

LINEAR 5 MK II

THE ALL PURPOSE WORKHORSE

Backed by our usual passion for perfect sound and high-quality workmanship, we have completely revised the successful LINEAR 5 series and upgraded it to the very latest technology, equipped it with new speakers and added innovative series elements that many customers have been longing for.

The series comprises three multifunctional mid/high units with 10-inch (LINEAR 5 MK II 110 XA), 12-inch (LINEAR 5 MK II 112 XA) and 15-inch woofers (LINEAR 5 MK II 115 XA), which are also optimised as stage monitors, two full-range mid/high units with 12-inch woofers (LINEAR 5 MK II 112 FA) and 15-inch woofers (LINEAR 5 MK II 115 FA), as well as two standard subwoofers with 15-inch (LINEAR 5 MK II 115 Sub A) and 18-inch woofers (LINEAR 5 MK II 118 Sub A).

Professional bands and sound companies now not only have a reliable and high-performance everyday tool at their fingertips, but the extra power at a lower weight and access to digital optimisation take their daily work to a whole new level. With a wide range of flexible mid/high units, powerful,

cardioid-capable subwoofers, generously dimensioned Class-D power amps of the latest generation and the integrated DSP CONTROL via Ethernet connection, the new LINEAR 5 MK II series offers versatile, future-proof, economical solutions and intelligent extensions to existing systems. Wide-range power supplies ensure reliable, worldwide use.

The new hybrid enclosures made of birch multiplex and MDF are lighter and make handling easier and more efficient. This is a great advantage in times when truck space and sustainability are important factors. Reduced dimensions combined with higher performance guarantee more flexibility even with constantly changing requirements.

HK Audio is committed to "Made in Germany". In addition to the precision of state-of-the-art manufacturing technologies, a considerable amount of skilled manual work and attention to detail goes into every single component.



LINEAR 5 MK II - FEATURES

Features:

- Powerful Class-D power amps
- Flexible, easy-to-configure mid/high units with presets selectable directly on the speaker for configuration as a stage monitor or system speaker
- Full-range mid/high unit with larger enclosure volume, more sound pressure in the low-frequency range in standalone mode, bass boost preset and narrower dispersion for possible clustering
- Powerful bass reflex subwoofers with stereo preamplifiers and cardioid presets
- DSP platform with modern network technology for remote control and DSP Out for integrating speakers and power amps without own DSP support
- Robust, durable and acoustically optimised wooden enclosure
- Comprehensive features for ease of handling, rigging and mounting options suitable for live performances
- Made in Germany

Improvements:

(compared to the classic LINEAR 5 mid/high units)

- Better impulse accuracy and more detailed sound resolution
- Significantly improved coverage – FIR crossover with 72 dB/oct
- More “Gain before Feedback” – less sensitive to feedback
- Two new formats: LINEAR 5 MK II 110 XA and LINEAR 5 MK II 115 XA
- Four presets that can be directly selected on the speaker
- Remote control thanks to internal DSP and network capability
- More usable sound pressure level thanks to digital limiters
- More compact housing
- 2-3 kg less weight



LINEAR 5 MK II - MID/HIGH-UNITS

LINEAR 5 MK II Mid/High-Units

The extensive range of mid/high units with multifunctional and full-range speakers offers tailored solutions for a wide variety of applications.

- 600 W RMS / 1200 W peak bi-amped Class-D power amplifier
- Rotatable horns, coverage angle 80° x 60° (110 XA, 112 XA), 70° x 50° (115 XA), 60° x 40° (112 FA), 60° x 40° (115 FA)
- Lockable, balanced XLR/TRS Combo input, balanced XLR output for analogue looping to an additional speaker
- Remote-controllable high-performance DSP with integrated presets for the most common applications
- Professional, lockable EtherCon connector for connection to a Mac or PC for network-based control of the system
- DSP Out: Balanced XLR output that transmits the processed signal from the speaker to a non-network-compatible speaker. The audio signal applied here can be extensively modified using the DSP CONTROL software
- HK Audio DuoTilt with 3° or 7° inclination
- Three reinforced M8 (AP - 8) mounting points, two HK Audio butterfly handles for the TB-NQ rigging frame (LINEAR 5 MK II 115 XA, LINEAR 5 MK II 112 FA and LINEAR 5 MK II 115 FA)
- Birch multiplex hybrid enclosure



