cerasonar
einfach guter Klang

Datasheet

cerasonar 1520 retrofit

Cerasonar retrofit is particularly suitable for retrofitting purposes and is also very easy to install. These small sound panels allow for a good quality sound even without a special dsp amplifier. The special construction is ideal for retrofitting as a multiroom speaker, as for easy installation as well.

* Power rating as per application of a high-pass filter. No electronic low-frequency boost must be used. Resulting damage from mechanical overload are excluded from the warranty.

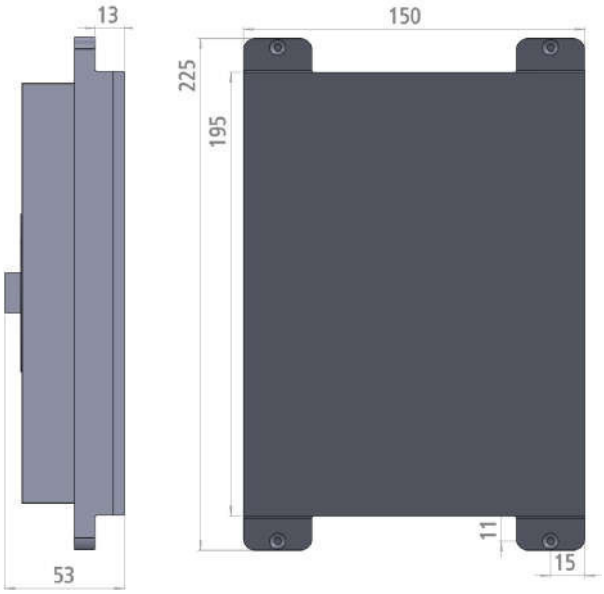
** Max. pulse power rating. The load capacity can be increased when operated via electronic high-pass filters of an AV receiver (min. 150 Hz / 12 dB) and speaker size set to „small" or in conjunction with a multiroom amplifier with respective equalization adjustment options.

Back view

Installation video

https://youtu.be/FCxlThkNmXM

CAD details



Technical specifications

Power rating:	25 watts* (50 watts**)
Impedance:	8 ohms
Frequency range:	100 – 18.000 hz
Dispersion range:	180° x 180° h./v.
max SPL:	94 dB
Total dimensions:	22,5 x 15 cm
Installation cut out:	19,5 x 15 cm
Total depth:	5,3 cm
Weight:	0,3 kg

Accessory

Cerasonar Protection Unit as overload protection

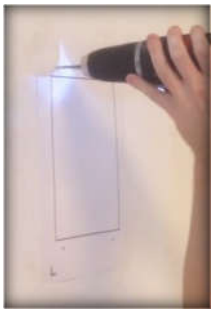
Warranty period

Ceratec grants a 5-year functional warranty on exciters and panels if the installation and setup protocol has been signed and registered with us. Improper use or overloading may void the warranty.

cerasonar 1520 retrofit

Installation instructions

1. Attach the template on the wall or ceiling with tape



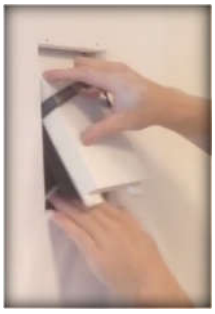
2. Drill four holes, these are intended for easy installation later. Drill size: 4 mm

3. Mark the contours with a knife

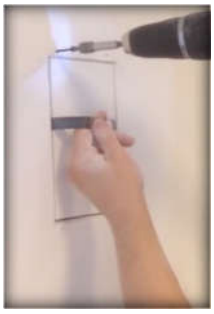
4. Cut out the marked contours with an appropriate tool

5. Smooth the edges and cut them by 45° furthermore moisten the edges for better joint with the filler

6. Connect the speaker cable to the speaker, be aware of the polarity



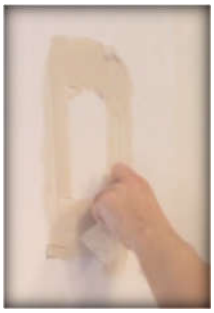
7. Carefully put in the speaker



8. Use the delivered screws and tighten them carefully

   ATTENTION: Test the speaker

   Take off the installation bracket



9. Use a joint tape in the plastering process. We recommand to use a flexible filler, e.g. Knauf Uniflott or Ardex 828

10. Up to 2 mm of plaster can be applied

    Before using the speaker, let the plaster dry off

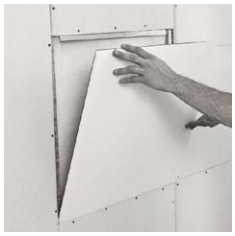
cerasonar
for music lovers...

