## Professional Series - Professional Ceiling Loudspeaker for Life/Safety Applications



#### **Key Features:**

- UL1480 UUMW listed for use in fire alarm and/or emergency communication systems
- Coaxially mounted 165 mm (6.5 in) woofer with butyl rubber surround and 19 mm (3/4 in) titanium-coated diffraction-loaded tweeter
- High power, wide frequency response and low distortion for high sound level canability
- Packaged with grille, backcan and tile rails for fast installation and easy dealer stocking



Included grille not shown

#### **Description:**

The Control 26CT-LS is built on the same platform as our popular Control 26C and 26CT ceiling loudspeakers and is UL1480 UUMW listed for use in fire alarm and/or emergency communication systems.

The Control 26CT-LS is a compact ceiling speaker providing premium performance in background or foreground music sound systems. The Control 26CT-LS is perfectly suited for a wide variety of applications from casinos and hotels to upscale restaurants and themed locations. High power handling, wide frequency response and low distortion make the Control 26CT-LS ideal for sound systems requiring a higher fidelity sound from ceiling loudspeakers. The premium performance capability ensures excellent sound character, providing pleasant, enveloping sound

throughout the listening area.

The computer-optimized enclosure delivers warm, smooth bass response. Low frequency output can be further augmented with the addition of one of the Control Contractor subwoofer models.

The 165 mm (6.5 in) woofer features a polyurethane-coated cone and pure butyl rubber surround for long life, even in high humidity environments. An aluminum voice coil former provides extra cooling for greater long-term power handling.

The coaxially mounted 19 mm (¾ in) titanium-coated tweeter provides crisp, clear highs. Diffraction-loading of the tweeter provides wide, even coverage of the listening area.

### **Specifications:**

System	
Frequency Range (-10 dB) <sup>1</sup>	80 Hz – 20 kHz
Power Capacity <sup>2</sup>	150W Continuous Program Power 75W Continuous Pink Noise
Nominal Sensitivity <sup>3</sup>	89 dB SPL, 1W @ 1 m (3.3 ft)
Nominal Coverage Angle <sup>4</sup>	110° conical coverage
Directivity Factor (Q)	5.9 averaged 500 Hz to 4 kHz
Directivity Index (DI)	4.6 averaged 500 Hz to 4 kHz
Rated Maximum SPL	107 dB @ 1 m (3.3 ft)
Transformer Insertion Loss	Less than 0.8 dB
Transformer Taps	70V: 60W, 30W, 15W & 7.5W taps 100V: 60W, 30W, & 15W taps
Transducers	
Low Frequency	165 mm (6.5 in) polypropylene-coated, 1" coil on aluminum former
High Frequency	19 mm (¾ in) titanium-coated polyester
Physical	
Enclosure	Backcan: Formed steel Baffle/Rim: Medium impact polystyrene, fire rated UL94V-0
Termination	Removable locking connector with screw-down terminals. 2 input terminals and 2 loop-thru output terminals. Max. wire 12 AWG (2.5 mm²).

Safety Agency Rating	UL1480 UUMW listed. Suitable for use in air handling spaces per UL1480, UEAY, UL2043, NFPA90 & NFPA 70. S7232/UL Listed, Signaling Speaker. Transformer UL registered per UL1876. In accordance with IEC60849/EN60849.
Outside Dimensions (H x Dia)	210 x 252 mm (8.3 x 9.9 in) 190 mm (7.5 in) front of ceiling tile to back of backcan
Cutout Size	220 mm (8.75 in)
Net Weight (each)	4.2 kg (10 lb)
Shipping Weight (pair)	9.7 kg (21 lb)
Included Accessories	» C-shaped support backing plate  » 2 tile support rails (fits both 2 x 4 ft or 600 x 1200 mm tiles)  » Cutout template  » Paint shield  » Removable locking wiring connector — Euroblock

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

JBL continually engages in research related to product improvement. Changes introduced into existing products without notice are an expression of that philosophy

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup> Half-space (in ceiling), average 100 Hz to 10 kHz

<sup>4 500</sup> Hz to 4 kHz, average

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Input connection is conveniently provided on a removable locking connector (included), providing secure connection via screw-down terminals and allowing a system to be prewired before installing the speaker for fast snap-on convenience. Separate connector terminals are available for the input and for the loop-through wires, making it easy to jumper the speaker signal to additional speakers. The input terminal plate provides strain relief for either bare wire, plenum cable or ½ inch conduit (12 mm I.D.). The terminal box is securely enclosed to meet safety codes.

