



ELLA

Full Active 2-way Loudspeaker-System

Tweeter Dimension:	1x25mmø,
Membrane Material:	Coated Magnesium
Conception:	Waveguide + Acoustic Lens
Woofer-Midrange Dimension:	3x145mmø,
Membrane Material:	High Definition Aerogel (HDA)
Conception:	Concentric around Tweeter
Amplification:	Analogue, Class G
Features:	Adaptive Output Impedance Compensated Phase Response
Sensitivity for 100dB SPL @1m:	775mV (adjustable)
Input Impedance:	balanced, 10kOhms
Input Overload:	24Vpp
Signal to Noise Ratio:	-96dBA
Continuous Power RMS:	40+120W
Program Power:	160W
Continuous max. SPL@1m:	106dB (single)
Program max. SPL@1m:	117dB (pair)
Frequency Response (-6dB):	36Hz - 22'000Hz
Tolerances (Frequency Response +/- 2dB)	44Hz - 20'000Hz
Tolerances (Phase Response +/-45°)	150Hz - 20'000Hz
Distortion THD@90dB/1m (<1.0%):	80Hz - 20'000Hz
Crossover Frequency:	1600Hz
Roll Off below 400Hz (adjustable):	0dB - 3dB/Octave
Connectors:	XLR F/3P
Signal Input:	1=GND, 2=(+), 3=(-)
Voltage:	115/230V (50-60Hz)
Consumption (Standby / Quiescent / Max):	1.5 / 5 / 150 W
Box Material / Color:	MDF / Nextel light gray
Baffle and Base Plate Material / Color:	CREANIT® / white, black (other colors optional)
Net Weight:	20.5 kg
Dimensions Cabinet: H x W x D	1129 x 216 x 189mm
Surface Base Plate: W x D	380 x 288mm

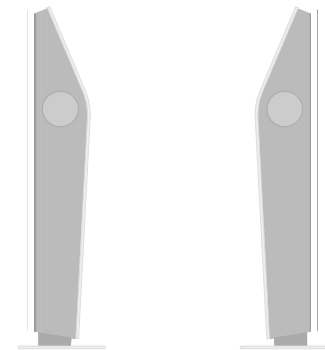
Technical adaptations are subject to change without prior notice

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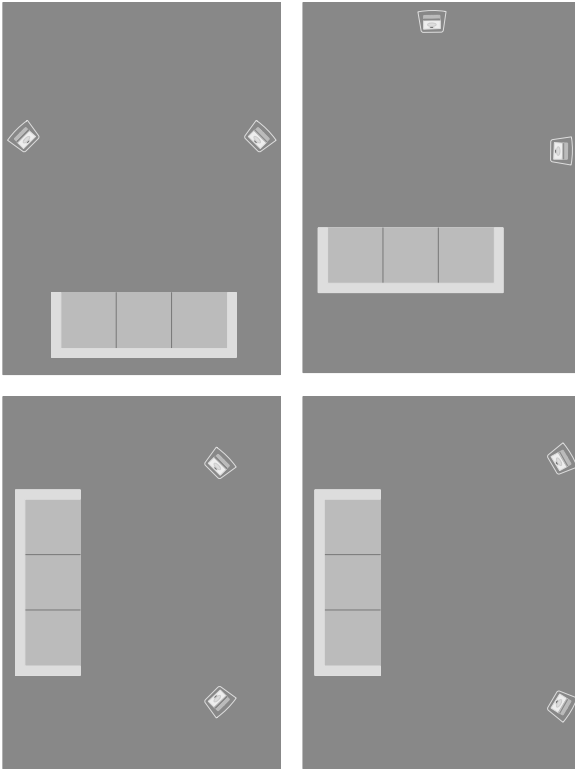
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K L A N G W E R K[®]



ELLA



stereós (greek) = full bodied, spatial
phōné (greek) = sound, voice

Music playback seems particularly realistic, when you feel the recorded space. Stereophonic recordings deceive the brain to create this virtual soundstage. Loudspeakers can reproduce this effect most faithfully if they have a perfect impulse response. That means all frequencies arrive at the same time at your ears.

ELLA has a perfect impulse response due to the concentric arrangement of the drivers and the active technology. Furthermore ELLA can be positioned also near walls without a loss of quality. And the even radiation off-axis extends the listening zone. The sound is always well balanced and spacious.

ELLA can be upgraded to a multichannel system with the models MURO or/and PHIL for the Center and Rear Channels . The subwoofer BASE is an option for large rooms or/and to cover the lowest octave for very high demanding listeners.

Form Follows Acoustics

The unique shape of ELLA is based on acoustic criterias. The arrangement of the drivers produce a wide and even dispersion of all frequencies.

The dimensions are small compared to the acoustic output. A small cabinet is an advantage, because it is much easier to get stiff.

The cabinet is divided in two parts: On a rigid MDF structure a curved baffle of CREANIT® is mounted. Creanit is an artificial stone with high density and high inner damping. It is robust because the color is in the material and the surface is only polished. Standard colors are white and black. Numerous colors are available optional.

Tweeter with Waveguide and Acoustic Lens

The waveguide combined with our active technology allow an unusually low crossover frequency. The tweeter covers a wide frequency range what makes the sound open and clean. The Magnesium membrane is very stiff and lightweight and resonances are damped by the acoustic lens and the amplifier.

The tweeter signal is electronically delayed to be in the same acoustic plane as the 3 mid-woofers.

Concentric Mid-Woofers

The 3 mid-woofers are mounted in a circle around the tweeter giving a point source behaviour. Two mid-woofers are mounted on opposite sides of the cabinet what cancels forces on the cabinet.

3 small and lightweight membranes reduce the moving mass and raise stiffness considerably over 1 larger membrane with the same surface. The membranes are of High-Definition-Aerogel, a patented structure of paper with additional fibres to combine high stiffness with high inner damping. The movement of the membranes is controlled by the active amplifier, an important benefit in the lower frequencies. Two shelf ports are oriented to the floor for maximum efficiency. Bass is unusually deep and powerful for such a small cabinet.

Electronics - Active Technology

In an active system the amplifier and loudspeaker form an electroacoustic unity. The different frequency domains are divided and linearised before the amplification by the active filter when the signals are still low in level. Each frequency domain (Tweeter, Mid-Woofers) then has its own power amplifier with its particular design. The motion of the membrane is regulated by the unique Adaptive Output Impedance system (AOI) and the loudspeakers are protected from overload.

The low frequency output can be attenuated with a Roll-Off Control when the loudspeaker is placed near a wall.

