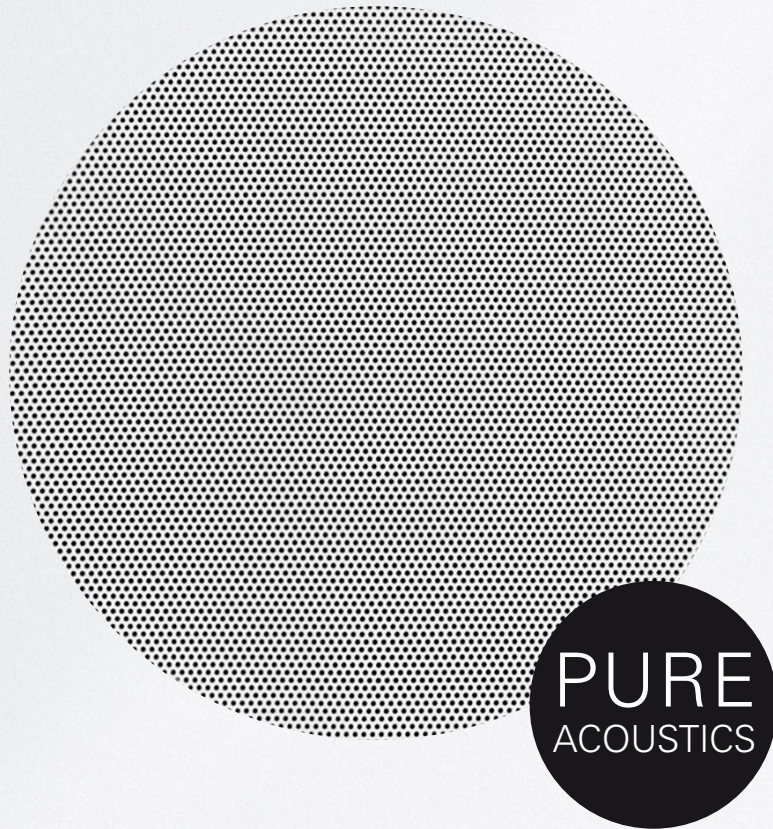




Installation Instructions
DE-X Series
Trimless In-Ceiling Speakers





Our trimless built-in speakers from the **DE-X series** are high-end speakers for flush installation in ceilings and walls.

The puristic appearance and the minimal dimensions of the round, square and rectangular models from the DE-X series offer the possibility of implementing sound systems at the highest sound level in architecturally demanding rooms with minimal intervention in the room architecture.

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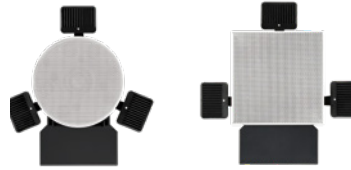
**DE-X installation videos
with or without back box**
on Youtube

1. Models

Connectors / cable type

**DE-X 140 Polar, DE-X 140 T Polar,
DE-X 140 Q Polar, DE-X 140 QT Polar**

Trimless 2-way hifi in-ceiling speaker
with Polar technology

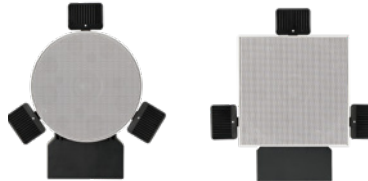


2-pole
2 x 1,5 mm² up to 30 m
2 x 2,5 mm² up to 50 m



**DE-X 170 Polar, DE-X 170 T Polar,
DE-X 170 Q Polar, DE-X 170 QT Polar**

Trimless 2-way hifi in-ceiling speaker
with Polar technology

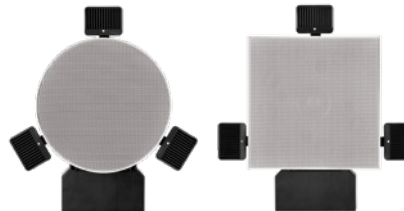


2-pole
2 x 1,5 mm² up to 30 m
2 x 2,5 mm² up to 50 m



**DE-X 200 Polar, DE-X 200 T Polar,
DE-X 200 Q Polar, DE-X 200 QT Polar,
DE-X 200 HSP Polar, DE-X 200 HSPT Polar,
DE-X 200 HSPQ Polar, DE-X 200 HSPQT Polar**

