

Active Audio Ray-On B70 Sound bar User Manual

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Active Audio Ray-On B70 Sound bar



General presentation

The Ray-On B70 sound bar is designed for the sound reinforcement of narrow spaces such as:

- · Corridors, escalators
- · Shopping alleys
- · Shopping malls
- · Railway platforms

B70 will also ensure the sound reinforcement of spaces with limited coverage areas, such as:

- · Video-conferencing equipment
- Huddle rooms
- · Small spaces in museums

The arc position of the drivers allows a perfect directivity control in the spatially and in the frequency domain. This directivity control allows to limit the sound disturbance in the sound reinforced spaces' neighbourhood.

Positioning

The B 70 sound bar is horizontaly mounted, above the area to be sounded in transverse direction as shown in figure 1

The width of the zone to be sounded and the recommended space between the loudspeakers is given by the mounting height. Picture N°2 gives these values in function of the mounting height.

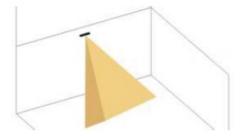


Figure 1: B70 positioning (on a wall or above the audience area in transverse direction)

Distance between B70 and the middle of the covered area(m)

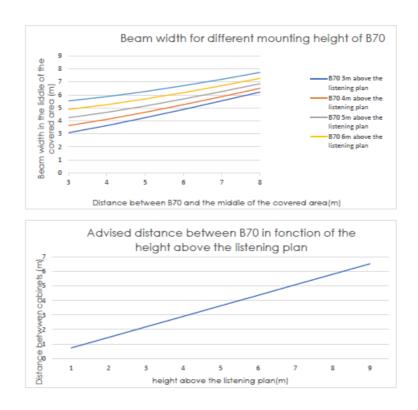


Figure 2: Width of the covered area and advised distance between loudspeakers according the mounting height

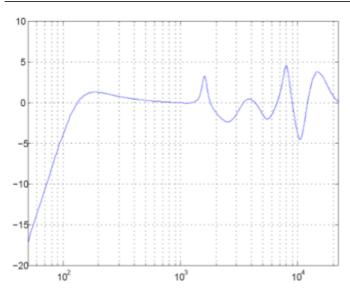
Modeling CAO

There are powerful CAD software tools that can predict the acoustics of a room and accurately model the radiation of loudspeaker arrays. These tools can calculate various acoustic indices, such as reverberation time, sound pressure level, STI, etc. The sound radiation of the Ray-On B70 loudspeaker can be predicted directly using CATT-Acoustic™ or EASE software.

Equalization and tuning

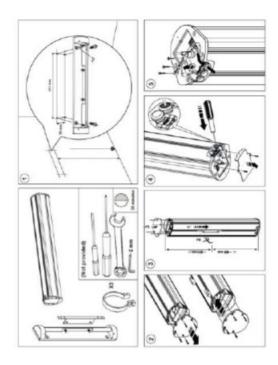
Ray-On B70sound bar may be used without any equalization, but using one is advised. Equalization flattens the loudspeaker's frequency response and protects the drivers by filtering low frequencies.

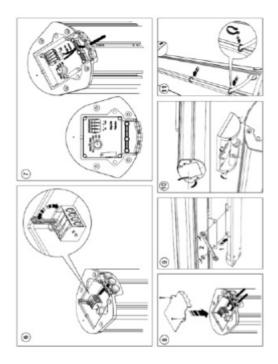
The table 1 gives detailed informations about these equalizations. The corresponding frequency curves are presented in figure 3 on the facing page.



Bande	F (Hz)	G (dB)	Q	Q (Oct)
1	1600	+4	0.2	4.7
2	2700	-4	1	1.4
3	3600	+3	1	1.4
4	5500	-3	0.6	2.2
5	8000	+6	0.3	3.7
6	10500	+5	1	1.4
7	14000	+2	0.5	2.5
8	130	0	HPF	HPF

Figure 3: Advised equalisation curves with (rede) and without (blue) cells $N^{\circ}1$ and $N^{\circ}6$





Installation and Wiring

Ray-On B70 is horizontally mounted, usually on a wall or hanged from the ceiling, using the supplied mounting systems. The next two pages illustrate the steps to follow for the mounting.

General characteristics and technical drawings

General characteristics

Acoustical data

	Mode 8Ω	Mode 100V	
Continuous power	75W	18W / 36W / 72W	
SPL max	91dB à 5m	85 / 88 / 91 dB à 5m	
Sensitivity	71dB/W à 5m		
Bandwidth (-3dB/-10dB)	150Hz-14,5kHz / 120Hz-17kHz		
Horizontal opening angle	40° at 1kHz		
Vertical directivity			
Loudspeakers	7 x 2.5"		

Electrical data

	Mode 8Ω	Mode 100V
Nominal impedance	8 Ohm	555 / 278 / 139 Ω
Amp. power Recom.	150W	18W / 36W / 72W
Connectors	Lever terminal block with loop through	
Wire section	2×0,75- 2×2.5mm²	
Protections	Thermal fuse	

Mechanical data

Material	Body: aluminum ; Grid: steel treated against rust and UV
Dimensions	706 x 128 x 117 mm
Weight	5,4kg
Environnment	IP54 de -25°C à +55°C indoor , outdoor
Coulors	Black (RAL 9005) White paintable (RAL 9016)
Monting	Wall mount or hanged

Tuning and exploitation

Modeling		EASE et CATT-Acoustic
Recommanded equalization		

Authers characteristics

Warranty	5 ans
	YYMMxxxxx
Serial number	(YY: Year; MM: mount; xxxxx: serial
	CE
Certification	EN5424 – type B for B70TC model

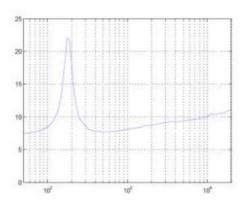


Figure 4 : Impedance curve

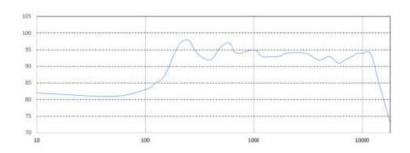


Figure 5 : Frequency response

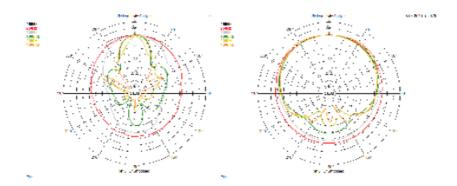


Figure 6: horizontal and vertical polar curves

Mechanical drawings

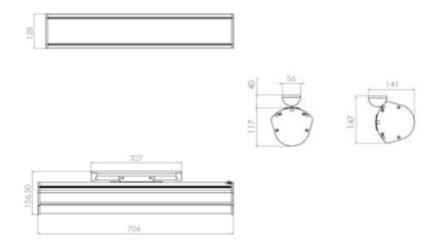


Figure 7: Mechanical drawings

Documents / Resources



References

- Active Audio Accueil
- Active Audio Accueil

Manuals+,