

JBL C200 Installation Guide

October 13, 2021. Supersedes all prior information

The C200 Series ScreenArray™ Loudspeakers incorporate JBL's latest technological advances with a compact footprint and accessible price point.

- Patented - pending Dual Dissimilar Array
- Patented pending - Acoustic Aperture Technology
- Driver Technology - the 200 Series uses the same driver technology trusted by top movie studios.

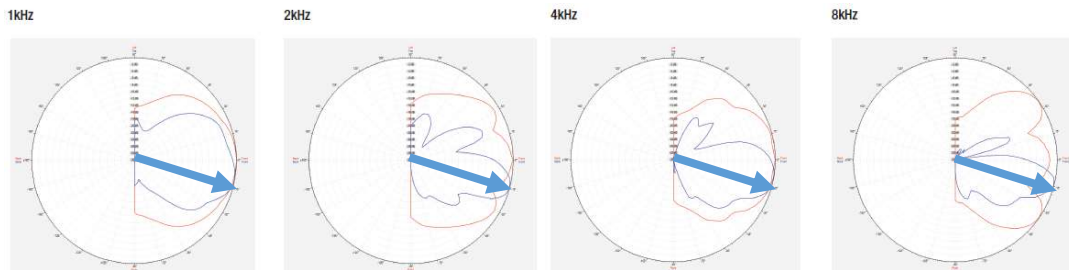


DUAL DISSIMILAR ARRAY:

Accurate Coverage for the Entire Room

JBL's patent pending Dual Dissimilar Arraying design combines two asymmetric high-frequency drivers in tandem, making it possible to sculpt the geometry of modern cinemas. While traditional configurations require three-way loudspeakers to achieve this level of customization, Dual Dissimilar Arraying creates coverage patterns specifically designed for raked seating in modern cinemas. The result? Sound that's sculpted perfectly for your room—no matter where you sit.

Polar Plots
Note: Red line = Horizontal, Blue Line = Vertical



ACOUSTIC APERTURE:

Clarity and Coverage at the Crossover

The JBL 200 Series includes Acoustic Aperture Technology that works seamlessly with its low-distortion 15" driver. The Acoustic Apertures create a horn-loading effect, helping to maintain a wide horizontal coverage pattern through the crossover range while improving speech clarity. All of this engineering comes to life by producing even coverage of the entire cinema seating area, making every seat the best seat.



DRIVER TECHNOLOGY:

Extended Bandwidth and Reduced Distortion

The C200 Series Loudspeakers use JBL's Patented Ultra low distortion annular ring diaphragm compression drivers coupled with high performance woofers to allow to Extended Bandwidth from compact enclosures.

DRIVE MODE:

The C200 Series use a dedicated passive crossover network that implements the specialized processing required for Acoustic Aperture and Dual Dissimilar Arraying. This passive network along with recommended FIR Tunings and JBL suggested amplification complete the system. Since the passive network is integral to the technologies used in the design of the loudspeaker system, 2 drive modes exist for C211, C221 and C222 – Passive Mode and Bi-Amp (Bi-Wire) mode. Note that in Bi-Wire mode, the Passive Network is still in the circuit. The typical advantages of Bi-wiring the system include the ability to use different power amplifiers and cabling for the LF and HF in existing installs.





For Single-wire passive operation, leave the jumpers in place (jumpers link the LF+ and HF+ terminals together and the LF- and HF- terminals together).

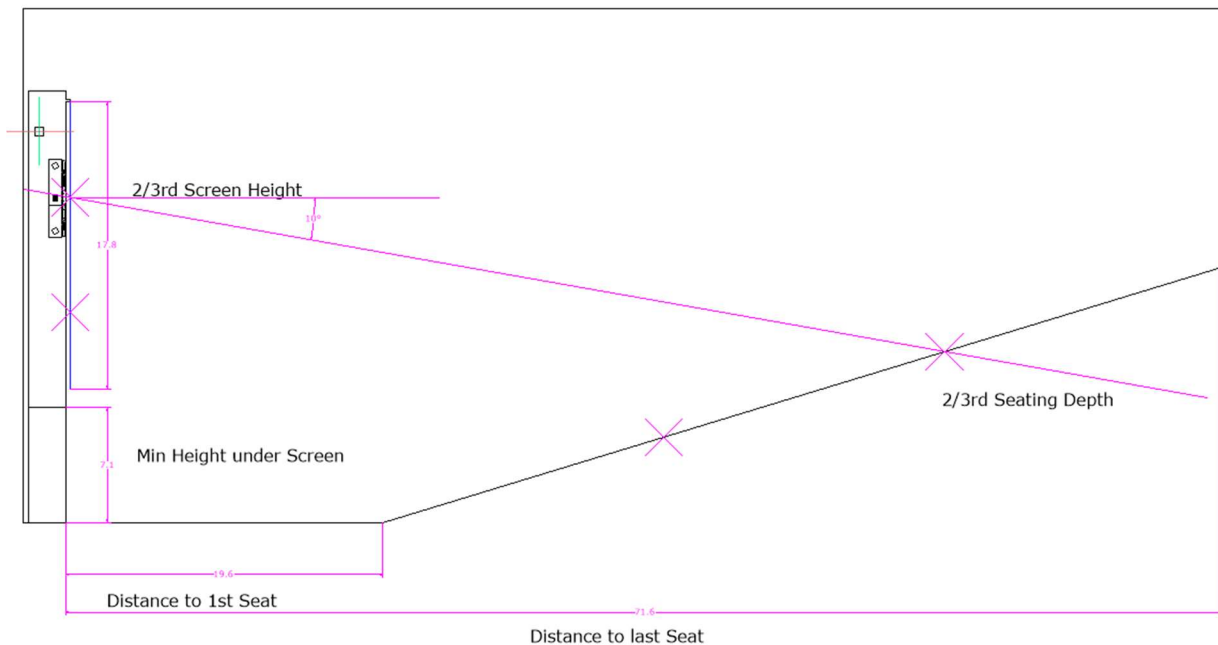
For Bi-wire passive operation, remove the jumpers and wire the LF± and HF± terminals to the respective amplifiers

