

# Control<sup>®</sup> 47HC Two-Way 6.5" Coaxial Ceiling Loudspeaker for High Ceilings

## Professional Series

### Key Features:

- ▶ Focused 75° narrow pattern featuring JBL's exclusive conical Radiation Boundary Integrator<sup>®</sup> (RBI<sup>™</sup>) technology.
  - Provides consistent coverage within the listening area.
  - Narrow coverage makes the system ideal for high-ceiling applications, minimizing time arrival anomalies and improving speech intelligibility.
- ▶ Coaxial design featuring:
  - 165 mm (6.5 in) woofer with butyl rubber surround.
  - 25 mm (1 in) soft-dome tweeter on 280 mm (11 in) diameter wave guide.
- ▶ 8 ohm and 70V/100V operation.
- ▶ Integrated backcan for easy "blind-mount" install. Packaged with grille and tile rails for easy installation.

### Applications:

The Control 47HC is a premium in-ceiling professional loudspeaker designed for applications that require a focused beamwidth pattern along with very consistent coverage.

Featuring JBL's conical Radiation Boundary Integrator<sup>®</sup> (RBI<sup>™</sup>), the RBI provides a large waveguide for the tweeter while low-frequency sound projects through specially-designed apertures in the RBI, allowing for a seamless integration of coverage between the two coaxially-mounted drivers. The result is extremely consistent sound character with very little variation throughout the listening space. The Control 47HC's narrow coverage pattern makes the system ideal for high ceiling applications where the focused pattern helps minimized time arrival anomalies from adjacent loudspeakers, resulting in improved speech intelligibility.

The large backcan on the Control 47HC along with the LF driver design, provides extended bass response for a warm full-bodied tone. The system's 165 mm (6.5 in) woofer features a polypropylene cone and pure butyl-rubber surround for long life. The copper-clad aluminum voice coil wound on a vented aluminum former provides low distortion and high sensitivity. The coaxially mounted 25 mm (1 in) soft dome features internal damping for smooth extended response and ferrofluid cooling for enhanced power handling and reduced power compression. The result is crisp, clear highs.

Ideal for small and large projects alike, the Control 47HC is switchable for use as either an 8-ohm low-impedance speaker, or as part of a 70V/100V distributed loudspeaker system.



(Shown with grille removed)

### Specifications:

|  |  |
|--|--|
| <b>System:</b>                             |  |
| Frequency Range (-10 dB) <sup>1</sup> :    | 55 Hz - 17 kHz   |
| Frequency Response (± 3 dB) <sup>1</sup> : | 70 Hz - 14 kHz   |
| Power Capacity <sup>2</sup> :              | 150 Watts Continuous Program Power<br>75 Watts Continuous Pink Noise   |
| Nominal Sensitivity:                       | 93 dB  |
| Nominal Coverage Angle <sup>3</sup> :      | 75° conical coverage   |
| Directivity Factor (Q) <sup>3</sup> :      | 10.2   |
| Directivity Index (DI) <sup>3</sup> :      | 12.0 dB  |
| Rated Maximum SPL:                         | 112 dB @ 1 m (3.3 ft) average, 118 dB peak   |
| Rated Impedance:                           | 8 ohms (in bypass mode)  |
| Transformer Taps:                          | 60 W, 30 W, 15 W, (& 7.5 W @ 70 V)   |
| Transformer Insertion Loss:                | 0.76 dB @ 60 W, 0.70 dB @ 30 W,<br>0.61 dB @ 15 W, 0.58 dB @ 7.5 W   |
| <b>Transducers:</b>                        |  |
| LF Driver:                                 | 165 mm (6.5 in) with polypropylene cone, butyl rubber surround, copper-clad coil, vented aluminum former.  |
| HF Driver:                                 | 25 mm (1 in) soft dome w/ dampening, ferrofluid-cooled.  |
| <b>Enclosure:</b>                          |  |
| Input Connectors:                          | Two removeable locking 2-pin connectors with screw-down terminals. Max wire 12 AWG (2.5 mm).   |
| Knockouts:                                 | Two (top and side)   |
| Safety Agency:                             | Suitable for use in air handling spaces per UL1480, UL2043, NFPA90 & NFPA 70. S7232/UL Listed, Signaling Speaker. Transformer UL registered per UL1876. In accordance with IEC60849/EN60849.     |
| Dimensions:                                | 332 mm Diameter x 351 mm Depth from back of baffle (13.1 in x 13.8 in)   |
| Cutout Size:                               | 307 mm Diameter (12.1 in)  |
| Ceiling Thickness Range:                   | Accommodates tiles/drywall up to 70 mm (2.75 in) thick   |
| Suspension Points:                         | Three, on top surface  |
| Weight:                                    | 6.4 kg (14 lb)   |
| Included Accessories:                      | C-ring support backing plate, 2 tile support rails (fits both 2 x 4 ft or 600 x 1200 mm tiles), knockout strain relief, cutout template, paint shield, 2 removable locking multi-pin connectors. |
| Optional Accessories:                      | MTC-19NC New Construction Bracket<br>MTC-19MR Mud Ring Construction Bracket  |

