



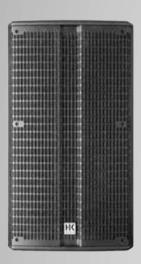
# THE NEW PERFORMANCE CLASS >

Professional wood cabinets, premium components and innovative technologies make LINEAR 5 the loudest speaker line in its class. A wide selection of short and long throw solutions, passive and powered models and bespoke controller-driven amps furnishes everything professional bands and PA providers need to get the job done, day in and day out. What's more, every option is a premium-quality, flexible and remarkably affordable solution – all made in Germany.



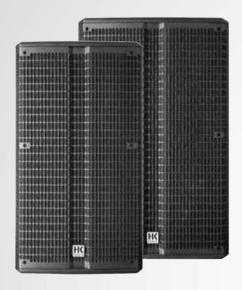


# **LINEAR 5 ACTIVE & PASSIVE MID/HIGH UNITS**



## LINEAR 5 112 X / XA

Fine-tuned for rendering speech in the key frequency range starting at 100 hertz, the L5 112 X / XA is predestined for use as a mid/high unit to cover great throw distances. Such applications do not require a tremendous amount of low-end reinforcement, so HK Audio opted for an ingenious space-saving housing that is angled, surprisingly compact, and equipped with a 60° x 40° CD horn for optimum directivity. Able to handle plenty of gain before feedback, this multifunctional enclosure can even serve as a powerful stage monitor.



### **LINEAR 5** 112 F / FA **LINEAR 5** 115 F / FA

These are two extraordinarily versatile fullrange models. Just two L5 112 F / FA units mounted on speaker stands can provide genuine fullrange coverage. The L5 115 F / FA delivers rich, low-ranging bass response to satisfy that will satisfy even the challenging monitoring demands of discerning DJs. Both models feature an asymmetrical, rotatable constant directivity horn (60° - 90° x 55°) that provides wide-ranging coverage in the near field, paired with plenty of long-distance reach. Variable EQ presets let you adapt the frequency response: A flip of a switch is all it takes to transform these fullrange speakers for small to midsized rooms into powerful top units for LINEAR subwoofers.





Panel: LINEAR 115 FA

Panel: LINEAR 115 F

### **FEATURES**

All models are equipped with two class D amplifiers, one each for the tweeter and woofer. The integrated controller provides three active protective circuits (short circuit, thermal, over/under voltage), a peak limiter and a subsonic filter to maximize both load handling and component life.



# **LINEAR 5 ACTIVE & PASSIVE MID/HIGH UNITS**

# LINEAR 5 LTS / LTS A

## LONG THROW. ULTRA COMPACT. ECONOMICAL.

What does it take to throw the entire frequency spectrum over 30 meters and beyond? Only large line arrays pack a punch powerful enough to deliver that kind of performance. Until now, that is.

LINEAR 5 LTS / LTS A has arrived, and it's the first speaker to deliver real long throw performance in an ultracompact format. Now you can hit the road with fewer speaker components in tow, saving valuable space on your truck. What's more, you can set up, stack and fly rigs that much faster and easier.

The new LINEAR 5 LTS / LTS A is not only the easiest way of treating audiences of up to 3,000 to the best sound; it's also the most economical option out there.

### **SETUPS**



olo



Horizontal Cluster



Head Stacking



Head Stacking Cluster

### LONG THROW.

Whether it's 30, 40 or 50 meters – the new LTS / LTS A mid/high unit throws the sonic image as far as it needs to go, sending even silky top-end frequencies all the way to the back row. This is made possible thanks to HK Audio's ground-breaking Multicell Transformer technology. This ingenious invention drastically reduces high frequency distortion, thereby solving a major problem of legacy horn and waveguide designs: they generate distortion that limits the amount of useful sound pressure.

Equipped with this proprietary technology, the LTS / LTS A is able to deliver 138 dB SPL, an exceptionally high maximum by any standard.

