

THE CULTURE OF SOUND

KARL III



LYRAVOX

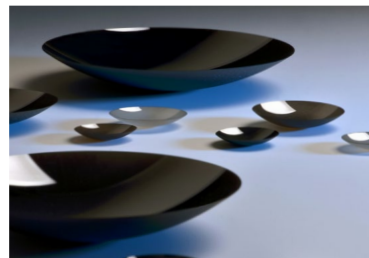
HAMBURG

ALL YOU NEED IS KARL

KARL III is the incarnation of all our innovations in loudspeaker design. It is a clear advancement of our flagship KARL equipped with extra elaborate transducers in particularly generous dimensions, in terms of both diaphragm area and drive power. Mk III now features upgraded firmware (also available for Mk II units) for extended bass capabilities and a wider panoramic soundstaging. The realism of the reproduction and its lifelike dimensions are incomparable. There is no sonic complexity that KARL III doesn't put into the room with ease. As a result, it conveys the multiple sensual dimensions of any musical genre with aplomb and without strain on the listener. It does this independently of volume level, something that traditional systems rarely achieve. Due to its acoustic adaptability, it compensates for unavoidable influences of the listening room and thus fulfills the dream of audiophile listening without compromise. Regardless, its appearance remains living room friendly, with invisible integrated electronics and eschewing superfluous material battles.

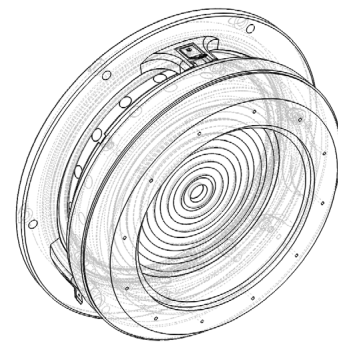
SUPERLATIVE ELECTROMECHANICS

As sound transducers, the unique all-ceramic diaphragm drivers from Accuton® in Pulheim, Germany, possess unrivaled musical transmission potential, which can finally be fully exploited with our digitally controlled direct drive. They are the only diaphragms that do not bend when excited and thus reproduce sound with particular precision. They also exhibit significantly less distortion than conventional diaphragms and are less permeable to sound from inside the speaker. They are also 'faster', e.g. Accuton tweeters are the only domes that do not have a transient delay – which is perceptibly audible.



KARL III we crown with the diamond version of the Cell® tweeter, it transmits even more details than its ceramic counterpart, audible in the form of finer textures, more defined resonance, clearer spatial image. Above all, however, the last vestige of inherent sound disappears in favor of a previously unknown naturalness. At least

the same importance for the overall result has the 168 mm Cell® midrange inverse dome with 114 mm voice coil – with no other midrange driver can so finely drawn, large, almost tangible acoustic images be created.



ACOUSTICS TURNED TO THE TIP

The KARL III cabinet is also brimming with acoustic refinements. On the one hand, the transducers operate in separate individual housings, undisturbed by the influences of the other drivers, while at the same time this layout significantly increases the stability and low resonance of the overall construct. In addition, the individual housings are reinforced and calmed by an inner skeleton of acoustic artificial stone. The segments are arranged in focus on the listener, in favor of improved acoustic projection. The silhouette of KARL III is emphatically wide, but shallow in depth. Acoustically, this results in a more vibrant and powerful dispersion towards the listener, while aesthetically the speaker integrates better into the room than a narrow deep speaker. KARL III can also be driven close to a wall thanks to optional room matching. Also unique in loudspeaker design is the acoustic function of the defined



THE LYRAVOX FORMULA

The key to sound is the best possible transducers. Driven without loss by system-integrated, tuned power amplifiers and individually controlled by a finely adjusted signal, they unfold the highest sound potential – especially in combination with high-quality cabinets and careful acoustics.

„In loudspeaker development, DSP active technology puts us in a position where we can now maximize musical expressiveness instead of minimizing acoustic errors.“

Jens Wietschorke,
Founder and Chief Developer of Lyravox

spacing between KARL's segments: here, the locatable frequencies are allowed to move through the slots in all directions around the loudspeaker. This harmonizes the musical presentation of the speaker in the room, and also – in combination with the diffuse-field tweeter – significantly increases the listening zone.



INTEGRATED ELECTRONICS FOR LOSS-FREE SIGNALS

KARL III is a fully active integrated loudspeaker system with digital signal processing and chassis control. Subwoofer, woofer, midrange and tweeter are each directly driven by their own power amplifier, eliminating the need for the sound-deteriorating conventional crossover. The high-resolution DSP (Digital Signal Processor) also controls frequency transitions, phase, time offset and tonal equalization many times more accurately than physical crossovers. The system also allows acoustic matching to the listening room (recommended). KARL III features 3rd generation NCore® power amplifiers that drive the highly accurate transducers in a powerful yet controlled manner.

