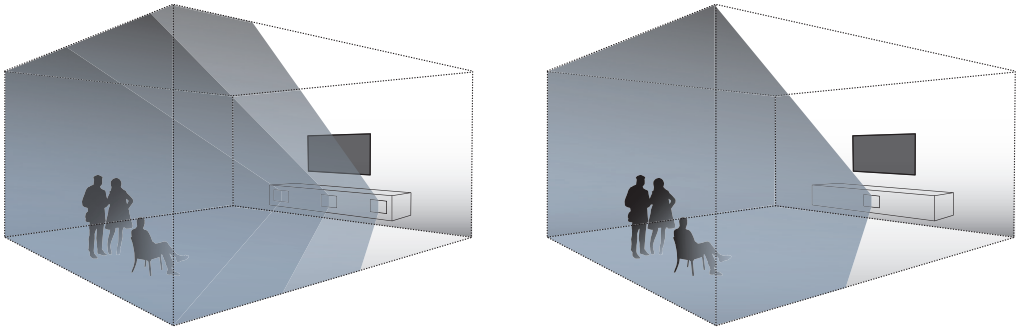
Installation Instructions
Invisible Speakers

For invisible Integration into Furniture and Wall Panels

DE plan® inside

INVISIBLE INTEGRATION

pure listening



DE plan® inside

Radiation diagrams DE Plan inside installation in furniture

The Speakers of the **DE Plan inside Series** are special built-in versions to 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.

As a result, our system controllers or DSP power amplifiers should always be used to achieve the best sound pattern. With our **LB AUDIO CONTROL Software** the loudspeakers can be optimally adapted to material and spatial conditions.

LB AUDIO CONTROL
Browser-based Software for our new DSPs
Interface: Ethernet
Download: www.lb-lautsprecher.de

Refer to individual product datasheets for more detailed technical information. These are available at:
www.lb-lautsprecher.de/en/Invisible-Speakers

Accessories

Included in delivery:

- 2-component adhesive
- Pistol and dosing tip for 2C adhesive
- Cyano-acrylate adhesive Spezial 483 (instant adhesive)

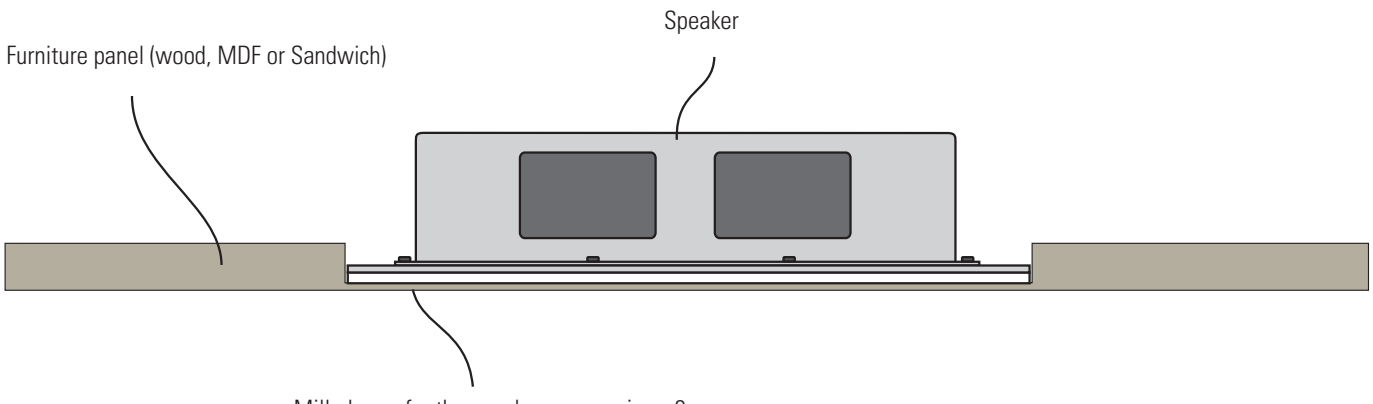
2-C Adhesive

Adhesive-Pistol

Dosing Tip

Cyanoacrylate Adhesive

Cut: Installed Speaker



Installation of DE Plan inside® in furniture panels (wood, MDF or sandwich)

1. Milling of furniture panels
The recessed mounting area is milled into the rear surface to a wall thickness of 3 mm.
Attention: Please make sure that the panel is not getting distorted by milling.

You can also use a sandwich board with 3 mm HDF and milled MDF with recessed wall thickness.

2. Surface of the furniture panels
If the furniture is verneered, coated or varnished, the inner side of the milled area should be treated accordingly. At least the inner side of the milled area should be primed in order to avoid distortion.