The speaker trim and grille are paintable to match any decor. A paint shield is provided for covering the drivers while painting the rim.

Installation of the Control 26CT-LS is quick and easy. The loudspeaker is packaged complete with the backcan, grille, support backing bracket and tile rails.

The entire installation can be accomplished without requiring access above the ceiling. A template is provided for marking the cutout. An innovative C-shaped support backing plate can be installed from below through the cutout to reinforce the top of the ceiling material. Tile bridge

rails are included which can be screwed onto the C-plate to extend support to the T-channel grid in suspended ceiling installations. After the speaker is fitted through the cutout, it is held securely in place via three mounting tabs which tighten onto the C-plate, if used, or directly onto the ceiling material.

The Control 26CT-LS backcan is made of formed steel. An attachment loop is provided on the backcan for cabling to the building structure as a secondary support in seismic areas or where required by code.

The Control 26CT-LS includes a 60W multitap transformer for use in either 70.7V or 100V distributed-line systems. Taps are selected with a rotary switch conveniently located on the front panel, but protected under the grille, so that the speaker does not have to be removed to adjust tap settings.

All JBL Control Contractor loudspeakers—both ceiling speakers and surface-mount models—are designed with a similar sonic signature, allowing for mixing and matching of the various models within an application, providing a similar tonal character throughout the entire listening area.

## Safety and Regulatory Information:

The Control 26CT-LS has passed extensive testing and is in compliance with the following specifications and uses:

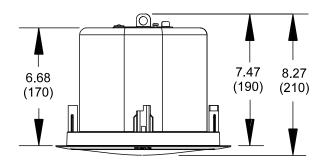
- Listed UL1480, category UUMW. For use with non-DC supervised systems.
- General Purpose Use Listed UL1480, Category UEAY
- Control 26CT-LS is suitable for use indoors in damp or dry locations
- Suitable for installation using Class 1, Class 2 or Class 3 wiring methods in accordance with NFPA 70, National Electric Code, 2002, Article 640, and with NFPA 72 for use with non-DC supervised control panels / amplifiers.
- Suitable with fire alarm circuit wiring methods in accordance with NFPA 70, National Electric Code, 2002, Article 760, and with NFPA 72 for use with non-DC supervised control panels/amplifiers.
- EMC Directive 89/336/EEC and Article 10 (1) of the directive EN50081-1 and EN50082-1
- Tested to IEC 60268-5

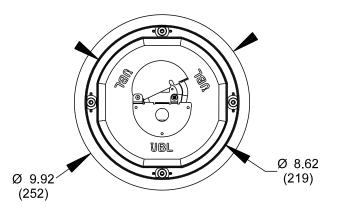
Measured audibility for the Control 26CT-LS at 10 feet (3.1 meters):

Tap	Sound Pressure Level dB(A)
70V, 7.5W	82 dB
70V, 15W	85 dB
70V, 30W	88 dB
70V, 60W	90 dB
100V, 15W	85 dB
100V, 30W	88 dB
100V, 60W	90 dB

### **Mounting Dimensions:**

Dimensions in inches (mm)

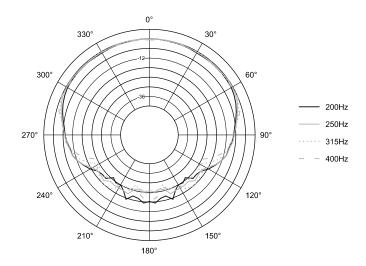


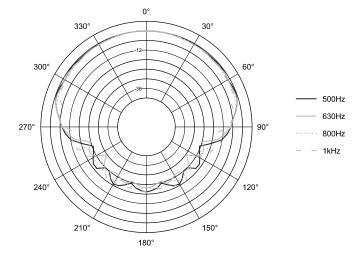


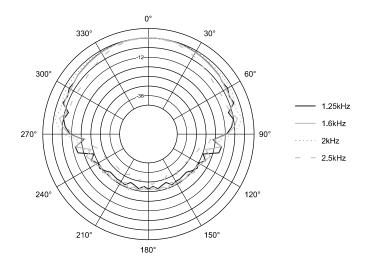
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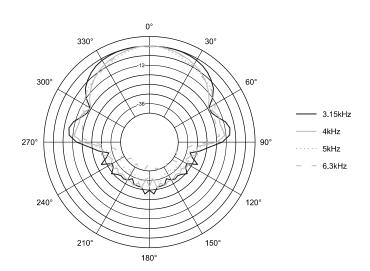


