

# TECHNICAL SPECIFICATIONS CB523M

## APPLICATION

- Approved for use in THX®-certified theaters
- For medium-sized theaters
- Tri-amplified 3-way screen channel loudspeaker

## PRODUCT INFORMATION

The CB523M tri-amplified three-way full-range screen channel loudspeaker system has been approved for use in THX® certified theaters.

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.

The two component system includes a BV253C dual 15-in low frequency enclosure and an HK523M mid/high section.

The low frequency enclosure 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 HK523M MF/HF section features a horn-loaded 10-in cone and a high power 1.4-in exit compression driver loaded with a 90°x45° coverage pattern constant directivity horn.

The adjustable steel bracket attaching the MF/HF section to the LF enclosure can be positioned at one of three mounting points for optimum front/rear placement. The bracket allows the MF/HF section to be aimed independently of the LF section in both the horizontal and vertical planes and can be locked once it is positioned.

Input connectors for the LF and MF sections are two-terminal barrier strips that accommodate bare wire, tinned leads or spade lugs. Bind posts for the high frequency section are located directly on compression driver. The input panels are located on the sides and top of the enclosures for convenient access in cramped installation areas.

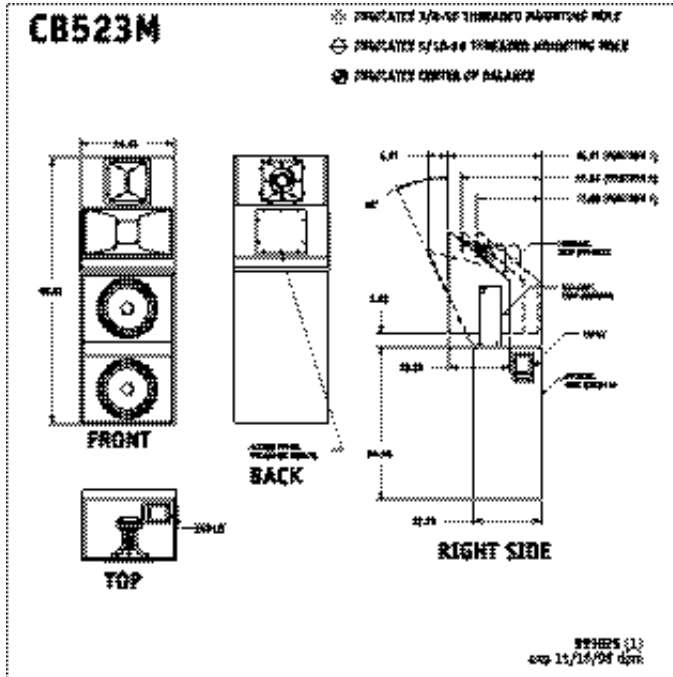
## DESCRIPTIVE DATA

Part Number	999825
LF Subsystem & Loading	2x15-in vented
MF Subsystem & Loading	1x10-in horn-loaded
HF Subsystem & Loading	1x1.4-in exit compression driver on CD horn



## DESCRIPTIVE DATA continued

Configuration	3-way, full range	
Powering Mode	Tri-amplified	
System Crossover	EAW CX300-CB523M	
Cabinet Type (shape)	Rectangular	
Enclosure Materials	LF-3/4-in Medium Density Fiberboard 15 mm birch plywood baffle-MF/HF-MDF	
Finish	Textured black	
Connectors	2x2-terminal barrier strips (LF and MF) plus 2x bind posts (HF)	
Dimensions	inches	millimeters
	Height	69.41 1763
	Width	24.80 630
Weights	Depth	17.75 451
	pounds	kilograms
	Net Weight (approx)	235 10.69
Shipping Weight (approx)	253 115.1	



## COMPONENTS & CONSTRUCTION

The CB523M is a THX® approved, tri-amplified three-way, high output, full range loudspeaker system intended for use in behind-screen cinema applications. The two component system includes a BV253C dual 15-in low frequency enclosure and an HK523M mid/high system.

The system requires the use of external active electronic crossovers to integrate all sections.

The BV253C low frequency component features dual 15-in woofers mounted in a vented enclosure for excellent bass extension and high output level capability.

The HK523M mid/high component features a horn-loaded 10-in midrange driver and a 1.4-in exit compression driver mounted to a medium format 90° x 45° constant directivity horn.

Two-terminal barrier strip input connectors that accommodate bare wire, tinned leads or spade lugs are included for the low-and mid

## COMPONENTS & CONSTRUCTION continued

frequency sections. Bind posts for the high frequency section are located directly on compression driver.

The LF cabinet is constructed of 3/4-in Medium Density Fiberboard (MDF). The HK523M mid/high section is constructed of 3/4-in MDF with the exception of the mid frequency flare which is void-free, 18-ply-to-the-inch, Baltic birch plywood backed with high density polyurethane foam. Both enclosures are coated with a textured black finish. The HF horn is constructed of flat black structural foam plastic.

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

## NOMINAL DATA

### Frequency Response

+3 dB 42 Hz - 19 kHz

### Axial Sensitivity (dB SPL, 1 Watt @ 1m)

LF	101
MF	108
HF	112

### Impedance (Ohms)

LF	4
MF	8
HF	12

### Power Handling (Watts)

LF	1000
MF	325
HF	200

### Calculated Maximum Output (dB SPL @ 1m)

LF Peak	137.0
MF Peak	139.1
HF Peak	141.0
LF Long Term	131.0
MF Long Term	133.1
HF Long Term	135.0

### Nominal Coverage Angle/-6 dB points (degrees)

Horizontal	90
Vertical	45