KV2 Audio VHD5 Constant Power Point Source Array User Guide

KV2 Audio VHD5 Constant Power Point Source Array User Guide

Contents

Important Safety Instructions

Before using your VHD5.0, VHD8.10, VHD5.1 be sure to carefully read the applicable items of these operating instructions and the safety suggestions.

1. Read all product instructions.
2. Keep printed instructions, do not throw away.
3. Respect and rewiew all warnings.
4. Follow all instructions.
5. Clean only with dry cloth.
6. Install in accordance with KV2 Audio’s recommended installation instructions.
7. Only use accessories specified by KV2 Audio.
8. Install the product only with rigging specified by KV2 Audio, or sold with the loudspeaker.
9. Unplug this loudspeaker during lightning storms or when unused for long periods of time.
10. An experienced user shall always supervise this professional audio equipment.

Overview

Application

Designed as an extreme high output and performance mid-hi unit as part of the VHD5 Constant Power Point Source systems for large arenas and stadiums

- Medium to large concert venues
- Hire and Production
- Large Clubs and Arenas

Introduction

The VHD5.0 is a three-way enclosure handling low mids, mid and high frequency's from 45Hz through to 20kHz. It incorporates eight front-loaded ten inch low mid drivers, six horn-loaded eight inch mid range drivers and three 3″ NVPD (Nitrate Vapour Particle Deposition) Titanium compression drivers on a custom designed, manifold horn

assembly with summing waveguide. With the capacity to run full range down to 45Hz the VHD5.0 is usually crossed over at 70Hz to the VHD4.21Active Sub Bass Modules. Both the VHD5.0 and VHD8.10 cabinets incorporate very simple to use integrated fly ware that links cabinets together quickly and easily.