XA models



FA models



LINEAR 5 MK II 110 XA

LINEAR 5 MK II 112 XA

LINEAR 5 MK II 115 XA

LINEAR 5 MK II 112 FA

LINEAR 5 MK II 115 FA

LINEAR 5 MK II - SUBWOOFERS

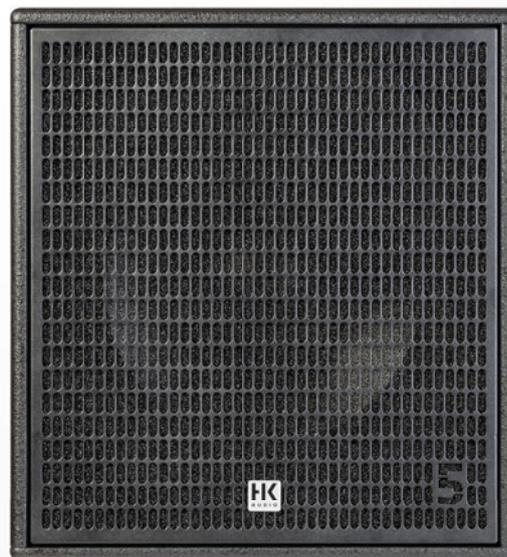
LINEAR 5 MK II Subwoofer

The standard LINEAR 5 MK II 115 Sub A and LINEAR 5 MK II 118 Sub A bass-reflex subwoofers form the solid foundation of the new LINEAR 5 MK II systems with their uncompromising performance and dry, defined bass down to the lowest of the lows. DSP functions that can be remotely controlled or simply selected via a preset, such as the 1:1 vertical and 1:1 horizontal Cardioid settings, give the user an enormously expanded range of options for system configuration and access to the professional class at any time. The latest generation of stereo Class-D power amplifiers provide ample headroom and simplify 2.1 setups with the stereo preamplifiers.

- 1000 W RMS / 2000 W peak (LINEAR 5 MK II 118 Sub A) and 600 W RMS / 1200 W peak (LINEAR 5 MK II 115 Sub A) Class-D amp power
- Two lockable, balanced XLR/TRS Combo inputs, balanced XLR outputs for analogue loop-through to an additional speaker
- Remote-controlled high-performance DSP with integrated Remote and Cardioid presets (Front, 1:1 vertical, 1:1 horizontal, Remote)
- DSP-Out: Balanced XLR output that transmits the processed signal from the speaker to a non-network-compatible speaker. The audio signal applied here can be extensively modified using the DSP CONTROL software
- Professional, lockable EtherCon connectors for connection to a Mac or PC to control the system via network; daisy chain connections possible
- M20 thread for mounting pole
- Enclosure made of birch multiplex hybrid (LINEAR 5 MK II 115 Sub A) and birch multiplex (LINEAR 5 MK II 118 Sub A)



