

# Control 12C/T Compact Ceiling Loudspeaker

## Professional Series

### Key Features:

- ▶ 76 mm (3 in) full-range driver
- ▶ Blind-mount backcan for quick and easy install
- ▶ Dual conduit/cable clamps
- ▶ Combined 70V/100V and low impedance direct operation
  - 20 Watts at 8Ω nominal setting
  - 15W multi-tap at 70V/100V
- ▶ 68 Hz – 17 kHz bandwidth with wide 130° coverage
- ▶ White or black (-BK)

### Applications:

Control 12C/T is a full-range ceiling speaker consisting of 76 mm (3 inch) wide-bandwidth cone driver mounted in a vented, paintable baffle made of UV resistant UL94-V0 material, with a pre-attached blind-mount backcan for quick and easy installation. The speaker is designed to provide excellent sound quality for a wide variety of low to medium volume applications such as music cafes, business music systems, retail stores, music/paging systems, airports, reception/waiting rooms, lounges, courtrooms, convention centers, hotels, educational facilities, and more.

The 130° coverage is especially wide, delivering consistent sound quality for listeners located both off and on axis.

The high technology cone driver is designed with a lightweight high temperature Kapton™ voice coil former and aluminum coupling ring to reduce distortion and extend the high frequency response of the system. The FEA-optimized motor construction and cone geometry allow for smooth frequency response and improved off-axis performance. A high temperature grade voice coil insures stable performance under long term high power working conditions. The butyl rubber surround provides long-term durability and good sonic damping, and the polypropylene cone is water and humidity resistant.

The removable locking connector has screw terminals for secure wire termination and “loop through” terminals. A dual strain relief assembly provides clamping for use with cable or flex conduit.

The compact backcan extends only 138 mm (5.4 inches) behind the baffle, allowing the speaker to fit into more shallow ceiling areas.

Ideal for a wide variety of projects, the Control 12C/T is switchable for use as either an 8 ohm low-impedance speaker or as part of a 70V or 100V distributed loudspeaker system with a 15 Watt multi-tap transformer. The speaker comes complete with two tile rail supports, one C-ring support backing plate, cutout template, paint shield and grille. A safety seismic attachment ring is provided on the top surface. Available in white or black (-BK).



Included grille not shown.

### Preliminary Specifications:

<b>System:</b>	Frequency Range (-10 dB) <sup>1</sup> :	68 Hz – 17 kHz
	Frequency Response (±3 dB) <sup>1</sup> :	95 Hz – 15 kHz
	Power Capacity (at low-Z) <sup>2</sup> :	40 Watts Continuous Program Power 20 Watts Continuous Pink Noise
	Nominal Sensitivity <sup>3</sup> :	84 dB
	Nominal Coverage Angle <sup>3</sup> :	130° conical coverage
	Directivity Factor (Q) <sup>3</sup> :	9.8
	Directivity Index (DI) <sup>3</sup> :	7.4 dB
	Rated Maximum SPL:	97 dB @ 1 m (3.3 ft) average, 103 dB peak
	Nominal Impedance:	8 ohms (in direct/bypass 8Ω setting)
	Transformer Taps:	15 W, 7.5 W, 3.8 W @ 70V and 100V (& 1.9 W @ 70V only)
<b>Transducers:</b>	Full-Range Driver:	76 mm (3 inch) with polypropylene cone, butyl rubber surround, Kapton™ voice coil former, high temperature voice coil, aluminum coupling ring for low distortion and HF extension
<b>Enclosure:</b>	Input Connector:	Removable locking 4-pin connector with screw-down terminals. Max wire size 12 AWG (2.5 mm <sup>2</sup> )
	Connector Wiring:	Pin 1 = + In; Pin 2 = - In; Pin 3 = + Loop Thru; Pin 4 = - Loop Thru
	Strain Reliefs:	Strain relief for two cables or two flex conduits via coupled clamping mechanism
	Materials:	ABS baffle with UL94-V0 and UL94-5VB flame class fire rating. Zinc-plated steel backcan
	Safety Agency:	UL1480, UL2043, NFPA90 & NFPA70; S7232/UL Listed, Suitable for use in air handling spaces, Signaling Speaker; Transformer UL registered per UL1876; ROHS, C-tick N108, CE compliant; Baffle meets UL94-V0 and UL94-5VB flammability rating; In accordance with IEC60849/EN60849 systems
	Dimensions:	196 mm diameter x 138 mm depth from back of baffle (7.7 in diameter x 5.4 in depth)
	Ceiling Cutout Size:	Circular cutout with 170 mm (6.7 in) diameter (cardboard cutout template included)
	Ceiling Thickness Range:	Up to 35 mm (1.4 in) with stock dog-ears. MTC-TCD thick-ceiling dog-ears available for up to 55 mm (2.2 in) ceiling thicknesses.
	Safety Seismic Attachment:	One point, top surface
	Net Weight:	1.6 kg (3.5 lbs, one speaker)
	Shipping Weight:	6.7 kg (14.7 lbs, pair in master carton)
	Included Accessories:	C-ring support backing plate, 2 tile support rails (for 2 ft or 600 mm tile spans; optional MTC-48TR extension available for larger 4 ft or 1200 mm tile spans), cutout template, paint shield, removable locking multi-pin connector, grille.
	Optional Accessories:	MTC-24NC new construction bracket MTC-24MR mud-ring construction bracket MTC-TCD thick-ceiling dog-ears for ceiling thicknesses up to 55 mm (2.2 in, ordering one set = 24 dogears for 8 speakers) MTC-48TR tile rail for 1200 mm (4 ft) tile spans MTC-14WG (& 14WG-BK) high humidity grille