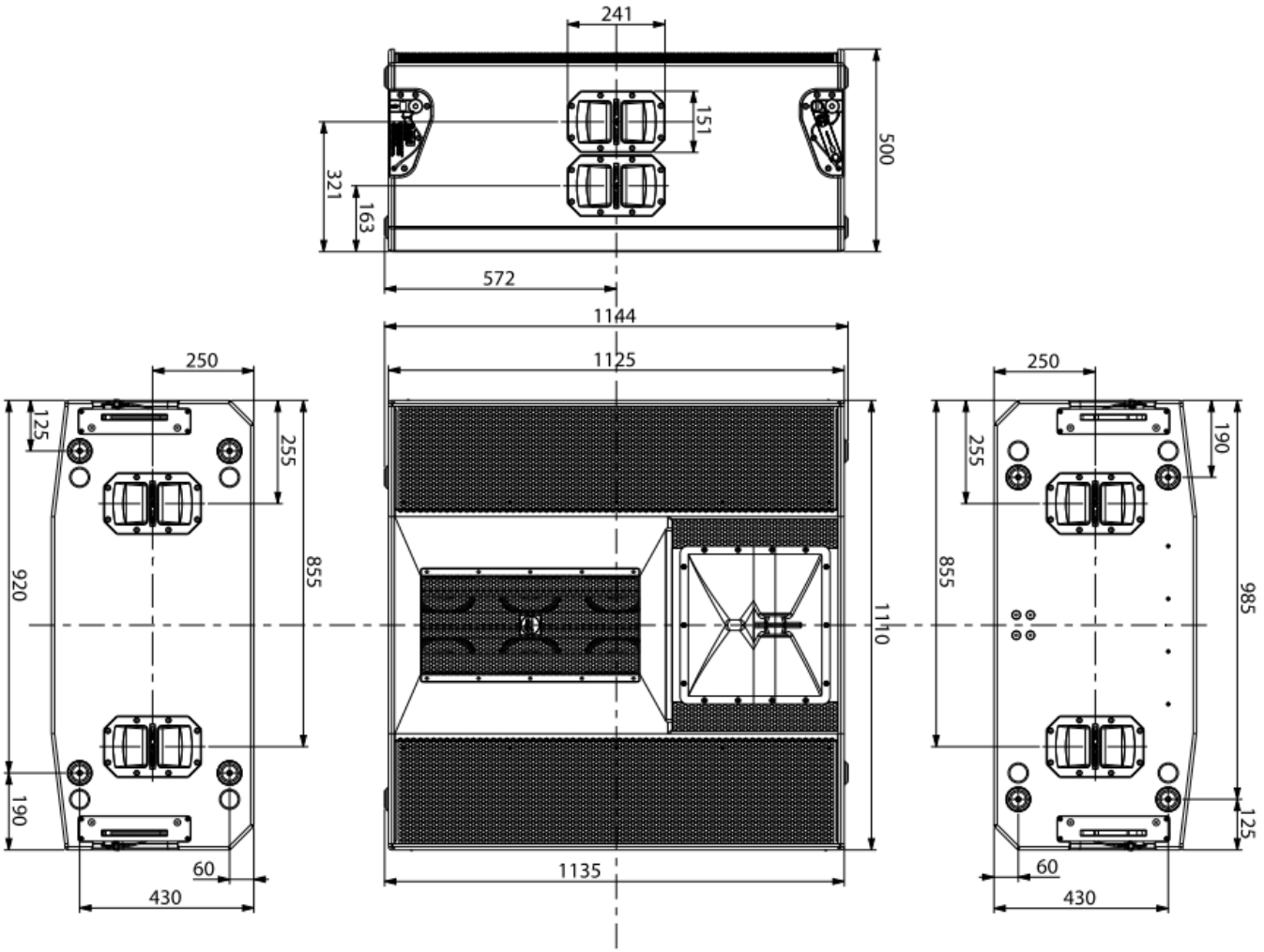
Acoustic components

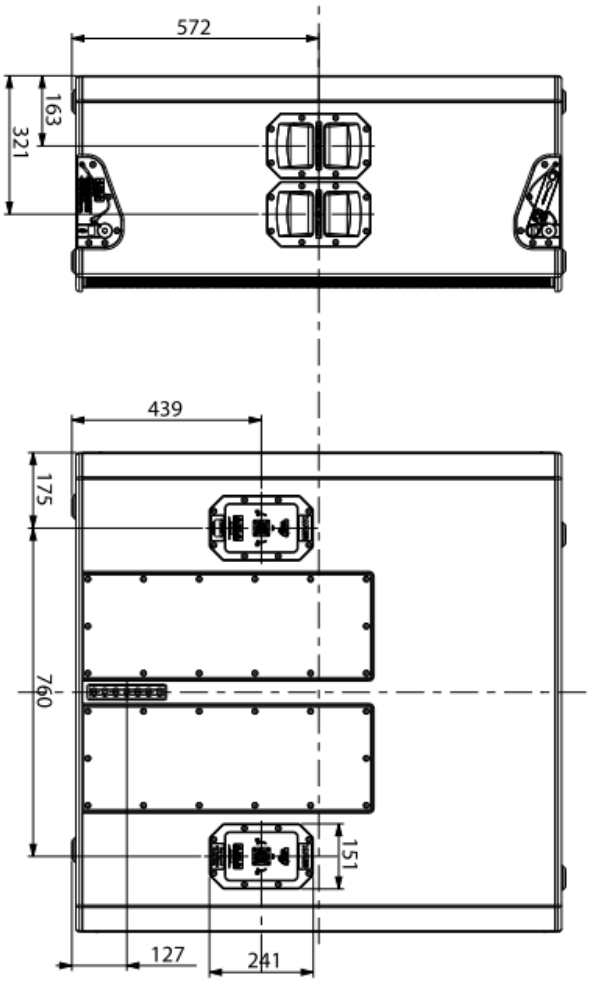
The VHD5.0 Mid Hi module features purpose designed and specified loudspeaker components, centered around high efficiency woofer designs and the latest transducer technology. Eight mid bass 10″ woofers, with inside outside 2″ voicecoils, and Epoxy reinforced cellulose cones are employed, alongside six 8″ Midrange transducers, with AIC Transcoil technology and Epoxy reinforced cellulose cones. Three 3″ compression drivers with NVPD treated dome assemblies attach to a unique KV2 Hybrid Manifold Horn where the 2+1 driver arrangement eliminates the typical sound of large format systems and reduces the problems of multiple high frequency driver interference. All speakers in the VHD5.0 employ neodymium magnets to increase force, improve control and lower weight. The VHD5.0 has an 80° horizontal and 30° vertical dispersion.