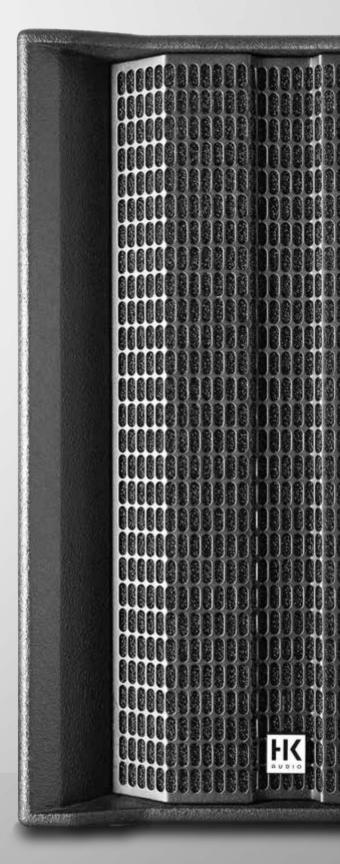
This awesome power, paired with a curved array created by the multiple cells, extends the range to cover the entire sound field with a crystal-clear audio image.

### ULTRA COMPACT.

The pioneering Multicell Transformer makes setting up compact speaker systems an exercise in convenience. The latest generation LINEAR 5 series model is housed in an ultra-compact 68 x 44 x 46 cm enclosure. Tipping the scales at just 24.9 kg, LTS / LTS A can easily replace speakers twice its size and weight to save truck space and make installation in a rig so much easier. LTS / LTS A's classic streamlined format is certainly a refreshing change. Talk about intuitive handling: finally, here's a straightforward design that can be stacked on the ground or on its head, and clustered with remarkable ease and flexibility. All this contributes to making LTS / LTS A easily the most flexible tool in its class.

### ECONOMICAL.

Sophisticated features, a remarkably affordable price, a small footprint and fast setup. With the LINEAR 5 LTS / LTS A, your savings are threefold: peoplepower, truck space and time. This gives you far greater leeway for planning the given production's budget, as well as making the LTS / LTS A the most economical solution in its application range.



### THE INNOVATIVE MULTICELL TRANSFORMER

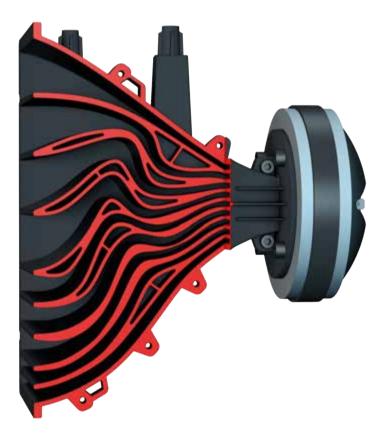
To date, there have been two ways to construct long range speaker systems. The time-tested approach is to use long throw horns. They have to have very large mouths and deep enclosures to accommodate the horn's throat, so the housings are huge. Plus, there's a lot of real estate inside the horn. These surfaces cause resonances and reflections that manifest as distortion, particularly at high frequencies. This distortion puts a very low cap on the maximum achievable sound pressure.

The other option for long throw applications, the line array, has been around for about 20 years. Waveguides shape the wave-front so that the line array is able to render even high frequencies well. The downside is that you have to haul, assemble and align a whole lot of speakers even for small or medium-scale events, which costs you truck space, time and money.



HK Audio engineers took up the challenge of reinventing the long throw speaker and came up with a ground-breaking solution: the Multicell Transformer (MCT). This ingenious invention makes the most of horns' and waveguides' physical advantages, with none of the drawbacks. The mouths of the nine horn channels form a line array, with sound traveling down channels of different lengths to achieve different delay times. This yields a perfect vertical curve and a very precise +5°/-25° pattern of throw.

With these unique properties, the MCT achieves the performance of comparable horns and waveguides at a fraction of their size. This revolutionary advance in technology is the key to building sensationally small and streamlined speakers.



Here's a simplified run-down of how it works: the MCT splits the wave-front into nine small wave-fronts. Each of these partial waves is directed through the flaring duct of a horn of different length and mouth size. These horns don't have acres of real estate that can cause interference, so the only distortion they generate is beyond the range of human hearing. This increases useful sound pressure by up to 10 dB.



Thanks to the MCT horn's asymmetrical directivity, two LINEAR 5 LTS / LTS A units can be set up together in an 'acoustically correct' head stack.

# **LINEAR ACTIVE & PASSIVE SUBWOOFERS**

The LINEAR series subwoofers' visuals are coordinated to match the looks of the LINEAR 5 top units, and their audio performance is no less a perfect fit. With a choice of three fundamentally different models, you can put together the optimum system for the given application range.