ceratec

Processing instructions
Installation in drywalls

1 Before the installation is carried out in walls or ceilings, the construction should be tested for vibration noise. Light beats with the heel of your hand against the plasterboard shell reveals any weaknesses of the substructure. The cavity behind the panel must get an insulation, for example, mineral wool or according to the specifications of the architect.

2 The enclosed cable lugs have to be properly crimped to the connector cable. Then connect the cables following the colour coding / markings, for example, marking to plus (red). This order has to be maintained building and amplifierwise.

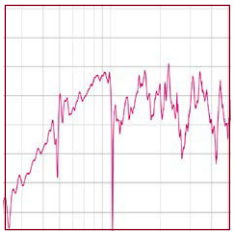


3 Insert the speaker into the prepared recess. Make sure that there is no strain between underlying insulation and panel (no compression). The speaker should be easily insertable into the opening.

4 Screw on the speaker according to the pre-drilled holes. The heads of the drywall screws should immerse about 1 mm into the diaphragm material. Since the diaphragm has a lower density than the plasterboard panels, it's essential to tighten the screws very cautiously.

Important:

After fixing the screws a functional test using a music signal is mandatory!



5 Functional test: In addition to the basic function, any existing vibration noise can be made audible through the music signal, so that the substructure can be improved accordingly.

6 As it is obligatory with single-ply plasterboard constructions, the joints between plasterboard and speaker have to be always filled with a crack bridge. The same filling material that is used against cracks in other joints can be also applied here.

7 The sealing and spackling of joints and edges as well as screw heads is effected using a flexible fine filler as it is usually applied in drywall constructions.

8 Cerasonar speaker panels are outfitted with a primer and have to be spackled all-over with the surrounding surface. Thus, Q3 and Q4 wall / ceiling qualities are easily possible.

cerasonar
for music lovers...

ceratec

Processing instructions
Installation in solid walls and ceilings

1 For the installation of the invisible cerasonar speakers an mounting frame is required. This special accessory is available for all models. For this purpose an appropriate recess has to be prepared in the masonry. The recess has to be about 2mm larger all-round. Place the mounting frame into the recess to control the correct fitting.

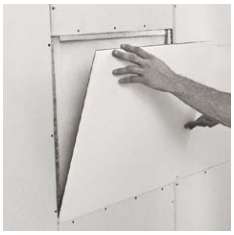
2 The frame is ideally mounted flush to the finished wall surface. Therefore the wall plaster should have been applied to the masonry already, so that the speaker only has to be fine spackled flush to the wall surface using a fine or structured filler. The connector cable has to be installed into the frame before.

3 With the help of two roof battens the frame can easily be brought into position and then fixed. Use construction foam to foam out the lateral joints and wait until the frame sits firmly and stable in the recess.

4 Then use four frame dowels at the minimum to anchor the frame in the surrounding masonry. The next steps then follow the „Installation in drywalls“ instructions.

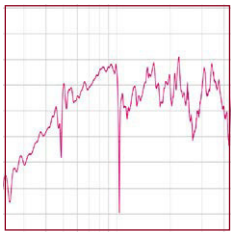
5 Insert the cavity insulation material into the recess. For this purpose use the material enclosed.

6 The enclosed cable lugs have to be properly crimped to the connector cable. Then connect the cables to the connector terminal paying attention to the polarity.



7 Insert the speaker into the prepared recess. Make sure that there is no strain between underlying insulation and panel.

8 Screw on the speaker according to the pre-drilled holes. The heads of the drywall screws should immerse about 1 mm into the diaphragm material.



9 **Important: After fixing the screws a functional test using a music signal is mandatory!**

10 The joints between wall/ceiling and the speaker panel have to be filled with a crack bridge.

11 Joints and screw holes have to be sealed using a fine filler.

12 The speaker panels have to be spackled all-over with the surrounding surface. Thus, Q3 and Q4 wall / ceiling qualities are easily possible.