The C222-HP is a Bi-Amp Only Loudspeaker system and needs 2 dedicated channels of Amplification per speaker since, the system is a high power Loudspeaker.

IIR Speaker tunings are available for Crown XLC and FIR Speaker tunings are available for Crown DCI-N and JBL DSI2.0 series of dedicated cinema amplifiers.

INSTALLATION:

The C200 Series of Cinema Loudspeakers employ a -10° down-tilt of the speaker axis as default, coupled with Dual Dissimilar arraying to create an asymmetric vertical coverage pattern. As such, it is extremely important to mount the speaker at a height where the -10° axis of the speaker is aimed to $2/3^{\text{rd}}$ depth of the house or furthest seat if possible. This allows for even SPL distribution across the depth of the room.



ASSEMBLY:

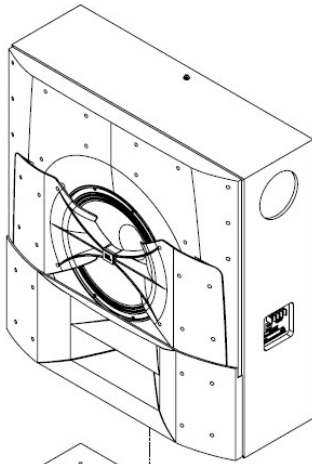
The JBL C222 and JBL C222-HP Ship as 2 units C222 (HP) -TOP and C222 (HP) – BOT to prevent damage due to tipping the package. The Speakers ship with 4 x Bolts to mount the TOP and BOT Cabinets together.

1. Set the -BOT cabinet on the floor.
2. Place the -TOP cabinet over the -BOT cabinet by aligning the keyed stacking blocks on the cabinets.
3. Fasten the -TOP and -BOT cabinets together using the supplied 8 x bolts through Flat washers and Split washers as shown in the image below.
4. Tighten bolts (7/16" hex head) to 16.5 ft. /lbs. (± 1 ft. lb.) torque.

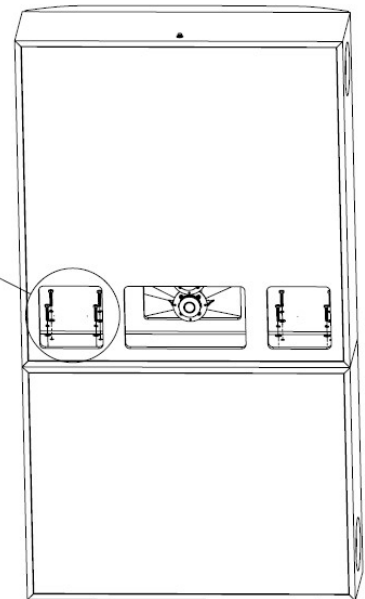
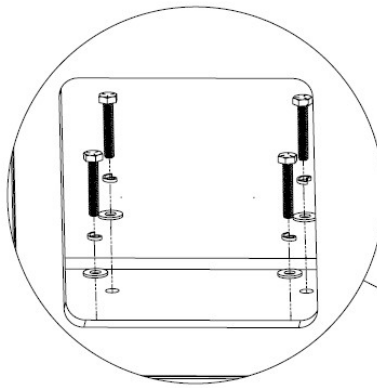
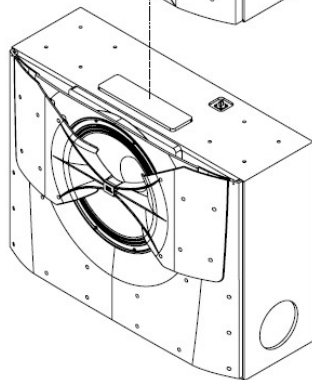
Included parts:

- a. 8nos. $\frac{1}{4}$ "-20TPI x 1 $\frac{1}{2}$ " long bolts. 7/16" hex head. Part number: 854-00000-24
- b. 9nos. $\frac{1}{4}$ " regular flat washers. Part number: 844-00110-00
- c. 9nos. $\frac{1}{4}$ " split lock washers. Part number: 844-03110-06

C222/C222HP-TOP



C222/C222HP-BOT



(C222 shown above; C222HP appearance slightly different)



5. Connect the –TOP Cabinet to the –BOT cabinet by Plugging in the Molex cable connector through the opening behind the –TOP cabinet. The Molex connector is keyed and can be easily connected in a single orientation only.



ANTI-TIP FASTNERS:

The JBL C200 series speakers have one ¼-20 Thread bolt on top of each cabinet.

This thread is provided to anchor the loudspeaker after installation to prevent tipping. This point MUST NOT be used to lift or suspend the loudspeakers.



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