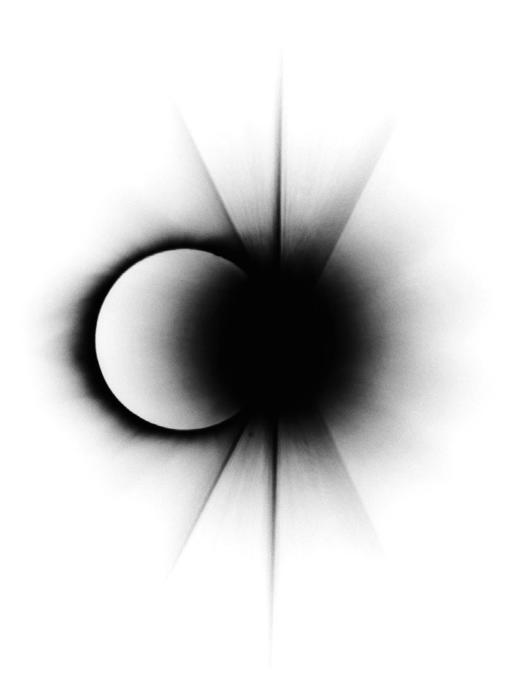
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DE Plan Series Invisible Speakers

Invisible Precision





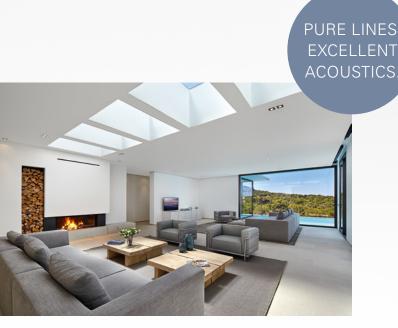
LB LOUDSPEAKERS DESIGN & VISIBILITY

SLIM DESIGN DE SERIES

DE Plan Series NEXT GENERATION

Pushing the Limits Our **DE Plan Series** consolidates all of our experiencesince 1999 in developing invisible speakers, redefining what is technically possible with speakers of this kind. The combination of flat-membrane woofer drivers, high-frequency exciters, and the latest generation of **de:shape**[®] membranes means maximum linearity and sound pressure in the low frequency range. As the entire membrane surface is used for homogenous sound dispersion, the dimensions of our DE Plan series are remarkably compact. The mathematically calculated contour of the de:shape[®] membranes and and the patented absorption elements prevents interference caused by membrane resonance for unprecedented precision in sound reproduction.

Thanks to the optimized coupling between the drivers and dispersion membrane, the new models respond a lot less sensitively to deviations in covering material (plastering, lining, and paint). After installation, the speakers are completely concealed in ceilings and walls.



The patented flat transducers deflect the dispersion membrane which has a homogenous deflection via a compression driver and highly efficient exciters in the high-frequency range to deliver outstanding sound properties and exceptional low-frequency characteristics.

DE Plan membranes have an optimized contour with a calculated distribution of distance between the edge and the high frequency driver.

Modular line arrays with adjustable vertical directional characteristics. The speakers are controlled via our multi-channel DSP power amplifiers and programmed using the LB AUDIO CONTROL Software.

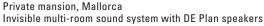
Special built-in versions of DE Plan models for installation in furniture and wall panels. The speakers are back-mounted on panels and directly resonate through these surfaces.



DEplan®

de:shape







lings and enables sound dispersion to be adjusted to the listening zone. power amplifiers and the dispersion direction is programmed using our LB AUDIO CONTROL Software.



DE Plan 800 AlArray, in-ceiling installation with adjustable directivity



DE Plan 800 AlArray, in-wall installation with adjustable directivity

- COMPACT DIMENSIONS
- FLEXIBLE INSTALLATION IN ALL CEILINGS AND WALLS
- EXCELLENT LOW-FREQUENCY CHARACTERISTICS

DE Plan Series CONSTRUCTION AND MOUNTING IN DRYWALLS





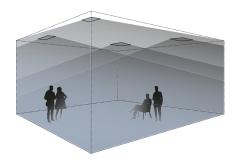
inveco Showroom Vienna Invisible Dolby Atmos multi-room sound system

DEplan®

DISPERSION CHARACTERISTICS

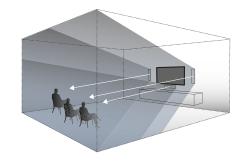
DE Plan 200, DE Plan 400 and DE Plan 600 models

These are two-way systems with a high-frequency exciter and a cone speaker for the low-frequency range. DE Plan 400 and DE Plan 600 offer particularly controlled and deep low-frequency characteristics. With a 180° dispersion angle, DE Plan systems create a very wide, uniform beam, enabling sound to be distributed evenly throughout a room with just a few speakers. The systems can be installed in ceilings and walls. **DE Plan 500 S** has a particularly narrow design, making it ideal for installation in confined spaces such as next to or below screens.