Enclosure Design

The VHD5.0 Enclosure is a Large Constant Power Point Source array built in lightweight Baltic Birch, featuring a number of ergonomically designed parts and functions that make it an easy unit to move, set up and operate. There are a total of eight handles integrated, to facilitate easy pick up and positioning of the enclosure in a natural -instinctive and intuitive manner. Low friction feet are integrated for easy locking into the VHD8.10 mid bass extension cabinets. A certified proprietary KV2 Audio internal flyware system is also neatly integrated within the box for a quick set up and minimal requirement of external rigging.

Drawing





Overview

Application

Designed as a dedicated low mid enclosure to accompany the VHD5.0 mid high module as part of the VHD5 system

- Medium to large concert venues
- Fixed installation
- Outdoor events

Introduction

The VHD5.0 is a three-way enclosure handling low mids, mid and high frequency's from 45Hz through to 20kHz. It incorporates eight front-loaded ten inch low mid drivers, six horn-loaded eight inch mid range drivers and three 3″ NVPD (Nitrate Vapour Particle Deposition) Titanium compression drivers on a custom designed, manifold horn assembly with summing waveguide. With the capacity to run full range down to 45Hz the VHD5.0 is usually crossed over at 70Hz to the VHD4.21Active Sub Bass Modules.

Both the VHD5.0 and VHD8.10 cabinets incorporate very simple to use integrated fly ware that links cabinets together quickly and easily.