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

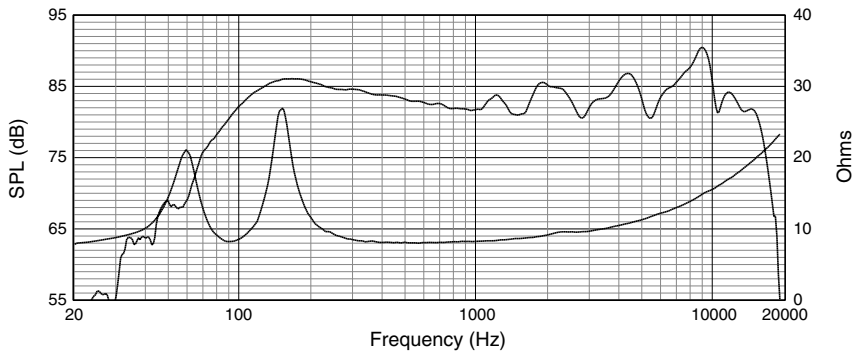
<sup>2</sup> Continuous Pink Noise Rating is IEC-shaped pink noise with a 6 dB crest factor for 100 hours continuously. Continuous Program Power is a conservative expression of the system's ability to handle normal speech and music program material, and is defined as 3 dB above the Continuous Pink Noise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

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

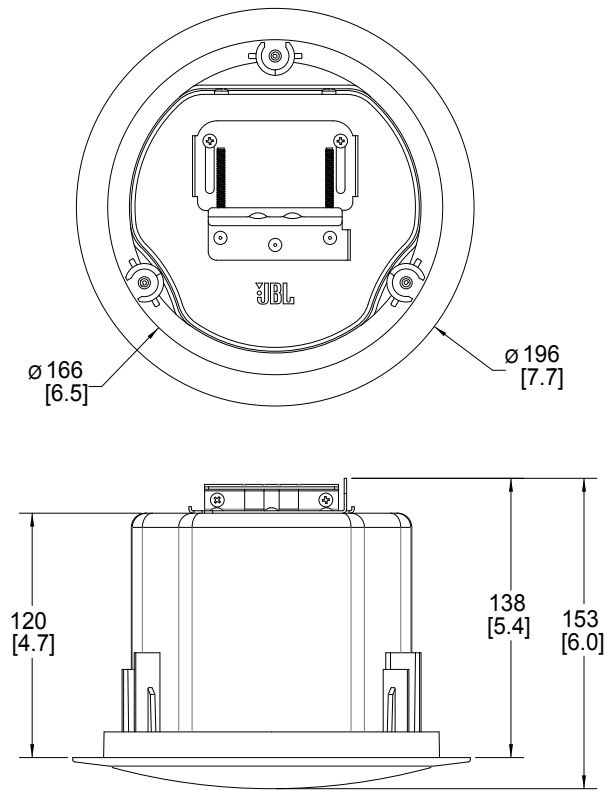
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## Frequency Response, Impedance:

Frequency Response in Half-Space ( $2\pi$ , mounted in ceiling)  
 Impedance at  $8\Omega$  (low-impedance) setting



## Dimensions:



Dimensions in mm (inches)