DE Plan 200, DE Plan 400, DE Plan 600



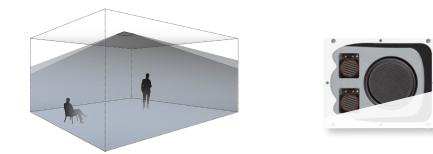




DE Plan 400, DE Plan 500 S, DE Plan 600

DE Plan 200 ST

This is a stereo 2-way system for reproducing sound in smaller rooms where only one speaker is required (bathrooms, changing rooms, etc.). The DE 200 ST has a wide, even beam direction (180° dispersion angle), enabling it to produce a sound that fills the entire room.



DE Plan Series 5 DE PLAN ALARRAY

With **DE Plan 800 AlArray** modules from LB, you become the acoustic conductor. By aligning these speakers precisely with the position of your audience, you can create the perfect sound field exactly where you want it. DE Plan 800 AlArray modules are front speakers (L, R, center) designed to be integrated into ceilings and walls.

You can use the digital signal processors of our multi-channel DSP power amplifiers and our browser-based LB AUDIO CONTROL Software to match the sound to the specific room acoustics. For large rooms with longer reverberation times, you can combine multiple modules to create longer line arrays with the range and directivity you need. We are happy to advise you on the dimensions and layout of systems and can also deliver preset files for standard configurations with different dispersion angles.

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In the case of the DE Plan 800 AlArray, the dispersion direction is set by programming the corresponding DSP power amplifiers using our newly developed, browserbased LB AUDIO CONTROL Software. The required angle is set by selecting the

appropriate preset from the preset library in 1° up to 3° increments.

In addition to selection of the dispersion direction, the software also provides the usual setting options such as parametric EQs, delays, compressors, and limiters. Project-specific presets available on request.

DE Plan 800 AlArray Configurationen

1 or 2 DE Plan 600 AlArray units can be operated on either side using a PA 8100 DSC controller power amplifier. A four-part line array measuring 2.5 m in total requires a PA 8100 DSC on each side.

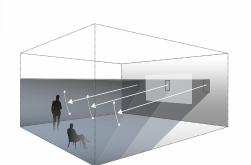
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SETTING AND DISPERSION CHARACTERISTICS

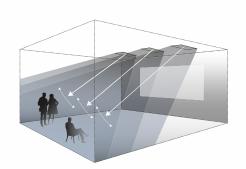


This is a four-channel line array module designed to be operated with our multichannel DSP power amplifiers. Each of the channels is set up as a two-way system with one 4" woofer and two high-frequency exciters. In multi-unit arrays, two channels can be parallel-connected in each array. The horizontal dispersion angle is 180° and vertical dispersion is set using our **LB AUDIO CONTROL Software.**





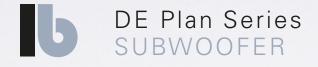
DE Plan 800 AlArray in-wall installation, radiation characteristic adjustable via controller



DE Plan 800 AlArray in-ceiling installation, radiation characteristic adjustable via controller



PA Series DSP power amplifiers for driving the passive multi channel line arrays



Pump up the Bass The DE Plan 600 SUB from lb is a powerful, completely invisible subwoofer. It is equipped with eight long excursion woofers, which deflect the membrane homogenously and deliver deep low-frequency characteristics.

The low-resonance back box (EG Plan 600 or EGB Plan 600) is very shallow, enabling it to be installed in non-concrete walls, solid walls and even concrete ceilings.



DE Plan Serie DE PLAN INSIDE

DE Plan Inside – make your furniture sing DE Plan Inside from LB turns your furniture into sound boards. These special built-in versions of the DE Plan speaker series can be installed in furniture and wall panels. The speakers are back-mounted onto the front of furniture or panels made of wood, MDF or similar materials and directly resonate through these surfaces. This surface is activated without an intermediate membrane, which makes DE Plan Inside models extremely efficient and gives them an extensive, linear frequency range.