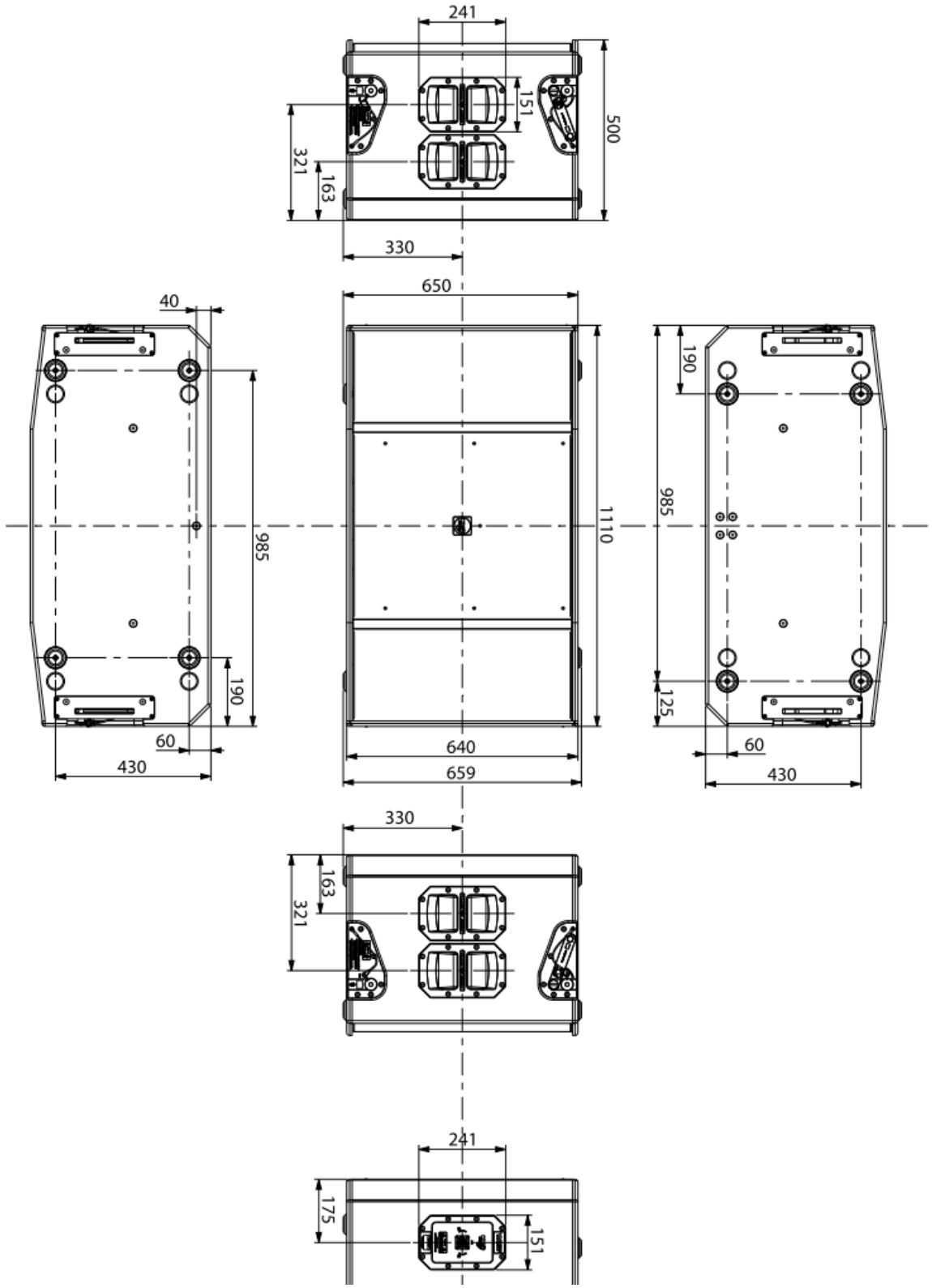
Acoustic components

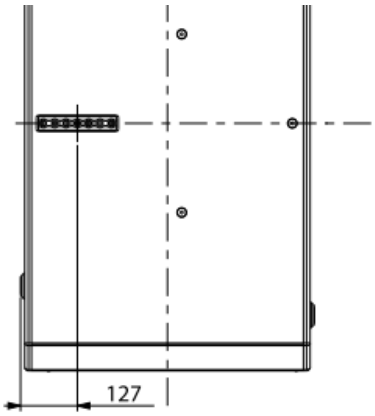
The VHD5.0 Mid Hi module features purpose designed and specified loudspeaker components, centered around high efficiency woofer designs and the latest transducer technology. Eight mid bass 10″ woofers, with inside outside 2″ voicecoils, and Epoxy reinforced cellulose cones are employed, alongside six 8″ Midrange transducers, with AIC Transcoil technology and Epoxy reinforced cellulose cones. Three 3″ compression drivers with NVPD treated dome assemblies attach to a unique KV2 Hybrid Manifold Horn where the 2+1 driver arrangement eliminates the typical sound of large format systems and reduces the problems of multiple high frequency driver interference. All speakers in the VHD5.0 employ neodymium magnets to increase force, improve control and lower weight. The VHD5.0 has an 80° horizontal and 30° vertical dispersion.

Enclosure Design

The VHD5.0 Enclosure is a Large Constant Power Point Source array built in lightweight Baltic Birch, featuring a number of ergonomically designed parts and functions that make it an easy unit to move, set up and operate. There are a total of eight handles integrated, to facilitate easy pick up and positioning of the enclosure in a natural -instinctive and intuitive manner. Low friction feet are integrated for easy locking into the VHD8.10 mid bass extension cabinets. A certified proprietary KV2 Audio internal flyware system is also neatly integrated within the box for a quick set up and minimal requirement of external rigging.

