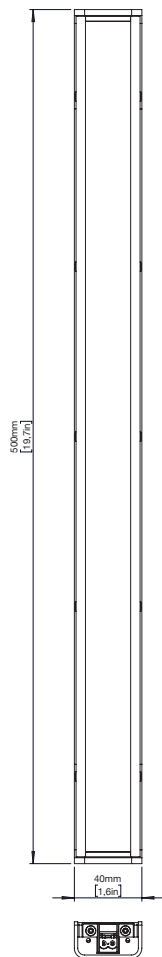
Use only a soft, dry cloth to clean the housing. Do not use any solvents, chemicals, or cleaning solutions containing alcohol, ammonia, or abrasives. Do not use any sprays near the product or allow liquids to spill into any openings.

Mechanical drawings

Vyper-KV25



Vyper-KV52



Technical specifications

Vyper-KV25	
General	
Type	Line array
Drivers	4 x 1" neodymium magnet woofers
Frequency Response	150 Hz – 18 kHz (-6 dB) ⁽¹⁾
Rated Power	75 W
Maximum SPL	108 dB (peak) ⁽²⁾
Nominal Impedance	8 Ω / 32 Ω selectable
Crossover	External crossover required
Coverage	V. 25° H. 140°

Handling & Finishes	
IP Rating	IP54
Dimensions (WxHxD)	40 x 260 x 22 mm (1.6 x 10.2 x 0.9 in)
Weight	0,4 kg (0.88 lb)
Colors & Finishes	black, white, custom RAL, brushed and polished stainless steel, 24K gold finishes

Accessories	
Recommended Amplifier	Kommander-KA02, Kommander-KA14

¹ With dedicated preset.

² Maximum SPL is calculated using crest factor 4 (12dB) @ 1 m and power handling specifications, exclusive of power compression.

Vyper-KV52	
General	
Type	Line array
Drivers	8 x 1" neodymium magnet woofers
Frequency Response	150 Hz – 18 kHz (-6 dB) ⁽¹⁾
Rated Power	150 W
Maximum SPL	114 dB (peak) ⁽²⁾
Nominal Impedance	16 Ω / 64 Ω selectable
Crossover	External crossover required
Coverage	V. 10° H. 140°

Handling & Finishes	
IP Rating	IP54
Dimensions (WxHxD)	40 x 500 x 22 mm (1.6 x 19.7 x 0.9 in)
Weight	0,7 kg (1.54 lb)
Colors & Finishes	black, white, custom RAL, brushed and polished stainless steel, 24K gold finishes

Accessories	
Recommended Amplifier	Kommander-KA02, Kommander-KA14, Kommander-KA24, Kommander-KA84

¹ With dedicated preset.

² Maximum SPL is calculated using crest factor 4 (12dB) @ 1 m and power handling specifications, exclusive of power compression.

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Designed and Made in Italy

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