These speakers can be adapted to different materials and conditions inside rooms using our system controllers or digital power amplifiers with signal processors. Find out more about the different ways these speakers can be installed.



DE Plan 400 inside in veneered cupboard

DE inside



Back box for drywalls and -ceilings (incl insulating wool)







EG Plan 500 S mm 620 × 240 × 100 mm



EG Plan 600 700 × 480 × 120 mm



EG Plan 800 800 × 480 × 120 mm

Back box for concrete (incl insulating wool)





DE Plan Installation Videos with/without back box on Youtube

DF Plan Series MODELS Cutout size Installation debut Power capacity Dimensions Dispersion Sensitivity Fi^{equen}cy Back box Principle Models Weight 3 kg 70... 83 dB (1W/1m) RMS/Prog. 180° 300 × 240 mm 304 × 244 mm (Wall thickness EG Plan 200 DE Plan 200 2-way flat transducer DE Plan 200 inside 20.000 Hz 60/120 Watts max. 101 dB 10 - 35 mm incl. back box) EGB Plan 200 8 Ohms incl. mounting feet 300 × 326 mm Installation depth 72 mm DE Plan 200 T 7.5/15/30 Watts max. 97 dB 3,4 kg 100 V version 90.. EG Plan 200 RMS/Prog. 83 dB (1W/1m) 180° 304 × 244 mm (Wall thickness DE Plan 200 ST Stereo $300 \times 240 \,\text{mm}$ 3,1 kg 10 - 35 mm incl. back box) DE Plan 200 ST inside 2-way flat transducer 20.000 Hz 2×30/2×60 Watts max. 101 dB EGB Plan 200 2×8 Ohms incl. mounting feet 300 × 326 mm Installation depth 72 mm 46... RMS/Prog. 84 dB (1W/1m) 4,3 kg EG Plan 400 DE Plan 400 2-way flat transducer 180° $420 \times 300 \text{ mm}$ 424 × 304 mm (Wall thickness DE Plan 400 inside 20.000 Hz 120/240 Watts max. 106 dB 10-35 mm incl. back box) EGB Plan 400 8 Ohms incl. mounting feet 420 × 38 8 mm Installation depth 72 mm DE Plan 400 T 7,5/15/30 Watts max. 102 dB 4,7 kg 100 V version DE Plan 500 S 2-way flat transducer 110... RMS/Prog. 82 dB (1W/1m) 180° 540 × 140 mm 544 × 144 mm (Wall thickness 3.8 kg EG Plan 500 S DE Plan 500 S inside 20.000 Hz 80/160 Watts max. 104 dB 10 - 35 mm incl. back box) EGB Plan 500 S 8 Ohms incl. mounting feet 560 × 210 mm Installation depth 72 mm DE Plan 600 2-way flat transducer 38... RMS/Prog. 85 dB (1W/1m) 180° 620 × 300 mm 624 × 304 mm (Wall thickness 5 kg EG Plan 600 DE Plan 600 inside 20.000 Hz 180/360 Watts max. 110 dB 10 - 35 mm incl. back box) EGB Plan 600 6 Ohms incl. mounting feet 626 × 388 mm Installation depth 72 mm DE Plan 800 AlArray 4-channel 2-way 40... RMS/Prog. 88 dB (1W/1m) horiz, 180° vert. 720 × 300 mm 724 × 304 mm (Wall thickness 8.5 kg EG Plan 800 20.000 Hz flat transducer 4×60/120 Watts max. 112 dB with LB AUDIO 10 - 35 mm incl. back box) EGB Plan 800 4 × 8 Ohms CONTROL Software incl. mounting feet adjustable 728 × 388 mm Installation depth 72 mm DE Plan 800 SUB Flat transducer 35... RMS/Prog. 87 dB (1W/1m) 180° 720 × 300 mm 724 × 304 mm (Wall thickness 8,5 kg EG Plan 800 Only in conjunction 180 Hz 240/480 Watts max. 112 dB 10 - 35 mm incl. back box) EGB Plan 800 with EG(B) Plan 800 4 Ohms incl. mounting feet 728 × 388 mm Installation depth 76 mm



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