



15CX-P Coaxial Loudspeaker



APPLICATIONS

Stadiums / Arenas
Educational Facilities
Convention Centers
Race Tracks
Dance Clubs

FEATURES

Coaxial, Horn-loaded
Two-Way Passive
LF Device: 15 in. (381.0mm)
HF Device:
Exit: 1.4 in. (35.6mm)
Voice Coil Diam: 3 in. (76.2mm)
60° H x 60° V Coverage
Integrated Rigging Points
Epoxy Mastic Finish
4-Position Terminal Strip

GENERAL DESCRIPTION

Clair Brothers 15CX-P loudspeaker has been designed as an ultimate hi-fidelity, large-format point source speaker. The frequency response is full range, 38Hz–16,000Hz, allowing for use for speech and music reproduction. A stand-out feature of 15CX-P is its innovative horn technology. A coaxial horn arrangement provides conic constant directivity pattern control to both the 15" woofer as well as the 3" voice coil diameter compression driver.

The 15CX-P also features a unique combination of two horns. One horn responsible for directing low frequencies is a precision-machined solid birch plywood horn, measuring 35.5" at the mouth. The high frequency horn is comprised of three sections. The first section is a solid exponential throat followed by a conic constant directivity geometry made of heavy gauge perforated steel. The perforation patterns are geometrically optimized to allow proper crossover region behavior over the 60° polar coverage area between the upper midrange frequencies of the woofer with the compression driver. This technology solves the common problem of horn shadowing with prior coaxial designs. The high frequency horn seamlessly joins with the low frequency horn as it extends toward the mouth.

The 15CX-P coaxial product family consists of two versions, 15CX-P and 15CX-CP. They are acoustically similar but mechanically different.

The 15CX-P (pictured) is designed with a curved perforated steel grille and is well suited for outdoor or exposed installations. 15CX-P features versatile mounting options from 20 integrated points.

The other model, 15CX-CP (not pictured), is intended for use in commercial installation applications where an exterior grille is unnecessary as it may be installed above finished ceilings. 15CX-CP is outfitted with two attachment points for an optional mounting bracket.

Please contact Clair Brothers for more information regarding coverage area planning and simulation using our coaxial loudspeaker products.

OPTIONS

15CX – Outdoor, Active Model with Grille
15CX-CP – Indoor, Passive Model [no grille]
15CX-C – Indoor, Active Model [no grille]
15CX-MB – Mounting Bracket for 15CX-C & 15CX
Custom Rigging Yokes / Custom Colors

Call or e-mail Clair Brothers for more information on available options.
(717-665-4000) e-mail: sales@clairbrothers.com

I5CX-P Coaxial Loudspeaker



AUDIO SPECIFICATIONS

| | | |
|---|----------------------|---|
| Loudspeaker Type | Passive ¹ | Coaxial, Horn-loaded Loudspeaker |
| Frequency Response (+/- 2dB) | | 38Hz–16kHz |
| Recommended Power Amplifier | | 1000–1200W @ 8 Ohms |
| Sensitivity (1 Watt @ 1 Meter) ² | LF | 105 dB SPL |
| | HF | 111 dB SPL |
| | Passive | 106 dB SPL |
| Maximum Output | LF | 132 dB SPL |
| | HF | 133 dB SPL |
| | Passive | 132 dB SPL |
| Drivers | LF | (1) 15 in. (381mm) |
| | HF | (1) Exit 1.4 in. (35.6mm); VC diameter 3 in. (76.2mm) |
| Nominal Impedance | LF | 8 Ohms |
| | HF | 8 Ohms |
| Power Handling | LF | 400W Program / 800W Peak |
| | HF | 80W Program / 160W Peak |
| Dispersion | | 60° H x 60° V (Conic) |
| Input Connections | Standard | (1) 4-Position Terminal Strip |
| | Optional | (2) EP-4 Connectors (1 Male, 1 Female) |