### **LINEAR** SUB 1200 / 1200 A

The L SUB 1200 / 1200 A is designed to match the L5 112 F / FA. Thanks to the remarkably faithful transient response of its two 10" woofers, this bass-reflex enclosure delivers tight, punchy low-end performance. The compact 10" speakers pack a lot of sound pressure into the 112 L5 F / FA's very small footprint. Sporting the same 1200-watt digital power amp as the L SUB 2000 A, the active L SUB 1200 A unit feeds this extra power to a Speakon output. If you wish to extend your system with a lean, light yet extremely powerful full stack, all you have to do is connect a passive L SUB 1200 to this output.



### **LINEAR** SUB 2000 / 2000 A

The L SUB 2000 / 2000 A is the perfect complement to the L5 115 F / 115 FA. Two 12" high-excursion woofers operate in a band-pass enclosure that is sure to delight with its hair-trigger dynamic response and an impressive range that extends down below 40 hertz. This unit delivers the goods not just at impulse peaks, but also at a continuous load! To this end, each woofer is equipped with a dual spider suspension that keeps the voice coil aligned and on track even at the most extreme loads. Advanced cooling technology effectively prevents the voice coil from overheating. Powered by an ultra light 1200-watt digital power amp, the active L SUB 2000 A outweighs its passive counterpart by just two kilograms!



Panel: LINEAR SUB 1200



Panel: LINEAR SUB 1200 A



Panel: LINEAR SUB 2000



Panel: LINEAR SUB 2000 A

### **FEATURES**

The integrated amplifier provides three active protective circuits (short circuit, thermal, over/under voltage), a peak limiter and a subsonic filter to maximize both load handling and component life.

All active subwoofers come with a frequency-compensated output for routing the signal to mid/high units, so combining these bass bins with L5 tops is an exercise in convenience. What's more, all models sport an integrated stereo preamp that lets you set up 2.1 systems or add a center subwoofer to a stereo system – with remarkable ease and just two speaker cables!

# LINEAR SUB 4000 / 4000 A

### **Powerful and Versatile**

L SUB 4000 / 4000 A is the flexible new 18" subwoofer from HK Audio. Compatible with all LINEAR 5 fullrange speakers and mid/high units, its powerful low end – ranging from 30 to 100 Hertz – is totally and powerfully impressive. L SUB 4000 / 4000 A can also serve as a sub-low add-on to LINEAR SUB 2000 to beef up the bottom end in the range of 30 to 70 Hertz.

### Innovative and Combinable

The chambers of this double-ventilated band-pass enclosure were tuned differently, and optimized for ultra-low signals and kick drums. L SUB 4000 / 4000 A can be deployed flexibly as the sole subwoofer for a PA or as a sub-low extension unit.

HK Audio engineers tuned the L SUB 4000 / 4000 A's band-pass enclosure and electronics to deliver phase-corrected response when paired with the L SUB 2000 / 2000 A. This means the L SUB 4000 / 4000 A can be added to a legacy system without requiring additional outboard controllers. The built-in preamp is stereo, so a single L SUB 4000 / 4000 A may be deployed as a central sub-low bin for a stereo system.

### **Dynamic and Faithful Response**

Rugged high-tech courtesy of German engineering: HK Audio has decades of experience developing advanced sound reinforcement solutions, and the L SUB 4000 / 4000 A has also benefitted from our engineers' unique skillset. This subwoofer delivers high maximum SPL paired with dynamic, deep-ranging response, and renders signal peaks with remarkable fidelity even when pushed very hard. Its robust wood housing is built to withstand the wear and tear of daily use. L SUB 4000 / 4000 A is perfectly suited for professional gigs and installation in clubs. Under-voltage, thermal and over-current protection circuits and a peak limiter keep the electronic components safe from overloads to ensure this unit will keep delivering reliable performances for many, many tomorrows to come.