Drawing





Application

Designed as a dedicated low mid enclosure to accompany the VHD5.0 mid high module as part of the VHD5 system

- Medium to large concert venues
- Fixed installation
- Outdoor events

Introduction

The VHD5.0 is a three-way enclosure handling low mids, mid and high frequency's from 45Hz through to 20kHz. It incorporates eight front-loaded ten inch low mid drivers, six horn-loaded eight inch mid range drivers and three 3″ NVPD (Nitrate Vapour Particle Deposition) Titanium compression drivers on a custom designed, manifold horn assembly with summing waveguide. With the capacity to run full range down to 45Hz the VHD5.0 is usually crossed over at 70Hz to the VHD4.21Active Sub Bass Modules.

Both the VHD5.0 and VHD8.10 cabinets incorporate very simple to use integrated fly ware that links cabinets together quickly and easily.

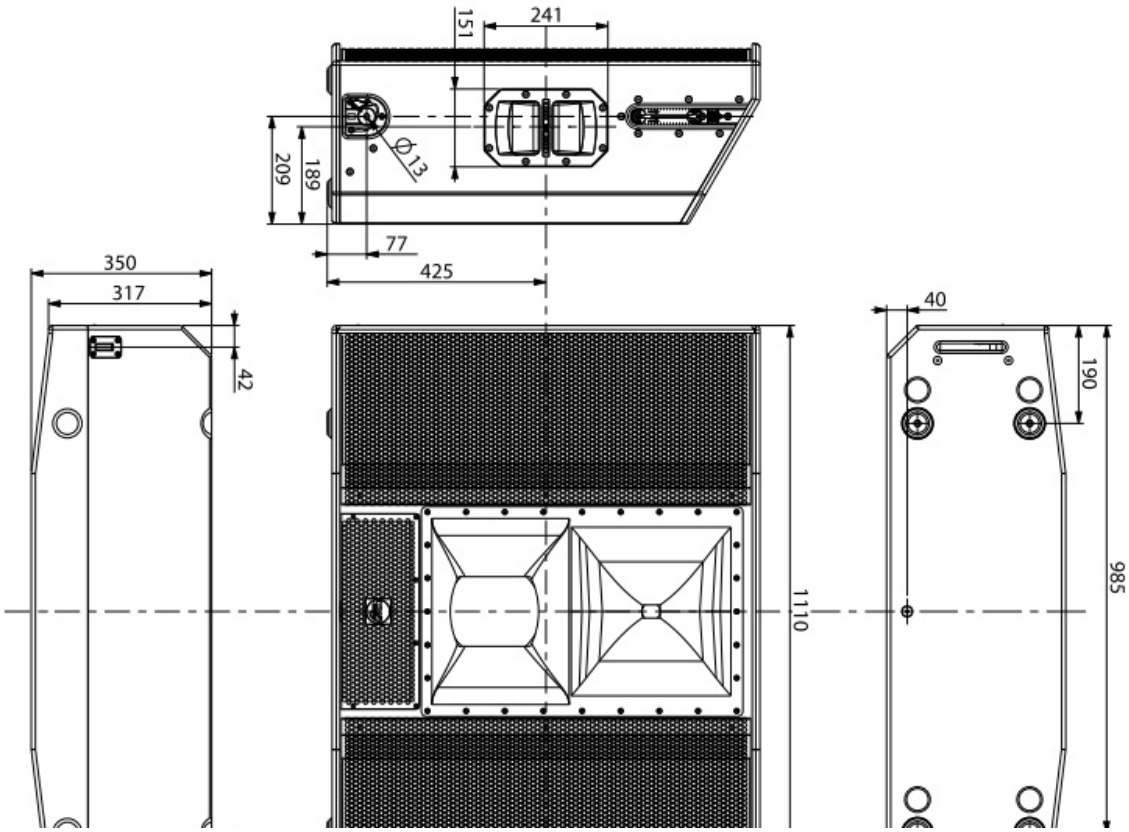
