

# **CPL**<sup>™</sup> **265B**<sup>+</sup> Passive Subwoofer



Operating Manual

Model Number or Name:
Date of Purchase:
Serial Number:
Dealer Name:

# Crest Audio® CPL™ 265B+

The Crest Audio CPL 265B<sup>+</sup> is an ultra-compact passive subwoofer designed to extend the performance of the CPL+ series loudspeaker systems down to 53 Hz. It is the ideal add on for music playback, public address and live performance reinforcement applications.

The CPL 265B<sup>+</sup> can be utilized for both permanent installations and portable live sound applications. Perfect for public address, and background audio reinforcement purposes typically required in houses of worship, clubs, bars/restaurants, retail outlets plus education and corporate meeting facilities or anywhere high quality audio distribution and a powerful low end is required.

The CPL 265B<sup>+</sup> is equipped with two premium 6.5 inch woofers having 1.2 inch voice coils. Impedance of the loudspeaker is 4 Ohms. Connectivity is made via either looping 4-pin twist-lock or 4-pin Euroblock connectors.

The CPL 265B<sup>+</sup> enclosure is built from prime-grade 15 mm plywood that offers sturdy mechanical and low resonant electro-acoustic characteristics together with a heavy-duty steel grille to ensure maximum protection of the internal components. The loudspeaker is equipped with a total of 3 threaded suspension points and a M20 threaded pole mount fitting offering multiple mounting options for various applications. Available in durable black and white finish.

#### **Features**

- Ultra-compact passive subwoofer
- Two premium 6.5" woofers, 1.2" voice coil
- Continuous power handling: 100 Watts
- Nominal impedance: 4 Ohms
- Connectors: 2 x 4-pin twist-lock & 4-pin Euroblock
- 2+/2- Loop Through
- M20 threaded pole mount fitting
- U-Bracket included
- Ergonomic handle on one side
- 15 mm Plywood construction
- Textured polyurea paint
- 3 x M8 suspension points (1 each side, 1 rear)
- Available in Black and White

## **SPECIFICATIONS**

**Configuration:** Ultra-compact passive subwoofer

Power Handling\*: 100 Watts Continuous, 200 Watts Program, 400 Watts Peak

\*Note: Infrasonic filter and crossover settings on page

Nominal Impedance: 4 Ohms

Sensitivity (1W/1m): 94 dB

Maximum SPL (1m): 114 dB @ 100 Watts; 120 dB @ 400 Watts Peak

Frequency Response\*: 65 Hz - 173 Hz, ±3 dB

\*1m on-axis, swept-sine in anechoic environment

Frequency Range\*: 53 Hz - 200 Hz, -10 dB

\*1m on-axis, swept-sine in anechoic environment

**Box Tuning Frequency:** 57 Hz

Nominal Coverage Pattern (-6 dB): 360° H x 360° V

LF Driver: 2 x 6.5" (165 mm) Woofer - Crest Audio CPL16505

LF Driver Voice Coil: 1.2" (30 mm)

**Input Connections:**  $2 \times 4$ -pin twist-lock (NL-4 style) &  $1 \times 4$ -pin Euroblock Input, Pin 1+=(+) positive; Pin 1-=(-) negative / Loop Through, Pin 2+=(+) positive; Pin 2-=(-) negative

Enclosure Material: 0.6" (15 mm) Plywood

Finish: Textured polyurea paint, available in Black & White

Black Finish: RAL: 9004 Signal Black (Pantone: Black 6) White Finish: RAL: 9003 Signal White (Pantone: 705)

**Mounting Provisions:** U-Bracket included. Three (3) M8 suspension points (1 left, 1 right, and 1 rear), left and right suspension points for U-Bracket, rear for safety chain or wire rope and a M20 threaded pole mount fitting on top and four (4) low-profile rubber feet are provided for optional use on the bottom for stage or floor use

**Overall Dimensions (HWD):** 

Front - 9.45" x 18.5" x 14.57" (240 x 470 x 370 mm)

**Net Weight:** 25.3 lbs (11.5 kg)

SAFETY EN

# **A** CAUTION

Before attempting to suspend this speaker, consult with a certified structural engineer. Speaker can fall from improper suspension, resulting in serious injury and property damage. Do not suspend or mount any other product or device from this enclosure! Use only the correct mating hardware. All associated rigging is the responsibility of others. Maximum enclosure angle 30 degrees.