MECHANICAL SPECIFICATIONS

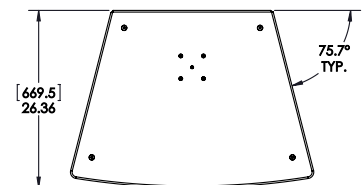
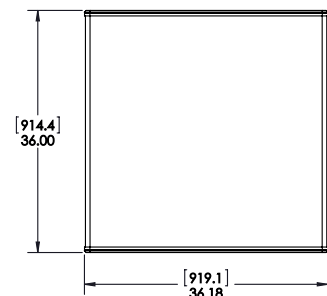
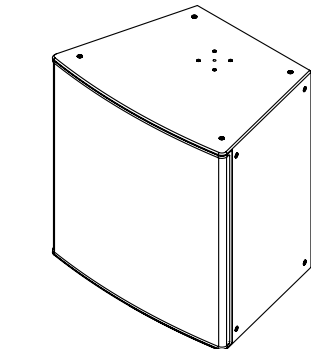
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|-----------------|---------|----------------------------|
| Enclosure | Shell | 18mm Baltic Birch |
| | Finish | Black Epoxy Mastic |
| Grille | | 16 Gauge, Perforated Steel |
| Dimensions | Height | 36.00 in. (914.4mm) |
| | Width | 36.18 in. (919.1mm) |
| | Depth | 26.36 in. (669.5mm) |
| Weight | Passive | 211 lbs. (95.7kg) |
| | Active | 204 lbs. (92.5kg) |
| Shipping Weight | Passive | 226 lbs. (102.5kg) |
| | Active | 219 lbs. (99.3kg) |

1 Standard product is Passive. [Active model may be ordered as an option.]

2 Sensitivity measured in half space, average SPL over rated bandwidth.

Note: All wattage figures are calculated using the rated nominal impedance.

Clair Brothers products are designed to perform optimally by utilizing factory recommended proprietary DSP settings.



15CX-P Terminal Strip Configuration

| Terminal Color | Use |
|----------------|----------|
| Black | Low (–) |
| Black | High (–) |
| White | High (+) |
| Red | Low (+) |

15CX Terminal Strip Configuration

| Left to Right | Use |
|---------------|----------|
| Black | Low (–) |
| Red | Low (+) |
| Black | High (–) |
| White | High (+) |

ARCHITECT AND ENGINEER SPECIFICATIONS

The loudspeaker shall be a two-way passive, or optionally active, system featuring a total of two drivers. The low frequency section shall consist of one 15" driver capable of handling 400 watts of pink noise with a 6 dB crest factor for eight hours (as per EIA RS-426-A standard). The 15" woofer shall be horn-loaded onto a conic horn constructed wholly of solid birch plywood, structurally designed to minimize resonances in the device pass-band. The low frequency horn shall provide controlled directivity defined by -6dB at coverage angle to approximately 400Hz. The high frequency section shall consist of a 3" voice coil diameter compression driver with a 1.4" exit mounted on a 60° H x 60° V horn. The high frequency horn shall provide complete pattern control over the bandwidth. The high frequency horn shall be a constant directivity conic profile featuring acoustic lowpass boundary sections whose lowpass function varies according to the angle relative to the low frequency transducer behind it. The driver is capable of handling 80 watts (1 kHz to 10 kHz) of pink noise with a 6 dB crest factor for two hours (as per AES-1984 and ANSI S4.26-1984 standards). The enclosure shall be trapezoidal in geometry, constructed with 18mm, 13-ply Baltic birch and covered with a durable black epoxy mastic finish. The dimensions shall be 36.00" high, 36.18" wide, and 26.36" deep. The 15CX-P enclosure shall feature integral rigging corners, providing (4x) 3/8"-16 thread mounting points on each exterior surface, totaling 20 points. The passive system weight shall be 211 lbs. (95.7kg) [204 lbs. (92.5kg) for active]. The loudspeaker system shall be the Clair Brothers 15CX-P, or 15CX, loudspeaker.

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Due to constant research, development and improvements all specifications are subject to change without notice.

