

**HK AUDIO**

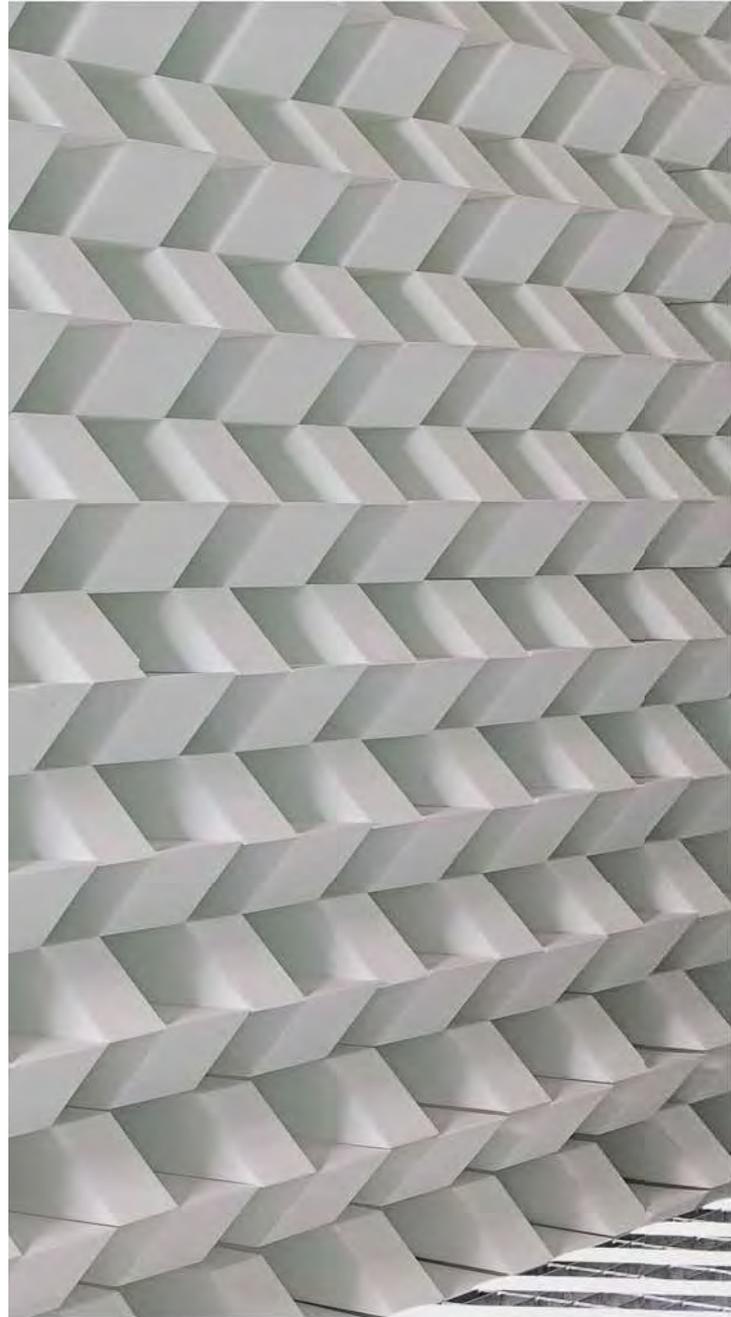


## **Passion & Innovation**

For more than 30 years, we have been on a quest for perfection. We want to put into your hands a PA tailored to fit you and your demands, a sound system that is easy to handle and treats your audiences to a memorable audio experience.

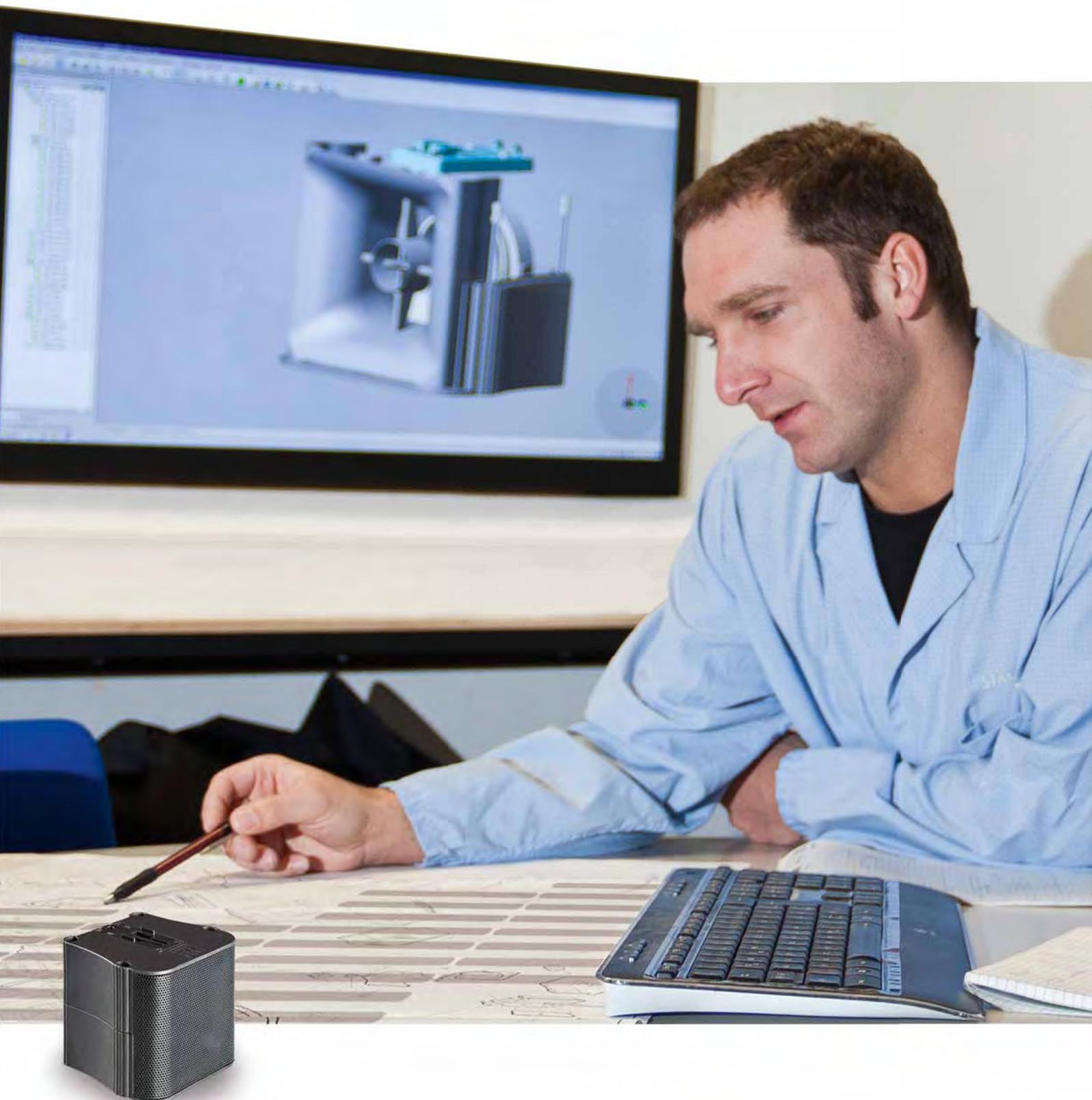
But your demands continue to evolve, and so do our aspirations. Fascinating new technologies, measurement methods and materials beg to be explored, understood and put to use. This journey into the unknown pushes the boundaries of our collective imagination, ignites our engineers' passion and inspires us to aim for the seemingly impossible. And the payoff is enduring, with products that continue to delight you and amaze your audiences.

This passion for engineering and HK AUDIO's trademark natural sound quality is built into all our products. Witness the latest example, LUCAS NANO 300, perhaps the most eminent addition to the product family. It incorporates everything that made LUCAS a universal synonym for smart sound reinforcement – and then some.



Lothar & Hans Stamer (Founders & CEOs)







## **Passion for Engineering**

We're particularly proud of LUCAS NANO 300. The idea was to get smaller, leaner and lighter without sacrificing spatial depth and volume. We looked to the automotive industry for inspiration, where engineers are squeezing more from less – higher performance and greater efficiency from smaller engines with less HP. The trick is to combine technologies, some of which have been around for decades, in smart, new ways to achieve the performance of a far larger powerhouse.

Our developers followed a similar roadmap to arrive at NANO 300. Everything we learned about acoustics over the decades, combined with state-of-the-art measuring and design methods, flowed into its development. The result is an ultra compact system that weighs a paltry 10 kilograms, yet delivers shockingly persuasive audio performance. Seeing and hearing LUCAS NANO 300 in action is a surreal experience. You won't believe your ears and eyes because they're telling you different stories!

You will also be amazed to discover how easy NANO 300 is to transport with one hand. Even the subwoofers' housing is a bit of an engineering marvel: It accommodates a mixing console and power circuitry, provides a transport bay for tucking away the satellites, and even offers a choice of two generously sized, ultra comfortable grips!

And with that, LUCAS NANO embodies everything HK AUDIO has been about from day one – passion and innovation.

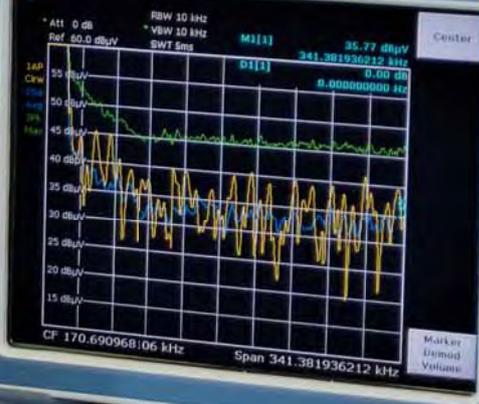
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FSL SPECTRUM ANALYZER 9 kHz - 3 GHz



FREQ SPAN AMPZ  
BW SWEEP TRIG  
7 8 5 GHz  
4 5 6 MHz  
1 2 3 kHz  
0 . Hz  
ESC CANCEL ENTER BACK  
FSL

SEN OUTPUT (IN) USB AF OUT PROB POWER IN INPUT (IN)



# LUCAS



## **The Revolution**

Lightweight Ultra Compact Active System

In 1998 our engineering department was tasked to take on a tough mission: Design and deliver a fullrange sound system that would be easy to transport and set up, and tuned to offer up awesome audio in every situation. Happily for all discriminating presenters, entertainers, DJs and bands, they tackled that task with bravura, turning up a revolutionary design that would make performers' working lives so much more rewarding.

Over the course of a decade, we built an entire family around that inceptive LUCAS. The line gradually evolved to five end-to-end solutions ranging from LUCAS Smart to LUCAS Alpha, tailored to fit varying venues and the most diverse demands. This year's release makes it six. The sensationally compact LUCAS Nano 300 has arrived, bringing professional sound reinforcement to even the smallest of rooms.

But whatever model you choose, know this: The proven LUCAS principle always applies. You will enjoy peerless portability, simple setup, stellar sound, and remarkable reliability at every turn. More than 40,000 units sold tell the story - our customers love LUCAS.

## LUCAS NANO 300

LUCAS NANO 300 takes our LUCAS principle another step up the evolutionary ladder with unbelievable size, unbelievable power, and unbelievable options. Its subcompact dimensions and miniscule footprint will treat you to an unprecedented experience in convenience. Simply click-fit the two fist-sized satellites into the subwoofer, and there you have a handy, 10-kg package with comfortable grips that you can carry single-handedly.

And then there's the amazing range of applications that it lends itself to: champagne receptions, small pub gigs, recording sessions, garden parties, multimedia presentations, gaming thrills, and so much more. You will not believe your ears when you experience LUCAS NANO 300 in action.

### LUCAS NANO Twin Satellite

The Easy-Click connector links two satellites to create a single powerful mono unit. A built-in filter circuit is activated automatically. It voices the two satellites to respond as one, thereby eliciting the acoustics and performance of a single larger enclosure.





### Accessories



### Add-On Package One

This tripod set consists of two mounting poles, a tripod and two speaker cables.



### Add-On Package Two

These two dual-purpose tabletop tripods/wall mounts let you set mid/high units on a horizontal surface and mount them on walls. Two speaker cords are included.



### Roller Bag

The handy roller bag carts your LUCAS NANO 300 to its destination in style. The integrated covers protect it against moisture, dirt and damage.



Compact Mono

Extended Mono

Stereo

Twin Set Stereo

### Technical Specifications

Satellite	Single	Double
Power output	35 W @ 8 Ω	70 W @ 4 Ω
Frequency response	190 Hz – 20 kHz	190 Hz – 20 kHz
Max. SPL @ 10% THD*	112 dB	116 dB
Max. SPL Peak*	116 dB	120 dB
Mid/high unit dispersion pattern, horizontal/vertical	60° x 40°	60° x 40°
Dimensions (W x H x D)	13 x 13 x 11.5 cm	13 x 26 x 11.5 cm
Weight	1 kg	2 kg
<b>Subwoofer</b>		
Power output	160 W @ 2 Ω	
Frequency response	44 Hz – fx	
Max. SPL @ 10% THD*	116 dB	
Max. SPL Peak*	118 dB	
Dimensions (W x H x D)	30 x 39 x 42 cm	
Weight	8.3 kg	

\* half-space

## LUCAS



### LUCAS SMART

Our ultra compact power-pack, it's portable enough to tote on your own and inconspicuous enough to fit anywhere. It makes your presentation an impressive event and your performance as an entertainer an amazing experience in big, bold sound.



### LUCAS PERFORMER

From soothing background music for mingling and dining to big floor-filling beats, this rig does it all with style. Offering everything that made its forebear the entertainer's best friend, it's truly a plug & play proposition, sparing you hassles and saving time.



### LUCAS IMPACT

The perfect solution for small to mid-sized venues, it features compact components, handling ease and big, bold sound at every volume. Equipped with state-of-the-art speakers and digital power amps, this latest generation comes in an even lighter, smaller package.





### **LUCAS MAX**

As compact as the inceptive LUCAS, MAX delivers the audio quality and headroom of a far larger PA system.



### **LUCAS ALPHA**

LUCAS ALPHA combines the LUCAS line's phenomenal handling ease with a big rig's bold performance. And that makes it the powerhouse of choice for today's bands and DJs.

Accessories



**LUCAS SMART Add-On Package**

These two custom-designed aluminum speaker stands come in a practical gig bag, along with two 7m cords for connecting satellites to the subwoofer.



**LUCAS SMART Trolley**

Designed for fast, safe transport, the trolley rolls the system easily and conveniently to and from venues, and breaks down into two parts to fit in cars.



**LUCAS SMART Wall Mount**

There is no easier way to install a LUCAS SMART system. And its ball joint enables perfect satellite-to-audience alignment.



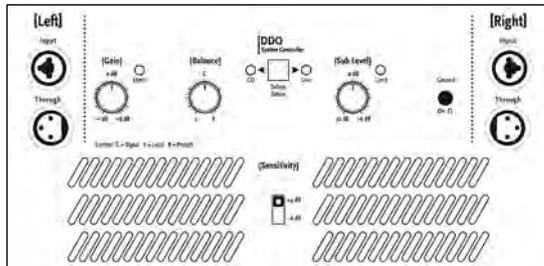
**LUCAS Speaker Add-On**

The Speaker Stand Add-On Package includes two aluminum tripods, two 7m speaker cords with Speakon connectors, and a handy nylon carrying bag

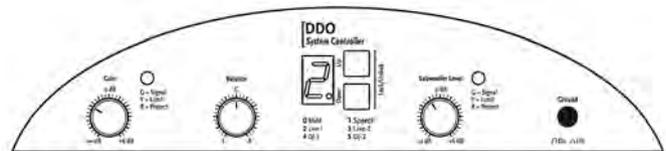


**LUCAS Protective Covers**

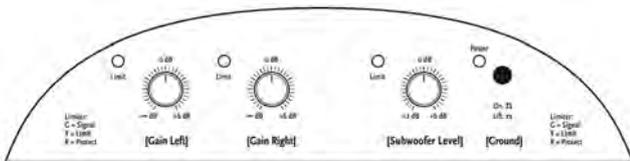
Made of water-repellant, extremely tear-resistant nylon and tailored to fit your LUCAS system, these thickly padded covers afford excellent protection during transport to and from gigs.



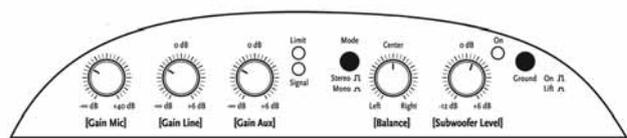
LUCAS ALPHA's panel



LUCAS MAX's, LUCAS IMPACT's panel



LUCAS PERFORMER's panel



LUCAS SMART's panel



## Technical Specifications

Satellite	LUCAS ALPHA	LUCAS MAX	LUCAS IMPACT	LUCAS PERFORMER	LUCAS SMART
<b>Power handling, nominal</b>	400 W RMS	400 W RMS	250 W RMS	200 W RMS	80 W RMS
<b>Frequency response <math>\pm 3</math> dB**</b>	85 Hz – 19 kHz	120 Hz – 19 kHz	130 Hz – 19 kHz	130 Hz – 19 kHz	100 Hz – 19 kHz
<b>Axial sensitivity 1 W @ 1m*</b>	105 dB	104 dB	103 dB	102 dB	97 dB
<b>Max. SPL @ 10% THD*</b>	129 dB	126 dB	125 dB	124 dB	115 dB
<b>Nominal impedance</b>	8 $\Omega$	8 $\Omega$	8 $\Omega$	8 $\Omega$	4 $\Omega$
<b>Connectors</b>	1 x Speakon NL 4	1 x Speakon NL 4	1 x Speakon NL 4	1 x Speakon NL 4	1 x Speakon NL 4
<b>Midrange woofer</b>	1 x 12"	1 x 10"	1 x 8"	1 x 8"	1 x 6,5"
<b>Tweeter/ driver</b>	1.4"	1"	1"	1"	1" dome tweeter
<b>Directivity</b>	60° x 40° BEM CD horn	60° x 40° CD horn	60° x 40° CD horn	60° x 40° CD horn	80° x 50°
<b>X-over frequency</b>	1.2 kHz, 12 dB/ octave	2.2 kHz, 12 dB/ octave	2.2 kHz, 12 dB/ octave	2.4 kHz, 12 dB/ octave	3 kHz, 12 dB / octave
<b>HF protection (passive)</b>	-	Dyn. protective circuit	Dyn. protective circuit	Dyn. protective circuit	Dyn. protective circuit
<b>Pole mount</b>	DuoTilt 3°/7°, 36 mm	DuoTilt 3°/7°, 36 mm	DuoTilt 3°/7°, 36 mm	MonoTilt 10°, 36 mm	MicroTilt 10°, 15 mm
<b>Dimensions (W x H x D)</b>	40 x 54.5 x 37 cm	31.5 x 49 x 32 cm	26 x 38.5 x 28.5 cm	26 x 38.5 x 28.5 cm	18.5 x 27.5 x 21.5 cm
Subwoofer	LUCAS ALPHA	LUCAS MAX	LUCAS IMPACT	LUCAS PERFORMER	LUCAS SMART
<b>Frequency response +/- 3 dB ***</b>	37 Hz – 130 Hz	40 Hz – 130 Hz	45 Hz – 130 Hz	47 Hz – 130 Hz	43 Hz – 100 Hz
<b>Axial sensitivity 1 W @ 1m*</b>	100 dB	101 dB	101 dB	101 dB	97 dB
<b>Max. SPL @ 10% THD*</b>	130 dB	130 dB	128 dB	126 dB	118 dB
<b>Subwoofer amp</b>	1 x 1,200 W Class-D	1 x 1,200 W Class-D	1 x 700 W Class-D	1 x 500 W Class-D	1 x 250 W Class-D
<b>Satellite (mid/high) amp</b>	2 x 400 W Class-D	2 x 400 W Class-D	2 x 250 W Class-D	2 x 200 W Class-D	2 x 80 W
<b>Active protective circuits</b>	DDO Controller	DDO Controller	DDO Controller	Multiband limiter	Multiband limiter
	Multiband limiter	Multiband limiter	Multiband limiter	Subsonic filter	Subsonic filter
<b>Connectors</b>	2 x XLR In Combo 2 x XLR Through	2 x XLR In Combo jack	2 x XLR In Combo jack	2 x XLR Combo jack	1 x Mic In, 2 x XLR In, 2 x Cinch In
	1 x XLR External Subwoofer out	2 x XLR Through	2 x XLR Through	2 x XLR Through	2 x XLR Through 2 x Cinch Mix Out
	2 x Speakon Satellite Out	2 x Speakon Satellite Out	2 x Speakon Satellite Out	2 x Speakon Satellite Out	2 x Speakon Satellite Out
<b>Bass woofer</b>	1 x 18"	1 x 15"	1 x 15"	1 x 15"	1 x 10"
<b>Pole mount</b>	M20 threaded base plate	M20 threaded base plate	M20 threaded base plate	M20 threaded base plate	-
<b>Dimensions (W x H x D)</b>	53 x 63.5 x 68.5 cm	48.5 x 49.5 x 58.5 cm	47.5 x 47 x 58.5 cm	47.5 x 47 x 58.5 cm	32 x 41 x 46.5 cm
<b>Weight, system</b>	96 kg, 211.7 lbs	67.5 kg, 149 lbs.	51.6 kg, 113.7 lbs.	53.2 kg, 117.3 lbs	30 kg, 66.1 lbs

\* half-space \*\* active x-over



# ELEMENTS



**IT'S ELEMENTARY!**

The first scalable line array for musicians, bands and DJs

## ELEMENTS

Audio is changing. It's getting leaner, lighter, and lush. Since its inception, HK AUDIO has blazed the trail to smarter, sleeker sound systems with many key innovations. ELEMENTS marks yet another milestone on that path. It is the first system to pair the benefits of modern line-array technology with the convenience of ultra compact portable PAs. With a few twists of the wrist and a minute or two of your time, you can configure anything from a petit PA for speech reinforcement to a band-approved stage rig. And that frees you to focus fully on what's elementary - your performance!