Trimless 2-way hifi in-ceiling speaker
with Polar technology



2-pole
2 x 1,5 mm² up to 30 m
2 x 2,5 mm² up to 50 m

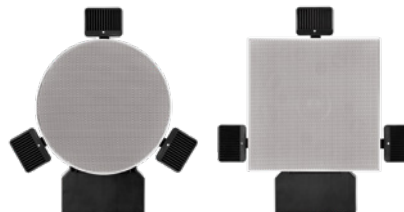


**DE-X 200 LP, DE-X 200 LPT,
DE-X 200 LPQ, DE-X 200 LPQT**

Trimless speaker with reduced mounting depth

DE-X 200 CD, DE-X 200 CDQ

Trimless In-wall speakers with
narrow dispersion angle

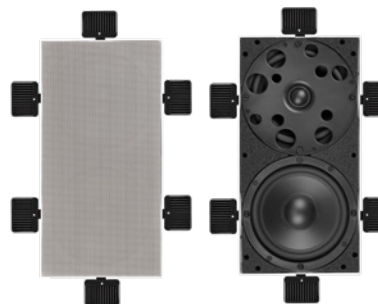


2-pole
2 x 1,5 mm² up to 30 m
2 x 2,5 mm² up to 50 m



DE-X 300 R

Trimless 3-way in-ceiling speaker
with Polar technology

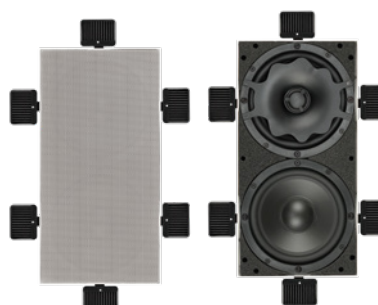


2-pole
2 x 1,5 mm² up to 20 m
2 x 2,5 mm² up to 35 m



DE-X 300 CDR

Trimless 3-way in-wall speaker
with CD characteristics



2-pole
2 x 1,5 mm² up to 20 m
2 x 2,5 mm² up to 35 m



1. Models

Connectors / cable type

DE-X 300 FR

Trimless 3-way in-ceiling front speaker,
beam directon-35° downwards

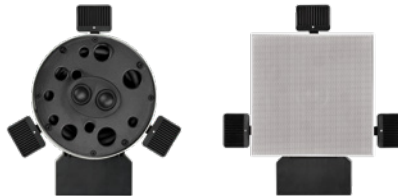


2-pole
2 x 1,5 mm² up to 20 m
2 x 2,5 mm² up to 35 m



DE -X 200 ST Polar, DE-X 200 STQ Polar

Trimless Stereo 2-way in-ceiling speaker
with Polar technology

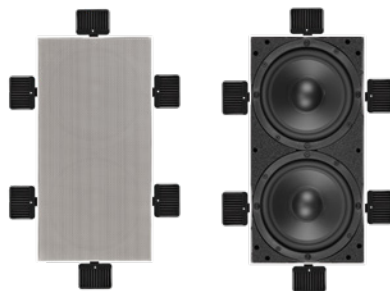


2-pole
2 x 1,5 mm² up to 30 m
2 x 2,5 mm² up to 50 m



DE-X 300 SUB

Trimless In-ceiling subwoofer
with integrated crossover

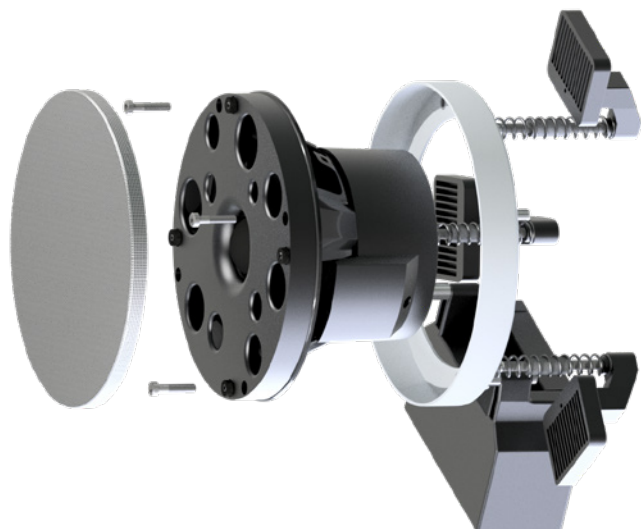


2-pole
2 x 1,5 mm² up to 20 m
2 x 2,5 mm² up to 35 m

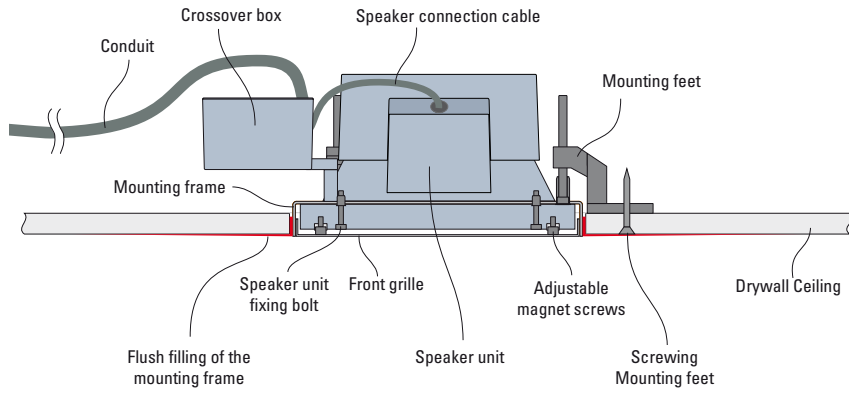


2. Scope of delivery

- Assembly frame with springs and screws for attachment
- speaker unit
- Front grille
- For square and rectangular models:
Foam elements to fill the gaps between the
loudspeaker chassis and the mounting frame
- Installation instructions



3. Installation in drywall walls and ceilings (without back box)



The DE-X Series built-in speakers can be installed directly in closed drywall walls and ceilings. The wall/ceiling thickness should be between 8 and 30 mm.

1. Installation: Mounting frame with Crossover box



Locate and mark out the installation position.



Cut the installation opening.
For square openings use a saw to cut out the installation opening.



Trim the installation opening.



Sand the edges so that no paper residue remains.



Remove the plug for the supply cable from the crossover.



Isolate the speaker cable.



Connect the system terminals.
Make sure the polarity is correct..



Turn the mounting feet inwards.



Insert terminal at input of crossover.



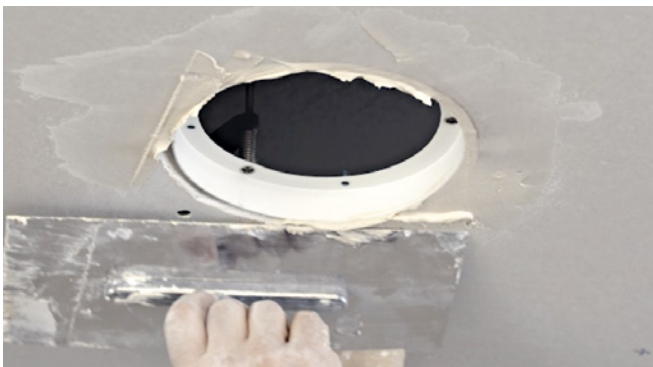
Insert the frame.