Acoustic components

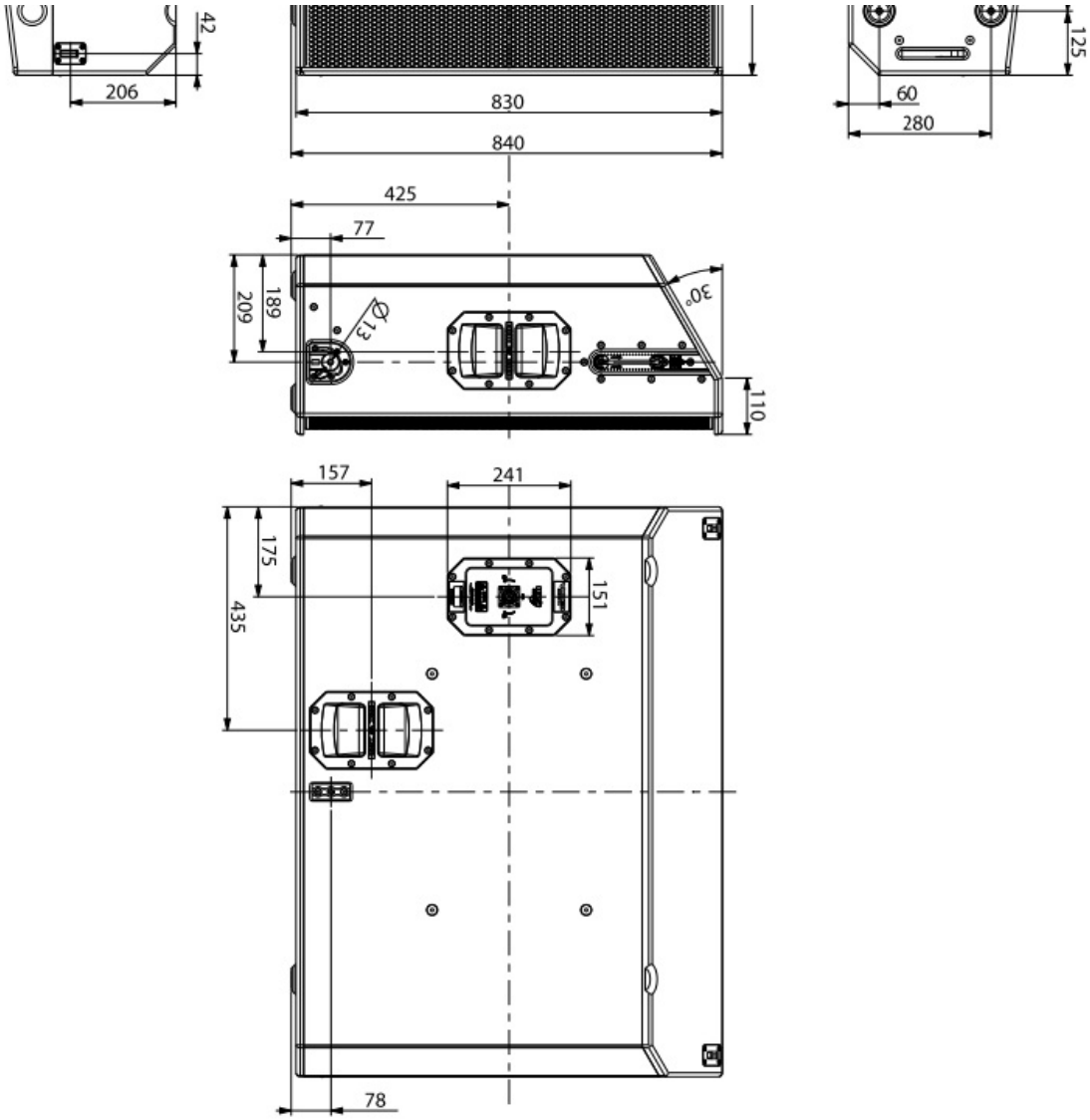
The VHD5.0 Mid Hi module features purpose designed and specified loudspeaker components, centered around high efficiency woofer designs and the latest transducer technology. Eight mid bass 10″ woofers, with inside outside 2″ voicecoils, and Epoxy reinforced cellulose cones are employed, alongside six 8″ Midrange transducers, with AIC Transcoil technology and Epoxy reinforced cellulose cones. Three 3″ compression drivers with NVPD treated dome assemblies attach to a unique KV2 Hybrid Manifold Horn where the 2+1 driver arrangement eliminates the typical sound of large format systems and reduces the problems of multiple high frequency driver interference. All speakers in the VHD5.0 employ neodymium magnets to increase force, improve control and lower weight. The VHD5.0 has an 80° horizontal and 30° vertical dispersion.