### E-Connect

E-Connect, a new type of integrated coupler/bus, lets you configure your ELEMENTS rig of choice far easier and quicker than conventional systems. Just a few minutes are all it takes to set up an ELEMENTS system. And that's a promise. Simply link components via E-Connect, plug in your signal source, and let the show begin.

### Minimum Space

ELEMENTS leaves a tiny footprint on stage. What's more, even the most powerful 4,000-watt version easily fits into a compact car with enough space left over for another musician and his or her guitar.

### Minimum Effort

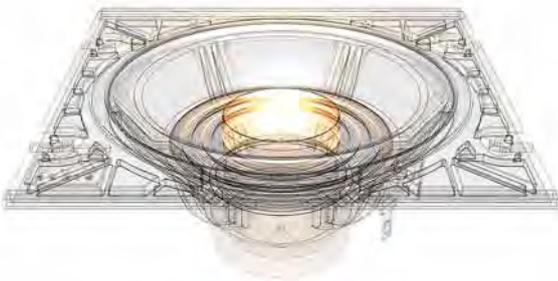
ELEMENTS sets up so easily you can even do it in your stage outfit. The ultra compact yet extremely robust components weigh just a few kilograms. Never again will you break a sweat setting up and tearing down your rig!

### Elegance

ELEMENTS looks as modern as it feels. The elegant visuals not only impress the promoter, it also provides the perfect setting for your performance.

### Scalability

Line sources are very flexible when it comes varying the number of speakers in an array to meet different performance needs. Covering larger venues is as simple as adding more speakers to the line. Rest assured that the audio experience will always be compelling.





**E 435**  
Mid/High Unit

Made of extruded aluminum and featuring true line array technology, the mid/ high unit delivers homogeneous, natural-sounding response, rendering voices and instruments with astonishing authenticity. A novel coupler/ bus combination called E-Connect provides fast, convenient means of linking it to other elements.



**EA 600**  
Amp Module

Sharing the mid/ high unit's elegant design, the amp module is a perfect visual and mechanical match. Its 600-watt, Class-D power amp provides plenty of juice to drive four mid/ high units or a passive subwoofer and two mid/ high units.

**EP 1/EP 2**  
Speaker Poles

These speaker poles are unlike any other. They enable simple, speedy setup for smaller configurations. Freely adjustable, they forward the signal to the top-mounted mid/ high units via the internal E-Connect coupler/ bus – no speaker cords necessary.

- Anodized aluminum with twist-lock fastener
- EP 1: Adjustable height from 95 to 160 cm
- EP 2: from 44 to 60.5 cm
- Integrated E-Connect bus
- Exceedingly light weight  
EP 1 = 0.8 kg  
EP 2 = 0.5 kg



**EF 45**  
Base

The base accommodates the mid/ high units, amp module, and mounting pole. Its extendible feet ensure the mounted elements sit on a stable, secure platform.

- Stable system base with a small footprint
- Integrated E-Connect bus
- Two parallel NL4 ports
- 45-51 x 31 x 12.5 cm; 7.7 kg





**E 110 SUB A**  
*Active Subwoofer*

The surprisingly handy 10" subwoofer delivers a tight, low-ranging bass foundation. Its 600-watt, Class-D power amp can also drive two mid/ high units or another passive subwoofer. Equipped with two E-Connect ports, the sub unit can be placed horizontally or vertically to serve as a base for further components. The ergonomic carrying handle on the top panel makes it easy to tote.



**E 110 SUB**  
*Passive Subwoofer*

This passive subwoofer is the perfect add-on for applications demanding even more powerful low-end response. It is powered by a connected E 110 Sub A or EA 600 amp module. It also sports an E-Connect port for mid/ high units with the amp module.



## ELEMENTS PLUS



**E 835**  
Mid/High Unit

Our engineers developed the E 835 mid/ high unit to afford you even greater flexibility when you want to set up bigger systems. Loaded with eight speakers, it can handle 300 watts at 8 ohms impedance. The E 835 comes highly recommended when you want to minimize the number of mechanical connections. The E 835 and E 435 mid/ high units' design and tuning are identical, so feel free to combine them.



**E 210 SUB AS**  
System Subwoofer

The new E 210 SUB AS system subwoofer comes with two 1,200-watt amps in its engine room. Power amp number one drives the two internal 10" woofers, with plenty of juice left over to run an external passive type L Sub 1200. The second power amp delivers 900 watts at 2.6 ohms to drive up to three E 835s (or six E 435s).

## ELEMENTS INSTALL



### E 435 Install Kit Mid/High Unit

This will not surprise HK Audio loyalists but for the record, we developed the new Elements Install Kit to facilitate simple and inconspicuous installation. It consists of two modified E 435 mid/ high units, including mounting yokes. Up to six mid/ high units (including the Wall-mount Kit) may be combined.

You can adjust an ELEMENTS system on mounting yokes 180° horizontally and fix it in place quickly and easily using the two included hex-head screws.



### E 435 A INSTALL KIT Mid/High Unit with Amp Module

The active Install Kit is basically the E 435 IL plus a powered EA 600 with mounting hardware in place of the top mid/ high unit. This turns it into an active array that can power either three E 435s or a combination of one E 435 and one E 835.

### Setup Options

Background music, acoustic combos, full-fledged bands, powerhouse DJs - ELEMENTS gets the job done in almost every situation, and with minimum effort at that. You benefit from a throw pattern that projects sound uniformly throughout the audience area: Not too loud up front; not too soft in back. It simply sounds great. And thanks to ELEMENTS, so will you. The setups shown here are just a few of the many variants on the Elements theme. Feel free to configure the rig that fits. ELEMENTS – always the right solution.



Example Configurations with:  
E 435, E 835, EA 600, E 110 Sub A, E 110 Sub, E 210 Sub AS, L SUB 1200, EP 1, EF 45



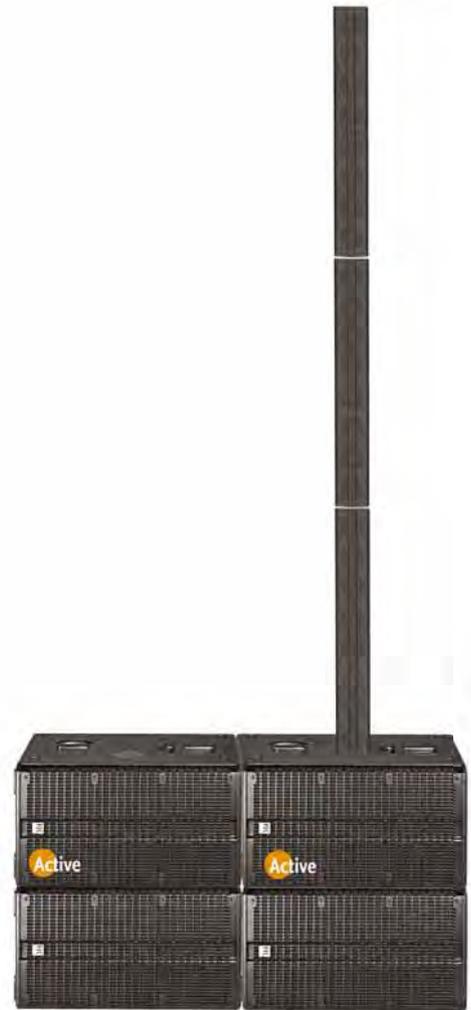
550 watts



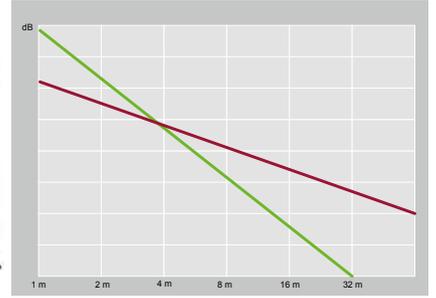
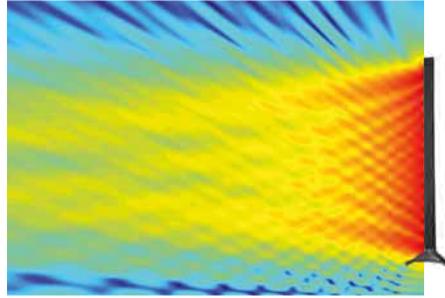
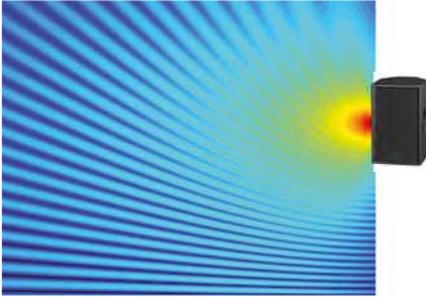
1050 watts



1100 watts

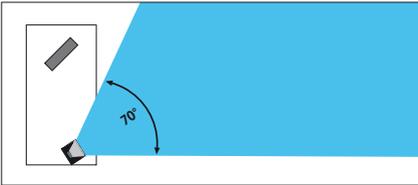


3300 watts

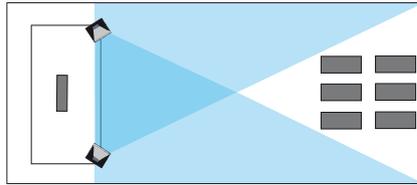


The sophisticated BEM simulation, applied here at 3 kHz, clearly shows that line arrays (right) disperse sound far better than conventional systems (left). Red and yellow hues signify high sound pressure levels; dark blue indicates low levels.

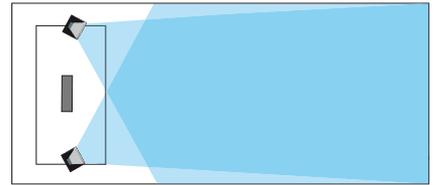
SPL drops with increasing distance  
Conventional Loudspeaker (green), Elements (red)



Reflections off walls may be minimized by turning the enclosures in slightly towards the audience.



Sound may be focused on a specific area by turning the mid/ high units inwards.



**Accessories**

ELEMENTS is not only a cinch to set up, it's also phenomenally easy to transport. Tailored to fit the system's six components like a glove, three types of high-quality gig bags are available to tote rigs of every configuration comfortably from point A to point B. Practical and robust, they are made of tough water-repellent nylon.



**Elements Soft Bag**

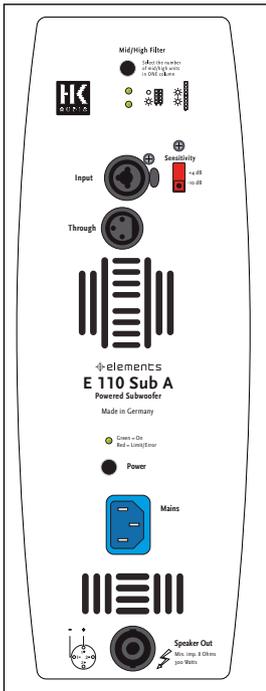
This padded bag accommodates any combination of four mid/ high units or amp modules, for example, three mid/ high units and one amp module. You can also easily tuck a speaker pole in the bag.

**Elements Base Bag**

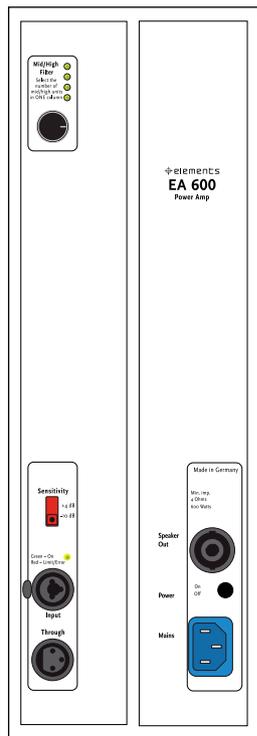
The EF 45 base fits perfectly in this tote bag/ over-the-shoulder holder.

**Elements Subwoofer Cover**

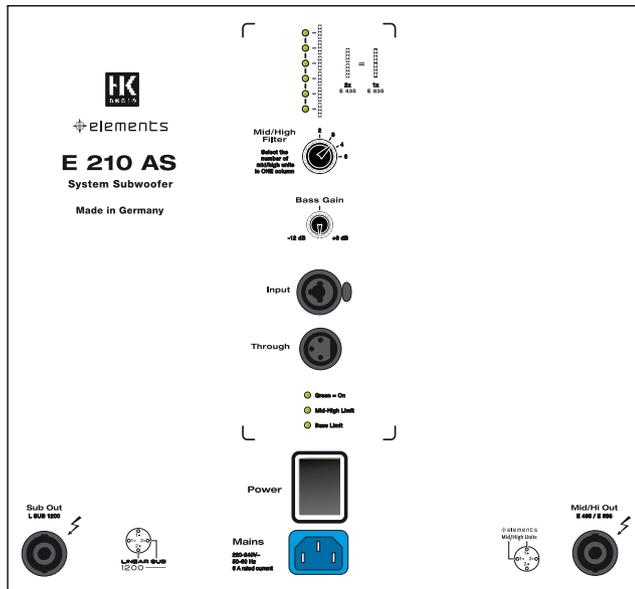
Subwoofers are rarely handled with velvet gloves, so this cover provides twice the padding to protect active and passive subs especially effectively against damage in transit.



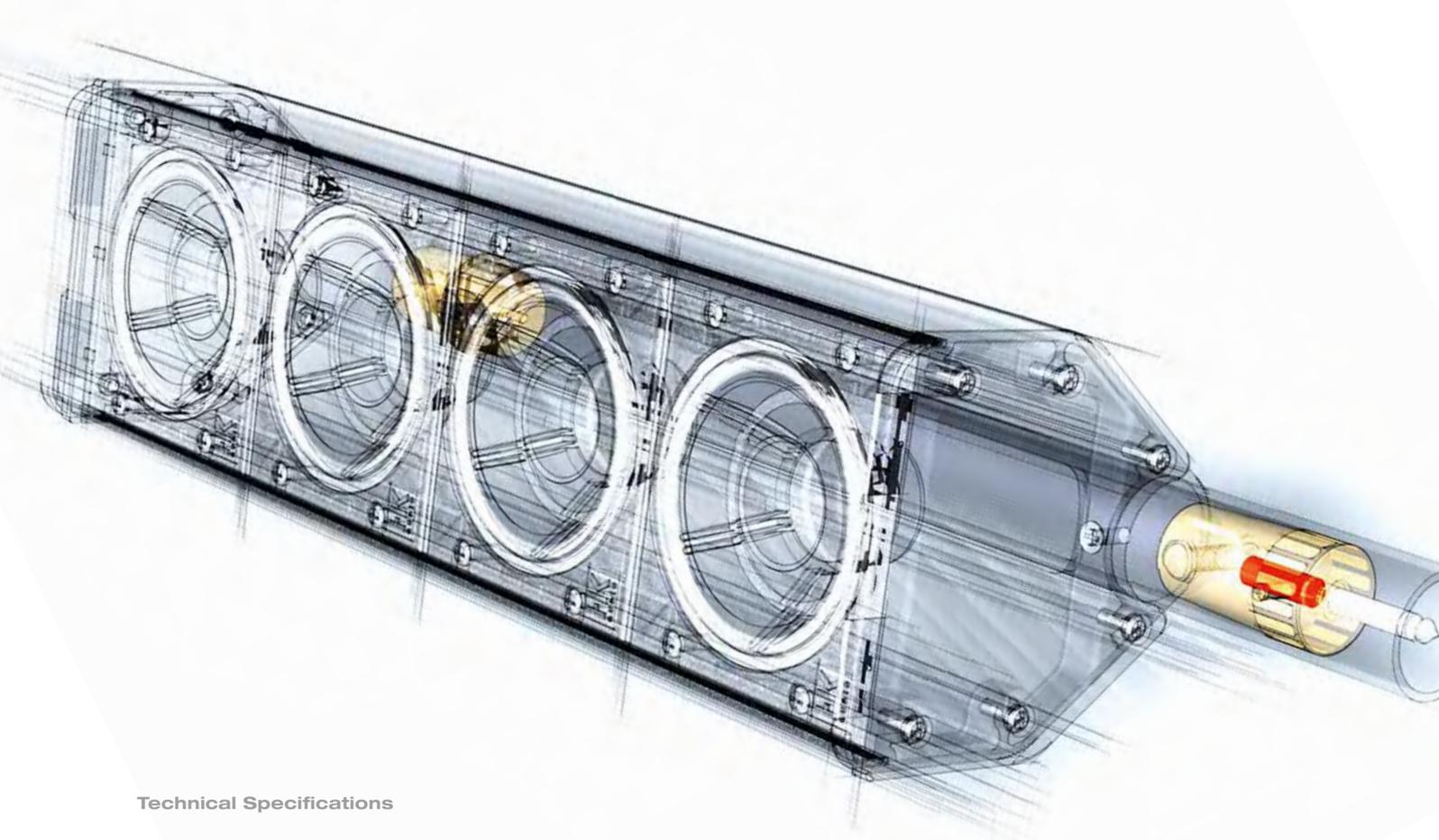
The E 110 Sub A's panel



The EA 600 Amp's panel



The E 210 SUB AS's panel



## Technical Specifications

	E 435	E 835	EA 600	E 110 Sub A	E210 Sub AS	E 110 Sub	E 435 Install Kit	E 435 A Install Kit
<b>Power handling, nominal</b>	150W RMS @ 16Ω	300W RMS @ 8 Ω	-	-		250W RMS @ 10 Ω	300W RMS @ 8 Ω*	150W RMS @ 16Ω
<b>Continuous power per channel</b>	-		600W Class D @ 4 Ω	600W Class D @ 4 Ω	1,200W Class D @ 4 Ω (Subs) / 1,200W Class D @ 4 Ω (Mid/High)	-		600W Class D @ 4 Ω
<b>Frequency response -10 dB</b>	140 Hz – 20 kHz, via active system filter	140 Hz – 20 kHz, via active system filter	-	45 Hz – 150 Hz, via active system x-over	38Hz – 150Hz via active system x-over	45 Hz – 150 Hz, via active system x-over	140 Hz – 20 kHz via controller	140 Hz – 20 kHz, via active system filter
<b>Nominal impedance</b>	16 Ω	8 Ω	-	10 Ω	8 Ω	10 Ω	8 Ω	16 Ω
<b>Axial sensitivity 1 W @ 1m ****</b>	97 dB	100 dB	-	-		-	100 dB	97 dB***
<b>Subwoofer amp</b>	-		-	1 x 600W / Class-D @ 4 Ω	1,200W / Class-D @ 4 Ω	-		
<b>Active protective circuits</b>	-		RMS limiter, subsonic filter; DC, load, & thermal (temp.-controlled fan)	RMS limiter, subsonic filter; DC, load, & thermal (temp.-controlled fan)	RMS limiter, subsonic filter; DC, load, & thermal (temp.-controlled fan)	-		RMS limiter, subsonic filter; DC, load, & thermal (temp.-controlled fan)
<b>Input sensitivity</b>	-		+ 4 dBu / -10 dBu (switchable)	+ 4 dBu / -10 dBu (switchable)	+ 4dBu	-		+ 4 dBu / -10 dBu (switchable)
<b>Connectors</b>	1 x E-Connect In 1 x E-Connect Out	1 x E-Connect In 1 x E-Connect Out	1 x XLR Combo In 1 x XLR Through 1 x Speakon Parallel Out 1 x E-Connect Out	1 x XLR Combo In 1 x XLR Through 1 x Speakon Parallel Out 2 x E-Connect Out	1 x XLR Combo In 1 x XLR Through 2 x Speakon-Out 1 x SUB + 1 x Mid/High 2 x E-Connect Out	1 x Speakon-In 1 x Speakon-Out 1 x E-Connect Out	1 x 1/4" (6.3 mm) In jack	1 x XLR Combo In 1 x XLR Through 1 x Speakon Parallel Out
<b>Speakers</b>	4 x 3.5" broadband	8 x 3.5" broadband	-	-		-	8 x 3.5" broadband	4 x 3.5" broadband
<b>Woofers</b>	-		-	1 x 10" (2" voice coil)	2 x 10" (2.5" voice coil)	1 x 10" (2" voice coil)		
<b>Dispersion pattern</b>	70° horizontal	70° horizontal	-	-		-	70° horizontal	70° horizontal
<b>Corner frequency, passive x-over</b>	140 Hz, 12 dB/oct.	140 Hz, 12 dB/oct.	-	-		-	140 Hz, 12 dB/oct.	140 Hz, 12 dB/oct.
<b>Pole mount</b>	-		-	2 x E-Connect	2 x E-Connect	1 x E-Connect		
<b>Dimensions (W x H x D)</b>	11 x 38 x 12 cm (excl. E-Connect sleeves)	11 x 72 x 12 cm (excl. E-Connect sleeves)	11 x 38 x 12 cm (excl. E-Connect sleeves)	30 x 48 x 46 cm	38 x 66.8 x 56 cm	30 x 48 x 46 cm	11 x 80.5 x 12 cm (incl. mounting brackets)	11 x 80.5 x 12 cm (incl. mounting brackets)
<b>Weight</b>	2.35 kg, 5.2 lbs	4.5 kg, 9.9 lbs	2.75 kg, 6 lbs	19 kg, 41.8 lbs	32 kg, 70.6 lbs	16.5 kg, 36.4 lbs	5.2 kg, 11.5 lbs	5.6 kg, 12.3 lbs

\*) extendable with up to four E 435s or two E 835s depending on the amp's minimum impedance \*\*\*) extendable with three E 435s or one E 435 + one E 835 \*\*\*\*) with one E 435 \*\*\*\*\*) half-space



# PREMIUM PR:O



## LET FREEDOM RING!

Classic Speaker Formats Paired with Modern Technology and Professional Features

## PREMIUM PR:O

Designed to make the working musician's life easier on stage and off, PREMIUM-PR:O cabinets entertain no compromises when it comes to audio quality. An exceedingly modular line, these powered and passive cabinets' sound and response were painstakingly tuned to harmonize. All models pack an assertive punch paired with crisp, crystal-clear voice response. Active units feature a Parallel Speaker Out to power an added passive cabinet, making it easy to mix and match units freely within the series.