Twist the mounting feet out and screw down.



Adjust frame flush.



Fill the edges. Be sure to remove the filler from the inside.



Sand the edges.

2. Installation: Speaker unit



Paint the entire area.



Insert cable of speaker unit into crossover.



Insert speaker unit and fix in place.



Test the speaker by playing music.



Insert the grille. Realign the fixing magnets if necessary.

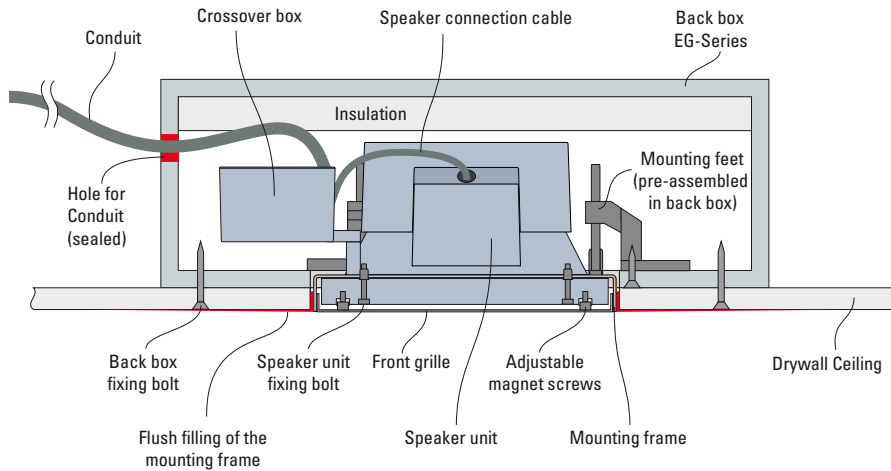


In the end only the grille is visible.

Revision: remove the grille with the magnetic DE tool.

4. Installation in drywall walls and ceilings with a back box (EG Series)

Fully installed speaker

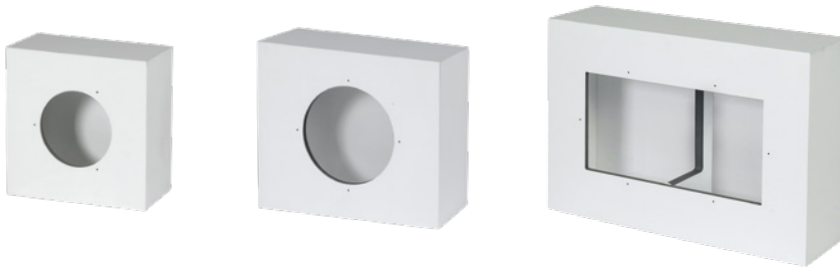


EG Series back boxes are recommended if the installation structure is not closed (acoustic ceilings, ventilated ceilings, open recessed lighting, etc.), or if additional sound proofing for adjacent rooms is required. The use of back boxes also largely prevents vibrations in parts of the ceiling structure. You will have to make the holes for the infeed cables in the back boxes yourself and seal these up once the cables have been fed through.

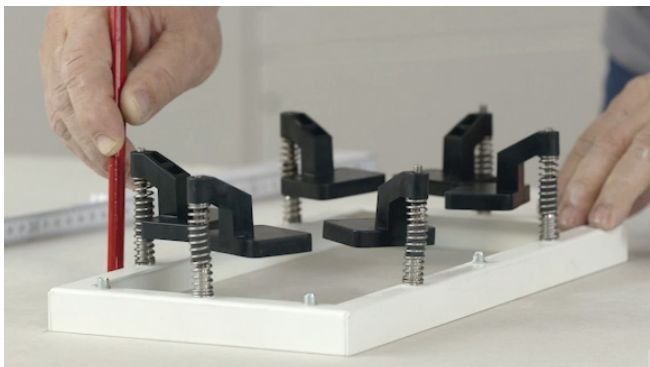
Place the back boxes behind the drywall sheet and screw them in position. The speakers can then be installed in the same way as for drywall walls/ceilings.

The wall/ceiling thickness should be between 8 and 30 mm.

Back boxes (EG Series)



1. Installation: Back box and Mounting frame



Locate and mark out the installation position.



Cut the installation opening. For round openings, use a circle cutter to cut out the installation opening.



Trim the installation opening and sand the edges.



Drill a hole in the back box for the cable and screw down.



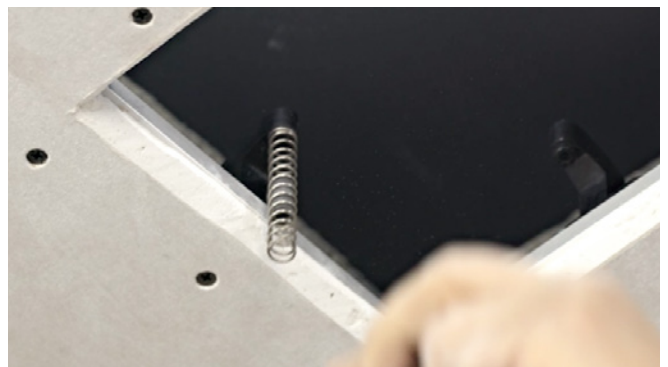
Guide the cable into the back box and seal the cable hole.



Screw the plasterboard in place.



Remove mounting feet and springs from the mounting frame.



Place the springs on the mounting feet in the back box.



Insert mounting frame.



Adjust frame flush.



Fill the edges. Be sure to remove the filler from the inside.



Paint the entire area.

