



**CBT SERIES**  
CONSTANT BEAMWIDTH TECHNOLOGY™



Line Array Column Loudspeakers Featuring JBL's  
Patent-Pending Constant Beamwidth Technology

**CBT 50 LA**  
Compact Speech & Music

**CBT 100 LA**  
Pattern Control Speech & Music

**CBT 70 J**  
Full-Range J-Shaped

**CBT 70 JE**  
LF & Pattern Extension

# CBT SERIES

CONSTANT BEAMWIDTH TECHNOLOGY™

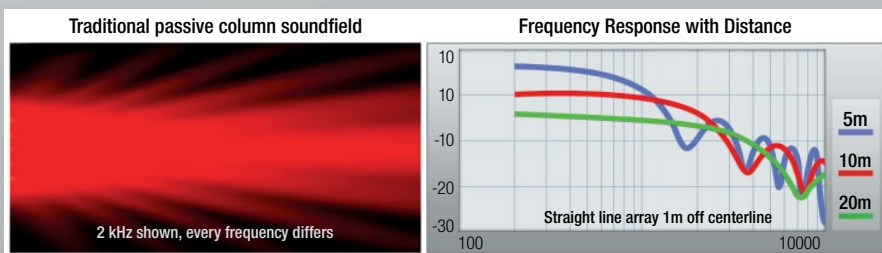
## The JBL CBT Series with Constant Beamwidth Technology

Ushering in a new era for passive column speaker technology based on years of extensive research conducted by Harman engineers, the JBL CBT Series line array columns with *Constant Beamwidth Technology* break new ground in performance, versatility, and affordability. Designed for venues that would typically use larger point-and-shoot speakers, the CBT models incorporate technical advancements that allow them to vastly outperform competitive systems, with a level of user-friendliness that virtually eliminates the challenges of delivering great sound.

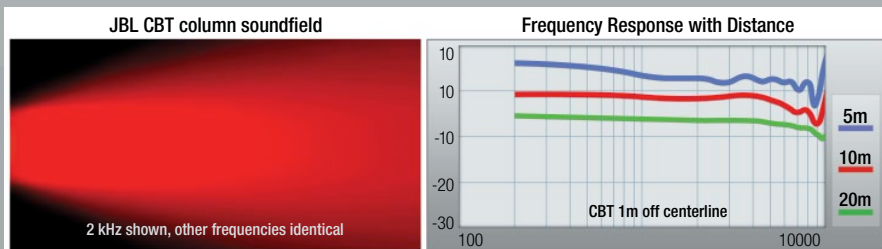
## Constant Beamwidth Technology

At the core of the CBT Series is a forward thinking conceptual design that shatters the notion of passive column speakers as performance-limited solutions to sound reinforcement. The CBT Series raises the bar far beyond the competition with patent pending technology that draws upon and adds to the long history of JBL innovation, delivering new capabilities, many of which are firsts in the industry.

**The Challenge** With traditional passive columns, the coverage continually narrows at higher frequencies, resulting in much of the listening area being covered by only part of the sound spectrum. Driver interactions cause the frequency response to change at every point off-axis and at every distance away from the speaker. Each listener hears a different balance of sound. In addition, lobes of sound projecting outside the listening area increase the reverberation, reducing intelligibility and interfering with musical quality.



**The Solution** Constant Beamwidth Technology solves these problems by locking in and maintaining a specific coverage over a very wide bandwidth. The CBT models deliver smooth, consistent coverage that is similar to complex and far more expensive line arrays. The CBT Series' constant directivity coverage delivers consistent frequency response at every distance as well as off-axis. With the CBT Series, every seat in the house experiences the same quality of sound regardless of position.



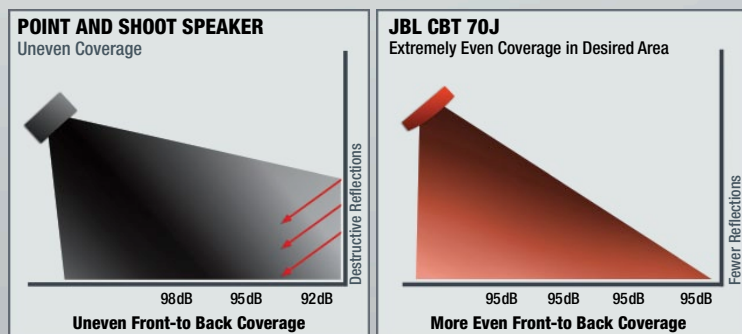
# The Revolutionary **CBT J** Models

## Advantages of Asymmetrical Vertical Coverage

The J-shape of the array works in conjunction with the *Constant Beamwidth Technology* circuitry to provide asymmetrical coverage similar to that of expensive line arrays commonly used in concert systems. The J column sends highly concentrated sound toward the back of the venue, while down-filling a broader, less concentrated sound to the front of the venue. This results in more consistent sound levels from front to back.

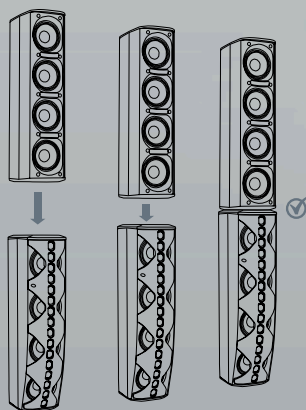


### Advantages of CBT 70J's Asymmetrical Coverage



### HIGH OUTPUT & WIDE BANDWIDTH

The Two-Way CBT 70J produces high sound levels, rivaling larger Two-Way loudspeakers in output sound level as well as providing wide, smooth frequency response throughout its coverage area.