The active models pair phenomenal ease of use with a practical feature set that has proven its merits in the real

world. All fullrange models come with a Gain knob, Mic/Line switch, and a Tone Control (Speech – Music) that adapts the cabinet's sound to suit the scenario. Beyond that, the active stereo x-over built into the PR:O 18 SUB A/ PR:O 210 SUB A makes it easy to set up full-fledged systems. Exceptionally light and energy-efficient, its digital Class D power amp features an RMS peak limiter and a subsonic filter to provide maximum dynamic headroom and protect the components well against overloads. The V-Lock mains socket prevents accidental disconnection of an optional V-Lock mains cord and enables glitch-free operation on stage.





**PR:O 8  
PR:O 8 A**

This 8"/1" fullrange enclosure delivers awesome bass response and exceptionally high SPL for its size. Its manageable format and included mounting hardware (PR:O 8 A only) also make it an excellent choice for expedient permanent installation. The active PR:O 8 A model comes with power circuitry that delivers 600W RMS and a Speakon port that accepts an added passive cab.



**PR:O 10 X  
PR:O 10 XA**

This remarkably versatile 10"/1" enclosure can serve as a satellite, a fullrange cabinet, and a low-profile wedge monitor. The Music/Speech knob adjusts its finely balanced—and therefore feedback-resistant—frequency response to suit very different applications. The PR:O 10 XA also features an onboard power amp and a Speakon port for connecting a passive add-on cab.



**PR:O 12  
PR:O 12 A**

A fullrange enclosure in classic 12"/1" format, this cab's balanced sonic image, speech intelligibility and high SPL are impressive indeed. It is the perfect satellite for the PR:O 18 Sub. The PR:O 12 A also features 600W RMS power electronics and a Speakon port for connecting a passive auxiliary cabinet.



**PR:O 12  
PR:O 12 MA**

This high-quality 12"/1" stage monitor provides remarkably assertive reinforcement for voices and instruments. The active PR:O 12 MA also sports a 600W RMS power amp and a Speaker Out for another passive monitor cabinet, so setting up a large monitoring system is easily and affordably done.



**PR:O 15  
PR:O 15 A**

Sporting a 15" woofer, this cab delivers performance on par with the PR:O 12, but with even more muscular low-midrange and bass response. And that makes it a great choice for standalone deployment without a subwoofer. The active PR:O 15 A model also features a 600W RMS power amp and a Speakon port that accepts a passive add-on cab.



**PR:O 15 X  
PR:O 15 XA**

This multifunctional 15"/1" cabinet delivers powerful low-end response and high SPL. Remarkably feedback resistant and amazingly articulate, it will also serve you well as a monitor. The active PR:O 15 XA model ships with 600W RMS power circuitry and a Speakon® port to connect a passive auxiliary cabinet.



**PR:O 210 SUB  
PR:O 210 SUB A**

Housed in a bass reflex enclosure, the two 10" woofers pack a powerful punch and deliver low-ranging bass response that is sure to impress and amaze. Remarkably compact, versatile and light at less than 26 kg, it is readily combined with mid/ high units to deliver outstanding performance as a system. Setting up and operating such a powerful yet inconspicuous rig is a piece of cake.

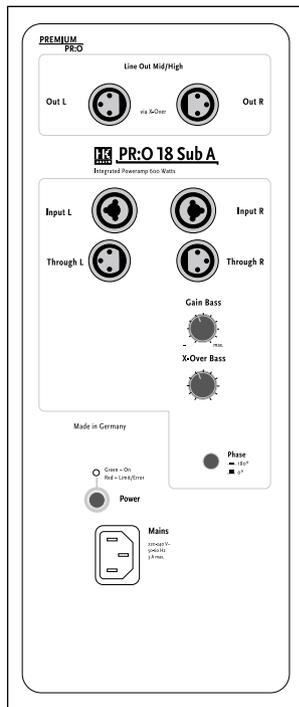


**PR:O 18 SUB  
PR:O 18 SUB A**

Boasting an 18" woofer in a bass reflex housing, this bin delivers a low-ranging bass foundation. The specially designed active stereo x-over routes the right frequency spectrum to the mid/ high unit connected via the Satellite Out. The active PR:O 18 Sub A model also ships with a 600W RMS power amp and a port for active satellites.



The satellite's panel  
(PR:O 8 A, PR:O 10 XA, PR:O 12 A,  
PR:O 15 A, PR:O 15 XA)



The subwoofer's panel  
(PR:O 210 Sub A, PR:O 18 Sub A)



The PR:O 12 MA monitor's panel

## Configurations



p = passive speaker  
a = active speaker

— speaker cable  
— signal cable



## Accessories



### PREMIUM PR:O Rain Gear

With these protective covers in place, your cabinets will be ready to withstand the damp outdoors and well-protected on the way to gigs. Simply leave the covers on if the weather takes a turn for the worse. Rather than dampening the sound, the acoustic fleece merely keeps the dampness out.



### HK AUDIO Protective Covers

Made of water-repellent, extremely tear-resistant nylon, these thickly padded covers afford excellent protection for the PA en route to and from gigs. With slots providing easy access to the handles of all the cabinets, the enclosures may be carried with the covers on. Zip-fasteners fully seal the covers for mid/ high units.



### HK Audio Satellite Add-On M20 Speakon

The Satellite Add-On Package comes with two aluminum speaker poles and two 3m speaker cables equipped with Speakon connectors, all in a nylon carrying bag.

## Technical Specifications

Active	PR:0 8 A	PR:0 10 XA	PR:0 12 A	PR:0 12 MA	PR:0 15 A	PR:0 15 XA	PR:0 210 Sub A	PR:0 18 Sub A	
Frequency response +/- 3 dB	89 Hz – 19 kHz	89 Hz – 19 kHz	85 Hz – 19 kHz	85 Hz – 19 kHz	55 Hz – 19 kHz	55 Hz – 19 kHz	60 Hz – X-Over	48 Hz – X-Over	
Frequency response -10 dB	63 Hz – 19 kHz	67 Hz – 19 kHz	78 Hz – 19 kHz	78 Hz – 19 kHz	48 Hz – 19 kHz	48 Hz – 19 kHz	40 Hz – X-Over	38 Hz – X-Over	
Max SPL @ 10% THD*	118 dB	121 dB	123 dB	125 dB					
Power amp	Class-D								
Power output	600 W @ 4 Ω								
Protective circuits, power amp	RMS limiter								
Protective circuits, power amp	Dynamic HF protect, 35-Hz subsonic filter, peak limiter	Dynamic HF protect, 35-Hz subsonic filter, peak limiter	Dynamic HF protect, 35-Hz subsonic filter, peak limiter	Dynamic HF protect, 35-Hz subsonic filter, peak limiter	Dynamic HF protect, 35-Hz subsonic filter, peak limiter	Dynamic HF protect, 35-Hz subsonic filter, peak limiter	35-Hz subsonic filter, peak limiter	35-Hz subsonic filter, peak limiter	
Audio ports	1 x balanced Mic/Line In 1 x XLR-Through 1 x Speakon Parallel Out	1 x balanced Mic/Line In 1 x XLR-Through 1 x Speakon Parallel Out	1 x balanced Mic/Line In 1 x XLR-Through 1 x Speakon Parallel Out	1 x balanced Mic/Line In 1 x XLR-Through 1 x Speakon Parallel Out	1 x balanced Mic/Line In 1 x XLR-Through 1 x Speakon Parallel Out	1 x balanced Mic/Line In 1 x XLR-Through 1 x Speakon Parallel Out	1 x balanced Mic/Line In 1 x XLR-Through 1 x Speakon Parallel Out	2 x Line In 2 x XLR-Through 2 x XLR-Out (L/R, Mid/High) 1 x Speakon Parallel Out	2 x Line In 2 x XLR-Through 2 x XLR-Out (L/R, Mid/High) 1 x Speakon Parallel Out
Bass/Mid woofer	8"	10"	12"	12"	15"	15"	2 x 10"	18"	
HF driver	1"	1"	1"	1"	1"	1"	-	-	
Horn directivity	80° x 80° CD horn	90° x 60° CD horn	60° x 40° CD horn	-	-				
X-over frequency **	-	-	-	-	-	-	75 Hz – 150 Hz, switchable	75 Hz – 150 Hz, switchable	
Equalizer	Tone Control	Tone Control	Tone Control	-	Tone Control	Tone Control	-	-	
Pole mount	MonoTilt	DuoTilt 3°/7°	DuoTilt 3°/7°	-	DuoTilt 3°/7°	DuoTilt 3°/7°	2 x M20	M20	
Rigging/ pick points	2 x M8	3 x M8	3 x M8	-	3 x M8	3 x M8	-	-	
Accessories	Rain gear, protective cover, satellite add-on	Rain gear, protective cover, satellite add-on 100-mm casters	Rain gear, protective cover, satellite add-on 100-mm casters						
Dimensions (W x H x D)	27 x 42 x 27 cm	32 x 48 x 29 cm	39 x 57 x 36 cm	39 x 55.5 x 38 cm	47 x 61.5 x 41.5 cm	47 x 61.5 x 44.5 cm	36 x 61 x 53 cm	53 x 61 x 64 cm	
Weight	11 kg, 24.3 lbs	13.9 kg, 30.7 lbs	19.5 kg, 43 lbs	17.1 kg, 37.7 lbs	23.5 kg, 51.8 lbs	22.4 kg, 49.4 lbs	27.2 kg, 60 lbs	39.8 kg, 87.7 lbs	

Passive	PR:0 8	PR:0 10 X	PR:0 12	PR:0 12 M	PR:0 15	PR:0 15 X	PR:0 210 S	PR:0 18 S
Frequency response +/- 3 dB	89 Hz – 19 kHz	95 Hz – 19 kHz	68 Hz – 19 kHz	70 Hz – 19 kHz	60 Hz – 19 kHz	60 Hz – 19 kHz	60 Hz – 150 Hz	48 Hz – 150 Hz
Frequency response -10 dB	63 Hz – 19 kHz	80 Hz – 19 kHz	60 Hz – 19 kHz	63 Hz – 19 kHz	53 Hz – 19 kHz	53 Hz – 19 kHz	40 Hz – 150 Hz	38 Hz – 150 Hz
Max SPL @ 10% THD*	122 dB	126 dB	128 dB	128 dB	128 dB	128 dB	126 dB	129 dB
Axial sensitivity 1W@1m*	97 dB	99 dB	104 dB	104 dB	104 dB	104 dB	101 dB	104 dB
Power handling, peak	1,200 W	1,500 W	1,500 W					
Power handling, program	600 W	600 W	800 W	800 W	800 W	800 W	1,000 W	1,000 W
Power handling, nom. (RMS)	300 W	300 W	400 W	400 W	400 W	400 W	500 W	500 W
Speakers								
Bass / Mid	8"	10"	12"	12"	15"	15"	2x 10"	18"
HF driver	1"	1"	1"	1"	1"	1"	-	-
Impedance	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω	4 Ω	4 Ω
HF protection (passive)	Dyn. protective circuit	-	-					
Horn dispersion	80° x 80° CD horn	90° x 60° CD horn	60° x 40° CD horn	-	-			
X-over frequency	2.5 kHz, 12 dB/oct.	2.2 kHz, 12 dB/oct.	2 kHz, 12 dB/oct.	2 kHz, 12 dB/oct.	2 kHz, 12 dB/oct.	2 kHz, 12 dB/oct.	150 Hz, 12 dB/oct.	150 Hz, 12 dB/oct.
Connectors	2 x Speakon	2 x Speakon	2 x Speakon					
Angles up	-	30°	-	30°	-	45°	-	-
Pole mount	Mono Tilt 3°	DuoTilt 3°/7°	DuoTilt 3°/7°	-	DuoTilt 3°/7°	DuoTilt 3°/7°	2 x M20	M20
Rigging/ pick points	3 x M8	3 x M8	3 x M8	-	3 x M8	3 x M8	-	-
Casters	-	-	-	-	-	-	-	Optional 100 mm
Dimensions (W x H x D)	27 x 42 x 27 cm	32 x 48 x 29 cm	39 x 57 x 36 cm	39 x 55.5 x 38 cm	47 x 61.5 x 41.5 cm	47 x 61.5 x 44.5 cm	36 x 61 x 53 cm	53 x 61 x 64 cm
Weight	10 kg, 22 lbs	12.9 kg, 28.4 lbs	18.5 kg, 40.8 lbs	16.1 kg, 35.5 lbs	22.5 kg, 49.6 lbs	21.4 kg, 47.1 lbs	25.9 kg, 57.1 lbs	40.6 kg, 89.5 lbs

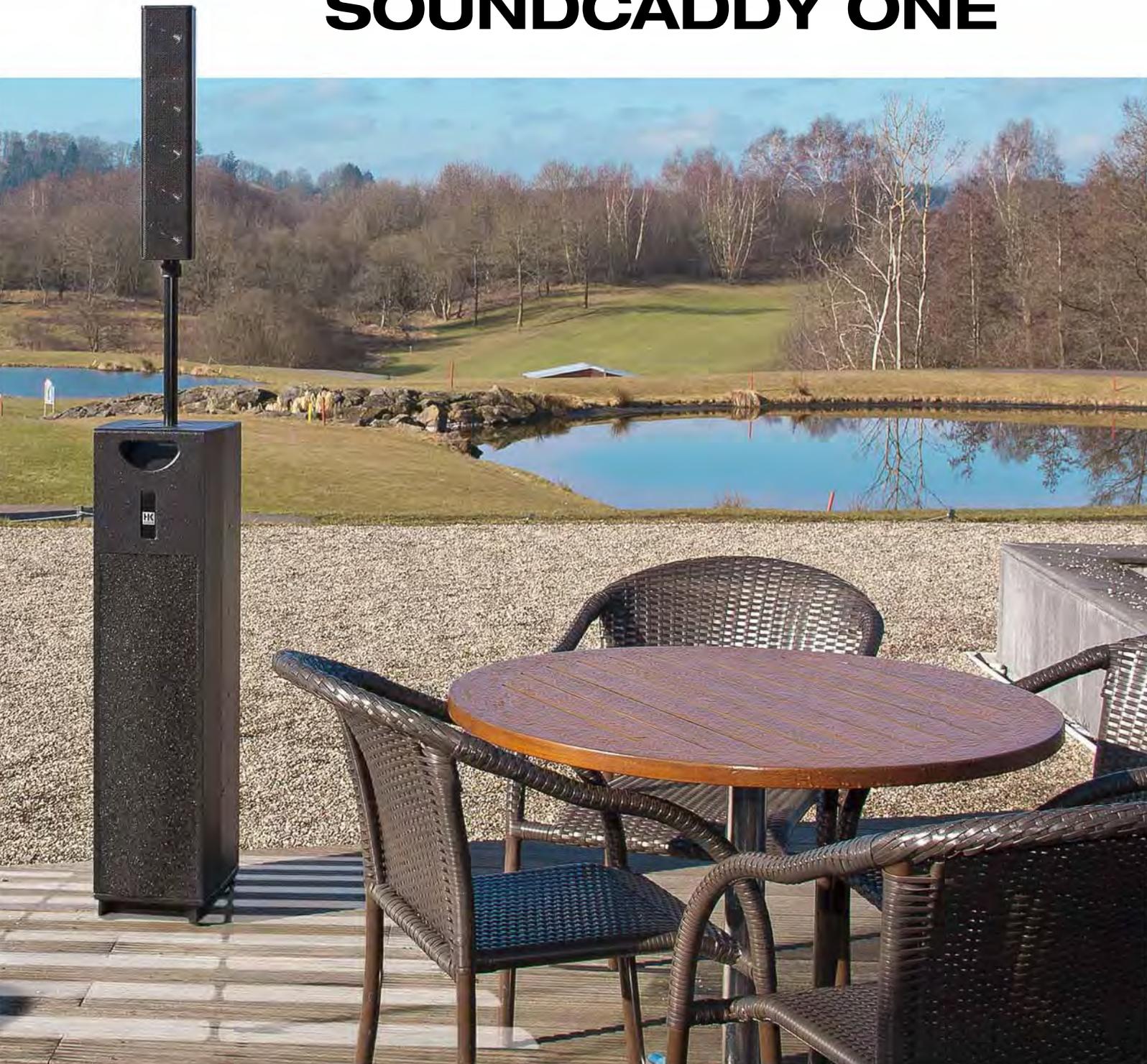
Recommended power output: Use amps that deliver between 600 and 800 watts RMS per channel @ 4 ohms to drive PREMIUM PR:0 enclosures. Ensure the amp's peak power output is at least 1,200 watts per channel @ 4 ohms to leave enough headroom for dynamic musical signals.

\*) All measurements taken under half-space conditions.

\*\*) Active x-over frequency at 24 dB/octave



# SOUNDCADDY ONE



## **The World's Fastest PA!**

The Ultra Portable Sound System with a Retracting Line-Array,  
Built-in Mixer and Casters

## SOUNDCADDY ONE

### Sets Up in Seconds

Simply push on its mid/ high unit and the array rises fully automatically, propelled by an ingenious pneumatic lift. Another twist of the wrist is all it takes to adjust its height to up to 2.10m. And the mid/ high unit is stowed in the housing and securely locked down for transport just as quickly. What's more, the signal bus is built into the mounting pole, so no further cords are necessary to connect the unit.

### Superlative Sound

The six 3.5" speakers in the mid/ high-range unit are the product of over two years of joint research with a top manufacturer who makes them exclusively for us. Their vertical alignment is based on the line-array principal to optimize frequency response, spread sound uniformly throughout the audience area, and tap the power amp's full potential.

### Profound Bass

Our engineers practically reinvented the subwoofer for SOUNDCADDY ONE. It sports three 6" woofers developed specifically for the world's fastest PA. The result is a bass foundation so rich and profound that it will leave your audience wondering how an enclosure as compact as this could produce it.

### Power Aplenty

SOUNDCADDY ONE is home to a 600W, Class D power amp. And with that kind of power in the engine room, it can easily entertain up to 200 guests.

### Ports Galore

The integrated mixing console accepts up to four signal sources simultaneously. Microphone, guitar or MP3 player, SOUNDCADDY ONE is ready for just about anything. And its tone control may be simple, but it's surprisingly effective. Dialing in the right sound for the surroundings couldn't be any easier, even for the less technically inclined.

### Made in Germany

SOUNDCADDY ONE not only looks elegant and inconspicuous, it is also well-equipped to withstand the rigors of daily use on the go. The well-crafted birch ply housing is robust and weather-resistant, the wheels are tough enough to handle even rough terrain, and the pneumatic lift can withstand years of hard use in a kindergarten.





### Accessories

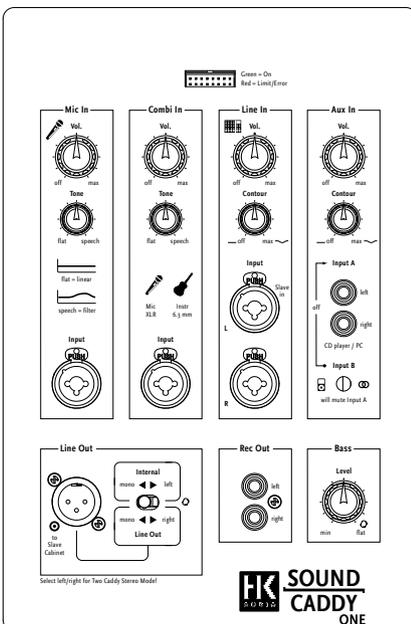
Made of water-repellant, extremely tear-resistant nylon and tailored to fit, a thickly padded cover comes factory-included to protect SOUNDCADDY ONE during transport.



