SPECSHEET

9310

High Power Cinema Surround Loudspeaker

2 Way Passive- 1" HF, 10" Woofer

Key Features:

- 350 Watt Power handling capability
- High Frequency Horn features JBL Image Control Technology and Wave Shaping Vane for precise pattern control
- Three separate horizontal mounting planes at 15 degree angles for specific positioning to improve coverage
- Input terminals on top of cabinet for easy access
- Lightweight, Rigid molded enclosure
- Uniform asymmetric 60 degree vertical coverage and 110 degree horizontal coverage

Description:

Professional cinema has seen a dramatic evolution over the past few years – high definition content, digital projection, and immersive audio. These amazing technologies have put new demands on cinema loudspeakers never before required. This is particularly true for the surrounds. Once a highly compressed ambience track, surround content today is equal to the screen channels in resolution and dynamic.

Most surrounds are basic loudspeakers, with modest output and simple coverage patterns. They were only used as a large distributed array along the theater walls. Digital cinema and the new audio formats require surrounds to operate in much smaller groupings and even singularly. This now requires surrounds to possess engineered coverage patterns and improved output dynamic. JBL undertook an extensive research effort to first analyze these new requirements and then to design a completely new surround loudspeaker, from the ground up, for the modern digital formats. The groundbreaking 9300 series is the result. The horns developed specifically for the 9300 and 9310 have studio quality performance with pattern control tailored to multiplex theater geometries. Using the latest advancements in acoustic engineering, the 9310 horns map a theater more consistently and accurately than ever before possible. Integral to the design is a wave shaping vane which distributes acoustic energy in proper proportion to the room. This technique provides a wavefront that is sculpted to the room geometry and provides very precise mapping capability. This shaping also allows the loudspeaker to orient to the wall naturally while directing the acoustic energy to the seats.

JBL engineers also found that a slight angle in the positioning of the surrounds makes a dramatic difference in how they present themselves to the audience. This is particularly true in stadium seating geometry where the surrounds slope downward with the seating, and yet their horizontal patterns do not. This creates ‘hot spots’ in the coverage for those rows just above each surround. By mounting the surrounds at a 15° angle toward the screen, the hot spots are eliminated, the overall coverage maps are dramatically improved, and those seats in close proximity to a surround have a much improved experience.

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Specifications

System	
Frequency Range (-10 dB):	50Hz – 25kHz (2π) / 60Hz – 25kHz (4π)
Frequency Range (±3 dB):	60Hz – 20kHz (2π) / 100Hz – 20kHz (4π)
Coverage Pattern :	110º × 60º asymmetric >1kHz
Power Handling:	40v @ 100hrs, 48v @ 2hrs, IEC/Pink 350W continuous power
Sensitivity:	99dB SPL @ 2.83v
Maximum dB SPL :	124 dB continuous, 130 dB peak
Rated Impedance:	8 Ω
Minimum Impedance:	7Ω @ 200Hz
Crossover Frequencies:	2600Hz

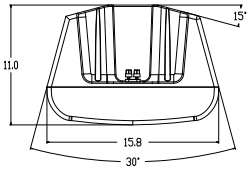
Transducers	
Low Frequency:	M110-8
High Frequency:	2414H

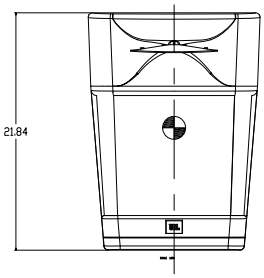
Enclosure	
System Polarity:	Woofer (IEC), HF (IEC)
System Protection:	Network only
System Input Type:	Banana
Enclosure Volume:	1700 sq in.
Dimensions (H x W x D):	22"x16"x11" 55.88 cm x 40.64cm x 27.94cm
Weight:	25 lbs (ea.) 11.34kg (ea.)

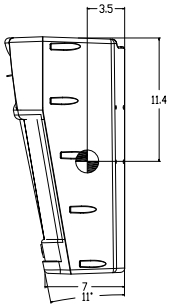
Surround Amplifier Recommendations

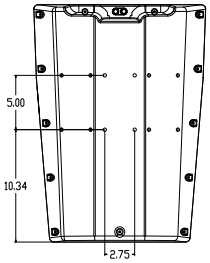
9310		
Good Solution	**Number of Speakers/Channel**	**Amplifier**
	1	XLC 2500
	2-4	XLC 2800
Better Solution	**Number of Speakers/Channel**	**Amplifier**
	1-3	DSI 2000
	4	DSI 4000
Best or Immersive Solution	**Number of Speakers/Channel**	**Amplifier**
	1	DCi l300
	2	DCi l600
	3	DCi l1250
	4	DCi l1250

Dimensions









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