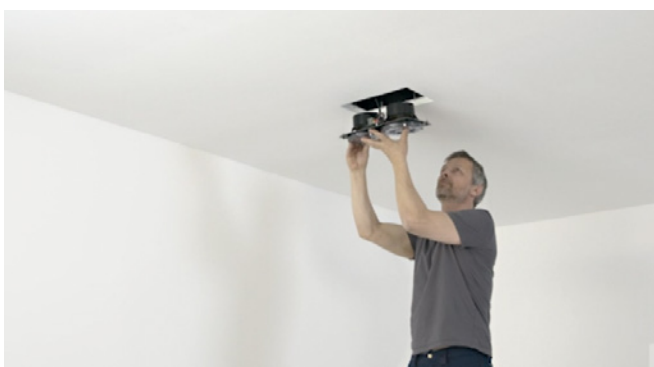
2. Installation: Speaker unit



Remove the input plug from the crossover and attach it to the supply cable.



Line the box with insulating wool.



Connect and insert the speaker unit.
Make sure the polarity is correct.



Screw tight.



Test the speaker by playing music.



Glue foam elements between the speaker unit and the mounting frame.



Insert the grille. Realign the fixing magnets if necessary.

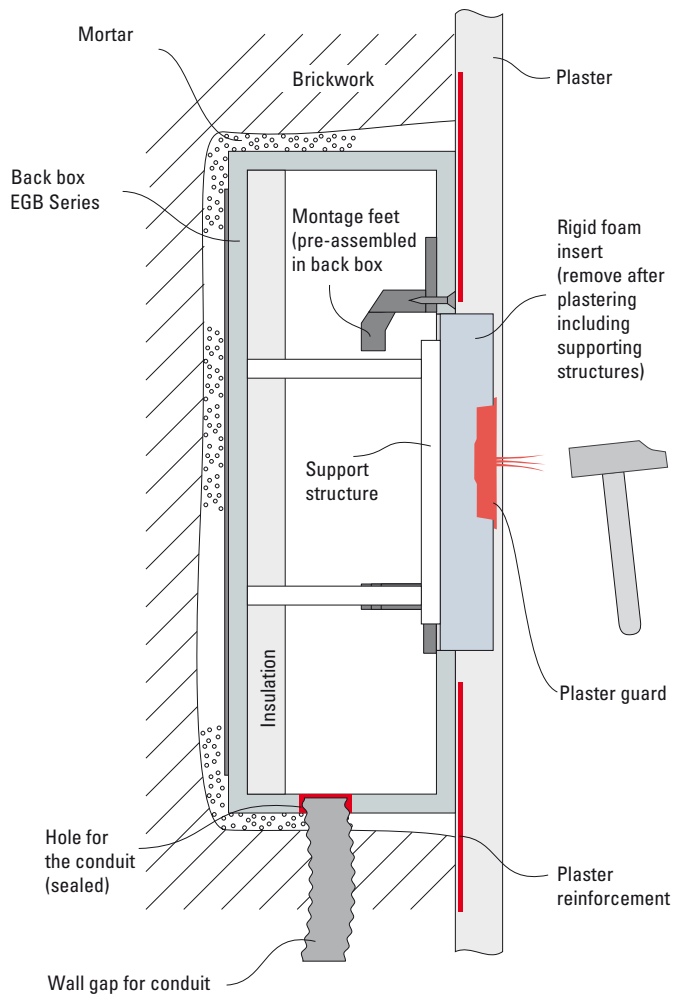


In the end only the grille is visible.

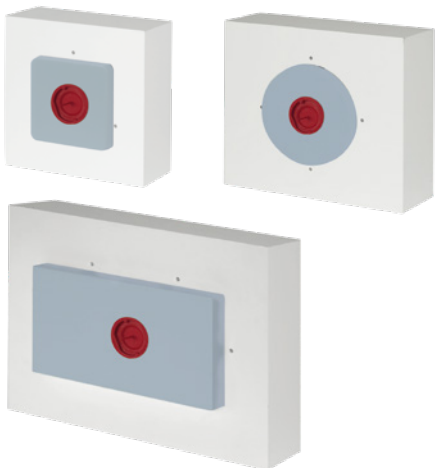
Revision: remove the grille with the magnetic DE tool.

5. Installation in solid walls using back boxes

Plastered solid wall with back box (EGBSeries)



Back boxes (EGB Series)