### Technical Specifications

<b>Power output, system amp</b>	600W Class D @ 4 Ω
<b>Frequency response -10 dB</b>	42 Hz – 18 kHz
<b>Frequency response +/-3 dB</b>	49 Hz – 18 kHz
<b>Dispersion pattern</b>	70° x 15°
<b>Max SPL, calculated*</b>	125 dB
<b>Max SPL, peak @ 10% THD*</b>	125 dB
<b>Max SPL @ 10% THD*</b>	120 dB
<b>Woofers</b>	3 x 6"
<b>Midrange/ HF speaker</b>	6 x 3.5"
<b>X-over frequency</b>	150 Hz, 12 dB/octave
<b>X-over mode</b>	Passive
<b>Connectors</b>	Onboard 4-channel mixing console
<b>Housing (birch)</b>	15 mm, 13-ply
<b>Weight</b>	29 kg, 63.9 lbs
<b>Dimensions (W x H x D)</b>	27 x 102 x 34 cm
<b>Connectors, 4-channel mixing console</b>	
<b>Mic In</b>	XLR Combo port
<b>Mono Combo In (Mic/Line)</b>	XLR Combo port
<b>Stereo Line In</b>	XLR Combo port
<b>Aux In</b>	RCA (cinch) / 3.5 mm mini jack
<b>Line Out</b>	XLR
<b>Rec Out</b>	RCA (cinch)

\* half-space





FK  
AUDIO



# LINEAR 5



**Superior Performance & Loudness**

High-Performance Speakers with Remarkable SPL

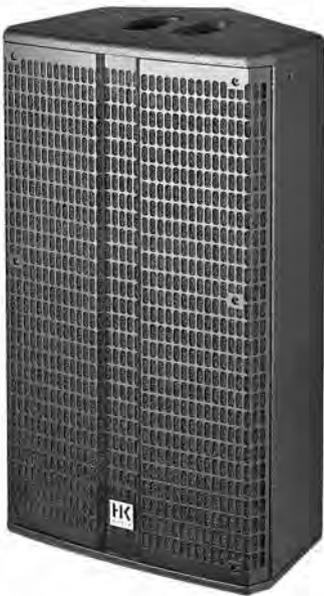
## LINEAR 5

With Linear 5, HK Audio has unveiled a line of high-performance PA cabinets that is sure to delight ambitious musicians and DJs as well as discerning hire companies. No other system competing in the class of 1" drivers can match its SPL. The high-quality wood housings are anything but standard. Made of tough multilayer birch plywood and a birch/MDF hybrid, these rugged enclosures not only stand up to the rigors of the road, they also have excellent performance-enhancing acoustical properties.

Top-drawer features like this usually come at a steep price, but the Linear 5 line is surprisingly affordable — and is exceptionally versatile: It takes just two L5 212 FA units

to set up a full-fledged fullrange system. Two stackable Linear 5 subwoofers may be added for applications requiring more bass. The mid/ high units can also serve as delay line speakers in decentralized sound reinforcement solutions. The multifunctional XA model is suitable for use as a mid/ high unit and as a stage monitor.

Engineered by a crack R&D team that has been designing pro audio equipment for more than 25 years, Linear 5 is made in Germany. Users expect nothing less than flawless finishing, faithful reproduction, and excellent specs from HK Audio. Linear 5 delivers all this and more: Our customers also enjoy exemplary service provided by dealers in 55 countries around the world.



### L5 112 X / XA

The 12"/1" model is housed in a multifunctional enclosure that delivers highest sound pressure levels (135 dB MAX SPL peak). A switchable filter configures it for use as a top unit (adding long-range capability) in systems with the Linear Sub 2000/2000 A. The L5 112 XA also serves as an excellent monitor with a plenty of gain before feedback, whereby the rotatable 60° x 40° CD horn provides an exemplary coverage pattern.



### L5 112 F / FA

The 12"/1" fullrange top delivers the most powerful bass performance in its class. It also sports an asymmetrical horn (60° x 90° x 55°) tuned to optimize sound dispersion. The switchable EQ (High Power/ Small Venue) configures the cab's dynamic response to suit the application and location. High Power is always your first choice when you need maximum sound pressure and range. Small Venue is a great option for standard applications in smaller to midsized rooms and for moderate levels because it serves up a remarkably transparent and warm audio signal.



### L5 115 F / FA

Able to pump out up 1,000 watts as a stand-alone cabinet, the ultra efficient 15"/1" fullrange top is, like its smaller sibling, the loudest reference speaker in its class. And like the L5 FA 112, it is equipped with an asymmetrical horn. Its throw pattern is optimized to provide the best coverage. The pattern is wider up front and grows more directed with distance, thereby achieving greater range.



60° x 40° CD-Horn  
L5 112 X / XA



60° - 90° (asymm.) x 55° CD-Horn  
L5 112 F / FA, L5 115 F / FA



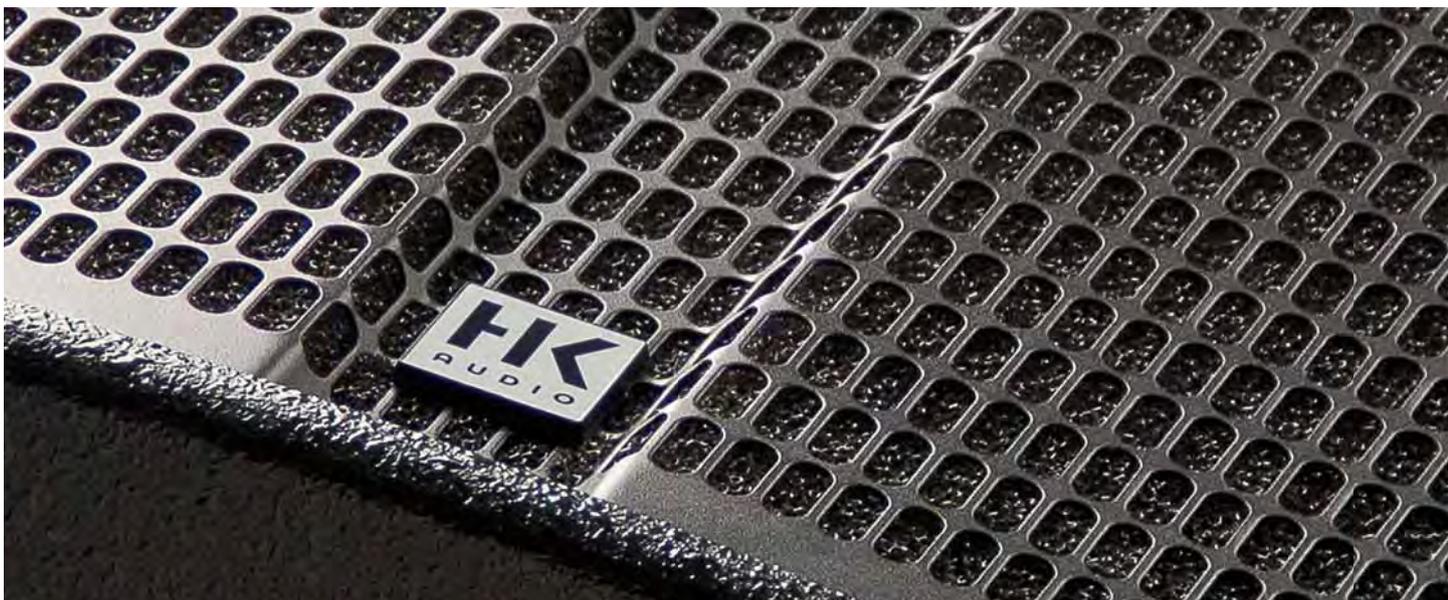
### **L SUB 2000/2000 A**

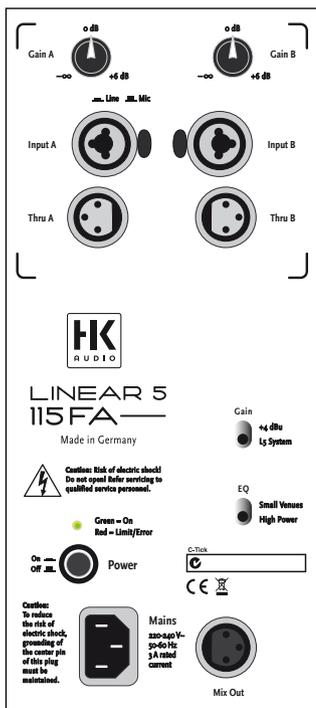
Equipped with a sixth-order double bandpass crossover, the L Sub 2000/ 2000 A is the perfect reinforcement for L5 tops. Its low-end performance in the 39 -120 Hz range is most impressive. It sports two 12" high-excursion woofers. This speaker's 2.5" voice coil comes with a state-of-the-art cooling system and a dual spider suspension to keep it perfectly centered. A newly developed 1,200-watt, Class-D power amp drives these speakers.



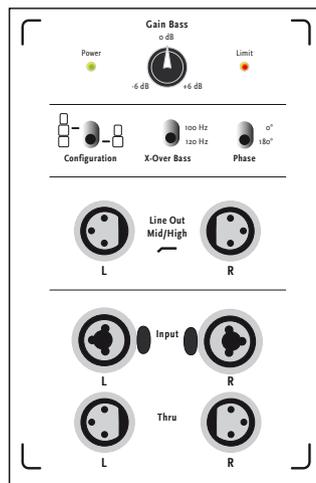
### **L SUB 1200/1200 A**

This compact and light woofer comes in a bass reflex enclosure. It is ideal for band PAs. The powered version sports a remarkably efficient 1,200 watt, Class-D power amp that can also drive a connected passive L Sub 1200. Loaded with two remarkably responsive 10" woofers, it delivers tight, snappy bass with a lot punch ranging all the way down to around 38 Hz.

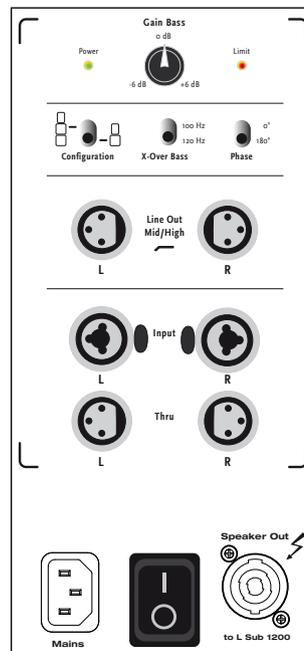




The top's panel  
(L5 112 FA, L5 115 FA)

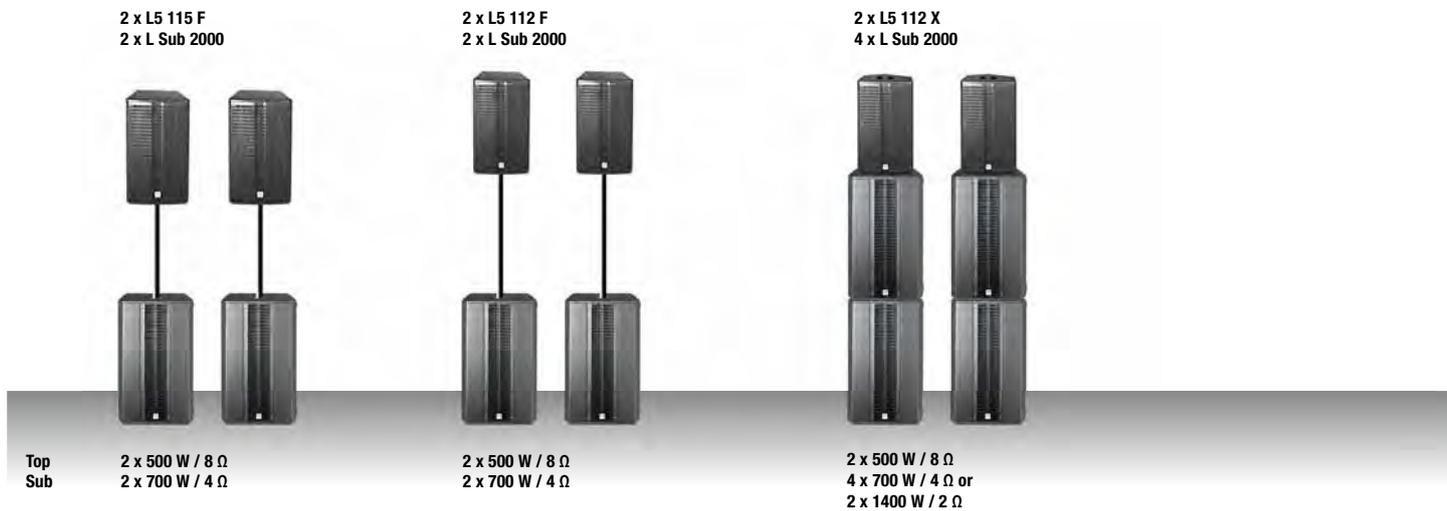
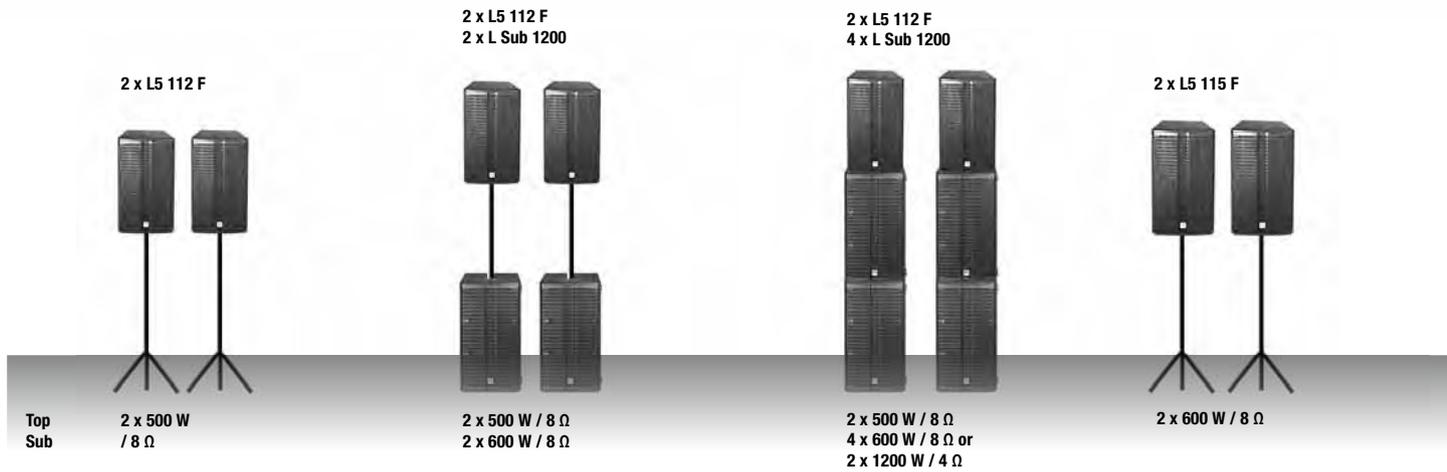
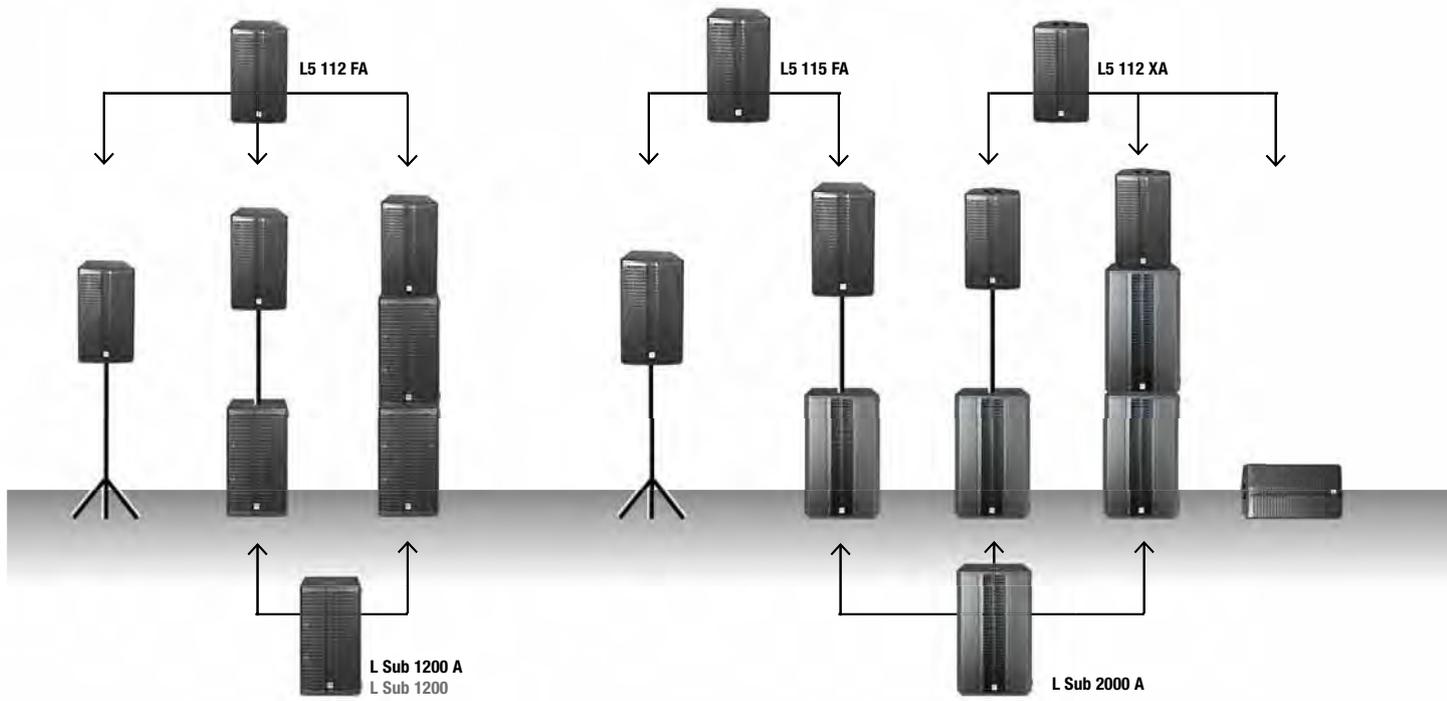


The subwoofer's panel  
(L Sub 1200 A)



The subwoofer's panel  
(L Sub 2000 A)

Configurations



## Accessories



### Protective covers

Padded covers are available as optional accessories for all Linear 5 models.



### Satellite Add-On Package

An accessory set for powered satellite systems, the Satellite Add-On Package contains two aluminum M 20 speaker poles and two 3m XLR cables in a nylon carrying bag.



### Tilt Unit

The tilt unit permits perfect satellite-to-audience alignment using a full stack system.