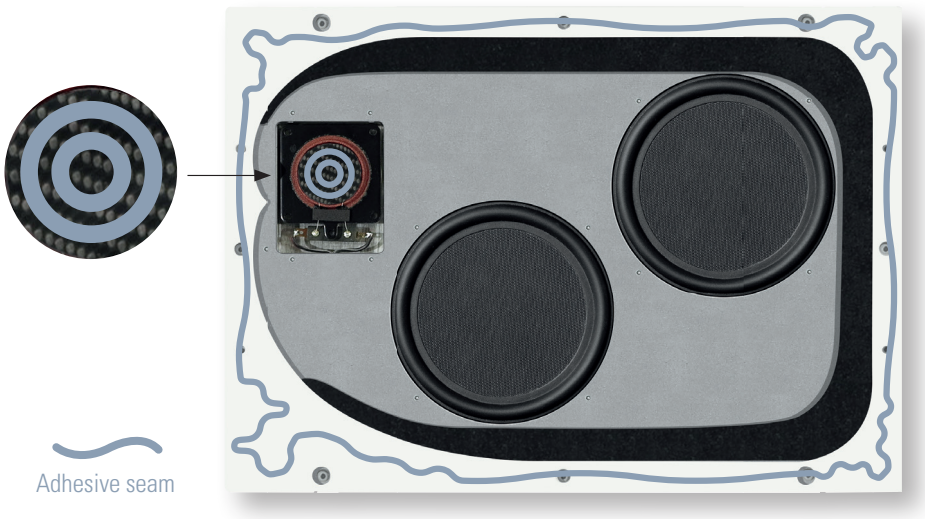
3. Pretreatment of the milled furniture in the area of the exciter (only if the milled area is not varnished)
To bind the surface in the area of the exciter (8 × 8 cm) treat the milled MDF with the cyan-acrylate Special 483 adhesive. Spread the adhesive by using a brush or spatula. Let the adhesive harden for at least 30 minutes.

4. Sticking the speakers in the milled furniture or wall panels
First degrease the mating surfaces with alcohol (white edge plating and carbon plating from exciter).
Then apply the 2C adhesive (included in delivery) on the white plating and carbon plating from exciter in a solid homogeneous seam (see picture below).
Afterwards insert the speaker **rapidly** into the milled area from furniture or wall panel (the membrane with adhesive face down).
Weigh down the Speaker for 20 minutes (with about 5 – 10 kg)

Important Informations

- Make sure that the carbon plating from exciter has contact with the furniture or wall panel when sticking.
- The adhesive has a short pot life of 5 minutes and quick setting, afterwards no further adjustments are possible.
- Damage resulting from incorrect handling is not covered by the warranty.

DE Plan inside Installation
Application of the 2C adhesive
Please contact us if you have any questions !



Models	Principle	Frequency range	Sensitivity	Schalldruckpegel	Dispersion	Dimensions	Recess size	Installation depth	Weight	Back box
DE Plan 200 inside	2-way flat transducer	70… 20.000 Hz	RMS/prog. 60/120 watts 8 ohms	83 dB (1W/1m) max. 101 dB	180°	300 × 240 mm	304 × 244 mm (remaining thickness 3 mm)	72 mm	2,7 kg	EG Plan 200
DE Plan 200 ST inside	Stereo-2-way flat transducer	90… 20.000 Hz	RMS/prog. 2×30 /2×60 watts 2×8 ohms	81 dB (1W/1m) max. 99 dB	180°	300 × 240 mm	304 × 244 mm (remaining thickness 3 mm)	72 mm	2,7 kg	EG Plan 200
DE Plan 400 inside	2-way flat transducer	46… 20.000 Hz	RMS/prog. 120/240 watts 8 ohms	82 dB (1W/1m) max. 104 dB	180°	420 × 300 mm	424 × 304 mm (remaining thickness 3 mm)	72 mm	4,5 kg	EG Plan 400
DE Plan 500 S inside	2-way flat transducer	110… 20.000 Hz	RMS/prog. 80/160 watts 8 ohms	80 dB (1W/1m) max. 102 dB	180°	540 × 140 mm	544 × 144 mm (remaining thickness 3 mm)	72 mm	3,8 kg	EG Plan 500 S
DE Plan 600 inside	2-way flat transducer	40… 20.000 Hz	RMS/prog. 180/360 watts 6 ohms	81 dB (1W/1m) max. 106 dB	180°	620 × 300 mm	624 × 304 mm (remaining thickness 3 mm)	72 mm	5 kg	EG Plan 600

Individual product datasheets:
www.lb-lautsprecher.de/en/Invisible-Speakers

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