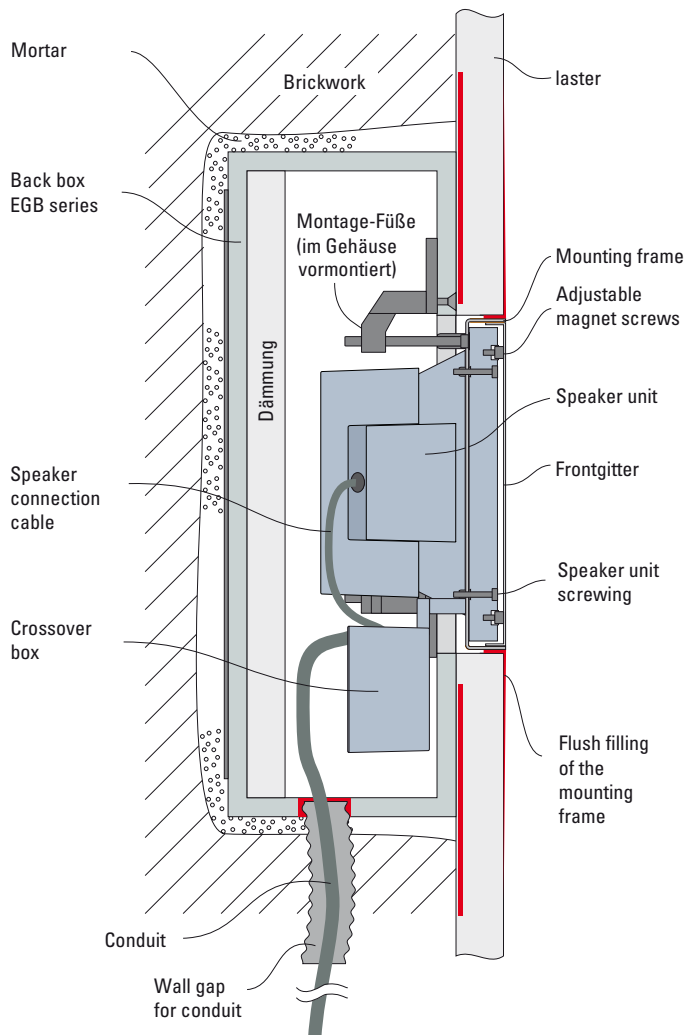


For installation in solid walls, please use our **EGB-series** plastic back boxes. You will have to make the holes for the in-feed cables in the back boxes yourself and seal these up once the cables have been fed through.

1. Make the opening in the brickwork.
2. Install the EGB series plastic back box using mortar or a similar material. Make sure the box is free from mechanical stress and fix in place using adhesive or plugs (otherwise the position of the speaker may shift visibly over time).
3. Use plaster base or reinforcement to avoid cracking and plaster up to the opening.

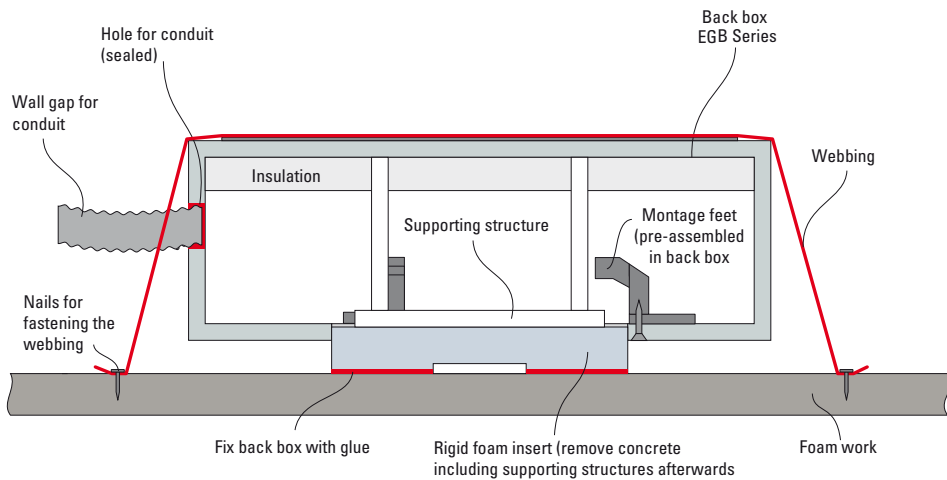
The speakers can then be installed in the same way as for drywall ceilings from page 8.

Completely installed speaker in solid wall



6. Installation in concrete ceilings using back boxes (EGB Series)

Fastening of the back box on the formwork



When installing speakers in concrete ceilings cast in place, please use our **EGB Series** plastic back boxes. The mounting feet for the speakers are already installed in these boxes. You will have to make the holes for cables in the back boxes.

Installation steps

- Use a conical drill bit to drill a hole for the cables or conduits in the side of the boxes and attach the cables.
- Place the boxes in the correct position on the formwork and attach the conduit.
- Use a laser level to adjust the position of the boxes.
- Fasten the back box to the formwork with webbing.

Secure the webbing tightly to the formwork board and cut to the correct length. The box can also be glued to the formwork to ensure it is precisely positioned.

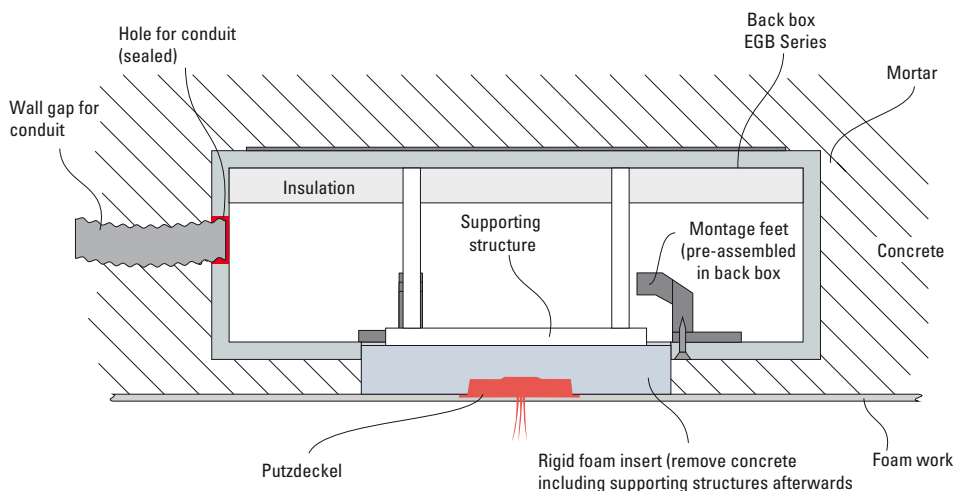
When poured, the concrete flows under the box until it reaches the rigid foam insert. The layer under the box is 20 mm thick.

- After the formwork has been removed, insert the plaster guard provided into the rigid foam insert so you can see the position of the speakers after plastering. When plastering the ceiling, apply a layer of plaster to the rigid foam insert of the speaker back box. Use a hammer to knock off the plaster covering the rigid foam insert and uncover all of the opening.