LINEAR 5 MK II 118 SUB A



LINEAR 5 MK II 115 SUB A

LINEAR 5 MK II - FACTS & FEATURE

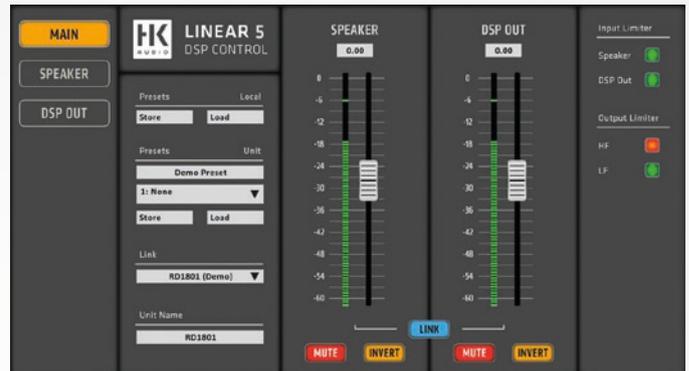
Feature	Description
Rotatable constant directivity horns	The horn can be rotated 90° for optimum coverage when used horizontally or vertically as a mid/high unit, stage monitor or near/front fill
31° monitor angle for XA models	Slanted enclosure wall ensures stability and optimal alignment when used as a stage monitor
Preamplifiers with high-performance DSP and powerful Class-D power amplifiers	Advanced DSP technology, more power and headroom compared to the first LINEAR 5 series. Simple and comprehensive configuration options
48 kHz sampling rate, active 72 dB/octave FIR filter via DSP	High resolution transducers, stable linear filtering and excellent dispersion: Precise reproduction of the frequency spectrum, fatigue-free listening
DSP platform that can be controlled remotely via network, with integrated fully-parametric 10-band EQ, high-pass and low-pass filters with selectable filter types, delay (adjustable in feet, inch, m, mil, mm, ms, s), polarity, limiting, level, mute	Connection of any active speakers for integration into the network and adjustment of the signal sent to this speaker in frequency response, time offset, polarity, level limiting and volume. Fully fledged speaker management
DSP Out with analogue XLR signal output with full DSP power	Full access to all DSP functions via HK Audio DSP CONTROL software for Mac OS and Windows: Uncompromising individual adaptation of each speaker to the intended use (speech, monitor, delay line) and/or adaptation to room conditions, centrally remote-controllable from the FoH position
Presets adjustable directly on the speaker	“Flat” and “Low Cut” on all mid/high units, “Monitor” on the LINEAR 5 MK II XA models, “Boost” for a bass boost on the LINEAR 5 MK II FA, Front and Cardioid presets on the subwoofers. “Remote” for remote control via HK Audio DSP CONTROL software.
Cardioid presets	Easy-to-use Cardioid setups “1:1 horizontal” and “1:1 vertical” to reduce bass behind and/or on stage
Wide-range power supply unit with lockable V-Lock IEC socket	Can be operated in any country on voltage sources from 100 volts to 240 volts and ensures stable operation in the event of voltage fluctuations, e.g. when operating on power generators
Birch multiplex/MDF hybrid enclosure	Robust enclosure made of sturdy birch multiplex and MDF: High rigidity and internal damping for precise, controlled bass response (dry bass impulses without energy loss)
DuoTilt	Invented by HK Audio, the DuoTilt dual flange allows a mid/high unit to be tilted 3° or 7° on a tripod or mounting pole
5-year warranty (after registration)	Warranty for customers extended to 5 years

LINEAR 5 MK II - FACTS & FEATURE

All settings at your fingertips at all times

Full control over the entire sound setup, even during the sound check and the show, is a feature that is already well known in large touring systems or the LINEAR 7 and LINEAR 9 series. DSP CONTROL allows remote control of all LINEAR 5 components, from stage monitors to complete PA systems, via network and HK Audio's proprietary DSP CONTROL software for Mac and PC. The features of the powerful DSPs, such as volume, EQing, limiting, delay and polarity, can thus be accessed directly from the FoH position at any time.

Components that do not have their own DSP technology can also be connected to the DSP OUT on the LINEAR 5 speakers and controlled remotely with the same ease. A fully parametric 10-band EQ, high-pass filter, low-pass filter, delay, polarity and limiting are available to each DSP Out, irrespective of the DSP setup of the LINEAR 5 speaker.



Cardioid technology

Professional-grade technology for sound reinforcement

The Cardioid setup attenuates the bass sound pressure of the spherically radiating subwoofers behind the speaker by up to 34 dB. There is a slight increase in sound pressure of approx. 2 dB in the front sound dispersion. This extremely useful problem-solving technology is easy to use with the LINEAR 5 subwoofers' Cardioid presets.



LINEAR 5 enclosure

“Rigid wood” for more sound, more power and resistance

The acoustic characteristics and stability of wood are unrivalled in speaker construction. It is for these reasons that all LINEAR 5 components are built into wooden enclosures. Thanks to the combination of MDF and birch multiplex, the mid/high units and subwoofers are extremely compact and comparatively light, despite the robust material. The LINEAR 5 MK II 118 Sub A is made entirely of birch multiplex.

