an innovative system...
ACOUSTICS HAND IN HAND WITH SPEAKERS

7.1 Surround Sound Speaker Set Up
STAIDTREAT ACTIVE

SCHEMATIC view

left wall
rear wall
right wall
front wall

Room Dimensions: (L,W,H): 4,9m / 3,6m / 2,80m.

PERSPECTIVE view
the quantity and placement of modules have to be adapted on the size of the room
STAI
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STAIDTREAT® LOUDSPEAKERS

The STAIDTREAT® Active Speakers System is an innovative modular acoustic treatment method, which combines with high-quality performance speakers. The speakers are placed inside the absorbent boxes of the WBF/A model. This set of acoustics and public address devices is designed to aesthetically conceal acoustic treatment with speakers providing a good sound intelligibility, besides making technology imperceptible to eyesight. This system was essentially planned for 7.1 and 5.1 home-theatres surround systems, but it is also advisable for conference rooms, restaurants and bars, public spaces and for background music or speech purposes. It is composed by the two-way loudspeaker mounted inside the acoustic panel and by a self-amplified Subwoofer to be placed on the floor of the room. The quantity and the placement of the modules may have to be adapted depending on the size and specifications of each room, however, the schematics shown in this brochure are the basis of the concept.

STAIDTREAT® ACOUSTICS

The STAIDTREAT® acoustic treatment modules consist of three different models with very different acoustic features though with the same appearance, namely: STAIDTREAT® BXA as a Low-frequency absorbent tuned at 80Hz, the BXW as a Low-frequency absorbent tuned at 160Hz and the WBA, which is a broad band mid-high absorbent. As a whole, these three different specificities provide an outstanding acoustic balance, thus the resulting aesthetic look is a light, sober and very pleasant design. The finishing plate is similar to the three options and conceals the remaining engineering portion of each model. This pressed mineral granulate plate also combines absorption with unidirectional micro-diffusion features. This range of panels is particularly meant for small and medium-sized rooms, ranging from cinemas, studios, conference rooms to small auditoriums.

Two-way speaker features:
- Frequency response: 80Hz-25KHz
- Sensitivity (1W/1m): 90dB
- Rated impedance: 8Ω
- Tweeter: 1 unit 1”
- Mid-low range diver: 1 unit 4”50
- Crossover: passive 24db/octave
- Power handling: 100W
- Net Weight: 11kg

Active subwoofer features:
- Frequency response: 30Hz-150Hz (Adjustable)
- Sensitivity (1W/1m): 88dB
- Rated impedance: 4Ω
- Amplifier: Class A mosfet
- Sub-Woofer diver: 1 unit 10”
- Speaker dimensions (mm): 600x500x215
- Power handling: 600W
- Net Weight: 23kg

BXA features
- LF Abs. Tuned to 63Hz.
- Average absorption: 0.86/m2
- (>50Hz; >250KHz)
- Made of recyclable materials.
- Plate of pressed mineral granulate.
- Fire-resistance: M1
- Application on the corners
- Package: 2 units
- Installation: accessories included

BXW features
- LF Abs. Tuned at 125Hz
- Average absorption: 0.83/m2
- (>50Hz; >250KHz)
- Made of recyclable materials.
- Plate of pressed mineral granulate.
- Fire-resistance: M1
- Application on ceilings and walls.
- Package: 4 units.
- Installation: accessories included

WBA features
- Mid range Abs. and micro Dissusion
- NRC: 0.66/m2.
- Made of recycled materials.
- Plate of pressed granulated minerals
- Fire-resistance: M1
- Application on ceilings and walls.
- Package: 4 units.
- Installation: accessories included
- Available in 6 colours
SURROUND GENERALITIES

Surround sound is the idea of engaging a listener in sound, just like a movie theater. A good sound can really bring out the power and the enthusiasm of high definition video. Sound is half of the importance of the entertainment experience and the speaker placement is essential to experiencing the true impact of movies and music.

There are several different formats to get this surround effect, like Dolby Digital and DTS, and higher-resolution formats like Dolby TrueHD and DTS-HD Master Audio. A 7.1 surround system has seven discrete audio channels, Left, Right, Center, Left Surround, Right Surround, Left and Right Back, and of course, the Subwoofer.

The STADTREAT ACTIVE® has been created for small and mid-sized home-cinema rooms. It is a discrete system that combines acoustic treatment and the embedded speakers. The approach consists on adjusting the number of the modules to the room dimensions.

The acoustic treatment modules well placed minimizing the SBIR and the modal emphasis to produce a frequency response as flat as possible in the room. Give your ears an opportunity and see how the performance of these amazing system.

All packs are supplied with assembly instructions, as well the necessary mounting accessories to apply the acoustic modules.

RT60 ACOUSTIC SIMULATION

These values were obtained by simulation in a JAS®, JOCAVI Acoustic Simulator Software and later confirmed through acoustic analyses in the rooms.

The simulated and tested rooms are totally empty, there are only considered the revetment materials and the acoustic panels.

Traditional construction room with the following characteristics:

Room Dimensions:
(L,W,H): 4,9m / 3,6m / 2,80m.

Walls:
masonry with painted fine stuff and a wooden door

Ceiling:
12mm-thick plaster painted

Floor:
natural floating parquet

Applied Panels:
34 units: JOCAVI - Staidtreat BWX
37 units: JOCAVI - Staidtreat WBA
12 units: JOCAVI - Staidtreat BXA