

# THE CULTURE OF SOUND

KARLOTTA



  
LYRAVOX  
HAMBURG



LYRAVOX  
HAMBURG

# STATE OF THE ART IN STYLE

**KARLOTTA combines the uncompromising Lyravox technology of direct-driven, digitally controlled ceramic transducers with a revolutionary cabinet concept. Not only does she have an impressive cone configuration and power reserve in relation to her dimensions. She also houses each transducer in an individual enclosure and uses the principle of controlled sound guidance as originally introduced by Lyravox, allowing to combine the special qualities of compact monitors with those of large, ‚symphonic‘ loudspeakers. Thanks to her adaptability to the acoustics of the room, she actually exploits her sonic potential in real life. And even if she may often be chosen for a living room or music room for her unique aesthetics, she has long been regarded by connoisseurs as a sonic reference in her size and weight class.**



## CERAMIC DIAPHRAGMS

The unique all-ceramic diaphragm speaker drivers from the German pioneer Accuton® have an unrivaled musical transmission potential, which can only be sensibly exploited with our digitally controlled direct drive. The diaphragms are the only types that do not bend when excited by the audio signal and therefore reproduce sound with superior precision. They also exhibit significantly less distortion than conventional diaphragms and are less reverberant. And then they are also ‚faster‘, e.g. Accuton tweeters are the only dome tweeters that have no transient delay - and this benefit is clearly audible.



## ACOUSTICS, TAKEN TO THE EXTREME

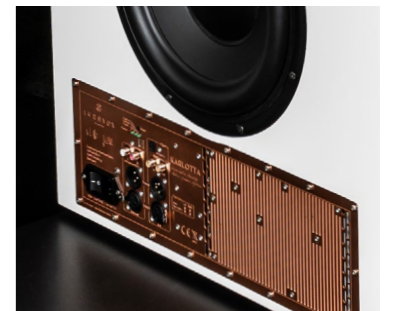
Although Lyravox is primarily known for its principle of directly driven ceramic sound transducers, KARLOTTA represents above all a triumph of acoustics. Her unmistakable appearance is the result of several acoustic refinements. On the one hand, the transducers work in separate individual housings, particularly undisturbed by the influences of the other drivers, while at the same time increased the stability minimizes the resonance of the overall system. In addition, the individual enclosures are reinforced and calmed by an inner skeleton made of cast mineral stone. The overall silhouette of KARLOTTA is emphatically wide, but shallow in depth. Acoustically, this leads to a livelier and more powerful projection towards the listener, while aesthetically KARLOTTA can be much better integrated into the room than a narrow, deep loudspeaker.



The semi-d'Appolito configuration of her twin midwoofers allows KARLOTTA to perform equally well at both near and far listening distances. The acoustic function of the defined distances between KARLOTTA's segments is also unique in loudspeaker construction: here the localizable frequencies are allowed to move through the slots in all directions around and behind the loudspeaker (as happens to their advantage with small monitors). This clearly harmonizes the musical presentation of the loudspeaker in the room, and - in combination with the diffuse-field tweeter - considerably enlarges the listening zone.

## INTEGRATED ELECTRONICS FOR LESS LOSS

KARLOTTA is a fully active integrated loudspeaker system with digital signal processing and chassis control. The subwoofer, bass-midrange driver and tweeter are each driven directly by their own power amplifier, eliminating the need for a conventional crossover that is detrimental to sound quality. The high-resolution DSP (Digital Signal Processor) also controls frequency transitions, phase, time offset and tonal equalization many times more precisely than physical crossovers. The system also allows acoustic adaptation to the listening room (highly recommended). KARLOTTA features 3rd generation NCore® power amplifiers, which drive the super accurate transducers in a powerful yet controlled manner. Her integrated preamplifier, which can be remote-controlled in all functions, allows direct connection of up to five source devices as an alternative to operation with an external preamplifier. This makes it possible to create a particularly low-loss overall system.