### EASE Data

Ease data for precise simulation of the acoustic performance

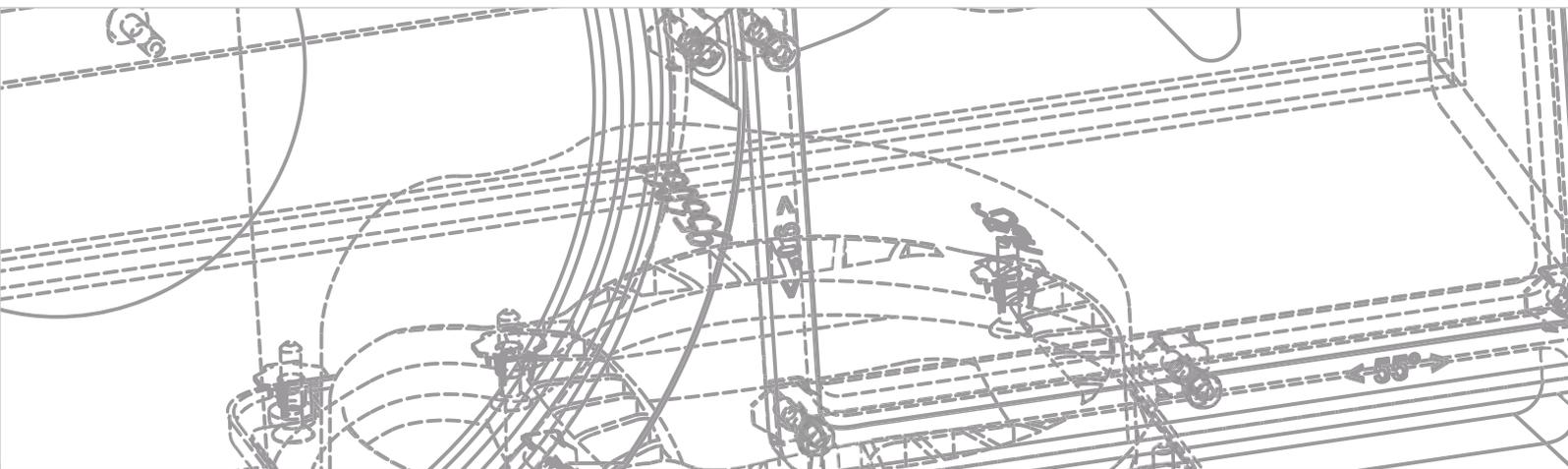
## Technical Specifications

Passive	L5 112 X	L5 112 F	L5 115 F	L Sub 2000	L Sub 1200
Frequency response +/- 3 dB	100 Hz - 18 kHz	70 Hz - 18 kHz	60 Hz - 18 kHz	49 Hz X-over	55 Hz - X-over
Frequency response -10 dB	72 Hz - 20 kHz	60 Hz - 19 kHz	55 Hz - 20 kHz	39 Hz - X-over	38 Hz - X-over
Axial sensitivity 1 W @ 1 m*	105 dB	104 dB	106 dB	104 dB	101 dB
Power handling					
Continuous	500 W	500 W	600 W	700 W	600 W
Program	1000 W	1000 W	1200 W	1400 W	1200 W
Peak	2000 W	2000 W	2400 W	2800 W	2400 W
Max SPL @ 10% THD*	129 dB	128 dB	130 dB	134 dB	128 dB
Max SPL Peak @ 10% THD*	135 dB	134 dB	139 dB	135 dB	130 dB
Audio ports	2 x Speakon NL4	2 x Speakon NL4			
Bass woofer	1 x 12" with 2.5" voice coil	1 x 12" with 2.5" voice coil	1 x 15" with 3" voice coil	2 x 12" with 2.5" voice coil featuring Advanced Cooling technology	2 x 12" with 2.5" voice coil featuring Advanced Cooling technology
HF driver	1" with 1.75" voice coil	1" with 1.75" voice coil	1" with 1.75" voice coil	-	-
Nominal impedance	8 ohms	8 ohms	8 ohms	4 ohms	8 ohms
Horn directivity	60° x 40° CD horn, rotatable	60°-90° (asy.) x 55° CD horn, rotatable	60°-90° (asy.) x 55° CD horn, rotatable	-	-
X-over	1.7 kHz, 12 dB/oct. passive	1.7 kHz, 12 dB/oct. passive	1.7 kHz, 12 dB/oct. passive	Controller driven	Controller driven
Pole mount	DuoTilt 3/7	DuoTilt 3/7	DuoTilt 3/7	M20	2 x M20
Suspension points	3 x M8	3 x M8	3 x M8	-	-
Grips	2, integrated	2, integrated	2, integrated	4, integrated	4, integrated
Optional accessories	Protective cover	Protective cover	Protective cover	Protective cover, 100 mm Blue Wheels, Tilt Unit	Protective cover, 100 mm Blue Wheels, Tilt Unit
Housing	Hybrid (birch multiplex / MDF)	Hybrid (birch multiplex / MDF)	Hybrid (birch multiplex / MDF)	Birch multiplex 15/18 mm, 9/13 ply	Birch multiplex 15/18 mm, 9/13 ply
Front grille	2 mm metal grille backed with black acoustic foam	2 mm metal grille backed with black acoustic foam	2 mm metal grille backed with black acoustic foam	2 mm metal grille	2 mm metal grille
Finish	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black
Dimensions (W x H x D)	37 x 66.8 x 30 cm	37 x 66.8 x 36.5 cm	44.9 x 70.8 x 45 cm	50.6 x 80.6 x 61 cm	38 x 66.8 x 56 cm
Weight	19.5 kg / 43 lbs	23.3kg / 51.4 lbs	30.1 kg / 66.4 lbs	44.3kg / 97.7 lbs	29 kg / 63.9 lbs

\* half-space

Active	L5 112 XA	L5 112 FA	L5 115 FA	L Sub 2000 A	L Sub 1200 A
Frequency response +/- 3 dB	100 Hz - 18 kHz	64 Hz - 18 kHz	57 Hz - 18 kHz	49 Hz X-over	55 Hz - X-over
Frequency response -10 dB	72 Hz - 20 kHz	57 Hz - 20 kHz	48 Hz - 20 kHz	39 Hz - X-over	38 Hz - X-over
Axial sensitivity HF 1 W @ 1 m*	116 dB	116 dB	116 dB	-	-
Axial sensitivity LF 1 W @ 1 m*	104 dB	104 dB	106 dB	104 dB	101 dB
Max. SPL@10% THD	129 dB	127dB	129 dB	132 dB	126 dB
Max. SPL Peak@10% THD	135 dB	134 dB	139 dB	133 dB	128 dB
Max. SPL Calc.	138 dB	138 dB	139 dB	135 dB	129 dB
Amp/type	Class-D – biamped	Class-D – biamped	Class-D – biamped	Class-D	Class-D
Output power	1000 W	1000 W	1000 W	1200 W	1200 W
Amp to driver	350 W @ 4 ohms	350 W @ 4 ohms	350 W @ 4 ohms	-	-
Amp to woofer	650 W @ 4 ohms	650 W @ 4 ohms	650 W @ 4 ohms	1200 W @ 4 ohms	1200 W @ 4 ohms
Protective circuits, amp	Under-voltage, thermal, short circuit, and over-current protection	Under-voltage, thermal, short circuit, and over-current protection			
Protective circuits, speakers	Subsonic 24 dB/oct. peak limiter	Subsonic 24 dB/oct. peak limiter			
Power consumption	3 A/230 V nominal pursuant to EN60065	3 A/230 V nominal pursuant to EN60065	3 A/230 V nominal pursuant to EN60065	3.3 A/230 V nominal pursuant to EN60065	3.3 A/230 V nominal pursuant to EN60065
Input sensitivity	+4 dBu @ Gain center-click / L5 system level	+4 dBu @ Gain center-click / L5 system level	+4 dBu @ Gain center-click / L5 system level	+4 dBu @ Gain center-click	+4 dBu @ Gain center-click
Audio ports	2 x XLR Combo In 2x XLR Through 1x XLR Mix Out	2 x XLR Combo In 2 x XLR Through 1 x XLR Mix Out	2 x XLR Combo In 2 x XLR Through 1x XLR Mix Out	2 x XLR Combo In 2 x XLR Through 2 x XLR Mid/High-Out	2 x XLR Combo In 2 x XLR Through 2 x XLR Mid/High-Out 1 x Speakon NL4 Out for 1 passive L Sub 1200
Mains connector	1x IEC socket with V-Lock cord retainer	1x IEC socket with V-Lock cord retainer	1 x IEC socket with V-Lock cord retainer	1 x IEC socket with V-Lock cord retainer	1x IEC socket with V-Lock cord retainer
Bass woofer	1x 12" with 2.5" voice coil (4 ohms)	1x 12" with 2.5" voice coil (4 ohms)	1 x 15" with 3" voice coil (4 ohms)	2 x 12" (8 ohms) with 2.5" voice coil featuring Advanced Cooling technology	2 x 10" (4 ohms) with 2.5" voice coil featuring Advanced Cooling technology
HF driver	1" with 1.75" voice coil (16 ohms)	1" with 1.75" voice coil (16 ohms)	1" with 1.75" voice coil (16 ohms)	-	-
Horn directivity	60° x 40° CD horn, rotatable	60°-90° (asy.) x 55° CD horn, rotatable	60°-90° (asy.) x 55° CD horn, rotatable	-	-
X-over	1.65 kHz, 24 dB/oct. active	1.65 kHz, 24 dB/oct. active	1.65 kHz, 24 dB/oct. active	100/120 Hz variable with 24 dB/oct.	100/130 Hz variable with 24 dB/oct.
Pole mount	DuoTilt 3°/7°	DuoTilt 3/7	DuoTilt 3/7	M20	2 x M20
Suspension points	3 x M8	3 x M8	3 x M8	-	-
Grips	2, integrated	2, integrated	2, integrated	4, integrated	4, integrated
Optional accessories	Protective cover	Protective cover	Protective cover	Protective cover, 100 mm Blue Wheels, Tilt Unit	Protective cover, 100 mm Blue Wheels, Tilt Unit
Housing	Hybrid (birch multiplex / MDF)	Hybrid (birch multiplex / MDF)	Hybrid (birch multiplex / MDF)	Birch multiplex 15/18 mm, 9/13 ply	Birch multiplex 15/18 mm, 9/13 ply
Front grille	2 mm metal grille backed with black acoustic foam	2 mm metal grille backed with black acoustic foam	2 mm metal grille backed with black acoustic foam	2 mm metal grille	2 mm metal grille
Finish	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black
Dimensions (WxHxD)	37 x 66.8 x 30 cm	37 x 66.8 x 36.5 cm	44.9 x 70.8 x 45 cm	50.6 x 80.6 x 61 cm	38 x 66.8 x 56 cm
Weight	21.1 kg / 46.5 lbs	23.9 kg / 52.7 lbs	30.7 kg / 67.7 lbs	46.2 kg / 101.9 lbs	30.7 kg / 67.7 lbs

\* half-space





# ICON LTS



**Engineered for Utmost Efficiency and Coverage**

A Powered, Processor-controlled PA Designed for Stacking

## ICON LTS

An ultra efficient rig, ICON LTS shoe horns more than 10,000 watts of Class-D power into a compact plug-and-play package. The system is made up of 'smart' IC 112 LA mid-/high units with built-in DSPs paired with IC 118 BA subwoofers. Our engineers designed ICON LTS for use in venues that demand considerable SPL such as tents, clubs and open-air stages. It is a top-notch alternative for events where time or budget constraints prevent you from flying a line array. The onboard ICON system controller may be managed remotely using the

Podware PC application and a BVNet module. This lets you track key performance parameters such as input and output levels, the amp modules' temperatures, drivers' impedances, and limiter activation. You can even fine-tune the system to suit the venue's acoustics without outboard system controllers and graphic EQs. The controller also logs the temperature and limiter values during the last 72 hours in operation. This info is very useful for diagnosing errors, which comes in particularly handy for dry-hire equipment.



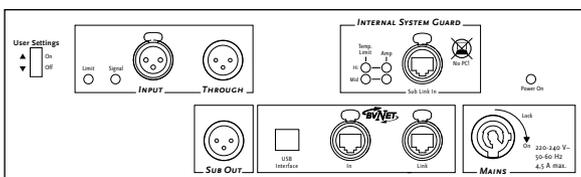
### IC 112 LA

This horn-loaded 12"/1.4" mid/ high unit features a 24-bit/96-kHz DSP that manages the entire system. With a focused 60° x 40° coverage pattern ranging down to 400 Hz, it renders signals with richly detailed accuracy, sizeable reach, and high SPL. The built-in Class-D power amp delivers 1,000 W@ 4 Ω to the 12" speaker and 600 W@4 Ω to the 1.4" HF driver. Equipped with Aeroquip tracks, the enclosure can even be flown if need be. The IC 112 LA comes with a dolly that protects electronic components and the rear-mounted connectors during transport.

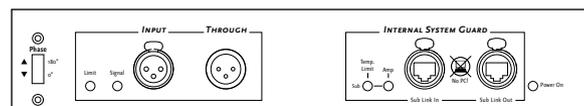


### IC 118 BA

This ultra-efficient band-pass enclosure features an 18" subwoofer. Its frequency response (-10 dB) ranges from 33 Hz up to the x-over frequency, with 136 dB maximum SPL. The IC 118 BA is powered by a 2,000-watt, Class-D amp managed by a digital controller located in its mid/high counterpart. The amp also sends status reports back to the controller via a networked link.



The IC 112 LA's panel



The IC 118 BA's panel



## Accessories



### ICON LTS Tilt Unit

Serving to aim the mid/ high unit, the Tilt Unit offers a choice of 5°, 10°, and 15° angles. It comes with a tote bag.



### ICON LTS BVNet Interface

The BVNet Interface and a CAT5 cable let you integrate the system into a network and remote-control it from PC, even via a wireless link, if you wish.



### ICON LTS Protective Covers

These tailored covers made of extremely tear-resistant, water-repellent nylon protect the units, with slots affording access to the carrying handles.



### ICON LTS Bass Connector Set

## Technical Specifications

	IC 112 LA	IC 118 BA
<b>Power output, low-range</b>	-	2,000 W Class-D @ 4 Ω
<b>Power output, midrange</b>	1,000 W Class-D @ 4 Ω	-
<b>Power output, high-range</b>	600 W Class-D @ 4 Ω	-
<b>Frequency response +/- 3 dB</b>	134 Hz – 17 kHz	41 Hz – x-over
<b>Frequency response - 10 dB</b>	108 Hz – 17 kHz	33 Hz – x-over
<b>Directivity</b>	60° x 40° CD horn (400 Hz – 17 kHz)	-
<b>Sensitivity 1 W @ 1 m*</b>	109 dB	105 dB
<b>Max. SPL calculated</b>	139 dB	138 dB
<b>Max. SPL peak @ 10% THD*</b>	130 dB	138 dB
<b>Max. SPL @ 10% THD*</b>	134 dB	136 dB
<b>Low- / midrange woofer</b>	12" neodymium/ 8 Ω	18" neodymium/ 4 Ω
<b>HF driver</b>	1.4"/8 Ω	-
<b>X-over frequency</b>	900 Hz, 24 dB/octave	-
<b>Connectors</b>	1 x XLR Line In 1 x XLR Line Through 1 x XLR Sub Out 2 x BVNet RJ45 IN/OUT 1 x Ethernet RJ45 Internal System Guard	1 x XLR Input 1 x XLR Through 2 x Ethernet RJ45 Internal System Guard
<b>Housing</b>	15 mm (5/8"), 13-ply birch	15 mm (5/8"), 13-ply birch
<b>Rigging hardware</b>	Aeroquip rail	-
<b>Dimensions (W x H x D)</b>	50 x 60 x 81 cm	50 x 90 x 81 cm
<b>Weight</b>	49.9 kg, 110 lbs	54.1 kg, 119 lbs

\* half-space



# CONTOUR



**STELLAR DYNAMIC RESPONSE AND PHENOMENAL FIDELITY**

High-performance Speakers for Near-field and Monitoring Applications

## CONTOUR

The CONTOUR SERIES comprises professional-grade, high-performance speakers well suited for many applications. Common to all models is HK AUDIO's trademark versatility, handling ease and old-world craftsmanship. They raise the bar for speech intelligibility and phase linearity. Housed in dual-purpose enclosures,

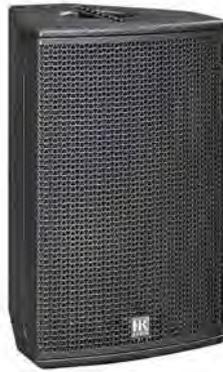
they may be deployed as FOH speakers and as stage monitors. CT models were designed for loud rock stages. They brook no compromises in their ability to deliver high SPL, yet remain remarkably feedback-resistant. For the best audio results, we recommend operating these enclosures with a FIRNET or DSM 2060 controller.





### CT 108

A compact, 8" / 1" fullrange speaker with a rotatable (90° x 60°) HF horn, it excels at rendering vocals and acoustic instruments. Able to deliver considerable output while remaining true to the signal, it is very well suited for speech reinforcement and as a low-profile monitor in theaters and for orchestras. Paired with a CT 118 sub, it also serves as a small FOH club system.



### CT 112

Configurable in passive and biamped modes, this 12" / 1.4" cab delivers high SPL and assertive performance. It chiefly serves as a mid/ high unit in combination with the CT 118 subwoofer, as a monitor on big and deep stages, and as a standalone speaker for public address. The rotatable 60° x 40° CD horn provides precise directivity.



### CT 115

Configurable in passive and biamped modes, this 15" / 1.4" enclosure delivers enhanced low-frequency response. It serves primarily as a fullrange cabinet without an added subwoofer, as a stage monitor on big stages, and as a mid/ high unit paired with the CT 118 subwoofer. The rotatable 60° x 40° CD horn provides precise directivity.



### CT 118 SUB

Featuring a direct-loaded 18" subwoofer in a bass reflex housing, this unit operates in two-way active mode. Exceedingly compact, it is also very light owing to its neodymium woofer. Able to render signal peaks with authority even at the highest levels, it is well suited for FOH systems in clubs and as a side- or drum-fill on larger stages.



### SL 218

This 2 x 18" sub-low handles 2 x 1,000W RMS at 4 Ω. Housed in two separate chambers, the woofers may be driven separately at 4 Ω or in parallel using a power amp rated to deliver this kind of output.



### SL 218 A

This active version of the SL 218 boasts an onboard PWM power amp (2 x 1,000 W). The SL 218 A is easily matched to PA systems using its Gain knob, Phase Reverse switch (0° – 180°), and active x-over with corner frequencies of 60 to 100 Hz. The SL 218 A also comes with a Preamp Bypass switch for use in controller-managed systems.

## Accessories



### ConTour Series Flight Cases and Protective Covers

Padded protective covers and flight cases with 100-mm Blue Wheels



### CT 118 Sub Dolly

Removable dolly with butterfly latches and 100-mm Blue Wheels



### CT 108 MS 1

Mounting yoke for CT 108



### CT 112/CT115 MS 2

35-mm pole mount adapter for the MS 1 mounting yoke and rigging frame



### CT 108 MS 3

TV stud for MS 1 and rigging yoke with threaded M10 bushings



### CT 108 MS 4

Cluster plate (1 pair) for CT 108 clusters



### CT 118 Sub M20

This speaker pole for the CT 118 serves to set up satellite systems.



### CT 108 Small Twin Fork

For two CT 108s



### CONTOUR SERIES Aeroquip Stud

Eyelet-equipped stud for Aeroquip tracks



### CT 112/CT115 Rigging Yoke

Single-point, swiveling (vertical) arm for truss mounting, with 2 x M10 studs



## Technical Specifications

	CT 108	CT 112	CT 115	CT 118 Sub	SL 218 A	SL 218
<b>Power-handling, nominal</b>	200 W RMS	400 W RMS	600 W RMS	1,000 W RMS	-	2 x 1,000 W RMS
<b>Power handling, program/peak</b>	400 W / 800 W	800 W / 1,800 W	1,200 W / 2,400 W	2,000 W / 4,000 W	-	2 x 2,000 W
<b>Recommended amplification</b>	1,200 W RMS @ 4 Ω	1,200 W RMS @ 4 Ω	1,200 W RMS @ 4 Ω	min. 1,200 W RMS @ 4 Ω	-	1,200 W RMS @ 4 Ω
<b>Power output, subwoofer</b>	-	-	-	-	2 x 1,000 W Class-D @ 4 Ω	-
<b>Power output, mid/ high</b>	-	-	-	-	-	-
<b>Frequency response +/-3 dB</b>	100 Hz – 19 kHz	80 Hz – 16 kHz	65 Hz – 16 kHz	41 Hz – 350 Hz	39 Hz – 130 Hz	39 Hz – 130 Hz
<b>Frequency response -10 dB</b>	90 Hz – 19 kHz	65 Hz – 19 kHz	55 Hz – 19 kHz	32 Hz – 350 Hz	39 Hz – 130 Hz	39 Hz – 130 Hz
<b>Directivity</b>	90° x 60° / 60° x 90°	60° x 40° / 40° x 60°	60° x 40° / 40° x 60°	-	-	-
	CD horn rotatable	CD horn rotatable	CD horn rotatable	-	-	-
<b>Sensitivity 1 W @ 1m*</b>	101 dB	107 dB	106 dB	100 dB (50 Hz – 200 Hz)	105 dB	105 dB
<b>Max. SPL calculated*</b>	130 dB	139 dB	140 dB	136 dB	139 dB	139 dB
<b>Max. SPL peak @ 10% THD*</b>	129 dB	138 dB	138 dB	133 dB	135 dB	135 dB
<b>Max. SPL @ 10% THD**</b>	128 dB	134 dB	134 dB	131 dB	132 dB	132 dB
	(200 Hz – 5 kHz)	(200 Hz – 5 kHz)	(200 Hz – 5 kHz)	(50 Hz – 200 Hz)	-	-
<b>Nominal impedance</b>	16 Ω	8 Ω	8 Ω	8 Ω	-	2 x 4 Ω
<b>Low-/midrange woofer</b>	8"	12" neodymium	15" neodymium	18" neodymium	2 x 18"	2 x 18"
<b>HF driver</b>	1", 2" voice coil	1.4", 3" voice coil	1.4", 3" voice coil	-	-	-
<b>X-over frequency</b>	1.8 kHz, 12 dB/octave	850 Hz, 12 dB/octave	850 Hz, 12 dB/octave	100 Hz - 130 Hz, controller-driven	60 Hz - 100 Hz, 12 dB/oct.	60 - 100 Hz, 24 and 12 dB/oct.
<b>X-over modes</b>	Passive	Bi-amped/passive, switchable	Bi-amped/passive, switchable	-	-	-
<b>X-over shapes</b>		FOH, Monitor	FOH, Monitor	-	-	-
<b>Connectors</b>	2 x Speakon NL4	2 x Speakon NL4	2 x Speakon NL4	2 x Speakon NL4	1 x XLR In/Out	4 x Speakon NL4
<b>Housing</b>	12-mm (1/2"), 9-ply birch	18-mm (3/4"), 13-ply birch	18-mm (3/4"), 13-ply birch	18-mm (3/4"), 13-ply birch	18-mm (3/4") 13-ply birch	18-mm (3/4") 13-ply birch
<b>Angles up</b>	45° (monitor application)	47° + 18° (monitor)	47° + 18° (monitor)	-	-	-
<b>Rigging hardware</b>	9 x M8 threaded bushings	2 x Aeroquip fly tracks 2 x M10 threaded bushings	2 x Aeroquip fly tracks 2 x M10 threaded bushings	-	-	-
<b>Pole mount</b>	MonoTilt 3°	TripleTilt Ø 35 mm, +5°, -3°, -10°	TripleTilt Ø 35 mm, 5°, -3°, -10°	M20 plate	-	-
<b>Dimensions (W x H x D)</b>	23.5 x 40.5 x 23.5 cm	38 x 62 x 34 cm	45 x 69.6 x 39.6 cm	50 x 60 x 68 cm	120 x 56 x 79 cm	120 x 56 x 79 cm
<b>Weight</b>	8 kg, 17.6 lbs	25 kg, 55 lbs.	33 kg	42,5 kg	98 kg	88 kg

\* half-space



# CONTOUR ARRAY



## **Maximum Efficiency**

A Profitable Line Array with Professional DNA

## CONTOUR ARRAY

HK Audio has bridged the gap between conventional near-field systems and big line arrays: With CONTOUR ARRAY, you finally have a rig that lets you deploy this technology profitably for sound reinforcement scenarios where in the past it simply did not pay to set up line arrays.