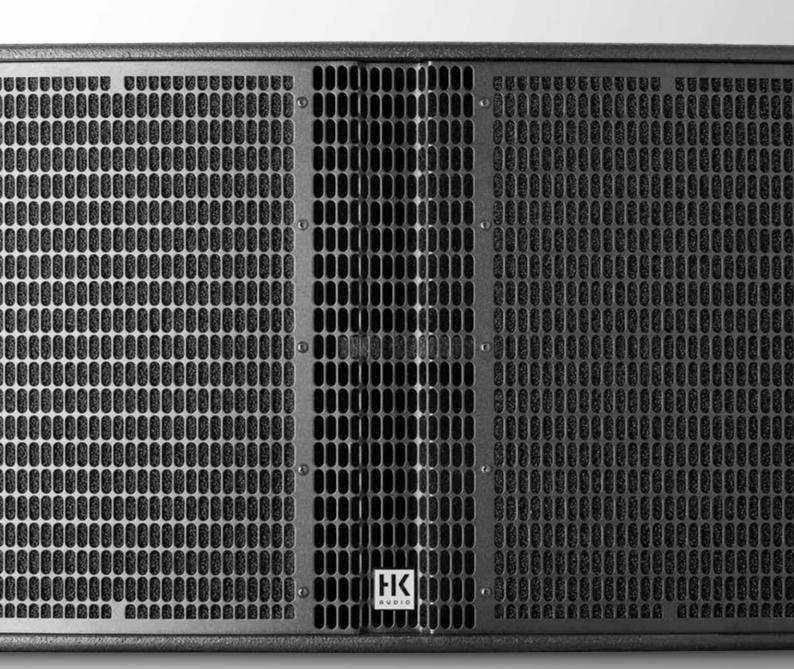






Panel: LINEAR SUB 4000

Panel: LINEAR SUB 4000 A







# **SUGGESTED SYSTEM SETUPS: ACTIVE**



### L5 Monitor Pack

3 x L5 112 XA 3 x Protective Covers

Also usable as a multifunctional loudspeaker setup or as tops in combination with LINEAR series subwoofers.



### L5 Club Pack

Audience size: max. 300

2 x L 5 112 FA 2 x L SUB 1200 A 2 x Distance poles 4 x Protective covers

Extendable to a full stack with 2 x L SUB 1200



### L5 Power Pack

Audience size: max. 350

2 x L5 112 XA 2 x L SUB 2000 A 2 x Distance poles 4 x Protective covers

Extendable to a full stack with 2 x L SUB 2000 A



### L5 Rock Pack

Audience size: max. 400

2 x L 5 112 FA 2 x L SUB 1200 A 2 x L SUB 1200 6 x Protective covers 2 x Tilt unit

Extendable with additional L SUB 1200 units, for example as a center cluster.



### L5 Big Venue Pack

Audience size: max. 600

2 x L5 115 FA 4 x L SUB 2000 A 2 x Tilt unit 6 x Protective covers

Sub-low add-on possible with L SUB 4000 A.



A note on audience size: these are suggestions, rather than recommendations, meaning these numbers are more for your general orientation. The actual coverage will depend on the room's size, layout, appointments and furnishings, as well as the area you want to cover and the sound pressure levels you wish to achieve.

# **SUGGESTED SYSTEM SETUPS: ACTIVE**



LTS Front PA - Long Throw Sound Reinforcement

Audience size: max. 1,000

2 x L5 LTS A

2 x Distance pole with hand crank

4 x L SUB 4000 A



L SUB 4000 A Sub Low Extension for additional Low End

Audience size: max. 1,000

2 x L5 LTS A

4 x L SUB 2000 A

2 x L SUB 4000 A



LTS Clustering for broader horizontal dispersion

Audience size: max. 1,500

4 x LTS A 6 x L SUB 4000 A



LTS for broader horizontal dispersion

Audience size: max. 1,500

4 x LTS A 6 x L SUB 4000 A

# **SUGGESTED SYSTEM SETUPS: ACTIVE**







# LTS Headstack Clustering for broader horizontal dispersion and further Long Throw capability

Audience size: max. 3,000

 $8 \times L5 LTS A$ 

12 x L SUB 4000 A

Nearfills are recommended in a setup like this





A note on audience size: these are suggestions, rather than recommendations, meaning these numbers are more for your general orientation. The actual coverage will depend on the room's size, layout, appointments and furnishings, as well as the area you want to cover and the sound pressure levels you wish to achieve.



# SUGGESTED SYSTEM SETUPS: PASSIVE

HK Audio has spearheaded the drive to advance the state of the art in active sound reinforcement - that is, speakers with built-in power amps and controllers - for more than 20 years. Such integrated systems are often easier to transport, set up and operate. However, there are many applications, particularly for rental and installed systems, where a central power amp rack paired with passive speakers is the more practical or affordable solution.

Our application specialists have developed a concept for unified power racks featuring the latest generation of advanced controller amps made by market leaders Lab.gruppen. These amp racks can be easily configured to drive a variety of HK Audio speaker setups simply by selecting the appropriate filter set. A complete library of filter sets is already archived in the power amps' memories.