How can cracks be avoided?

1. Like all built-in speakers, also the invisible speaker panels emit vibration noise into the adjacent areas. To ensure that no cracks occur at the butt joints, a crack bridge must be applied before spackling. This kind of processing used for single-layer drywall constructions, which is mandatory according to the generally accepted rules of craftsmanship, is highly recommended also for installation work in solid walls and ceilings. The use of paint substrate as a crack bridge is a common practice with painters and drywall constructors.

2. The plaster, whether decorative or non-decorative, which is applied to the diaphragm should have a certain „flexibility". So pure mineral plasters are not necessarily advisable. These generally cure in a hard and porous manner. With these types of plaster it is not rare to see cracks even without speakers in walls or ceilings. This can occur, for example, when processed in rooms with high residual moisture remaining from shell construction or also in case of rapid drying during high air temperatures in summer. However, these shortcomings then are no constructional defects but blemishes that can be repaired through repaint with the respective wall colour.

What is there to know about sound insulation?

The cerasonar panels emit structure-borne noise into the adjacent areas. It therefore is recommended - and this incidentally affects any built-in speaker - that the drywall shell is designed in a flexible way as it is very much common in acoustic construction. This especially applies to multi-family houses. The rearward sound already is reduced by the mandatory cavity insulation. Additionally, Cerasonar also offers as an accessory cover hoods as they are already standard with the 6060plus panel. If, however, music is played above the household noise level, at some point also the structural noise insulation fails - which again is a trivial problem with any type of speakers.

What happens in case of a defect?

In any case, the panels must be removed. A repair or further use depends on the nature of the defect. Our high-performance Exciter XT 5500, which comes from our own production, is equipped with a so-called PTC fuse to prevent electrical destruction. This thermally responsive resistor controls the load capacity of the electrical part of the oscillating system. In case of overload, the PTC reduces the signal level, that is, the volume is significantly lowered until the voice coil has cooled down (the panel then plays quieter).

Warranty period

Ceratec grants a 5-year functional warranty on Exciters and panels, if the installation and setup protocol has been signed and registered with us. Improper use or overloading may void the warranty.

Handmade in Germany

Documentation of installation positions!

It is strongly recommended to document the installation positions in the architectural plans. If at some point a defect occurs, the position of the defective panel can be accurately determined and the panel be replaced. Also future modifications to the interior design and room layout benefit from the documented positions of the speakers.

What about the durability?

If installation and operation is effected in accordance with our regulations a malfunction is almost impossible. A good example to compare is perhaps the „floor heating system", which resembles a similar situation, and which also requires a careful execution. A trained retailer or installer meets these requirements due to the cerasonar installation and setup protocol. DIY is also possible if the manual and technical skills are given.

Installation and setup protocol

The installing retailer should document all installation steps, especially the functional test of step 5 (of „Installation in drywalls") or step 9 (of „Installation in solid walls and ceilings"), and have the correct function approved and signed by the customer. The final acceptance should go together with a corresponding protocol which is to be deposited for at least 5 years with the customer and the executing firms. A copy of the protocol should also be handed over to ceratec.

Project:	Mr. & Mrs. Sample' dreamhouse
Building owner:	Mr. Sam Sample
Architect:	„Name of company"
Drywall/masonry contractor:	„Name of company"
Painting contractor:	„Name of company"
Electrocoustic contractor:	„Name of company

Here is an example for a room comprising a cerasonar speaker:

Room name:	Living room
Installation location:	Ceiling
Position:	Note in drawing/dimensionally correct draft
Construction type:	Suspended ceiling with metal substructure, single-layer plasterboard, Q4 type spackling
Surface finish:	Paint substrate, pure white
Speaker model:	6060plus
Quantity:	4
Application:	Multiroom audio
Amplifier type:	Control4 AMP16
Circuitry type:	1x panel per amplifier channel

Manufacturer address

ceratec

Ceratec Audio Design GmbH
Walter-Bertelsmann-Weg
D-27726 Worpswede
Telefon: +49 (0) 4792 9557080
E-Mail: info@ceratecaudio.de

cerasonar 1520 retrofit template