CONTOUR ARRAY readily scales from a small club system to a two-meter array for larger events. Flown, stacked or deployed as a satellite system, it does

exactly what you want it to do. Like the COHEDRA and COHEDRA COMPACT rigs, CONTOUR ARRAY is equipped with our Acoustic Lens technology to produce very precise directivity and maximum efficiency in the mid- and high-frequency ranges. The fine-tuned combination of active circuitry and perfectly matched speakers ensures uniform and transparent sound even at highest volumes.



### CTA 208

The CTA 208 mid/ high unit excels at generating a stable line array wave-front that travels great distances. Largely impervious to the adverse effects of wind, it is loaded with two 8" neodymium speakers and four 1" drivers. The combination of its HK AUDIO Acoustic Lens and the DDO-Pro technology in the CTA 118 subwoofer of the same line delivers the ultimate in natural-sounding response.

The special DualCurve rigging system offers 0° and 9° tilt angles to facilitate both long-throw and near-field applications: Set to 0°, the individual mid/ high units are not articulated; instead they form a stable and remarkably coherent wave. This maximizes frequency bundling effects, thereby maximizing range.

### CTA 118 SUB A

This direct-loaded 18" subwoofer comes with a DDO-Pro digital controller and two 1,000-watt PWM power amps on board. One drives the subwoofer's 18" speaker; the other is configured by the controller to drive a mid/ high unit; that is, a CONTOUR SERIES CT 108, CT 112 or CT 115 enclosure. The CTA 118 SUB delivers low-ranging, uniform and punchy bass response, rendering peaks with power and authority even at highest loads.



## Accessories



### ConTour Array Rigging Frame

Designed for flying up to four CTA 208 mid/ high units, this harness is TÜV/ BGV-C1 certified.



### ConTour Array Stacking Plate

Serving to connect ground-stacked CTA 118 Sub and CTA 208 units, the plate's tilt angle adjusts in 1.5° steps up to 9° max. It is TÜV/ BGV-C1-certified.



### CTA 118 Dolly

Butterfly latches instantly fix the bins in place. The factory-included dolly protects the active circuitry against dirt and damage during transport.



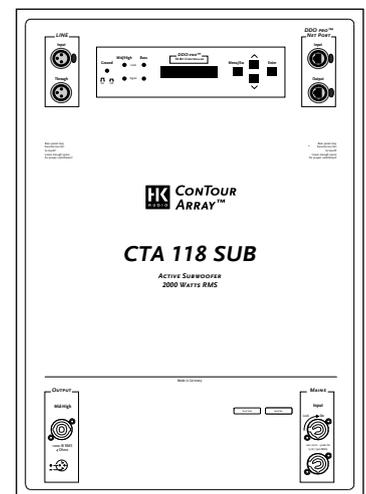
### CTA 208 Flight Case & Protective Covers

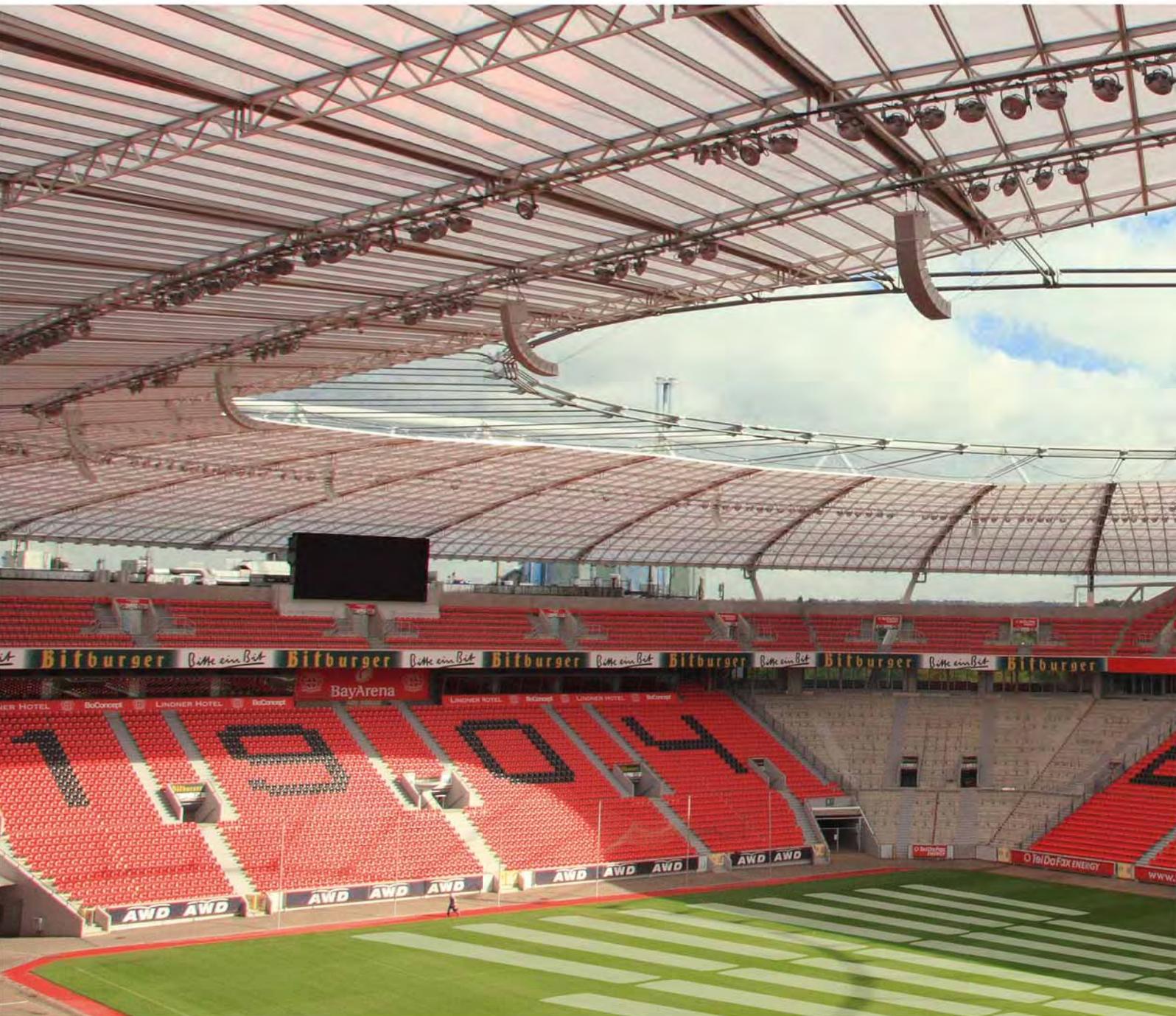
Optional padded protective covers and flight cases with heavy-duty fittings and 100-mm Blue Wheels are available for all models.

## Technical Specifications

	CTA 208	CTA 118 Sub A
<b>Power-handling, nominal</b>	500 W RMS	-
<b>Power handling, program/peak</b>	1,000 W / 1,500 W	-
<b>Power output, subwoofer</b>	-	1,000 W Class-D @ 4 Ω
<b>Power output, mid/ high</b>	-	1,000 W Class-D @ 4 Ω
<b>Frequency response +/-3 dB</b>	95 Hz – 19 kHz	42 Hz – x-over
<b>Frequency response -10 dB</b>	80 Hz – 20 kHz	36 Hz – x-over
<b>Directivity</b>	100° horizontal	-
<b>Sensitivity 1 W @ 1 m*</b>	105 dB	101 dB
<b>Max. SPL calculated*</b>	138 dB	134 dB
<b>Max. SPL peak @ 10% THD*</b>	136 dB***	133 dB
<b>Max. SPL @ 10% THD*</b>	134 dB (200 Hz – 5 kHz)***	130 dB (50 Hz – 200Hz)
<b>Nominal impedance</b>	8 Ω	
<b>Low-/ midrange woofer</b>	2 x 8"	1 x 18"
<b>HF driver</b>	4 x 1", 2" voice coil	
<b>X-over frequency</b>	2 kHz, 12 dB/octave	Filter set-controlled
<b>Connectors</b>	2 x Speakon NL4	1 x XLR In/Through, 1 x Speakon Out NL4
<b>Housing</b>	15/18-mm, 9/13-ply birch	18-mm, 13-ply birch
<b>Rigging hardware</b>	DualCurve, integrated with quick-release pins	-
<b>Pole mount</b>	DuoTilt 3°/7°	M20 plate
<b>Dimensions (W x H x D)</b>	51 x 52.5 x 34.6 cm	51 x 73 x 71 cm
<b>Weight</b>	29 kg, 63.9 lbs	59 kg, 130 lbs

\* half-space \*\*\* measured with 2x CTA 208 mid/ high units





# CADIS



**Top Performance Regardless of Wind and Weather**

Versatile Line Array for Installation Indoors and Out

## CADIS

CADIS was designed first and foremost to satisfy discriminating expectations for state-of-the-art installations in stadiums, theaters, clubs, and civic centers. It is noteworthy not only for its extraordinary flexibility and sonic performance, but also for the ruggedness of its components. The mid/ high unit sports a housing made of polyamide resin, an especially durable, weatherproof space-age plastic. This resin also happens to be remarkably anti-resonant; hence the units' excellent acoustical properties.

Inconspicuous installation is easy and convenient courtesy of its unobtrusive yet upscale design and the handy three-point rigging system. Black and white models are standard, and versions in any RAL color can be special-ordered. Simulation software and the requisite specifications (Ease Focus 2) are included with the CADIS system.



### CAD 208

This mid/ high unit is loaded with two 8" midrange speakers, two 1" high-frequency drivers with a concentric double horn, and a 2.5-way crossover. It handles up to 500 watts and its horns' 100° x 15° throw pattern reaches far and wide. Just eight mid/ high units deliver full-fledged fullrange performance with excellent speech intelligibility down to the last

syllable. The rigging hardware accepts up to 24 CAD 208 mid/ high units to cover larger venues. In the stacked variant, up to eight mid/ high units and two subwoofers may be connected to the rigging frame. Given an HK AUDIO FIRNET Controller and a suitable power amp, the unit readily integrates into networked systems.



### CAD 115 SUB

This passive subwoofer sports a high-quality 15" neodymium woofer. Its hair-trigger response and impulse accuracy make it a perfect low-end complement to the CAD 208 mid/ high unit. It may be flown at will and deployed to augment the bass performance of a speech array. A CADIS system with just two subs and four mid/ high units will serve you well as a high-quality fullrange system for smaller venues.

### Accessories



#### CADIS Rigging Frame

This black rigging harness holds up to 24 flown CAD 208 units and, with the connector set, serves as the base for stacked configurations with the CAD 115 Sub. It is TÜV/BGV-C1-certified.



#### CADIS Connector Frame

This lightweight connector attaches CAD 115 subwoofers to CAD 208 mid/ high units. Up to ten mid/ high units may be installed below a flown CAD 115 Sub bin.



#### CADIS Wall Mount

The CADIS wall mount consists of a T-shaped yoke and a mounting bracket. Up to four 4 mid/ high units may be mounted to walls at various angles to provide the best possible alignment.



#### CADIS Ceiling Mount

The CADIS ceiling mount accepts up to three CAD 208 mid/ high units to suspend them directly from the ceiling.



### Sub Connector Set

These eight quick-release pins and four connectors attach the rigging frame to a CAD 115 Sub or connect two CAD 115 Subs.



### T 1

T-bracket including one attached connector and two quick-release pins for up to four CAD 208s



### ST 1

ST1 skate/ carriage for the T bracket with safety eyelet; includes two M10x12 set screws and two M8 screws



### Arakno 3D Adapter

3D-adjustable angle adapter, ARAKNO connector with 2 x 20 mm system bolts



### MA 1

Connector, system double bolt, stainless steel, D = 20 mm, L = 46.5 mm



### MA 2

Pole connector casing with bolt fixture, 36 mm inside, to system bolt, D = 20 mm



### MA 3 7,5°

Angle adapter kit, 7.5° fixed; stainless steel with two angle adapters and two 8 x 17 quick-release pins for additional set angles



### MA 4

System bolt adapter, 20 mm to M12 female thread, stainless steel



### MB 6

Wall-mount bracket with safety eyelet including two M10x12 set screws



### MB 7

Ceiling mount accepts the 20-mm system double bolt, including two M10x12 set screws



### Touring Case

Safely transports four or eight CAD 208s, with 100-mm Blue Wheels



### Dolly

Removable dolly with butterfly latches for the CAD 115 Sub with 100-mm Blue Wheels

## Technical Specifications

	CAD 208		CAD 115 Sub
Frequency response +/- 3 dB	75 Hz/100 Hz – 18 kHz (depending on controller & length)	Frequency response +/- 3 dB	47 Hz – 150 Hz
Axial sensitivity, 1 W @ 1m*	101 dB	Frequency response -10 dB	42 Hz – 150 Hz
Max. SPL @ 10% THD (4 x CAD 208)	136 dB	Axial sensitivity 1 W @ 1 m*	102 dB (50 Hz- 200 Hz)
Nominal impedance	8 Ω	Max. SPL	128 dB (60 Hz – 150 Hz)
Power-handling, nominal	250 W RMS, 500 W program	Max. SPL peak	131 dB (70 Hz – 90 Hz)
Speakers	2 x 8" Speaker	Max. SPL calculated	135 dB (2,400 W Peak)
HF driver	2 x 1"	Nominal impedance	8 Ω
Directivity	100° horizontal, 15° vertical	Power handling	600 W RMS
X-over frequency	1.8 KHz, 12 dB/octave	Speaker	1 x 15" neodymium woofer
Connectors	2 x Speakon NL 4 (standard), external terminal (optional), PG gland, internal terminal (optional)	Connectors	2 x Speakon NL 4
Housing	Polyamide	Housing	18-mm birch plywood
X-over	2.5 passive	X-over	Via external controller
Filter	X-over controller	Finish	Black or white, further RAL colors optional
Finish	Black or white, further RAL colors optional	Grille	Metal
Grille	Metal	Rigging hardware	4 fly tracks
Rigging hardware	Integrated 3-point	Weight	38 kg, 83.8 lbs
Adjustable curving angles	0°, 1.5°, 3°, 4.5°, 6°, 7.5°, 9°, 10.5°, 12°, 13.5° 15°	Dimensions (W x H x D)	58.3 x 57.3 x 64 cm
Weight	17.5 kg passive, 16.4 kg tri-amped (without internal passive x-over)		
Dimensions (W x H x D)	57.8 x 23.8 x 37.3 cm		
Max. number of enclosures per array	Up to 24 x CAD 208		

\* half-space



# COHEDRA COMPACT



**Professional and Versatile**

Line Array System for Audiences of Up to 3,000

## COHEDRA COMPACT

Industry events, club gigs and smallish open-air rock concerts - COHEDRA COMPACT lets you roll out line arrays in venues that in the past have been the domain of conventional PAs. This rig provides plenty of oomph to keep up to 3,000 listeners entertained. And the versatility and utility that comes courtesy of the compact dimensions, light weight and easy stacking is nothing short of amazing.



COHEDRA COMPACT features the same advanced Acoustic Lens, real CD horns and compression chambers for midrange speakers as its bigger brother. The added reach, awesome dynamic range, and fantastic fidelity are sure to delight you and your audiences. What's more, COHEDRA and COHEDRA COMPACT can be readily combined.



### CDR 108 C

This is a 1 x 8" / 2 x 1" mid/high unit with 100° horizontal directivity. An array composed of CDR 108 C mid/ high units delivers natural-sounding dynamic response and impressive range thanks to the 1" drivers featuring Acoustic Lens technology, a bona fide CD horn design, and 8" midrange speakers housed in compression chambers. Rigging hardware with quick-release pins is fully integrated in the housing.



### CDR 210 C

This direct radiating 2 x 10" subwoofer's response is exceedingly faithful, culminating in powerful and natural-sounding low-end performance. The compact dimensions and integrated rigging hardware afford maximum flexibility for both flown and stacked setups. A special coating protects the cabinets against dirt and moisture.

## Accessories



### COHEDRA COMPACT Standard Rigging Frame

This rigging harness holds up to 16 CDR 108 Cs and, with the connector set, serves as the base for stacked configurations with the CDR 210 C Sub. It is TÜV/BGV-C1-certified.



### COHEDRA COMPACT Connector Set

These eight quick-release pins and four connectors attach the rigging frame to a CDR 210 C or connect two CDR 210 Cs.



### CDR 108 C Flightcase

Safely transports four CDR 108 Cs and a standard-rigging frame, with 100-mm Blue Wheels.



### CDR 210 C Protective Cover

These tailored covers made of extremely tear-resistant, water-repellent nylon protect the units, with slots affording access to the carrying handles.



### CDR 210 C Dolly

Removable dolly for the CDR 210 C Sub with butterfly latches and 100-mm Blue Wheels.

## Technical Specifications

	CDR 108 C	CDR 210 C
<b>Power-handling, nominal (RMS)</b>	250 W	600 W
<b>Power handling, peak</b>	1,000 W	2,400 W
<b>Power handling, program</b>	500 W	1,200 W
<b>Frequency response +/- 3 dB</b>	88 Hz - 19 kHz	47 Hz - x-over
<b>Nominal impedance</b>	16 Ω	8 Ω
<b>Axial sensitivity 1 W @ 1m*</b>	107 dB	104 dB
<b>Max. SPL @ 10% THD*</b>	136 dB	139 dB
<b>Connectors</b>	2 x Speakon NL 4	2 x Speakon NL 4
<b>Woofers</b>	1 x 8" with compression chamber	2 x 10"
<b>HF driver</b>	2 x 1" with Cohedra Acoustic Lens	-
<b>HF horn</b>	100° CD horn	-
<b>Corner frequency, passive x-over</b>	800 Hz, 12 dB /oct.	Controller-driven
<b>Rigging/ pick points</b>	Integrated rigging hardware	Integrated rigging hardware
<b>Grips</b>	2, integrated	3, integrated
<b>Housing</b>	15-mm, 13-ply birch	18-mm, 13-ply birch
<b>Front grille</b>	Impact-resistant steel grille	Impact-resistant steel grille
<b>Finish</b>	2-component PU enamel, black	2-component PU enamel, black
<b>Dimensions (W x H x D)</b>	50 x 26 x 32.5 cm	60 x 50 x 63 cm
<b>Weight</b>	17.9 kg, 39.5 lbs	48 kg, 105.8 lbs

\*half-space



# COHEDRA



**Convenient Coverage for Big Venues**

Line Array System for Audiences of Up to 50,000

## COHEDRA

A line array with plenty of coverage for up to 50,000 spectators, the uninitiated would say COHEDRA is certainly a big rig. Surprise, surprise: It is far more compact and lighter than comparable systems. A single one-ton motor hoist is all it takes to fly a 24-unit array. COHEDRA may be operated with and without flown

subs (CDR 210 F), although the sonic image from a line source with CDR 210 F units will be fuller. Nonetheless, it is this flexibility, among other budget-friendly factors, that makes the system such an economically efficient proposition. Both COHEDRA and COHEDRA COMPACT feature the same contingent

of advanced Acoustic Lens, real CD horns and compression chambers for midrange speakers. The added reach, awesome dynamic range, and fantastic fidelity attained by these features are a boon to audiences and audio engineers alike. And for even more versatility, COHEDRA and COHEDRA COMPACT can be readily combined.



### CDR 208 S/T

This 2x 8"/1.4" mid/ high unit with 80° horizontal directivity delivers faithful dynamic response and greater range courtesy of its COHEDRA Acoustic Lens, CD horn design, and compression chambers for midrange drivers. Equipped with fully integrated rigging hardware with quick-release pins, the two CDR 208 S and T housing variants come in two forms to curve the array in different ways while minimizing side lobes.



### CDR 210 F

This direct-radiating, flyable (2 x 10") subwoofer has the same basic shape as the CDR 208 S/T mid/ high units and can be flown with the same rigging hardware. The enclosure is sloped on top and bottom to enable flown bass arrays to be curved (up to 20 CDR 210 F units). The subs may be mounted on the rigging frame above the mid/ high units, flown as a separate bass array, or serve as the base for ground-stacked mid/ high units.