### **KEY RACK** 2.24

Key Rack 2.24 is a light, compact rack that is three rack units in height. It is equipped with the new, groundbreaking IPD 2400 controller amps (2 x 1200W @ 4  $\Omega$ ) made by the Swedish specialist Lab.gruppen. With the two IPD 2400s, integrated power distribution, and the LoadLibrary, you get an astonishingly efficient, turnkey power-pack to drive the HK Audio LINEAR 5 LTS system.

A complete library of filter sets is already archived in the power amps' memories. A unified amp rack for professionals, versatile enough for use with smaller and larger systems, is the key to making configuration, setup and service easier, as well as maximizing the operational lifespan of your gear. Key Rack 2.24 is easy to handle, ultra efficient and remarkably affordable, with elegant remote control via PC or iPad to boot.



# **SUGGESTED SYSTEM SETUPS: PASSIVE**





### L5 Simple Monitor Setup

3 x L5 112 X 1 x L SUB 1200 1 x Key Rack 2.24



### Passive L5 Rock Pack

2 x L5 112 F 2 x L SUB 1200 1 x Key Rack 2.24

One Key Rack 2.24 can drive full stacks with up to 2 x L5 115 F and 4 x L SUB 2000 units.



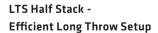


### Passive L5 Big Venue

2 x L5 115 F (or L5 112F) 2 x L SUB 2000 1 x Key Rack 2.24

One Key Rack 2.24 can drive full stacks with up to 2 x L5 115 F and 4 x L SUB 2000 units.





2 x L5 LTS
2 x Distance pole with hand crank
2 x L SUB 4000
1x Key Rack 2.24



# LTS Head Stacking for further Long Throw capability

4 x L5 LTS 6 x L SUB 4000 2 x Key Rack 2.24



### LTS Front PA - Long Throw Sound Reinforcement

- 2 x L5 LTS
- 2 x Distance pole with hand crank
- 4 x L SUB 4000
- 2 x L5 112 X for Near Fill application
- 2 x Speaker Stands
- 2 x Key Rack 2.24











# LTS Clustering for broader horizontal dispersion

4 x L5 LTS 6 x L SUB 4000 2 x Key Rack 2.24



# **ACCESSORIES**



### **Tilt Unit**

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



### Distance Pole

Height adjustable and lockable speaker mounting pole with M20 thread. Extra strong steel construction holds cabinets up to 40 kg.

Adjustable from app. 90 cm – 150 cm.

Weight 2.3 kg.



### **Protective Cover**

Perfect-fitting padded protective transport covers are available for all LINEAR 5 series models as an optional accessory. Openings afford access to the enclosures' carrying handles.



This attachment point has a workload limit (WLL) of 360 kg / 794lbs. It safely attaches enclosures with M8 rigging points to steel cables or chains.



### Double flange plate

For attaching two distance poles with M20 threads to one subwoofer. Delivers acoustically correct, horizontal clusters of L5 LTS units in stacking setups.



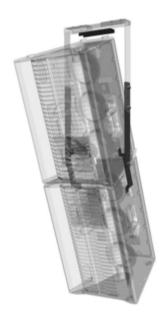
### TB-N

Tilt bracket for loudspeakers in the LINEAR 5 (L5 112 F / FA, L5 115 F / FA, L5 LTS / LTS A) series. For attaching to trusses using appropriate half-couplers or trigger clamps (M12). Mounts to the speaker via clamping levers (M10). Also suitable for installation on ceilings, wall brackets or tripods. Flexible vertical and horizontal alignment.



### TB-NQ (QRP)

Tilt bracket with quick release pins for loudspeakers in the LINEAR 5 (L5 112 F / FA, L5 115 F / FA, L5 LTS / LTS A) series. For attaching to trusses using appropriate half-couplers or trigger clamps (M12). Quick installation through ball lock pins. Also suitable for installation on ceilings, wall brackets or tripods. Flexible vertical and horizontal alignment.



### TB-HES

Tilt bracket extension (compatible with TB-N / TB-NQ) for L5 LTS head stacking applications.



### PP-CP

This set, composed of one pick point and one clustering plate, offers either two or three attachment points for flying and angling L5 LTS units. Suitable for use in single, head stack, cluster, and head stack cluster operating modes.