Whenever possible, in addition to the nominal primary mounting method, use a suitable safety chain or wire rope attached to one of the other groups of fly point inserts, and firmly attached to a suitable structural member as indicated by a certified structural engineer.

We recommend the use of thread-locker at the insert point bolts, so the bolts cannot vibrate loose. Never transport the cabinet using the array bracket or other mounting brackets as a structural member, while the cabinet is mounted on an array bracket or other mounting bracket and unsupported otherwise, as this may unduly stress the mounting inserts.

This Crest Audio loudspeaker should be suspended overhead only in accordance with the procedures and limitations specified in the User's Manual and possible manual update notices. This system should be suspended with certified rigging hardware by an authorized rigging professional and in compliance with local, provincial or national suspension ordinances.

# **A** INSTALLATION

A total of three (3) M8 1.25 mm per thread threaded mounting suspension points (1 left, 1 right, and 1 rear) are provided. The one on the rear is plugged with a hex key beveled head bolt.

The left and right mounting suspension points are for use with the included U-Bracket. The mounting suspension point on the rear is for use of a forged shoulder machinery eyebolt for a safety chain or wire rope. The forged shoulder machinery eyebolt should be an M8 size, 1.25 mm per thread, and must conform to at least DIN 580 or ASTM A489, or whatever local, provincial or national suspension ordinances or regulations may additionally require. Eyebolts must be used at a minimum as a pair, never use just one eyebolt to hang the speaker overhead.

A M20 threaded pole mount fitting on top is provided for an optional threaded speaker pole.

# **A** WARNING

The CPL 265B<sup>+</sup> passive subwoofer is very efficient and powerful! This sound system can permanently damage hearing! Use extreme care setting the overall maximum loudness!

The apparent sound level of the CPL 265B<sup>+</sup> can be deceiving due to its clear, clean sound output. The lack of distortion or obvious distress can make the sound level seem much lower than it actually is. This system is capable of sound pressure levels (SPL) in excess of 120 dB at 1 meter from the speaker!

## INFRASONIC FILTER & CROSSOVER

To reach rated power, there must be an infrasonic filter (high pass filter) set to 55 Hz, 12 dB/octave Butterworth minimum filtering. A higher frequency and/or filter slope is acceptable.

#### **Crossover Settings**

Due to the CPL 265B<sup>+</sup> subwoofers engineered design, the high frequencies are rolled off by the vents that provide the subwoofer's output. This high frequency roll-off is -3 dB at 173 Hz, and -10 dB at 200 Hz, with a slope of 24 dB/octave. This means that using the same frequency for the subwoofer's high pass as for the satellite systems low-pass will not work optimally with this additional roll-off present.

Due to the vent resonances, the use of a low pass crossover for the subwoofer is highly recommended, but it needs to be set at a higher than usual frequency, while the high pass frequency for the satellite should be set to a more traditional frequency.

As a basic idea and example of what this means, a user would then set the satellite system to 120 Hz 24 dB/octave, Linkwitz-Riley high pass, while the CPL 265B<sup>+</sup> subwoofer would be set to around 180 Hz 24 dB/octave Linkwitz-Riley for the low pass filter.

Crest Audio will be supplying additional information at it's web site, to provide the maximum performance for the CPL 265B<sup>+</sup> subwoofer when used with the appropriate CPL+ satellite model.