**CBT 70JE EXTENSION CABINET** The CBT 70JE further extends the pattern control of the CBT 70J by doubling its height. This lowers the frequency to which the speaker holds a consistent coverage pattern. The CBT 70JE also extends the low frequency capability of the system.

**MULTIPLE CONFIGURATIONS** The selectable vertical coverage, music/speech settings, the option to add an extension for bass and pattern control, asymmetrical vertical coverage, high output, and wide bandwidth makes the CBT 70J an extremely versatile loudspeaker, ideal for a very wide variety of common applications.



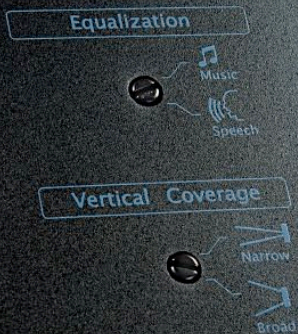
**USER VARIABLE VOICING** The Music/Speech switch (on all CBT models) allows quick and easy adjustment of the response. Music mode provides a flat, balanced frequency response, while Speech mode adds a mid-range presence peak for enhanced speech intelligibility. So, regardless of the application, the CBT Series can be tailored to suit the need.

# Adjustable Coverage to Fit the Application

For the first time ever in a passive column loudspeaker, the coverage pattern of the CBT models can be adjusted with a simple switch. This allows the CBT to meet the requirements of a very broad range of applications. **Broad Coverage Mode** is excellent for mid-throw situations. **Narrow Coverage Mode** is for long-throw applications.

## Applications

The versatility and performance of the CBT Series address a broad range of applications such as performance spaces, transit centers, lecture halls, board/meeting rooms, retail stores, houses of worship, courtrooms, theme parks, lobbies, cinemas, and any other application requiring a speaker with discrete appearance, excellent sound and superb pattern control.



### CBT 50LA

### CBT 100LA

### CBT 70J

### CBT 70JE

Description:	50 cm straight line array with 8 x 2" drivers plus patent-pending <b>Constant Beamwidth Technology™</b> circuitry	100 cm straight line array with 16 x 2" drivers plus patent-pending <b>Constant Beamwidth Technology™</b> circuitry	70 cm J-shaped coaxial line array with 16 x 1" tweeters, 4 x 5" woofers plus patent-pending <b>Constant Beamwidth Technology™</b> circuitry	70 cm extension line array cabinet for CBT 70J with 4 x 5" woofers
Applications:	General Low-Level Sound, Video Monitors, Retail, Concourses, Transit Spaces, Fill Applications, Conference Rooms, Architectural Spaces.	Lecture Halls, Difficult Acoustic Environments, Transit Centers, Conference Rooms, Cathedrals, Multi-purpose Spaces, Architectural Spaces.	A/V, Small Performance Auditoriums, Classrooms, Lecture Halls. Outdoor: Pole-Mounted at School Stadiums, Race tracks, Theme Parks, Fill Applications.	Extends pattern control of CBT 70J to 400 Hz, doubles the power handling, increases low frequency SPL.
<b>SELECTABILITY</b> Vertical Coverage:	20°	<b>Switchable:</b> Narrow = 15° Broad = 40°	Asymmetrical Vertical Coverage <b>Switchable:</b> Narrow = 25° asymmetrical Broad = 45° asymmetrical	n/a
Equalization:	Music (flat)/Speech	Music (flat)/Speech	Music (flat)/Speech	n/a
Tap Settings:	60W multi-tap for 70V/100V, plus 8 ohms	120W multi-tap for 70V/100V, plus 8 ohms	8 ohms	8 ohms
<b>PERFORMANCE</b> Freq. Resp. (-10 dB):	80 Hz – 20 kHz	80 Hz – 20 kHz	60 Hz – 20 kHz	System: 45 Hz – 20 kHz
Sensitivity (SPL @ 1m, 3.3 ft) <sup>1</sup> :	93 dB	96 dB	98 dB	System: 100 dB
Power Handling (low-Z):	150 W	325 W	500 W	System: 1000 W
Max SPL <sup>1</sup> :	115 dB (121 dB peak)	121 dB (127 dB peak)	125 dB (133 dB peak)	System: 130 dB (136 dB peak)
Pattern Control Frequency (± 20°):	1500 Hz	600 Hz	800 Hz	System: 400 Hz
Mounting:	10 x M6 insert points, wall bracket included	18 x M6 insert points, wall bracket included	10 x M6 insert points, wall bracket included	CBT 70JE: 10 x M6 insert points, combining bracket included
Dimensions (H x W x D):	528 x 99 x 153 mm (20.8 x 3.9 x 6.0 in)	1000 x 99 x 153 mm (39.4 x 3.9 x 6.0 in)	695 x 168 x 235 mm (27.4 x 6.6 x 9.3 in)	695 x 168 x 235 mm (27.4 x 6.6 x 9.3 in)

<sup>1</sup> Narrow, speech mode