# **TECHNICAL DATA**

## **MID/HIGH UNITS: ACTIVE**









Parameter	L5 112 FA	L5 112 XA	L5 115 FA	L5 LTS A
Max SPL	127 dB half space (@ 10% THD)	128 dB half space (@ 10% THD)	128 dB half space (@ 10% THD)	133 dB half space (@10% THD)
Max SPL peak	135 dB half space (@ 10% THD)	136 dB half space (@ 10% THD)	137 dB half space (@ 10% THD)	138 dB half space (@10% THD)
Max SPL calculated	137 dB half space	137 dB half space	138 dB half space	141 dB half space
Frequency response +/- 3 dB	64 Hz - 18 kHz	100 Hz - 18 kHz	57 Hz - 18 kHz	115 Hz – 14 kHz
Frequency response -10 dB	57 Hz - 20 kHz	72 Hz - 20 kHz	48 Hz - 20 kHz	100 Hz - 20 kHz
Power Rating	1000 Watt	1000 Watt	1000 Watt	1000 Watt
Low/Midrange amplifier	650 Watt @ 4 ohms			
HF Amplifier	350 Watt @ 4 ohms			
Amplifier	Class D - Biamped	Class D - Biamped	Class D - Biamped	Class D – Biamped
Active protection circuits	Undervoltage-Protection, Thermoprotection, Short-Circuit Protection, Overcurrent-Protection, Subsonic 24dB/oct., Peak Limiter	Undervoltage-Protection, Thermoprotection, Short-Circuit Protection, Overcurrent-Protection, Subsonic 24dB/oct., Peak limiter	Undervoltage-Protection, Thermoprotection, Short-Circuit Protection, Overcurrent-Protection, Subsonic 24dB/oct., Peak limiter	Undervoltage Protection, Thermoprotection, Short Circuit Protection, Overcurrent Protection, Subsonic 24 dB/oct., Peak limiter, DSP-Input limiter
Low/ Mid Speaker	1x 12"	1x 12"	1x 15"	3x 8" Neodymium
HF Driver	1"	1"	1"	1" Neodymium
Horn characteristics	60°-90°(asymm) x 55° CD horn, rotatable	60° x 40° CD horn, rotatable	60°- 90° (asymm) x 55° CD horn, rotatable	60° x +5°/-25° MCT horn
Cut-off Frequency active	1,65 kHz, 24 dB/oct.	1,65 kHz, 24 dB/oct.	1,65 kHz, 24 dB/oct.	1.7 kHz FIR X-Over with 48 dB/oct.
Connections	2x XLR-1/4"-Combo In, 2x XLR-Thru, 1x XLR-Mix Out	2x XLR-1/4"-Combo In, 2x XLR-Thru, 1x XLR-Mix Out	2x XLR-1/4"-Combo In, 2x XLR-Thru, 1x XLR-Mix Out	1x XLR-1/4"-Combo In, 1x XLR-Thru
Input Sensitivity	+4dBu @ Gain Centerclick / L5 System Level	+4dBu @ Gain Centerclick / L5 System Level	+4dBu @ Gain Centerclick / L5 System Level	+4 dBu @ Gain Centerclick / L5 System Level
Sensitivity switch	Line/Mic Input A	Line/Mic Input A	Line/Mic Input A	
Equalizer	EQ switch Small Venue/High Power	EQ switch Flat/Monitor	EQ switch Small Venue/High Power	
Angles up		33°		
Pole mount	DuoTilt 3/7	DuoTilt 3/7	DuoTilt 3/7 MonoTilt 0°	
Rigging points	3x M8	3x M8	3x M8	7x M8
Handles	2, integrated	2, integrated	2, integrated	2, Integrated
Enclosure	Hybrid (birch multiplex / MDF)	Hybrid (birch multiplex / MDF)	Hybrid (birch multiplex / MDF)	Birch multiplex
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 backed with black acoustic foam
Finish	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black
Optional accessories	Protective cover	Protective cover	Protective cover	Protective transport covers, Tilt bracket, Tilt bracket head stack extension set, Pick point / Cluster plate, AP-8 Rigging point
Dimensions (WxHxD)	37 x 67 x 36,5 cm	37 x 67 x 30 cm	45 x 71 x 45 cm	44 x 68 x 46 cm
Weight	23.9 kg / 52.7 lbs	21.1 kg / 46.5 lbs	30.7 kg / 67.7 lbs	24.9 kg / 54.9 lbs.