Enclosure Design

The VHD5.0 Enclosure is a Large Constant Power Point Source array built in lightweight Baltic Birch, featuring a number of ergonomically designed parts and functions that make it an easy unit to move, set up and operate. There are a total of eight handles integrated, to facilitate easy pick up and positioning of the enclosure in a natural -instinctive and intuitive manner. Low friction feet are integrated for easy locking into the VHD8.10 mid bass extension cabinets. A certified proprietary KV2 Audio internal flyware system is also neatly integrated within the box for a quick set up and minimal requirement of external rigging.

Drawing





Specifications

System Acoustic Performance	
Max SPL Long-term	135dB
Max SPL Peak	141dB
-3dB Response	55Hz to 22kHz
-10dB Response	45Hz to 30kHz

Crossover Point	400Hz, 2.5kHz
High Frequency Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	110° x 40°
High Frequency Amplifier Requirement	100W
Throat Exit Diameter / Diaphragm Size	1.4″ / 3″
Diaphragm Material	Nitride Titanium
Magnet Type	Neodymium
Mid Range Section	
Acoustic Design	Horn Loaded
Mid Horn Coverage Horizontal / Vertical	110° x 40°
Midrange Amplifier Requirement	200W
Woofer Size / Voice Coil Diameter / Design	8″ / 3.0″ / Trans Coil
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium
Low Frequency Section	

Acoustic Design	Front Loaded, Bass Reflex
Low Frequency Amplifier Requirement	1000W
Number of Drivers	6
Woofer Size / Voice Coil Diameter / Design	6 x 10″ / 2″
Magnet Type	Ferrite
Diaphragm Material	Epoxy Reinforced Cellulose
Cabinet	
Cabinet Material	Baltic birch
Color	Plastic paint
Physical Dimensions VHD5.0 module	
Height	830 mm (32.68″)
Width	1110 mm (43.70″)
Depth	350 mm (13.78″) Weight 78 kg (171,96 lbs)

System Acoustic Performance (VHD5.0 and VHD8.10)

Max SPL Long-term	147dB
Max SPL Peak	153dB
-3dB Response	70Hz to 20kHz
-10dB Response	45Hz to 22kHz
-3dB Response (Full Range mode)	50Hz to 20kHz
Crossover Point	70Hz, 400Hz, 2.0kHz
High Frequency Section	
Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	80° x 30°
High Frequency Amplifier Requirement	VHD5000
Throat Exit Diameter / Diaphragm Size	3x 1.4” / 3.0”
Diaphragm Material	Nitride Titanium
Magnet Type	Neodymium
Mid Range Section	