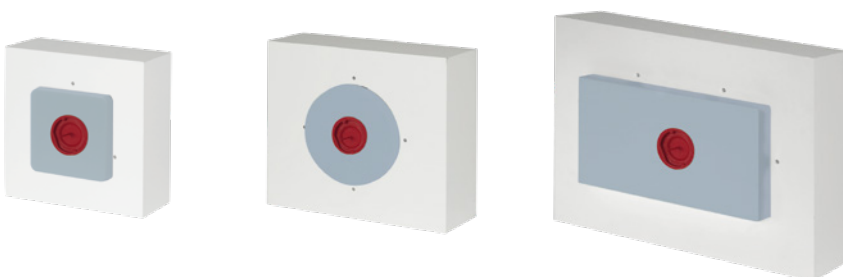
- Use a sharp utility cutter to cut through the rigid foam along the edges of the installation opening. You can then remove the rigid foam insert and the support structure. Line the back box with the insulating wool provided.

The speakers can then be installed in the same way as for drywall ceilings (see page 8).

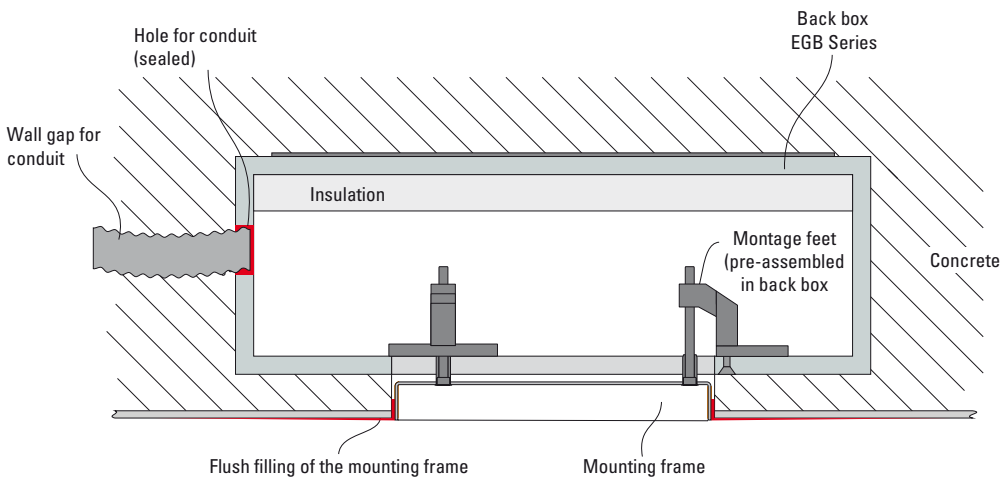
Plastered concrete ceiling



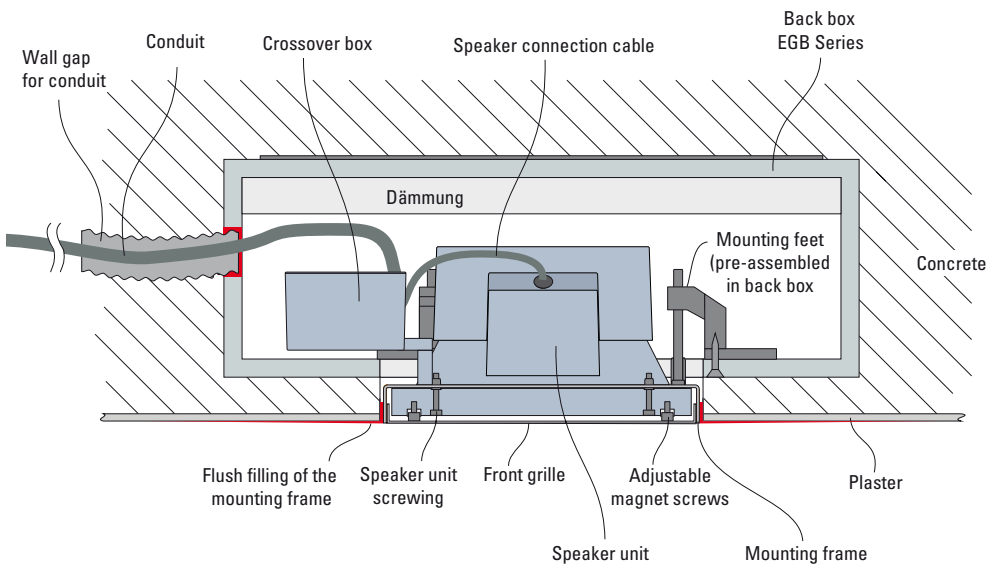
Back boxes (EGB Series)



Built-in and filled mounting frame in concrete ceiling



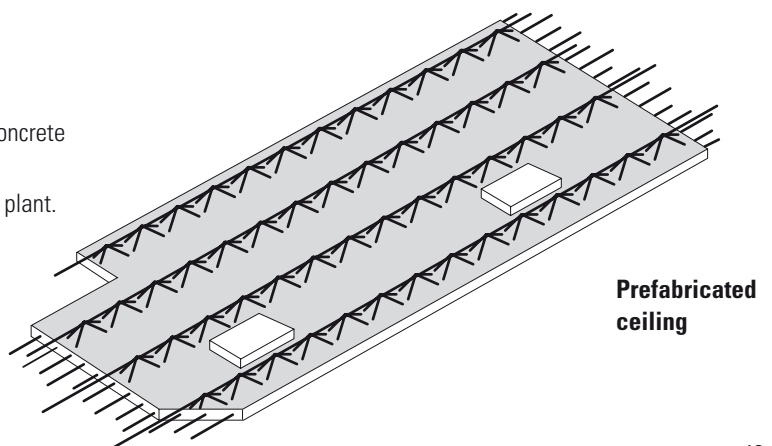
Completely installed speaker in concrete ceiling



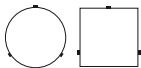










7. Installation in prefabricated concrete ceilings with the back boxes

If you are installing speakers in a prefabricated concrete ceiling, the EGB Series plastic back boxes must first be delivered to the concrete plant casting the ceiling. The boxes will be installed in the requisite ceiling modules at the plant.