# **SUBWOOFER: ACTIVE**



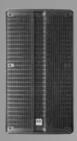




Parameter	L SUB 1200 A	L SUB 2000 A	L SUB 4000 A
Max SPL	126 dB half space (@ 10% THD)	132 dB half space (@ 10% THD)	135 dB half space (@ 10% THD)
Max SPL peak	128 dB half space (@ 10% THD)	133 dB half space (@ 10% THD)	137 dB half space (@ 10% THD)
Max SPL calculated	129 dB half space	135 dB half space	138 dB half space
Frequency response +/- 3 dB	55 Hz - X-Over	49 Hz - X-Over	39 Hz - X-Over
Frequency response -10 dB	38 Hz – X-Over	39 Hz - X-Over	31 Hz - X-Over
Power Rating	1200 Watt	1200 Watt	1200 Watt
Subwoofer amplifier	1200 Watt @ 4 ohms	1200 Watt @ 4 ohms	1200 Watt @ 4 ohms
Amplifier	Class D	Class D	Class D
Active protection circuits	Undervoltage-Protection, Thermoprotection, Short-Circuit Protection, Overcurrent-Protection, Subsonic 24dB/oct., Peak Limiter	Undervoltage-Protection, Thermoprotection, Short-Circuit Protection, Overcurrent-Protection, Subsonic 24 dB/oct, Peak Limiter	Undervoltage Protection, Thermoprotection, Short Circuit Protection, Overcurrent Protection, Subsonic 24 dB/oct., Peak Limiter
LF Speaker	2x 10" featuring advanced cooling technology	2x 12" featuring advanced cooling technology	1x 18" featuring advanced ventilated voice coil gap
Cut-off Frequency active	110 Hz / 130 Hz variable with 24 dB/oct.	100 Hz / 120 Hz variable with 24 dB/oct.	70 Hz /100 Hz variable with 24 dB/oct.
Connections	2x XLR-1/4"-Combo In, 2x XLR- Thru, 2x XLR-Mid/High Out, Speakon NL4 to L SUB 1200	2x XLR-1/4"-Combo In, 2x XLR-Thru, 2x XLR-Mid/High Out	2x XLR-1/4"-Combo In, 2x XLR Thru, 2x XLR Mid/High Out
Input Sensitivity	+4dBu @ Gain Centerclick / L5 System Level	+4dBu @ Gain Centerclick	+4 dBu @ Gain Centerclick
Pole mount	2x M20	1x M20	2x M20
Handles	4, integrated	4, integrated	8, Integrated
Casters	optional 100 mm	optional 100 mm	optional 100 mm
Enclosure	Birch multiplex	Birch multiplex	Birch multiplex
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
Finish	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black
Optional accessories	Protective cover, TiltUnit	Protective cover, TiltUnit	Protective cover, TiltUnit
Dimensions (WxHxD)	38 x 67 x 56 cm	51 x 81 x 61 cm	91 x 51 x 81 cm
Weight	30.7 kg / 67.7 lbs	47.5 kg / 104.7 lbs	59 kg / 130.1 lbs