INTEGRATED PRE-AMPLIFIER

KARL III can be operated classically with a preamplifier, but also allows direct connection of up to five source devices. This allows a particularly low-loss overall system to be realized. It has three digital and two analog inputs. The integrated preamplifier with OLED display is controlled via a remote control, including source selection, volume and sound profile selection.



DIFFUSE FIELD EXPANSION

An additional AMT super tweeter in the top of the cabinet is used to create an extended so-called high-frequency diffuse field (indirect sound in the room). This corresponds to the real music event, where the sound is distributed around the instruments in the whole space and not directionally towards the listener (as with conventional loudspeakers).



HANDMADE IN HAMBURG

KARL III is individually handmade, tested and tuned in our Hamburg manufactory. Our suppliers are selected specialists from Germany and Europe. We are able and happy to implement individual customer requests of all kinds.

“...can keep up with the world's top league casually.”

Hans v. Draminski, Fidelity

“What a surprise! The sound resembled what we get from high-class tube amplifiers and a good turntable. If this is what digital audio is to look like in the 21st century, we are at home...”

Wojtek Pacula, High Fidelity

“The speaker has no analog crossover... The result is a “to the point” character with unearthly timing, playing flow and maximum precision. Or, to put it another way, Karl der Zweite gets right under your skin.”

Carsten Barnbeck, Fidelity

“...a stunning experience that can leave you speechless. This is without any doubt world class.”

RANKED NR. 1 OF ALL SPEAKERS IN STEREOPLAY AUDIO'S 'BEST-OF'-LIST AS OF JAN|23

Alexander Rose-Fehling, Stereoplay 1/23

TECHNICAL INFORMATION

Concept:

Dynamic, 4 way plus diffuse field tweeter, woofers each vented, subwoofer bass reflex (downfire), fully active 5 x Class D with DSP signal processing and integrated preamplifier. Master/secondary configuration with digital interlink.

Recommended Room Size:

35 - 140 m² (with normal living space height up to 2.8 m)

Recommended Listening Distance:

3,5 - 9 m

Recommended Rear Wall Distance:

At least 0.8 m (with acoustical room adjustment from 0.3 m)

Typical Frequency Response:

23 - 130.000 Hz (room dependent)

Enclosure:

Multi-segment cabinet made of thick-walled heavy MDF, H-bracing inner skeleton made of K-material (high damping artificial stone). Multi-component sound chamber insulation. Bass reflex on the floor side in each case. Base plate made of multi-component polished K-material with blade edge contact base and optional hidden spikes. Surface multi-layer nanocoating matt ultrasmooth (ring-scratch-resistant, furniture quality) in pure white NCS-S 0500N. Individual RAL or NCS color shades at extra charge.

Dimensions:

52 cm x 160 cm x 23 cm (W x H x D), base plate 46 cm deep

Weight:

approx. 90 kg

Transducers:

Front tweeter Accuton® BD25 full diamond 25mm
Midrange driver Accuton® C168-990 4D full ceramic 7"
3x Woofer Accuton® C173 full ceramic 7"
Subwoofer Scan Speak® 30 W aluminum 12"

Diffuse Field Tweeter AMT L50

Electronics:

Per speaker 5 power amplifiers NCore® of the 3rd generation, 1350 W total power. Multi-channel Hi-Res DSP with integrated, remote controllable preamplifier for digital and analog sources (updateable). Alphanumeric OLED front display.

Internal Wiring:

High-purity copper OCC with matched cross-sections in each channel, high-frequency wiring high-purity silver OCC profiled.

Interfaces:

AES digital XLR (via main speaker)
SPDIF digital RCA coax (via main speaker)
Toslink digital fiber optic (via main speaker)
XLR analog balanced (each right / left)
RCA analog ('Cinch') (each right / left)

Acoustical Customizing:

Up to three custom sound presets after expert calibration in the listening room (option at extra cost). E.g. additional presets for older sources, historical recordings or cinema sound with virtual center.

Included Items:

Aluminum remote control for controlling all functions incl. source selection and sound presets; 2 x power cord; 4.5 m Lyra-Link SPDIF connection cable main and secondary speakers; Lyra-Link cable bridges for subwoofer section; dust covers; user manual.

Warranty (EU):

3 years on electronics availability, 5 years on mechanics (speaker chassis), 10 years spare parts warranty. Within Europe, on-site service is possible in most cases.

Product Variants:

KARL III C with Accuton® Cell® C25 all-ceramic tweeter instead of BD25 diamond tweeter.

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