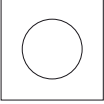
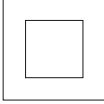


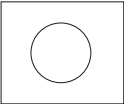
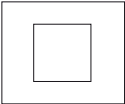


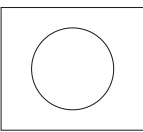
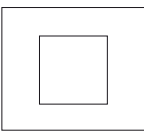
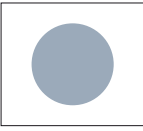
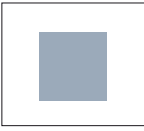
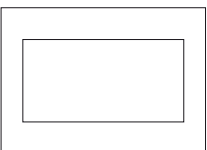

The remaining installation steps are then carried out on the construction site.

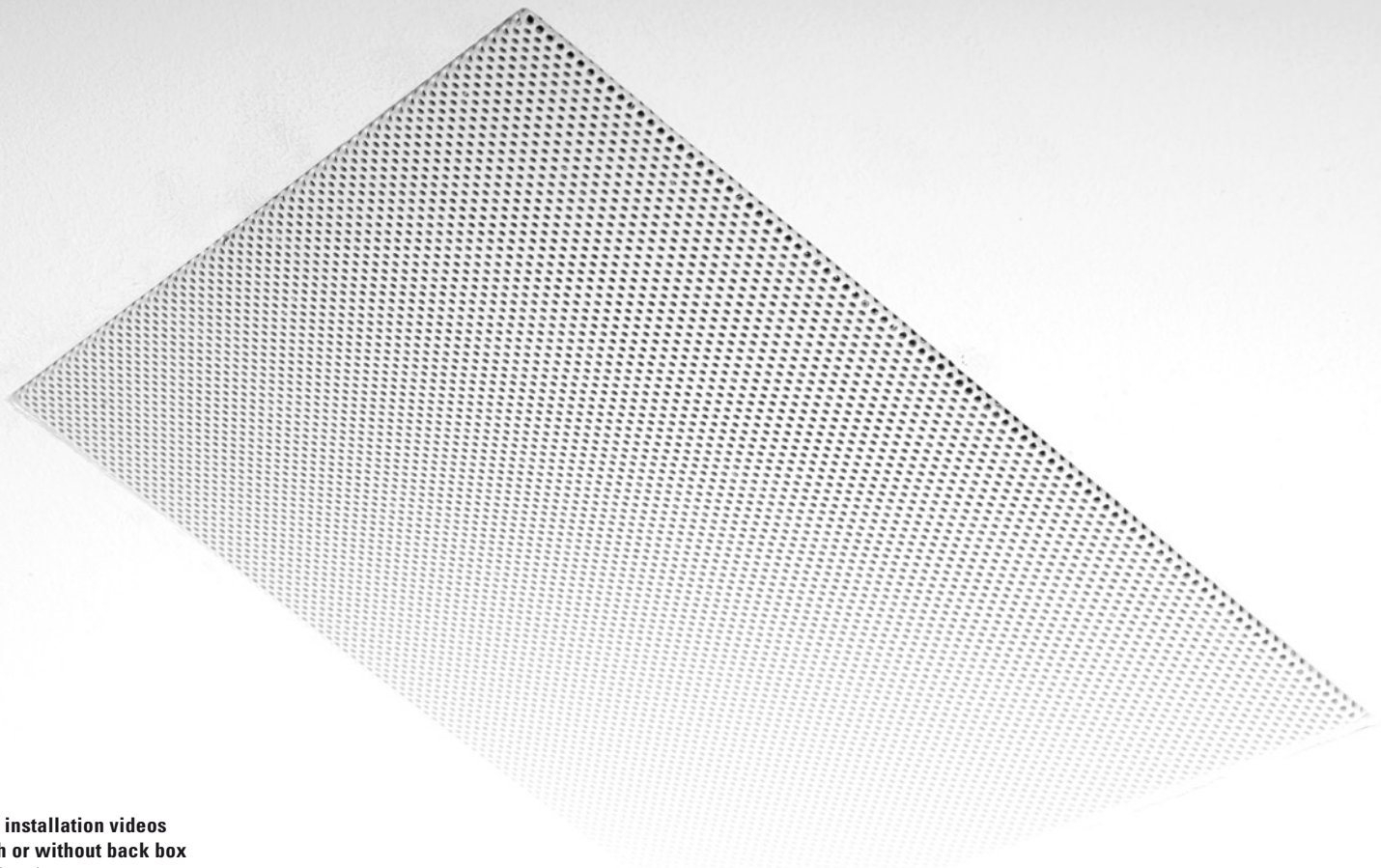


6. Technical data loudspeakers

Models	Principle	Frequency range	Power capacity	Impedance	100 V Versions	Sensitivity	Dispersion	Dimensions	Cutout size	Installation depth	Weight
 DE-X 140 Polar DE-X 140 Q Polar	2-way hifi speaker with Polar technology	76 ... 21000 Hz	RMS/Prog. 30/60 Watts	8 Ohms	7,5/15/30 Watts (100 V)	84 dB (1W/1m) max. 103 dB	180° (-6dB bis 5kHz)	d=122 mm 122 x 122 mm (Q)	d=128 mm 128 x 128 mm (Q)	84 mm	1.2 kg
 DE-X 170 Polar DE-X 170 Q Polar	2-way hifi speaker with Polar technology	60 ... 21000 Hz	RMS/Prog. 40/80 Watts	8 Ohms	7,5/15/30 Watts (100 V)	84 dB (1W/1m) max. 103 dB	180° (-6dB bis 5kHz)	d=152 mm 152 x 152 mm (Q)	d=158 mm 158 x 158 mm (Q)	88 mm	1.2 kg
 DE-X 200 Polar DE-X 200 Q Polar	2-way hifi speaker with Polar technology	54 ... 21000 Hz	RMS/Prog. 60/120 Watts	8 Ohms	7,5/15/30 Watts (100 V)	86 dB (1W/1m) max. 105 dB	180° (-6dB bis 5kHz)	d=170 mm 170 x 170 mm (Q)	d=176 mm 176 x 176 mm (Q)	100 mm	2.1 kg
 DE-X 200 HSP DE-X 200 HSPQ Polar	2-way hifi speaker with Polar technology	96 ... 21000 Hz	RMS/Prog. 60/120 Watts	8 Ohms	7,5/15/30 Watts (100 V)	93 dB (1W/1m) max. 115 dB	180° (-6dB bis 5kHz)	d=170 mm 170 x 170 mm (Q)	d=176 mm 176 x 176 mm (Q)	102 mm	2.3 kg
 DE-X 300 R Polar	3-way hifi speaker with Polar technology	52 ... 21000 Hz	RMS/Prog. 120/240 Watts	4 Ohms		89 dB (1W/1m) max. 112 dB	180° (-6dB bis 5kHz)	336 x 170 mm	342 x 176 mm	100 mm	3.8 kg
 DE-X 200 LP DE-X 200 LPQ	2-way hifi speaker with reduced mounting depth	96 ... 21000 Hz	RMS/Prog. 40/80 Watts	8 Ohms	7,5/15/30 Watts (100 V)	93 dB (1W/1m) max. 115 dB	180° (-6dB bis 5kHz)	d=170 mm 170 x 170 mm (Q)	d=176 mm 176 x 176 mm (Q)	50 mm	1.2 kg
 DE-X 200 CD DE-X 200 CDQ	2-way hifi in-wall speaker	54 ... 21000 Hz	RMS/Prog. 60/120 Watts	8 Ohms		88 dB (1W/1m) max. 109 dB	80°	d=170 mm 170 x 170 mm (Q)	d=176 mm 176 x 176 mm (Q)	100 mm	2.1 kg