Acoustic Design	Horn Loaded
Horn Coverage Horizontal / Vertical	80° x 30°
Mid Frequency Amplifier Requirement	VHD5000
Throat Exit Diameter / Diaphragm Size	6x 8” / 3.0” / Trans Coil
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium
Mid-Bass Section	
Acoustic Design	Front Loaded
Mid-bass Amplifier Requirement	VHD5000 + VHD5000S
Woofer Size	32×10”
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium / Ferrite
Physical Dimensions VHD5.0 module	
Height	1125 mm (44.29″)

Width	1110 mm (43.7″)
Depth	500 mm (19.69″) Weight 151kg (332.2lbs)
Physical Dimensions VHD8.10 module	
Height	640 mm (25.20″)
Width	1110 mm (43.7″)
Depth	500 mm (19.69″) Weight 92 kg (202.4lbs)

Accessories

Padded Cover for VHD5.0

part name: **Cover VHD5.0**
part number: **KVV 987 370**
description: – used with cart

Padded Cover for VHD8.10

part name: **Cover VHD8.10**
part number: **KVV 987 371**
description: – used with cart

Cart for VHD5.0, VHD8.10

part name: **Cart for VHD5.0, VHD8.10**
part number: **KVV 987 369**
description: – Cart for VHD5.0, VHD8.10

VHD5 Rack Case

part name: **VHD5 Rack Case**
part number: **KVV 987 365**
description: – Rack case on wheels for VHD5 system amplification

Multicable for VHD5 System

part name: **VHD5 Multicable**
part number: **KVV 987 364**

Extension cable for VHD5 System

part name: **VHD5 Extension Cable**
part number: **KVV 987 138**
description: – Extension cable for VHD5 System (25 m)

Tilt Flybar for VHD5

part name: **VHD5 Tilt Flybar**
part number: **KVV 987 420**
description: – **Tilt Flybar for VHD5**

Pan Flybar for VHD5

part name: **VHD5 Pan Flybar**
part number: **KVV 987 413**
description: – Pan Flybar for VHD5

Flybar Case for VHD5 Flybar

part name: **Flybar Case for VHD5 Flybar**
part number: **KVV 987 414**
description: – Flybar Case for VHD5 Flybar

VHD5 Power Unit

part name: **VHD5 Power Unit**
part number: **KVV 987 363**
description: – VHD5 dedicated Power Uni

Padded Cover for VHD5.1

part name: Cover VHD5.1
part number: KVV 987 441
description: – Padded cover for one pair of VHD5.1's Downfills – used with cart

Cart for VHD5.1

part name: Cart for VHD5.1
part number: KVV 987 442
description: – Cart for one pair of VHD5.1's Downfills

Warranty Service

Warranty

Your VHD5.0, VHD8.10, VHD5.1Flyware are covered against defects in material and workmanship. Refer to your supplier for more details.

Service

In the unlikely event that your VHD5.0, VHD8.10, VHD5.1Flyware develops a problem, it must be returned to an authorized distributor, service centre or shipped directly to the KV2 Audio factory. Because of the complexity of the design and the risk of electrical shock, all repairs must be attempted only by qualified technical personnel.

If the unit needs to be shipped back to the factory, it must be sent in its original carton. If improperly packed, the unit may be damaged.

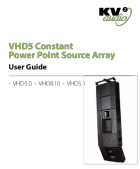
To obtain service, contact your nearest KV2 Audio Service Centre, Distributor or Dealer.

CUSTOMER SUPPORT

The Future of Sound.
Made Perfectly Clear.

KV2 Audio International
Nádražní 936, 399 01 Milevsko
Czech Republic
Tel.: +420 383 809 320
Email: info@kv2audio.com
www.kv2audio.com

Documents / Resources

	KV2 Audio VHD5 Constant Power Point Source Array [pdf] User Guide VHD5 Constant Power Point Source Array, VHD5, Constant Power Point Source Array, Point Source Array, Source Array

References

- KV2 Audio