### CDR 210 SUB

This direct-radiating (2 x 10") subwoofer delivers remarkably faithful impulse response for crisp, natural-sounding low-end performance. The CDR 210 Sub's compact design gives you maximum flexibility—left-right clusters, quad blocks, sub arrays—in configuration. A special coating protects the speakers against dirt and moisture.



## Accessories



### COHEDRA Rigging-Hardware

Fly harness with upper and lower rigging frame for up to 24 CDR 208 S/T mid/high units or 12 CDR 210 F bins, including lashing strap; TÜV/BGV-C1-certified



### COHEDRA Stack Frame

Special frame for ground stacks with CDR 208 S/T and/or CDR 210 F units, including four adjustable spindle feet to compensate for uneven flooring



### CDR 208/CDR 210 F Mid/High Case

Safely transports four CDR 208 S/T or two CDR 210 F units, with 100-mm Blue Wheels



### CDR 210 SUB Bass Dolly

Special dolly for four CDR 210 units, with 100-mm Blue Wheels and lashing strap



### CDR 210 SUB Protective Cover

Made of extremely tear-resistant, water-repellent nylon, this tailored zippered cover protects four CDR 210 units on the bass dolly (not included).

## Technical Specifications

	CDR 208 S/T	CDR 210 F	CDR 210 Sub
Power handling, nominal (RMS)	500 W	600 W	600 W
Power handling, peak	2,000 W	2,400 W	2,400 W
Power handling, program	1,000 W	1,200 W	1,200 W
Frequency response +/- 3 dB	88 Hz – 16 kHz	47 Hz – x-over	47 Hz – x-over
Nominal impedance	8 Ω	8 Ω	8 Ω
Axial sensitivity 1 W @ 1 m*	108 dB	104 dB	104 dB
Max. SPL @ 10% THD*	138 dB (measured with 4 x CDR 208)	139 dB (measured with 4 x CDR210F)	139 dB
Connectors	2 x Speakon NL 4	2 x Speakon NL 4	2 x Speakon NL 4
Bass woofer	2 x 8"	2 x 10"	2 x 10"
HF driver	1.4"	-	-
HF horn	80° CD horn	-	-
Corner frequency, passive x-over	800 Hz, 12 dB/oct.	Controller-driven	Controller-driven
Rigging/ pick points	Integrated rigging hardware	Integrated rigging hardware	-
Grips	2, integrated	-	-
Optional accessories	Touring flight case for 4 x CDR 208,	Touring flight case for 2 x CR 210 F	Protective cover, dolly
Housing	15/18-mm, 13-ply birch	18-mm, 13-ply birch	18-mm, 13-ply birch
Front grille	Impact-resistant steel grille	Impact-resistant steel grille	Impact-resistant steel grille
Finish	2-component PU enamel, black	2-component PU enamel, black	2-component PU enamel, black
Dimensions (W x H x D)	65 x 25.5 x 60 cm (CDR 208T) 65 x 24 x 60 cm (CDR 208S)	65.5 x 48.2 x 59.4 cm	110 x 32 x 40 cm
Weight	30 kg, 66.1 lbs	41 kg, 90.4 lbs	32 kg, 70.5 lbs

\* half-space



# VORTIS



**Muscular Performance, Stylish Visuals**

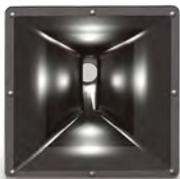
Passive Fullrange Speakers for Upscale Installations

## VORTIS

The VORTIS series was engineered specifically to live up to the towering expectations for today's upscale indoor installations. It comprises of six high-performance enclosures. Notably, these passive fullrange speakers' coverage pattern may be adjusted individually. Their hallmark feature is a newly developed set of high-frequency horns with the same dimensions but different directivities. The horns' mouths are square so they can all be rotated, giving sound designers and audio techs plenty of patterns to choose from when installing these speakers.

Three choices of horn are available for each cab:

- 60° horizontal x 40° vertical
- 90° horizontal x 55° vertical
- 60° - 90° horizontal, (asymmetrical) x 55° vertical



60° x 40°



90° x 55°



asymmetric

VORTIS series cabinets blend nicely with the architecture of both modern and classic buildings thanks to their stylish look of subdued elegance. Fronts are covered in an acoustical grille cloth that, like the housings, comes in black and white and is available at short notice in many RAL colors.

The MDF are coated with impact-resistant paint and equipped with M10 threaded bushings for HK Audio mounting hardware.



CADIS is optionally available in all RAL colors



### **VR 10810**

A two-way fullrange speaker housed in a bass reflex enclosure, the VR10810 is loaded with an 8" woofer and a 1" high-frequency driver coupled to a constant directivity horn. It is an excellent solution for speech reinforcement and smaller fullrange applications, and will serve you well as the mid/ high unit in configurations with a subwoofer such as the compact HK AUDIO IL 112 Sub or IL 115 Sub. It is also the perfect complement to larger speakers, for instance, in delay lines and for near-field coverage.



### **VR 11210**

A two-way fullrange speaker with a passive x-over, the VR 11210 is housed in a bass reflex enclosure designed for fixed installation. It is loaded with a 12" woofer and a 1" high-frequency driver coupled to a constant directivity horn. The VR 11210 is the perfect choice for smaller fullrange applications and for use as a mid/ high unit in configurations with a subwoofer such as the compact HK Audio IL 115 Sub or IL 118 Sub.



### **VR 11510**

A two-way fullrange speaker with a passive x-over, the VR 11510 is housed in a bass reflex enclosure loaded with a 15" woofer and a 1" high-frequency driver coupled to a constant directivity horn. The VR 11510 is ideal for midsized fullrange applications requiring extended low-frequency response, and for use as a mid/ high unit in configurations with a subwoofer such as the compact HK AUDIO IL 115 Sub or IL 118 Sub.



### **VR 11214**

A high-performance speaker with a passive x-over, the VR 11214 is housed in a bass reflex enclosure loaded with a 12" woofer and a 1.4" high-frequency driver coupled to a constant directivity horn. An installed VR 11214 is particularly well-suited for use as a mid/ high unit in long-throw applications. It excels at rendering live music in configurations with a subwoofer such as the compact HK AUDIO IL 115 Sub or IL 118 Sub. For larger and more complex sound reinforcement scenarios, we recommend that you operate this unit with the HK AUDIO FIRNET Controller.



### **VR 11514**

A high-performance speaker with a passive x-over, the VR 11514 is housed in a bass reflex enclosure loaded with a 15" woofer and a 1.4" high-frequency driver coupled to a constant directivity horn. A great choice of mid/ high unit for long-throw applications, it also stands out in the crowd with its ability to render live music in setups with a subwoofer such as the compact HK AUDIO IL 115 Sub or IL 118 Sub. The HK AUDIO FIRNET Controller comes highly recommended if you wish to operate this unit in larger and more complex rigs.



### **VR 21214**

A high-performance speaker with a passive x-over, the VR 21214 is housed in a bass reflex enclosure designed for fixed installation. It is loaded with two 12" woofers for extended low-frequency response and one 1.4" high-frequency driver coupled to a constant directivity horn. The VR 21214 is well-suited for use as a mid/ high unit in long-throw applications requiring high SPL. Paired with a subwoofer such as the compact HK AUDIO IL 115 Sub or IL 118 Sub, it excels at rendering live music. If you wish to configure larger, more intricate systems, you will find the HK AUDIO FIRNET Controller to be an invaluable asset.

## Accessories



### Rigging/ Pick Points

These fixtures serve to attach hardware such as shackles, making it easy to connect arrest wires.



### U-bracket with Mounting Plates

The U-bracket lets you mount speakers to walls and ceilings. You can aim and align cabinets as you see fit using a combination of speaker tilt unit and/or wall plate. The U-bracket ships with two mounting plates.



### Speaker Tilt with Angular Alignment

This adapter adjusts the tilt angle of cabinets in 5° steps up to a maximum of 45°. The U-bracket connects the enclosure and speaker tilt fixture.



### Wall Plate

This plate serves to mount cabinets to walls and ceilings. It lets you rotate the enclosure in 5° steps. You need either the U-bracket on its own or in combination with the speaker tilt to join the cabinet to the wall plate.



### Cluster Plate

Speaker cabinets may be clustered to widen their throw pattern and extend coverage. This cluster plate lets you array cabinets vertically and horizontally. You will need the extension plate to cluster more than two enclosures.



### Cluster Extension Plate

This extension plate is needed to cluster more than two enclosures. It serves as a shim for overlapping plates when clustering three enclosures.





## Technical Specifications

	VR 10810	VR 11210	VR 11510	VR 11214	VR 11514	VR 21214
<b>Power handling, nominal</b>	100 W	350 W	350 W	350 W	350 W	700 W
<b>Power handling, program</b>	200 W	700 W	700 W	700 W	700 W	1,400 W
<b>Power handling, peak</b>	400 W	1,400 W	1,400 W	1,400 W	1,400 W	2,800 W
<b>Frequency response -10 dB</b>	84 Hz - 20 kHz	61 Hz - 20 kHz	60 Hz - 20 kHz	62 Hz - 20 kHz	55 Hz - 20 kHz	60 Hz - 20 kHz
<b>X-over</b>	2-way passive	2-way passive	2-way passive	2-way passive	2-way passive	2.5-way passive
<b>X-over frequency</b>	1100 Hz, 2 <sup>nd</sup> order	1800 Hz, 2 <sup>nd</sup> order	1800 Hz, 2 <sup>nd</sup> order	990 Hz, 2 <sup>nd</sup> order	990 Hz, 2 <sup>nd</sup> order	800 Hz/ 1100Hz
<b>Sensitivity 1 W @ 1 m* (100 Hz - 20 kHz)</b>	101 dB	104 dB	106 dB	105 dB	106 dB	107 dB
<b>Max SPL @ 10% THD*</b>	124 dB	134 dB	135 dB	135 dB	136 dB	139 dB
<b>Nominal impedance</b>	16 Ω	8 Ω	8 Ω	8 Ω	8 Ω	4 Ω
<b>Woofers</b>	1 x 8"	1 x 12"	1 x 15"	1 x 12"	1 x 15"	2 x 12"
<b>HF driver</b>	1 x 1"	1 x 1"	1 x 1"	1 x 1.4"	1 x 1.4"	1 x 1.4"
<b>Horn versions: 60° x 40°, 90° x 55°, 60°- 90° x 55°</b>	Yes, rotatable	Yes, rotatable	Yes, rotatable	Yes, rotatable	Yes, rotatable	Yes, rotatable
<b>Directivity index</b>	Varies depending on the version of horn					
<b>Connectors</b>	1 x NL 4 2 x Terminal	1 x NL 4 2 x Terminal	1 x NL 4 2 x Terminal	1 x NL 4 2 x Terminal	1 x NL 4 2 x Terminal	1 x NL 4 2 x Terminal
<b>Housing</b>	MDF	MDF	MDF	MDF	MDF	MDF
<b>Filters</b>	Controller	Controller	Controller	Controller	Controller	Controller
<b>Finish</b>	Textured coating in all RAL colors					
<b>Metal grille covered in acoustical cloth</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Rigging/ pick points</b>	13 x M10	13 x M10	13 x M10	13 x M10	13 x M10	13 x M10
<b>Dimensions (W x H x D) in cm</b>	49 x 29 x 24 cm	60 x 42 x 40 cm	75 x 52 x 40 cm	74 x 42 x 40 cm	81 x 52 x 40 cm	109 x 42 x 40 cm
<b>Weight</b>	11 kg, 24.3 lbs	17 kg, 37.4 lbs	22 kg, 48.5 lbs	26 kg, 57.3 lbs	30 kg, 66.1 lbs	34 kg, 75 lbs

\*half-space



# IL SERIES



**As Natural as Reinforced Sound Gets**

Speakers for Permanent Installation

## IL Series

When we set out to develop Installation Line speakers, our top priority was to render the human voice in all its natural glory. Once we perfected the acoustics, we focused on the mechanical details. Robust speaker grilles, rugged and reliable connector ports, mounting options galore, and easy-to-use hardware and accessories — nothing less would do.



**IL 12.1**

A two-way, fullrange cabinet geared for high-quality voice and music reinforcement in theaters, pubs, sports arenas and multipurpose halls, clubs, etc., the IL 12.1 may be deployed as a fullrange or mid/ high unit in combination with the IL 115 Sub, IL 118 Sub or IL 218 Sub subwoofers.



**IL 12.2**

Tuned for voice and music applications, this fullrange cab offers extraordinary phase linearity, highest speech intelligibility, and considerable dynamic range. The IL 12.2 may be deployed as a fullrange or mid/ high unit in configurations with a subwoofer such as the IL 115 Sub, IL 118 Sub or IL 218 Sub. It is the consummate cab for voice and music applications demanding high SPL. Passive x-over on board.



**IL 15.1**

This fullrange cab delivers enhanced low-end response and great power handling capacity for high-quality voice and music sound reinforcement in bars, live venues, smaller clubs, theaters, and so forth. It may also be deployed as a mid/ high unit with IL 115 Sub, IL 118 Sub or IL 218 Sub subwoofers. Passive x-over on board.



**IL 15.2**

Designed for voice and fullrange applications, this cabinet's great dynamic range with powerful low-end response, extraordinary phase linearity, and excellent speech intelligibility predestine it for use in theaters, sports and multipurpose arenas, live venues, clubs, etc. It may be supplemented with a subwoofer such as the IL 118 Sub or IL 218 Sub. Passive x-over on board.



**IL 112 SUB**

An exceedingly compact, direct-loaded subwoofer, it delivers natural-sounding low end with minimal distortion. It is particularly well-suited for reinforcing IL 8.1, IL 82, IL 8.75, IL 12.1, and IL 12.2 cabinets. Built-in hi cut filter.



**IL 115 SUB**

This compact, direct-loaded subwoofer delivers natural-sounding low-end at impressively low distortion levels. It provides splendid bass support for IL 8.1, IL 82, IL 8.75, IL 12.1 and IL 12.2 cabinets. Hi cut filter on board.



**IL 118 SUB**

This high-performance, direct-loaded subwoofer delivers powerful, low-ranging and dynamic low-end response to reinforce fullrange cabs. Well-suited for installation in dance clubs, live venues and theaters, it is loaded with an 18" conical loudspeaker housed in a bass reflex enclosure.



**IL 218 SUB**

This ultra powerful, direct-loaded subwoofer delivers extremely low-ranging, punchy and precise bass response to support fullrange cabs. Designed for large theaters, halls, clubs, live venues and all applications demanding high SPL, it is the perfect complement to IL 12.1, IL 12.2, IL 15.1, and IL 15.2 enclosures.

## Accessories



**2" Horn 90° x 40°**  
**1" Horn 90° x 60°**

Horn conversion kits: Converts to a 90° x 40° horn for IL 12.2 and IL 15.2, and to a 90° x 60° horn for IL 8.1, IL 12.1 and IL 15.1



**MB 5**

Wall mount for IL 12.1, IL 15.1, IL 12.2, IL 15.2



**MC 1**

Wall mount for IL 12.1, IL 15.1, IL 12.2, IL 15.2



**TR 200**

Transformer with 0.5 m connecting cord and 200W, 100W, and 50W power taps for IL 12.1, IL 15.1, IL 12.2, and IL 15.2

## Technical Specifications

	<b>IL 12.1</b>	<b>IL 12.2</b>	<b>IL 15.1</b>	<b>IL 15.2</b>
<b>Q-factor</b>	9.68	10.43	11.5	15.54
<b>Power-handling, nominal (RMS)</b>	300 W	300 W	400 W	400 W
<b>Power handling, peak</b>	1,200 W	1,200 W	1,600 W	1,600 W
<b>Power handling, program</b>	600 W	600 W	800 W	800 W
<b>Frequency response +/- 3 dB</b>	83 Hz - 19 kHz	95 Hz - 19 kHz	68 Hz - 19 kHz	68 Hz - 19 kHz
<b>Frequency response -10 dB</b>	67 Hz - 19 kHz	65 Hz - 19 kHz	50 Hz - 19 kHz	50 Hz - 19 kHz
<b>Nominal impedance</b>	8 Ω	8 Ω	8 Ω	8 Ω
<b>Axial sensitivity 1 W @ 1m*</b>	104 dB	107 dB	106 dB	107 dB
<b>Max. SPL @ 10% THD*</b>	131 dB	133 dB	131 dB	133 dB
<b>Max. SPL @ 3% THD*</b>	125 dB	126 dB	126 dB	126 dB
<b>Connectors</b>	1 x Speakon NL 4 1 x binding posts	1 x Speakon NL 4 1 x binding posts	1 x Speakon NL 4 1 x binding posts	1 x Speakon NL 4 1 x binding posts
<b>Bass woofer</b>	12"	12"	15"	15"
<b>HF driver</b>	1" exit throat	2" exit throat	1" exit throat	2" exit throat
<b>Horn directivity</b>	60° x 40° (90° x 60°)	60° (90°) x 40°	60° x 40° (90° x 60°)	60° (90°) x 40°
<b>Directivity index</b>	8.40 dB	8.65 dB	9.22 dB	9.04 dB
<b>Corner frequency, passive x-over</b>	2 kHz, 12 dB / oct.	900 Hz, 12 dB / oct.	2 kHz, 12 dB / oct.	900 Hz, 12 dB / oct.
<b>Rigging/ pick points</b>	12 x M10 threaded bits for attaching mounting hardware	12 x M10 threaded bits for attaching mounting hardware	12 x M10 threaded bits for attaching mounting hardware	12 x M10 threaded bits for attaching mounting hardware
<b>Housing</b>	16-mm MDF	16-mm MDF	16-mm MDF	16-mm MDF
<b>Front grille</b>	Impact-resistant steel grille	Impact-resistant steel grille	Impact-resistant steel grille	Impact-resistant steel grille
<b>Finish</b>	Black or white acrylic enamel			
<b>Dimensions (W x H x D)</b>	42 cm x 59 cm x 41 cm	42 cm x 64 cm x 41 cm	48.5 cm x 76.6 cm x 54.5 cm	48.5 cm x 76.6 cm x 54.5 cm
<b>Weight</b>	22 kg, 48.5 lbs	30 kg, 66.1 lbs	34 kg, 75 lbs	39 kg, 86 lbs
	<b>IL 112 Sub</b>	<b>IL 115 Sub</b>	<b>IL 118 Sub</b>	<b>IL 218 Sub</b>
<b>Power-handling, nominal (RMS)</b>	150 W	600 W	400 W	1,200 W
<b>Power handling, peak</b>	500 W	2,400 W	1,600 W	4,800 W
<b>Power handling, program</b>	250 W	1,200 W	800 W	2,400 W
<b>Frequency response +/- 3 dB</b>	75 Hz - 130 Hz	52 Hz - 130 Hz	46 Hz - 250 Hz	39 Hz - 250 Hz
<b>Frequency response -10 dB</b>	65 Hz - 230 Hz	48 Hz - 230 Hz	37 Hz - 250 Hz	32 Hz - 250 Hz
<b>Nominal impedance</b>	8 Ω	8 Ω	8 Ω	4 Ω
<b>Axial sensitivity 1 W @ 1 m*</b>	102 dB	102 dB	102 dB	104 dB
<b>Max. SPL @ 10% THD*</b>	115 dB	125 dB	128 dB	133 dB
<b>Max. SPL @ 3% THD*</b>	-	-	-	124 dB
<b>Connectors</b>	1 x Speakon NL41 pair of binding posts	1 x Speakon NL41 pair of binding posts	1 x Speakon NL41 pair of binding posts	1 x Speakon NL 4 1x binding posts
<b>Bass woofer</b>	12"	15"	18"	2 x 18"
<b>Corner frequency, passive x-over</b>	150 Hz / 12 dB per octave	150 Hz / 12 dB per octave	-	-
<b>Housing</b>	16-mm MDF	16-mm MDF, bass reflex	19-mm MDF	16-mm MDF
<b>Front grille</b>	Impact-resistant steel grille	Impact-resistant steel grille	Impact-resistant steel grille	Impact-resistant steel grille
<b>Finish</b>	Black or white acrylic enamel			
<b>Dimensions (W x H x D)</b>	55 x 42 x 43 cm	54 x 45.5 x 62.5 cm	71.7 x 51.8 x 70 cm	129 x 52 x 70 cm
<b>Weight</b>	23 kg, 50.7 lbs	29 kg, 64 lbs	38 kg, 83.7 lbs	62 kg, 136.7 lbs

\* half-space



### **IL 60-CT**

A compact two-way speaker that mounts into ceilings, it is loaded with a direct-radiating 6.5" conical woofer and a 3/4" HF tweeter. It is well-suited for background and near-field sound reinforcement in foyers, boutiques, bars, restaurants, shopping centers, airports, train stations and so forth. A passive x-over with a 100V transformer is on board, offering five power taps that may even be selected after installation.



### **IL 60-CTC**

This compact two-way speaker housed in a metal enclosure installs into ceilings. Loaded with a direct-radiating 6.5" conical woofer and a 3/4" tweeter, it is an excellent choice for background and near-field coverage in foyers, boutiques, bars, restaurants, shopping centers, airports, train stations and the like. It features a built-in passive x-over with a 100V transformer offering five power taps that selectable via a rotary switch.