#### Visit:

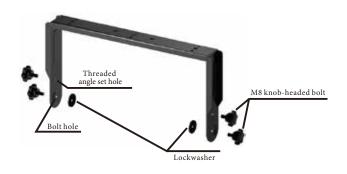
https://peaveycommercialaudio.com/product-category/products/loudspeakers/non-poweredloudspeakers/cpl-plus/

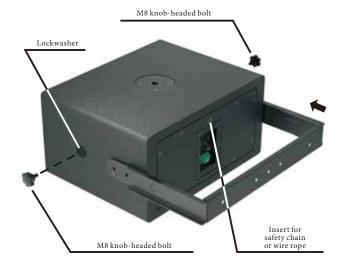
# RIGGING & MOUNTING

### Installation methods for optional mounting accessories

Note: The U-Bracket is a standard accessory, which has been included in the product package. The speaker pole is an optional accessories and needs to be ordered separately.

#### Installation Method 1 - U-Bracket





## **RIGGING & MOUNTING**

#### Placing a satellite speaker on top of the CPL 265B<sup>+</sup> subwoofer

The CPL 265B<sup>+</sup> subwoofer does have a threaded pole mount built-in to the top of the cabinet, this is designed to mate with a M20 threaded speaker pole of approx. 65" (1650 mm) in length or less.

This length of speaker pole is deemed to be safe when used with speaker systems less than 18" (457 mm) high and less than 25 lbs (11.5 kg) in weight. Do not place a taller or heavier speaker system than this on the speaker pole, or extend an adjustable pole to a longer length, as it may be unsafe due to the potential to tip over. Specific recommendations follow.

The CPL  $265B^+$  can be used to support some of the smaller CPL+ models on top of an optional speaker pole that is threaded into the CPL  $265B^+$  cabinet.

The following CPL+ models can be placed on top of a CPL 265B<sup>+</sup> with a speaker pole no longer than 65 inches:

- CPL 4L<sup>+</sup>
- CPL 5C<sup>+</sup>
- CPL 6<sup>+</sup>
- CPL 8<sup>+</sup>
- CPL 25C<sup>+</sup>

#### **Additional Safety Measures**

When used with a speaker pole and loudspeaker on top, the CPL 265B<sup>+</sup> should only be used on the floor, ground, or a firm and stable platform such as a permanent stage. Feet need to be attached for this type of use.

#### Notes on specific mounting methods using optional accessories

Mounting Method 1 - U-Bracket

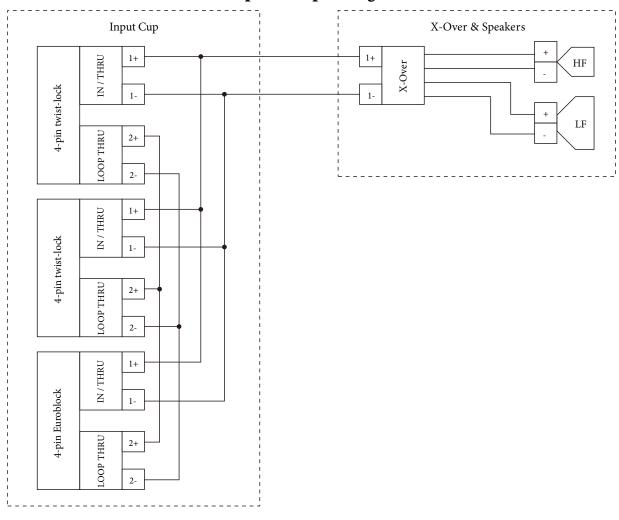
Use the large handled knob-headed bolts to mate the U-Bracket to the cabinet, placing lockwashers between the bracket and bolt. See diagram above. Determine the angle that the cabinet needs to be relative to the U-Bracket, and position the cabinet to that angle.

For permanent installation, the large handled knob-headed bolts can be substituted for with hex head bolts by using the specifications above. It is then recommended that thread-locker be used. Using hex head bolts with thread-locker will remove the possibility for someone to attempt to unscrew the knob-headed bolts by hand to vandalize or otherwise alter the cabinets mounting.

If using the U-Bracket with the cabinet pointing straight out (bracket rear parallel to the rear of the cabinet), then use of the NL-4 twist-lock connection is best made before locking the angle into place and using thread-locker. Offset the cabinet till the NL-4 jack clears the bracket, and plug it up, then rotate the cabinet into the final position, etc.

