

Technical Specifications CB223x



PRODUCT INFORMATION

The CB223x full-range passive stage/screen loudspeaker system offers cinemas a cost-effective entry to the future of cinema audio – 3-way loudspeaker design. Its passive design lets it replace existing two-way systems powered by a single amplifier channel without requiring new processors or amplifiers.

Three-way design dramatically advances cinema audio quality by improving the naturalness and intelligibility of dialog, eliminating distortion from excessive driver excursion and extending pattern control into the lower octaves.

All subsystems are integrated via a complex passive crossover/filter network. EAW's computer-designed passive filter networks are tightly aligned to the loudspeakers they control and go beyond merely dividing the signal, performing critical equalization functions.

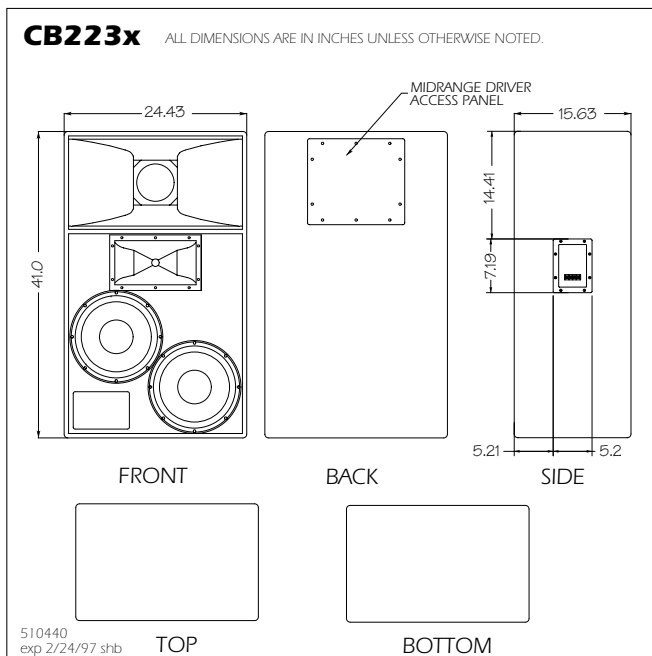
The dual 12-in low frequency subsystem provides all the high output LF response expected in today's cinemas with greater sonic definition in a smaller enclosure size. The low frequency subsystem uses optimally tuned enclosure venting to increase LF response while limiting driver excursion. This method produces less distortion and minimizes driver strain while extending LF response to the lowest octaves. The enclosure's shallow dimension allows convenient placement behind the screen.

The CB223x's horn-loaded 10-in cone transducer midrange frequency subsystem solves many of cinema audio's long standing problems. Moving crossover points out of the vocal region eliminates the acoustical anomalies which degrade the naturalness and intelligibility of dialog. EAW's complex, mathematically correct MF horn with displacement plug reduces the horn-throat cancellation distortion typical of two-way cinema loudspeakers. And by dividing the mid/high material between two horn-loaded subsystems, pattern control over the entire frequency range is enhanced.

The HF subsystem features a high power 1-in exit compression driver loaded with a 90° x 45° coverage pattern constant directivity horn ensuring even distribution of HF information over the entire audience area.

A two-terminal barrier strip input connector creates a gas-tight connection to minimize corrosion and maximize signal transfer. The barrier strip accommodates bare wire, tinned leads or spade lugs. The input panel is located on the side of the enclosure for convenient access in cramped installation areas.

All external components feature a "dead" flat black finish to eliminate the reflection of light through perforated cinema screens.



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COMPONENTS & CONSTRUCTION

The CB223x is a passive, three-way, high-output, full range single enclosure loudspeaker system intended for use in behind-screen cinema applications. The optimally vented enclosure houses dual 12-in woofers, a horn-loaded 10-in midrange driver and a 1-in exit compression driver mounted to a medium format 90° x 45° constant directivity horn.

The system requires no external active electronic crossover. An internal passive crossover/filter network integrates all subsystems, integrated via a complex passive crossover/filter network. EAW's computer-designed passive filter networks are tightly aligned to the loudspeakers they control and go beyond merely dividing the signal, performing critical equalization functions.

Input connectors is a 2-terminal barrier strip located on the side of the enclosure for convenient access in cramped installation areas. The barrier strip accomodates bare wire, tinned leads or spade lugs.

The cabinet is constructed of 15mm void-free, 18-ply-to-the-inch, Baltic birch plywood. Extensive internal bracing is provided. The enclosure and all external parts are coated with a flat black polyurethane finish.

DESCRIPTIVE DATA

Part Number	999526
LF Subsystem & Loading	2 x 12" vented
MF Subsystem & Loading	1 x 10" horn loaded
HF Subsystem & Loading	1 x 1" exit compression driver on CD horn
Number of Audio Bands	3-way
Type of Audio Bands	Full Range
Powering Mode	Passive
System Crossover	Passive
Recommended High-Pass Frequency (24 dB/Octave)	30 Hz
Cabinet Type (shape)	rectangular
Enclosure Materials	15mm Baltic birch plywood
Finish	Flat Black
Connectors	2 terminal barrier strip

NOMINAL DATA

Frequency Response (Hz)	
±3 db	40 Hz - 19 kHz
Efficiency / Axial Sensitivity (dB SPL/1 Watt/1m)	
	101
Impedance (Ohm)	
	4
Power Handling (Watts)	
AES Standard	500
Calculated Maximum Output (dB SPL)	
Peak	134.0
Long Term	128.0
Nominal Coverage Angle / -6 dB points (degrees)	
Horizontal	90
Vertical	45
Recommended Complementary Systems	
Sub	SB184C, SB185C, SB284C
Dimensions	
Height	41 in 1041 mm
Width	24.44 in 621 mm
Depth	15.63 in 397 mm
Weights	
Net Weight	115 lb 52.3 kg
Shipping Weight	125 lb 56.9 kg