### **IL 80-CT**

A compact two-way unit designed for in-ceiling installation, it is loaded with a direct-radiating 6.5" conical woofer and a 3/4" tweeter. It is a great choice for background and near-field sound reinforcement in foyers, boutiques, bars, restaurants, shopping centers, airports, train stations and similar venues. A passive x-over with a 100V transformer is built in, offering five power taps that may even be selected after installation.



### **IL 60-TB/TW & IL 80-TB/TW**

These remarkably compact, two-way fullrange enclosures are driven by built-in passive x-overs. Loaded with direct-radiating 6.5" (8") conical woofers in bass reflex housings and 1" tweeters, they are perfect for covering shorter distances in bars, foyers, and the like. Courtesy of their compact dimensions, they integrate inconspicuously into every room.



### **IL 82**

A compact cabinet for voice and fullrange applications, the IL 82 provides exceptional speech intelligibility for background and near-field sound reinforcement, for example, in foyers, lecture halls, bars and clubs. The IL 82 may be combined with the IL 112 Sub or IL 115 Sub. Passive x-over on board.



### **IL 8.1**

A decidedly compact cabinet for voice and fullrange applications, it delivers extraordinary phase linearity, speech intelligibility, and dynamic range. It may be deployed with the IL 112 Sub or IL 115 Sub, and is ideal for decentralized public address, presentations, near-field sound reinforcement, and so forth. Passive x-over on board.



### **IL 8.75**

This horn-loaded, two-way, fullrange ceiling-mount enclosure offers extraordinary fidelity, particularly for speech, and excellent directivity. It is ideal for lecture and conference halls, fairs, airports and the like. Passive x-over on board.

## Accessories



### MS 1

Mounting bracket for the IL 8.1 and IL 82; with rotatable connector



### MS 2

Speaker pole mount for the IL 8.1 and IL 82 and as a supplement to the MS 1



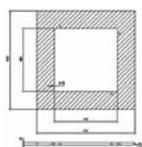
### MS 4

Cluster plates (one pair) for IL 82, IL 8.1 models



### MB 4

Wall mount for IL 82, IL 8.1, and IL 8.75



### Ceiling Mount Frame

For the IL 8.75



### EB 8/EB 10

Serves to attach arrest wires and rigging hardware such as chains and steel cables to fly speakers



### TR 50

Transformer with 0.5m connecting cord and 50W, 25W and 12.5W power taps for IL 82, IL 8.1, and IL 8.75

## Technical Specifications

	IL 60-CT	IL 60-CTC	IL 80-CT	IL 60-TB/TW	IL 80-TB/TW	IL 82	IL 8.1	IL 8.75
<b>Power handling, nominal (RMS).</b>	40 W	40 W	60 W	40 W	60 W	100 W	200 W	100 W
<b>Power handling, peak</b>	80 W	80 W	120 W	80 W	120 W	300 W	600 W	400 W
<b>Power handling, program</b>	120 W	120 W	180 W	120 W	180 W	200 W	300 W	200 W
<b>Frequency response +/- 3 dB</b>	70 Hz - 20 kHz	70 Hz - 20 kHz	60 Hz - 20 kHz	70 Hz - 20 kHz	60 Hz - 20 kHz	120 Hz - 18 kHz	100 Hz - 19 kHz	100 Hz - 19 kHz
<b>Frequency response - 10 dB</b>	60 Hz - 20 kHz	60 Hz - 20 kHz	50 Hz - 20 kHz	60 Hz - 20 kHz	50 Hz - 20 kHz	90 Hz - kHz	75 Hz - 21 kHz	68 Hz - 22 kHz
<b>Nominal impedance</b>	8 Ω	8 Ω	8 Ω	8 Ω	8 Ω	16 Ω	16 Ω	8 Ω
<b>Axial sensitivity 1 W @ 1 m*</b>	89 dB	89 dB	89 dB	89 dB	89 dB	103 dB	101 dB	102 dB
<b>Max. SPL @ 10% THD*</b>	106 dB	106 dB	106 dB	106 dB	109 dB	125dB	129 dB	128 dB
<b>Max. SPL @ 3% THD*</b>	104 dB	104 dB	104 dB	104 dB	107 dB	116 dB	-	-
<b>Connectors</b>	1 terminal strip, 1, 2, 4, 8, 15 W, Off	1 terminal strip, 1, 2, 4, 8, 15 W, Off	1 terminal strip, 1, 2, 4, 8, 15 W, Off	1 terminal strip, 2, 5, 10, 20, 30 W, Off	1 terminal strip, 2, 5, 10, 20, 40 W, Off	-	2 x Speakon NL4, 1 pair of binding posts	1 pair of binding posts
<b>Speaker</b>	-	-	-	-	-	-	8"	8"
<b>Low-/midrange woofer</b>	6.5" conical speaker	6.5" conical speaker	8" conical speaker	6,5"	8"	8"	-	-
<b>HF driver</b>	¾" tweeter	¾" tweeter	1" tweeter	1" tweeter	1" tweeter	Ceramic	1"	¾"
<b>Horn directivity</b>	-	-	-	-	-	-	90° x 60°	60° x 60°
<b>Corner frequency, passive x-over</b>	3 kHz	3 kHz	3 kHz	2.5 kHz	2.5 kHz	6 kHz / 12 dB octave	1.8 kHz / 12 dB octave	X-over: 2 kHz / 12 dB octave
<b>Rigging/ pick points</b>	-	-	-	-	-	-	9 x M8 for attaching hardware	4 x M8 for attaching hardware
<b>Housing</b>	Polymer	Polymer	Polymer	Polymer	Polymer	-	12-mm MDF	16-mm MDF
<b>Front grille</b>	Metal	Metal	Metal	Metal	Metal	-	Impact-resistant steel grille	Matching color grille cloth
<b>Finish</b>	White	White	White	Black or white	Black or white	Black or white	Black or white	Black or white
<b>Dimensions (W x H x D)</b>	18 cm ø, 7 cm depth for installation	18 cm ø, 12.7 cm depth for installation	22 cm ø, 9.5 cm depth for installation	21.5 x 29 x 17.2 cm	27 x 37 x 22 cm	23,5 x 35 x 23 cm	23.5 x 40.5 x 23.5 cm	45 x 45 x 21.8 cm
<b>Weight</b>	1.2 kg, 2.6 lbs	1.7 kg, 3.7 lbs	1.4 kg, 3 lbs	3.4 kg, 7.4 lbs	5.4 kg, 11.9 lbs	5.5 kg, 12.1 lbs	8 kg, 17.6 lbs	16 kg, 35.3 lbs

\* half-space



# ELECTRONICS



## Control and Amplify

System Software, Controllers and Power Amps

## POWER AMPS

### CPQ 10

This cutting-edge, four-channel digital power amp delivers whopping 2,600 watts per channel at 4 ohms, and 3,600 watts at 2. If you run it in bridged mode with two outputs, each delivers 7,400 watts (at 4 ohms). But its power is not all that's impressive about this Class-D amp. The great dynamic range, excellent signal-to-noise ratio, and many protective circuits certainly sweeten the deal. It is the perfect powerhouse for all CONTOUR, COHEDRA and COHEDRA COMPACT cabinets.



#### Technical Specifications

<b>Amplifier type</b>	4-channel Class D
<b>Continuous power @ 2 W per channel</b>	3.600 W*
<b>Continuous power @ 4 W per channel</b>	2.600 W*
<b>Continuous power @ 8 W per channel</b>	1.300 W*
<b>Continuous power, bridged mode @ 4 W, 2 ch.</b>	7.400 W*
<b>Continuous power, bridged mode @ 8 W, 2 ch.</b>	5.300 W*
<b>Frequency response (<math>\pm 0.5</math> dB)</b>	20 Hz – 20 kHz
<b>THD @ 1dB at max. power output</b>	@ 1kHz < 0.08 %
<b>THD 20 Hz – 20 kHz</b>	0.15 %
<b>Gain</b>	26 dB
<b>Sensitivity</b>	16 dBu
<b>Input impedance</b>	20 kW
<b>Damping factor</b>	> 400 (8 W / 1 kHz)
<b>Protection</b>	DC, load, thermal, mains in-rush control
<b>Cooling</b>	Fan, airflow from front to back
<b>Inputs</b>	4 x XLR In
<b>Outputs</b>	4 x Speakon NL 4
<b>Dimensions (W x H x D)</b>	48.2cm x 8.8cm x 42.8cm
<b>Weight</b>	12 kg

\*) measured using a music signal with a crest factor of 4.8 (14dB)

### VX 2400

Offering utmost reliability, neutral response, excellent dynamics and massive headroom, the VX 2400 is the perfect powerhouse for CONTOUR SERIES systems. Protective circuits, front to back ventilation, Speakon connectors and binding posts, a ground lift switch and a switchable limiter make working life a lot easier for sound techs.



#### Technical Specifications

<b>Amp type</b>	H
<b>Continuous power @ 8 <math>\Omega</math></b>	750 W x 2
<b>Continuous power @ 4 <math>\Omega</math></b>	1,200 W x 2
<b>Continuous power, bridged mode</b>	2,400 W @ 4 $\Omega$
<b>Peak power @ 8 <math>\Omega</math></b>	1,200 W x 2
<b>Peak power @ 4 <math>\Omega</math></b>	2,150 W x 2
<b>Peak power, bridged</b>	4,350 W @ 4 $\Omega$
<b>Frequency response (<math>\pm 1</math> dB)</b>	20 – 20,000 Hz
<b>Signal-to-noise ratio</b>	- 106 dB
<b>THD - 20 Hz – 20kHz</b>	< 0.1% @ 4 $\Omega$
<b>Input impedance, balanced/un-balanced</b>	20,000 / 10,000 $\Omega$
<b>Input sensitivity</b>	1.4 VRMS
<b>Input gain</b>	36 dB
<b>Stereo/Mono/Bridge</b>	S/M/B
<b>Protective circuitry</b>	DC, load, thermal
<b>Limiter</b>	Peak
<b>Ventilation:</b>	Fan, front-to-back air flow
<b>Inputs</b>	2 x XLR, 2 x 1/4" jack, (un)balanced
<b>Outputs</b>	2x Speakon NL4, 2 x binding post
<b>Power consumption</b>	1,130 W typ. / 1,800 W max.
<b>2-<math>\Omega</math> / 4-<math>\Omega</math> mode</b>	4 $\Omega$ minimum load
<b>Dimensions (W x H x D)</b>	48.3 x 8.9 x 43.9 cm
<b>Weight</b>	19.8 kg

## CONTROLLERS

### FIRNET

Custom-designed for HK AUDIO systems, the FIRNET Linear Phase FIR Controller sports two inputs and four outputs. As its FIR filter technology, sophisticated AD/DA converters, and advanced DSPs attest, the experts who engineered it dipped into a deep well of more than ten years experience working with these technologies.

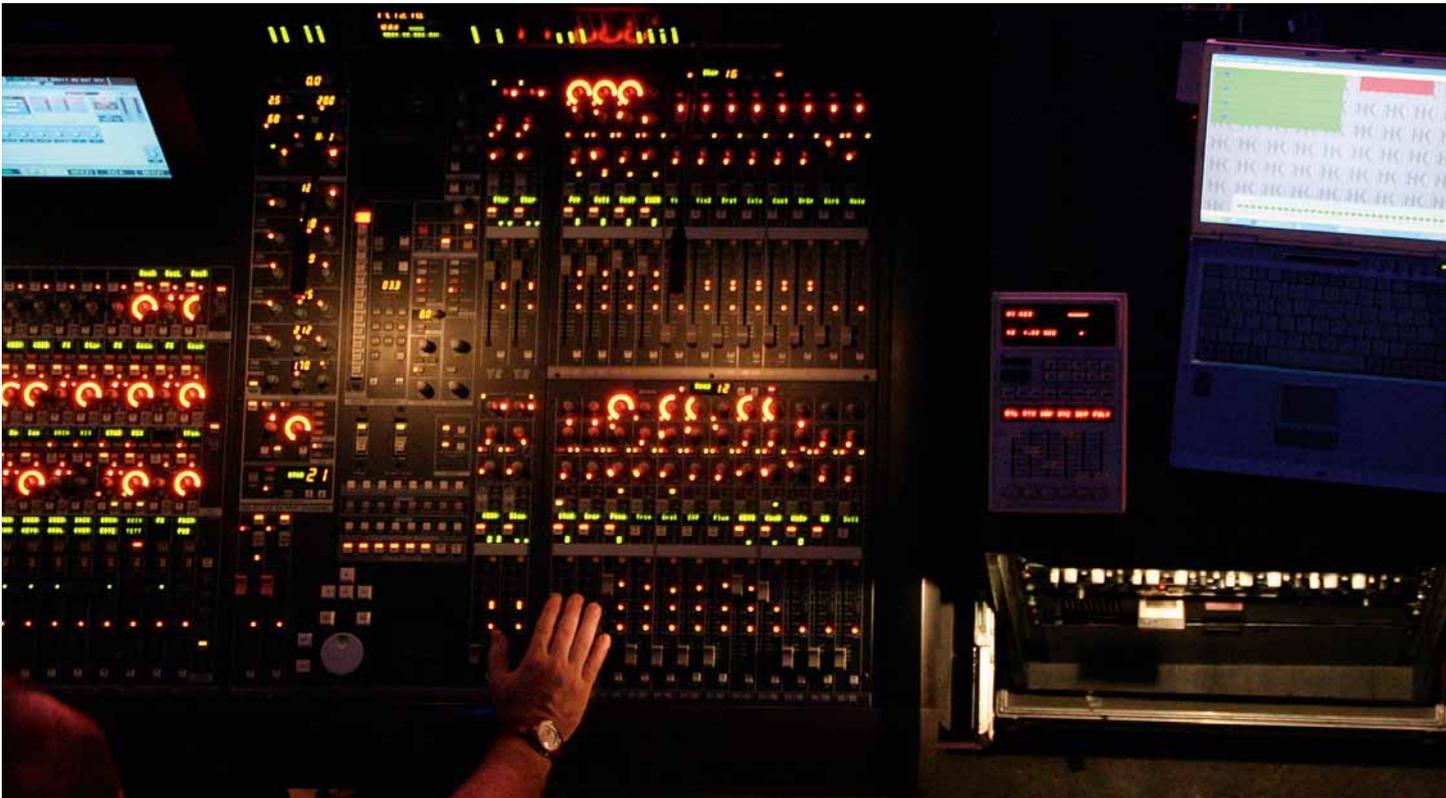
FIR (Finite Impulse Response) filtering technology enables total phase linearity among components (speaker, controller and amps). This means sound systems render the different frequency components of a sonic image coherently; that is, in time and faithfully. Differences in phase response no longer cause listening fatigue, dramatically improving the sonic image's clarity and sharpening its details.



#### Technical Specifications

The FIRNET controller also serves to equalize all components, including the speaker chassis, speaker enclosures, passive x-overs, and power amps.

The A/D converter's dynamic range exceeds 128 dB; the internal sampling frequency is 96 kHz. Together, this yields the highest definition and clarity, which translates to a remarkably transparent audio signal. And an ingenious combination of RMS limiters with overshoot functions and look-ahead peak limiters affords loudspeakers utmost protection.





## DSM 2060

The DSM 2060 is a freely configurable digital controller that delivers excellent audio quality for both touring rigs and permanently installed systems. It features two inputs and six outputs that may be configured individually for FOH and monitoring applications. Up to six parametric EQs and two additional shelving filters are available for every input and output.

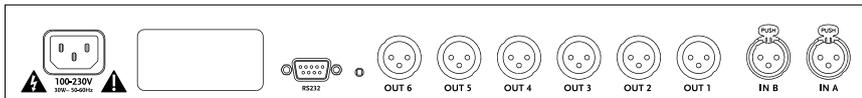
The DSM 2060 boasts powerful fourth-order and eighth-order Hardman filters that serve to configure x-overs. In contrast to conventional filters with steep slopes, Hardman filters preserve the signal's natural sound by minimizing phase shifting and group delay even at maximum

slopes. This results in extraordinarily smooth and precise transitions between frequencies and faster roll-off rates, thereby minimizing distortion, enabling lower x-over frequencies, and affording drivers greater protection.

The DSM 2060 sports high-end 24-bit, 96-kHz converters that ensure pure, unadulterated digital signal processing and frequency response ranging down to 40 kHz. The controller's flagship feature set comprises, alongside the aforementioned Hardman filters, Butterworth, Bessel, and Linkwitz-Riley x-overs with slopes from 6 to 24 dB. Podware lets you control the DSM 2060 remotely via laptop.

## Technical Specifications

<b>Analog inputs/outputs</b>	2 x In, 6 x Out
<b>Input impedance</b>	> 10 kΩ, electrically balanced
<b>Output impedance</b>	< 100 Ω, balanced to ground
<b>Maximum input level</b>	+ 20 dBu
<b>Maximum output level</b>	+ 22 dB 600 Ω
<b>Dynamic range, input</b>	> 112 dB A weighted (A/D)
<b>Dynamic range, output</b>	> 112 dB (A)
<b>Internal bit depth</b>	24-bit A/D, 24-bit D/A
<b>Frequency response (-1 dB)</b>	10 Hz – 40 kHz, -1 dB
<b>Output channel source</b>	Input A,B, Master A+B
<b>Filter type</b>	IIR
<b>Latency</b>	AD/DA 96 kHz, > 0.85ms
<b>Limiter</b>	High-perform. limiter, threshold-adjustable in 0.2 dB steps
<b>Options</b>	BVNet option module
<b>Delay</b>	Input 400 ms, Output 80 ms
<b>Network</b>	Optional
<b>Serial port</b>	RS232
<b>Mains</b>	IEC connector
<b>Mains voltage / frequency</b>	100 – 250 V / 50 – 60 Hz
<b>Power consumption</b>	19 w
<b>Weight</b>	2.7 kg
<b>Dimensions (W x H x D)</b>	48.2 x 4.4 x 25.4 cm



The optional BVNET module is available to manage several DSM 2060 controllers simultaneously and remotely. It installs quickly and conveniently by simply plugging it into the option slot on a controller's rear panel.

## PATCHBAYS & POWER DISTRIBUTOR



### PB 5

Reconfigurable without juggling cables and connectors, the PB 5 interfaces all COHEDRA components. It provides analog and digital inputs, as well as four speaker outputs wired to individual Speakon connectors and to NL8 multi-outs. Selector switches assign the mid/high or subwoofer signal to any power amp channel (speaker pair). This lets you configure any number of rack setups swiftly and easily.



### PB 2

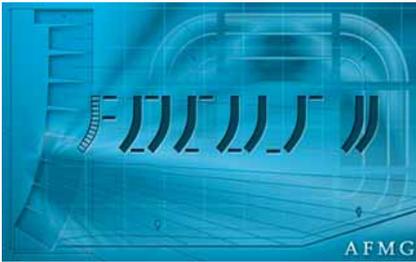
Designed for PR 8 Power Racks, this stereo Speakon Patchbay (19", 1U) features XLR In and Through, Ground Lift, Phase Reverse and two bi-amp Speakon outputs per channel (Mid/High 1+/-, Bass 2+/-), wired in parallel.



### PS 32

This 19", 2U power distributor offers a 32A CEE In, a Parallel Out, nine 230 V Outs, and three 16A circuit breakers.

## SOFTWARE



### EASE FOCUS 2

EASE Focus 2 software serves to generate three-dimensional simulations of the dispersion patterns radiated by our line-array products<sup>1</sup> in a given room or venue. Its side and top view panels let you quickly and easily map out venues with complex architecture and several different audience areas. The Rigging menu provides insight into the array's total height, weight, and center of gravity, as well as the splay between individual mid/high-range units. The application can also simulate direct SPL at any given audience area. This lets you determine the delay times, frequency response and direct SPL at all positions in the venue. It supports the EASE GLL format so system-specific filters can be factored into the sonic equation during planning. A virtual EQ lets you optimize the frequency response during the simulation.

EASE Focus 2 enables you to bring different line arrays together in one project. It includes a report generator that can export all project-related data. EASE Focus 2 supports the following languages: German, English, Spanish, Italian, and Portuguese.

Software Design Ahnert GmbH ([www.sda-softwaredesign.de](http://www.sda-softwaredesign.de)) has developed special EASE GLL files for EASE version 4.2 and higher that take spatial factors such as reflections and absorptions into account to compute more complex simulations.

<sup>1</sup> COHEDRA, COHEDRA COMPACT, CONTOUR ARRAY, CADIS and ELEMENTS



### FIRSOFT

FIRSOFT turns your PC/laptop into a remote control that manages and operates up to 60 networked FIRNET controllers. The intuitive user interface shows all connected controllers. Providing a clear, uncluttered and individual view of Level, Output EQ, Delay, Channel Mute, Phase,

Speaker Setup, IP Address, Controller Name, and Scene, it also lets you edit the key parameters on-line and off. You can quickly and easily group controllers in up to six hierarchic levels to collectively adjust that group's parameters.



### PODWARE

Podware lets you monitor and edit all DSM 2060 and ICON LTS controller functions on a PC or laptop. A clearly ordered main window shows the selected controllers with all their functions and settings. Podware affords direct access to gain structures, delay times, channel

assignments, and filter settings—online and without latency. The optional BVNET module and USB PC Interface lets you network up to 60 controllers, whereby each gets its own module. Podware is also a handy tool for updating controllers' firmware.

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