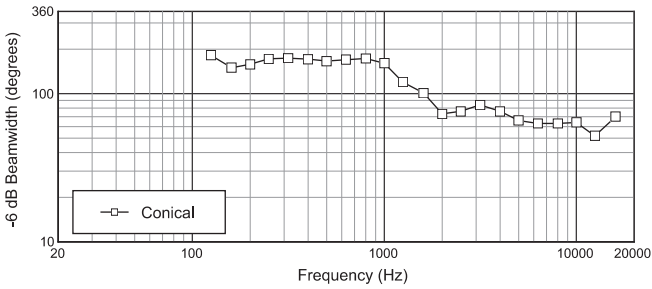
<sup>1</sup> Half-space (flush mounted in ceiling)

<sup>2</sup> Continuous Pink Noise rating is IEC-shaped pink noise with a 6 dB crest factor for 100 hours continuously. Continuous Program power is a conservative expression of the system's ability to handle normal speech and music program material, and is defined as 3 dB above the Continuous Pink Noise Rating.

<sup>3</sup> Half-space (in ceiling) average 1 kHz to 16 kHz.

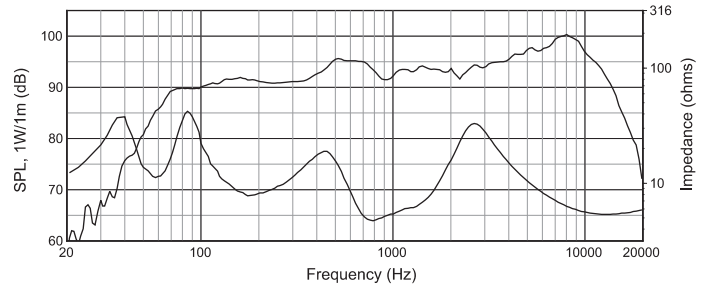
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## Beamwidth:

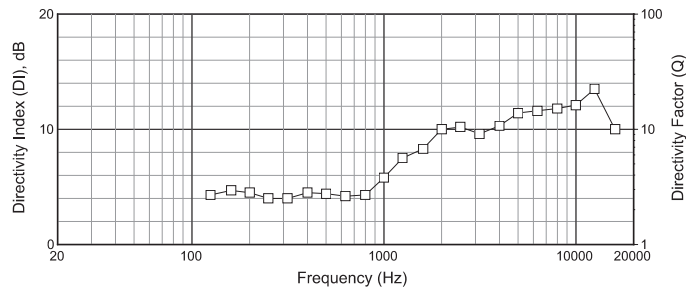


## Frequency Response:

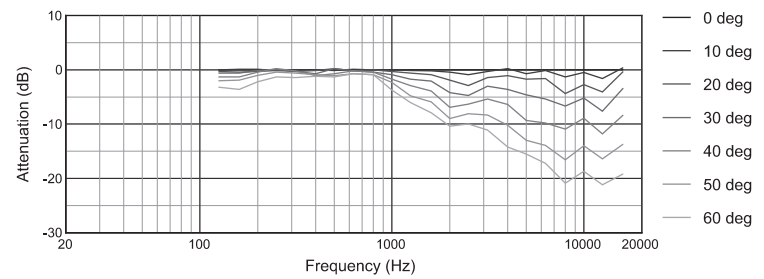
Half-space ( $2\pi$ , mounted in ceiling)



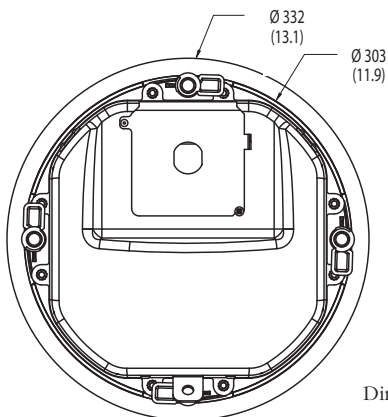
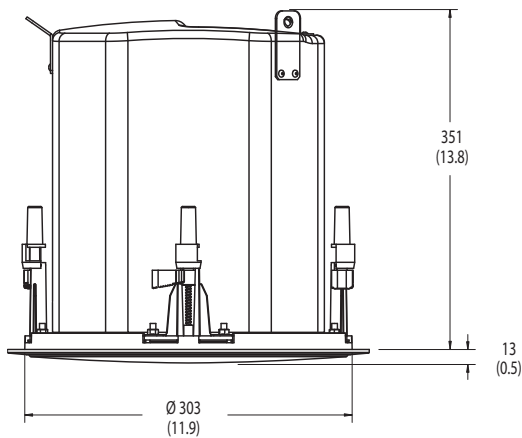
## Directivity Index:



## Off-Axis Frequency Response:



## Dimensions:



Dimensions in mm (in)



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