 DE-X 300 CDR	3-way hifi in-wall speaker	52 ... 21000 Hz	RMS/Prog. 60/120 Watts	4 Ohms		89 dB (1W/1m) max. 112 dB	80°	336 x 170 mm	342 x 176 mm	100 mm	3.8 kg
 DE-X 300 FR	3-way in-ceiling speaker with Polar technology	57 ... 21000 Hz	RMS/Prog. 80/160 Watts	4 Ohms		87 dB (1W/1m) max. 109 dB	80° Beam direction -35° down- wards	336 x 170 mm	342 x 176 mm	150 mm	4.2 kg
 DE-X 200 ST Polar DE-X 200 STQ Polar	Stereo 2-way in-ceiling speaker with Polar technology	54 ... 21000 Hz	RMS/Prog. 2 x 40/80 Watts	2 x 8 Ohms		86 dB (1W/1m) max. 108 dB	180°	d=170 mm 170 x 170 mm (Q)	d=176 mm 176 x 176 mm (Q)	100 mm	2.1 kg
 DE-X 300 SUB	Subwoofer	53 ... 250 Hz	RMS/Prog. 120/240 Watts	4 Ohms		85 dB (1W/1m) max. 106 dB	180°	336 x 170 mm	342 x 176 mm	100 mm	3.8 kg

7. Technical data back boxes

Models		Application	Loudspeaker type	Loudspeaker type W x H x D	Material	Weight	Accessorie
		Drywall	DE-X 140 DE-X 140 Q	250 x 250 x 100 mm	Plastic foam	1.1 kg	Insulating wool
		Concrete walls Solid walls	DE-X 140 DE-X 140 Q	250 x 250 x 120 mm	Plastic foam and Form insert		Mounting material for formwork, Plaster guard, Insulating wool
		Drywall	DE-X 170 DE 170 Q	300 x 250 x 120 mm	Plastic foam	1.7 kg	Insulating wool
		Concrete walls Solid walls	DE-X 170 DE-X 170 Q	300 x 250 x 140 mm	Plastic foam and Form insert		Mounting material for formwork, Plaster guard, Insulating wool
		Drywall	DE-X 200 all models DE-X 200 Q all models	350 x 300 x 120 mm	Plastic foam	1.9 kg	Insulating wool
		Concrete walls Solid walls	DE-X 200 all models DE-X 200 Q all models	350 x 300 x 140 mm	Plastic foam and Form insert		Mounting material for formwork, Plaster guard, Insulating wool
		Drywall	DE-X 300 R DE-X 300 CDR DE-X 300 SUB	500 x 350 x 140 mm	Plastic foam	3.5 kg	Insulating wool
		Concrete walls Solid walls	DE-X 300 R DE-X 300 CDR DE-X 300 SUB	500 x 350 x 160 mm	Plastic foam and Form insert		Mounting material for formwork, Plaster guard, Insulating wool
		Drywall	DE-X 300 FR	500 x 350 x 180 mm	Plastic foam	3.9 kg	Insulating wool
		Concrete walls Solid walls	DE-X 300 FR	500 x 350 x 200 mm	Plastic foam and Form insert		Mounting material for formwork, Plaster guard, Insulating wool



D-X installation videos
with or without back box
on Youtube



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