Every single speaker is made in Germany using a combination of high-precision, computer-controlled manufacturing and skilled craftsmanship, with toxin-free wood, water-based lacquer and a strict recycling and waste-avoidance strategy.



LINEAR 5 MK II - ACCESORIES



Optional accessories	Weather Protective Cover	TB-45N	TB-45NQ	AP8	Tilt-Unit	Roller mounting optional
LINEAR 5 MK II 110 XA	✓			✓		
LINEAR 5 MK II 112 XA	✓			✓		
LINEAR 5 MK II 115 XA	✓	✓	✓	✓		
LINEAR 5 MK II 112 FA	✓	✓	✓	✓		
LINEAR 5 MK II 115 FA	✓	✓	✓	✓		
LINEAR 5 MK II 115 Sub A	✓				✓	✓
LINEAR 5 MK II 118 Sub A	✓				✓	✓

LINEAR 5 MK II - SETUP EXAMPLES



Setup 1:
2x LINEAR 5 MK II 112 FA
1x LINEAR 5 MK II 118 Sub A



Setup 2:
2x LINEAR 5 MK II 110 XA
2x LINEAR 5 MK II 115 Sub A



Setup 3:
2x LINEAR 5 MK II 112 FA
4x LINEAR 5 MK II 115 Sub A



Setup 4:
2x LINEAR 5 MK II 112 XA
2x LINEAR 5 MK II 118 Sub A



Setup 5:
2x LINEAR 5 MK II 115 FA
4x LINEAR 5 MK II 118 Sub A

LINEAR 5 MK II - TECHNICAL SPECIFICATIONS MID/HIGH-UNITS

	LINEAR 5 MK II 110 XA	LINEAR 5 MK II 112 XA	LINEAR 5 MK II 112 FA	LINEAR 5 MK II 115 XA	LINEAR 5 MK II 115 FA
Max. SPL @ 10% THD	127 dB half space (70 Hz – 12 kHz averaged)	128 dB half space (70 Hz – 12 kHz averaged)	128 dB half space (70 Hz – 12 kHz averaged)	130 dB half space (70 Hz – 12 kHz averaged)	129 dB Halfspace (70 Hz – 12 kHz averaged)
Max. SPL peak @ 10 % THD	135 dB half space	136 dB half space	136 dB half space	138 dB half space	134 dB Halfspace
Frequency response +/-3 dB	74 Hz – 12 kHz	73 Hz – 12 kHz	73 Hz – 12 kHz	64 Hz – 12 kHz	57 Hz – 12 kHz
Frequency response -10 dB	68 Hz – 19 kHz	67 Hz – 19 kHz	67 Hz – 19 kHz	59 Hz – 19 kHz	54 Hz – 19 kHz
Power amp output (rms/peak)	600 / 1.200 W				
Amp type	Class D - biamped				
LF driver	-	-	-	-	-
Low-/mid speaker	1x 10", 2" voice coil	1x 12", 2.5" voice coil	1x 12", 2.5" voice coil	1x 15", 3" voice coil	1x 15", 3" voice coil
HF driver	1", 1.4" voice coil	1", 1.7" voice coil			
Horn directivity	80° x 60° CD horn, rotatable	80° x 60° CD horn, rotatable	80° x 60° CD horn, rotatable	70° x 50° CD horn, rotatable	60° x 40° CD horn, rotatable
Active crossover frequency	2,1 kHz FIR X-over with 72 dB/oct.	1.9 kHz FIR X-over with 72 dB/oct.	1.6 kHz FIR X-over with 72 dB/oct.	1.6 kHz FIR X-over with 72 dB/oct.	1,6kHz FIR X-over with 72 dB/oct.
Maximum input level	+20 dBu	+20 dBu	+20 dBu	20 dBu	20 dBu