# **TECHNICAL DATA**

## MID/HIGH UNITS: PASSIVE









Parameter	L5 112 F	L5 112 X	L5 115 F	L5 LTS
Power-handling nominal (RMS)	500 Watt	500 Watt	600 Watt	600 Watt
Power-handling, program	1000 Watt	1000 Watt	1200 Watt	1200 Watt
Power-handling, peak	2000 Watt	2000 Watt	2400 Watt	2400 Watt
Nominal impedance	8 ohms	8 ohms	8 ohms	8 ohms
Max SPL	128 dB half space (@10% THD)	129 dB half space (@10% THD)	130 dB half space (@10% THD)	133 dB half space (@10% THD)
Max SPL peak	134 dB half space (@10% THD)	135 dB half space (@10% THD)	139 dB half space (@10% THD)	138 dB half space (@10% THD)
Sensitivity 1W/1m	104 dB half space	105 dB half space	106 dB half space	110 dB half space
Frequency response +/- 3 dB	70 Hz - 18 kHz	100 Hz - 18 kHz	60 Hz - 18 kHz	108 Hz - 14 kHz
HF Frequency response -10 dBmplifier	60 Hz - 19 kHz	72 Hz - 20 kHz	55 Hz - 20 kHz	100 Hz - 20 kHz
Protection	PTC circuit	PTC circuit	PTC circuit	
Low/Mid Speaker	1x 12" with 2.5" voice coil	1x 12" with 2.5" voice coil	1x 15" with 3" voice coil	3x 8" with 2" voice coil (32 ohms) Neodymium
HF Driver	1" with 1.75" voice coil	1" with 1.75" voice coil	1" with 1.75" voice coil	1" with 1.75" voice coil (16 ohms) Neodymium
Horn characteristics	60°-90° (asymm.) x 55° CD horn, rotatable	60°-40° CD horn, rotatable	60°-90° (asymm.) x 55° CD horn, rotatable	60° x +5°/-25° MCT horn
Crossover frequency	1.7 kHz, 12 dB/oct.			
Connections	2x Speakon NL4	2x Speakon NL4	2x Speakon NL4	2x Speakon NL4, pin assignment switchable between 1+/1- and 2+/2-
Equalizer	EQ switch Flat/Contour		EQ switch Flat/Contour	
Angles up		33°		
Pole mount	DuoTilt 3/7	DuoTilt 3/7	DuoTilt 3/7	MonoTilt 0°
Rigging points	3x M8	3x M8	3x M8	7x M8
Handles	2, integrated	2, integrated	2, integrated	2, integrated
Enclosure	Hybrid (birch multiplex / MDF)	Hybrid (birch multiplex / MDF)	Hybrid (birch multiplex / MDF)	Birch multiplex
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 backed with black acoustic foam
Finish	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black
Optional accessories	Protective cover	Protective cover	Protective cover	Protective transport covers, Tilt bracket, Tilt bracket head stack extension set, Pick point / Cluster plate, AP-8 Rigging point
Dimensions (WxHxD)	37 x 67 x 36.5 cm	37 x 67 x 30 cm	45 x 71 x 45 cm	44 x 68 x 46 cm
Weight	23.3 kg / 51.4 lbs	19.5 kg / 43 lbs	30.1 kg / 66.4 lbs	26.4 kg / 58.2 lbs.

# SUBWOOFER: PASSIVE







Parameter	L SUB 1200	L SUB 2000	L SUB 4000
Power-handling nominal (RMS)	600 Watt	700 Watt	1200 W
Power-handling, program	1200 Watt	1400 Watt	2400 W
Power-handling, peak	2400 Watt	2800 Watt	4800 W
Nominal impedance	8 ohms	4 ohms	4 ohms
Max SPL	128 dB half space (@10% THD)	134 dB half space (@10% THD)	135 dB half space (@ 10% THD)
Max SPL peak	130 dB half space (@10% THD)	135 dB half space (@10% THD)	137 dB half space (@ 10% THD)
Sensitivity 1W/1m	101 dB half space	104 dB half space	106 dB half space
Frequency response +/- 3 dB	55 Hz - X-over	49 Hz - X-over	39 Hz - X-over
HF Frequency response -10 dBmplifier	38 Hz - X-over	39 Hz - X-over	31 Hz - X-over
LF Speaker	2x 10" with 2.5" voice coil featuring advanced cooling technology	2x 12" with 2.5" voice coil featuring advanced cooling technology	1x 18" (4 ohms) with 2.5" voice coil featuring Advanced-Ventilated voice coil gap (Neodymium)
Crossover frequency		controller driven	100 Hz, active X-over with controller amp (can be set lower when used as a sub-low)
Connections	2x Speakon NL4	2x Speakon NL4	2x Speakon NL4, pin assignment switchable between 1+/1- and 2+/2
Pole mount	2x M20	1x M20	2x M20
Handles	4, integrated	4, integrated	8, integrated
Casters	optional 100 mm	optional 100 mm	optional 100 mm
Enclosure	Birch multiplex	Birch multiplex	Birch multiplex
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
Finish	Acrylic enamel, black	Acrylic enamel, black	Acrylic enamel, black
Optional accessories	Protective cover, TiltUnit	Protective cover, Tilt Unit	Protective transport cover (TC 4000), TiltUnit
Dimensions (WxHxD)	38 x 67 x 56 cm	51 x 81 x 61 cm	91 x 51 x 81 cm
Weight	29 kg / 63.9 lbs	45.6 kg / 100.5 lbs	57.1 kg / 125.9 lbs



THE SOUNDMAKERS

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