## 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 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

## DIFFUSE FIELD EXPANSION

An additional AMT super tweeter in the top of the cabinet generates an extended so-called high-frequency diffuse field (indirect sound in the room). This corresponds to the real music event, in which the sound is distributed around the instruments throughout the room and not directionally towards the listener (as with conventional loudspeakers). At the same time, the additional tweeter extends the dispersion limits of the main tweeter and thus enlarges the stereo listening zone.



## HANDMADE IN HAMBURG

KARLOTTA is individually handmade, inspected and tuned in our Hamburg manufactory. Our suppliers are selected specialists from Germany and Europe. We are happy to realize individual customer wishes of all kinds.





„As far as it is even possible to beam a concert hall into your own home, even in the correct size - Karlotta accomplishes the feat casually... ..The hi-fi gods have put measurement before enjoyment. After that, the Lyravox Karlotta plays perfectly well in practically any room and is extremely frugal.“

Hans von Draminski, Fidelity

„She shows no restraint and goes straight forward. No trace of performance loss or sluggishness. The Accuton drivers hit the mark and have no problems following the fast guitar storm. High solos always remain clean and everything appears excellently differentiated.“

Philipp Schneckeburger, HiFi Einnsnull

„There's a hell of a loudspeaker playing here. ..In any case, it will be difficult to put together a classic combination of D/A converter, amplifier and passive loudspeaker for the same budget that can even come close to holding a candle to the Karlotta..“

Jürgen Schröder, LowBeats

„...put the listener into a genuine intoxication,..“

Malte Ruhnke, Stereoplay

## TECHNICAL INFORMATION

### Concept:

Dynamic, 3-way plus ambience tweeter, ported bass (rear subwoofer), triple fully active class D amplification with DSP signal processing. Master/secondary configuration with digital interlink.

### Recommended room size:

18 - 90 m<sup>2</sup> (assuming normal living space height up to 2.8 m)

### Recommended listening distance:

3 - 8 m

### Recommended distance to the wall:

At least 0.6 m (with acoustical room adjustment from 0.3 m)

### Frequency response:

24 - 42.000 Hz (room dependent)

### Enclosure:

Multi-segment cabinet (one segment per each driver), extra high density wood composite walls. Internal K-Material (solid Stone) Lyravox H-Bracing in all midwoofer and subwoofer enclosures.

Multi-material internal damping. K-Material base plate (bare black, semi-polished) with polymer floor decouplers. Nano-finished multi-layer paint coating, ultrasmooth matte. Custom paintwork available in all RAL or NCS colour (at extra cost).

### Dimensions:

45 cm x 109 cm x 19 cm (W x H x D), baseplate 38 cm deep.

### Weight:

55 kg

### Transducers:

Tweeter Accuton® Cell® Ceramic C25  
2 x Midbass Accuton® C173 7"  
Subwoofer ScanSpeak® 30W Aluminium 10"  
Diffuse field tweeter AMT L50

### Electronics:

Per speaker 2 x 250 w and 1 x 100 w amplifiers NCore® 4th generation. Multi-channel Hi-Res DSP with integrated, remote controllable preamplifier for digital and analog sources (firmware updateable). Alphanumeric OLED front display.

### Internal Wiring:

High-purity copper OCC in matching diameters for each channel.

### Input 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 cinematic 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 interlink cable main / secondary speakers; dust covers; user manual.

### Warranty (EU):

3 years on electronics, 5 years on mechanics (speaker drivers), 10 years spare parts availability. Within Europe, on-site service is mostly possible.

### Product Variants:

KARLOTTA D with Accuton® BD25 full-diamond tweeter.  
KARLOTTA ANALOG with analog inputs only, for operation with external preamplifiers, without remote control and interlink cable.

Errors and technical changes reserved. Accuton, NCore, Scan Speak and Lyravox are registered trademarks.



LYRAVOX  
HAMBURG

Lyravox Geräte-manufaktur GmbH & Co. KG | Jaffestraße 6 | 21109 Hamburg, Germany  
Phone +49 - 40 - 32089798 - 0 | Fax +49 - 40 - 32089798 - 9  
info@lyravox.de | www.lyravox.com