Analog inputs	1x XLR combo balanced	1x XLR combo balanced	1x XLR combo balanced	1x XLR balanced	1x XLR balanced
Analog thru	1x XLR balanced				
DSP Out	1x XLR balanced				
Network port	Ethercon RJ45, 1x In				
Filter presets	Flat, Monitor, Low Cut, Remote	Flat, Monitor, Low Cut, Remote	Flat, Boost, Low Cut, Remote	Flat, Monitor, Low Cut, Remote	Flat, Boost, Low Cut, Remote
Remote software	DSP CONTROL (Windows, Mac OS)				
DSP functions	Fully parametric 10-band EQ with variable filter charac- teristics, High-Pass Filter, Low-Pass Filter, Polarity, Level, Delay, Limiter, Mute	Fully parametric 10-band EQ with variable filter charac- teristics, High-Pass Filter, Low-Pass Filter, Polarity, Level, Delay, Limiter, Mute	Fully parametric 10-band EQ with variable filter charac- teristics, High-Pass Filter, Low-Pass Filter, Polarity, Level, Delay, Limiter, Mute	Fully parametric 10-band EQ with variable filter charac- teristics, High-Pass Filter, Low-Pass Filter, Polarity, Level, Delay, Limiter, Mute	Fully parametric 10-band EQ with variable filter charac- teristics, High-Pass Filter, Low-Pass Filter, Polarity, Level, Delay, Limiter, Mute
Sample rate	48 kHz				
System latency	Less than 2 ms				
Mains connector	1x IEC socket with V-lock cord retainer, 100-240 V	1x IEC socket with V-lock cord retainer, 100-240 V	1x IEC socket with V-lock cord retainer, 100-240 V	1x IEC socket with V-lock cord retainer, 100-240 V	1x IEC socket with V-lock cord retainer, 100-240 V
Power consumption	1 A / 100–240 V nominal according to EN 62368-1	1 A / 100–240 V nominal according to EN 62368-1	1 A / 100–240 V nominal according to EN 62368-1	1 A / 100–240 V nominal according to EN 62368-1	1 A / 100–240 V nominal according to EN 62368-1
Angels up (Monitor angle)	31°	31°	-	31°	-
Pole mount	DuoTilt 3°/7°				
Rigging points	3x M8 (AP-8)				
Carrying handles	1x SingleGrip	2x SingleGrip	2x SingleGrip	2x MultiGrip, 1x SingleGrip	2x MultiGrip
Housing	Hybrid (birch multiplex/ MDF)				
Finish	Black acrylic enamel				
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 backed with black acoustic foam	2 mm metal grille backed with black acoustic foam
Dimensions (WxHxD)	36 x 52.5 x 30 cm 14-1/16 x 20-43/64 x 11-13/16"	36 x 59 x 30.5 cm 14-1/16 x 23-15/64 x 12-1/32"	36 x 59 x 30.5 cm 14-1/16 x 23-15/64 x 12-1/32"	45 x 68.5 x 42 cm 17-23/32 x 26-31/32 x 16-17/32"	tba
Weight	14.9 kg / 32.85 lbs	17.6 kg / 38.80 lbs	17.6 kg / 38.80 lbs	27.6 kg / 60.85 lbs	tba