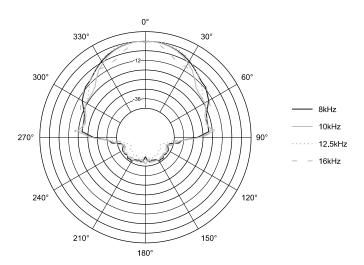
### 1/3 Octave Polars:







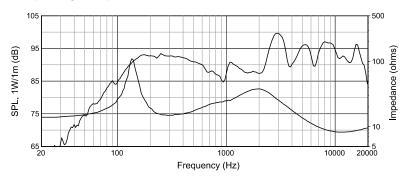




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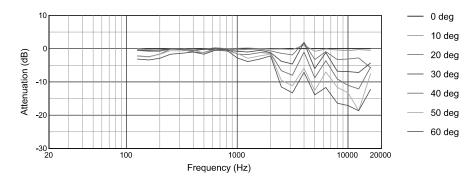


### Frequency Response:



Measured on-axis with a distance referenced to 1 meter at 1 watt; shown as a half-space (2pi) environment

#### Off Axis Frequency Response (1/3 Oct Avg):



## **Architectural Specifications:**

The loudspeaker shall be of in-ceiling design, consisting of a 165 mm (6.5 in) low frequency transducer, a coaxially-mounted 19 mm (3/4 in) high frequency transducer, and frequency dividing network installed in a ported enclosure. The low frequency voice coil shall be 25 mm (1 in) in diameter and the coil former shall be of aluminum for maximum heat dissipation.

Performance specifications of a typical production unit shall be as follows: Measured sensitivity (SPL at 1m [3.3 ft] with 4V input, averaged from 100 Hz to 10 kHz) shall be at least 89 dB-SPL. Usable frequency response shall extend from 80 Hz to 20 kHz (10 dB below rated sensitivity in half-space) with no external equalization.

The high frequency transducer shall be horn-loaded to more evenly cover an average 110° polar conical coverage area (ave 500 Hz to 4 kHz).

The backcan shall be constructed of formed steel and the baffle of UL94V-0 fire rated medium impact polystyrene. An enclosed terminal box shall be included proving strain relief for use with either plenumrated wire, 1/2 in (13 mm inside diameter) conduit, or flexible conduit up to 22 mm (7/8 in) outside diameter. The external wiring shall be accomplished via a removable lockable wiring connector with screwdown terminals to provide both secure wire termination and prewiring

capability before loudspeaker installation. An attachment loop shall be provided on the back panel for cabling to building structure as a secondary support point.

The system shall include a support backing plate to reinforce the ceiling material and tile support rails for use on either  $2 \times 4$  ft or  $600 \times 1200$  mm suspended ceiling tiles and which can all be installed from beneath the ceiling tile.

Overall front face diameter shall not exceed 252 mm (9.9 in), overall depth from the bottom of the ceiling shall not exceed 190 mm (7.5 in), and shall weigh no more than 4.2 kg (10 lb).

The loudspeaker shall be equipped with transformer for use in either 70.7 or 100V distributed-line speaker systems, with taps selectable by rotary switch located on the front panel so that the speaker does not have to be removed to adjust tap settings. Taps shall be nominally 60W @ 70V, 30W @ 70V (60W @ 100V), 15W @ 70V (30W @ 100V), and 7.5W @70V (15W @ 100V).

The loudspeaker shall be UL certified under UL1480 UUMW for use in fire alarm systems and shall also be certified under UL2043. The transformer shall be UL registered under UL1876.

The loudspeaker shall be the JBL Model Control 26CT-LS.