



# 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

# 15CX-P Coaxial Loudspeaker



## AUDIO SPECIFICATIONS

Loudspeaker Type	Passive <sup>1</sup>	Coaxial, Horn-loaded Loudspeaker
Frequency Response (+/- 2dB)		38Hz–16kHz
Recommended Power Amplifier		1000–1200W @ 8 Ohms
Sensitivity (1 Watt @ 1 Meter) <sup>2</sup>	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

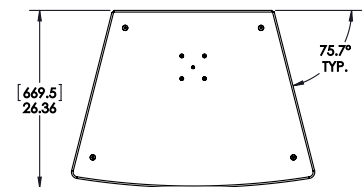
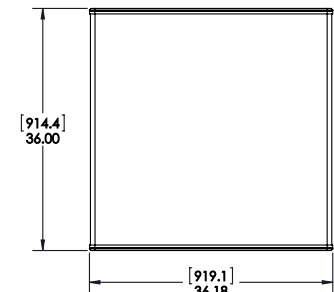
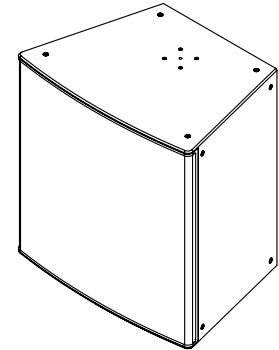
Enclosure	Shell	18mm Baltic Birch
	Finish	Black Epoxy Mastic
Grille		16 Gauge, Perforated Steel
Dimensions	Height	36.00 in. (914.4mm)
	Width	36.18 in. (919.1mm)
	Depth	26.36 in. (669.5mm)
Weight	Passive	211 lbs. (95.7kg)
	Active	204 lbs. (92.5kg)
Shipping Weight	Passive	226 lbs. (102.5kg)
	Active	219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

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

<sup>2</sup> 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.