LINEAR 5 MK II - TECHNICAL SPECIFICATIONS SUBWOOFER

	LINEAR 5 MK II 115 Sub A	LINEAR 5 MK II 118 Sub A
Max. SPL @ 10% THD	127 dB half space (42 Hz – 100 Hz averaged)	129 dB half space (42 Hz – 100 Hz averaged)
Max. SPL peak @ 10 % THD	130 dB half space	131 dB half space
Frequency response +/-3 dB	44 Hz – X-over	42 Hz – X-over
Frequency response -10 dB	40 Hz – X-over	38 Hz – X-over
Power amp output (rms/peak)	600 / 1.200 W	1,000 / 2.000 W
Amp type	Class D	Class D
LF driver	1x 15", 3" voice coil	1x 18", 4" voice coil
Low-/mid speaker	-	-
HF driver	-	-
Horn directivity	-	-
Active crossover frequency	-	-
Maximum input level	+20 dBu	+20 dBu
Analog inputs	2x XLR combo balanced	2x XLR combo balanced
Analog thru	2x XLR balanced	2x XLR balanced
DSP Out	1x XLR balanced	1x XLR balanced
Network port	Ethercon RJ45, 1x In, 1x Thru	Ethercon RJ45, 1x In, 1x Thru
Filter presets	Front, Cardioid 1:1 vertical, Cardioid 1:1 horizontal, Remote	Front, Cardioid 1:1 vertical, Cardioid 1:1 horizontal, Remote
Remote software	DSP CONTROL (Windows, Mac OS)	DSP CONTROL (Windows, Mac OS)
DSP functions	Fully parametric 10-band EQ with variable filter characteristics, Low-Pass Filter, Polarity, Level, Delay, Limiter, Mute	Fully parametric 10-band EQ with variable filter characteristics, Low-Pass Filter, Polarity, Level, Delay, Limiter, Mute
Sample rate	48 kHz	48 kHz
System latency	Less than 2 ms	Less than 2 ms
Mains connector	1x IEC socket with V-lock cord retainer, 100-240 V	1x IEC socket with V-lock cord retainer, 100-240 V
Power consumption	1 A / 100–240 V nominal according to EN 62368-1	1.9 A / 100–240 V nominal according to EN 62368-1
Angels up (Monitor angle)	-	-
Pole mount	1x M20	2x M20
Rigging points	-	-
Carrying handles	2x MultiGrip	2x MultiGrip
Housing	Hybrid (birch multiplex/MDF)	Birch multiplex
Finish	Black acrylic enamel	Black acrylic enamel
Front grille	2 mm metal grille backed with black acoustic foam	2 mm metal grille backed with black acoustic foam
Dimensions (WxHxD)	48 x 53.5 x 67.5 cm 18-57/64 x 21-1/16 x 26-37/64"	55 x 56 x 68.5 cm 21-21/32 x 22-3/64 x 26-31/32"
Weight	32.9 kg / 72.53 lbs	41.6 kg / 91.71 lbs



LINEAR 5 MK II - COMPETITIVE COMPARISON



	LINEAR 5 MKII 112 XA	Yamaha DZR12	RCF ART 932-A	RCF NX32-A	Electro Voice ETX-12P	DAS Audio Vantec-12 A	JLB PRX 812 W
Price UVP	1.349 €	1.329 €	1.059 €	1.479 €	1.724 €	1.399 €	1.644 €
Online		1.269 €	945 €	1.349 €	1.388 €	1.299 €	1.029 €
Low-/mid speaker (inch)	12	12	12	12	12	12	12
HF driver (inch)	1,7	2	3	1,4	1,25	1	1,5
Power W (rms)	600	-	-	700	-	750	-
Peak power in W	1200	2000	2100	1400	2000	1500	1500
max. SPL peak (db)	136	139	132	131	135	135	135
Weight (kg)	17,6	21,4	18,8	20,6	23,6	21,5	19,4
Housing	Wood	Wood	Plastic	Wood	Wood	Wood	Wood
Multifunctional cabinet	✓	✓	✓	✓	✓	✓	✓
Pole mount	DuoTilt 3°/7° 36 mm	36mm	36mm	35mm	36mm	0°/10° 35 mm	35 mm
Horn directivity °	80 x 60	90 x 60	100 x 60	90 x 60	90 x 60	90 x 50	90 x 50
Frequency response -10 dB	67 Hz - 19 kHz	39 Hz - 20 kHz	50 Hz - 20 kHz	50 Hz -20 kHz	43 Hz - 20 kHz	60 Hz - 20 kHz	53 Hz -20 kHz
DSP	✓	✓	✓	✓	✓	✓	✓
DSP Out	✓	✗	✗	✗	✗	✗	✗
Remote Control	✓	✗	✗	✗	✗	✓	✗
Network port (RJ45)	✓	✗	✗	✗	✗	✗	✗
Height (mm)	587	646	642	600	613	620	638
Broad (mm)	358	410	370	365	381	380	429
Depth (mm)	304	394	363	378	400	380	410