# INPUT & LOOP THROUGH SCHEMATICS

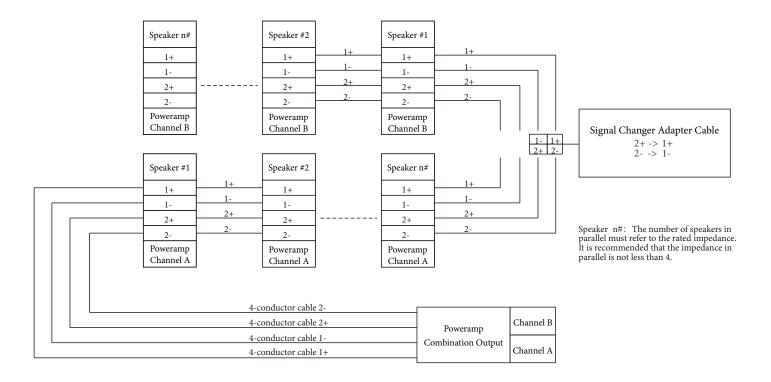
## **CPL+ Series Input & Loop Through Schematics**



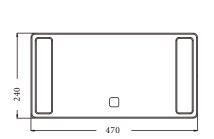


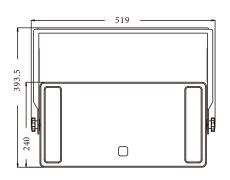
# INPUT & LOOP THROUGH SCHEMATICS

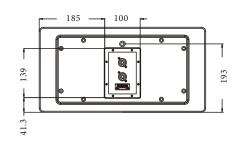
## **CPL+ Series Loop Through System Schematics**

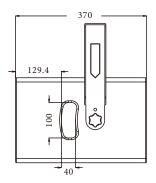


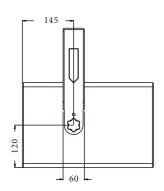
Unit: mm

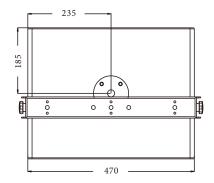


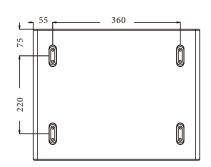












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## ARCHITECT'S & ENGINEER'S SPECIFICATIONS

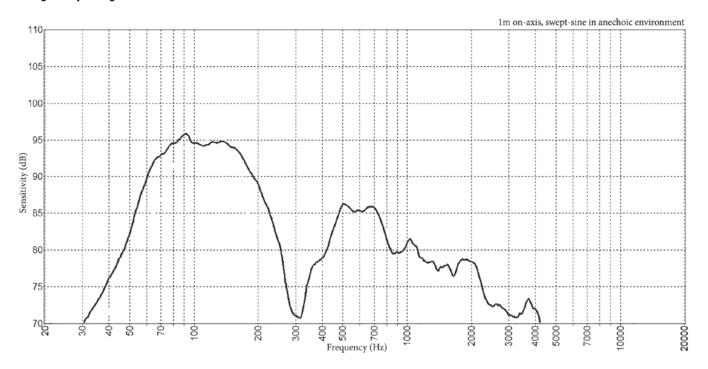
The loudspeaker shall be an ultra-compact passive subwoofer. Its transducers shall be two 6.5 inch (165 mm) low frequency drivers with 1.2 inch (30 mm) voice coil in a bass reflex enclosure.

Performance specifications of a typical production unit shall be: Measured sensitivity SPL at 1 m (3.3ft) with 2.83V input, shall be 94 dB-SPL. Usable frequency response shall extend from 53 Hz to 200 Hz (10 dB below rated sensitivity, in full space, with no external equalization). Nominal impedance shall be 4 Ohms. Rated power capacity shall be at least 100 Watts continuous power and 400 Watts peak power, defined as 6 dB above a test signal of filtered random noise.

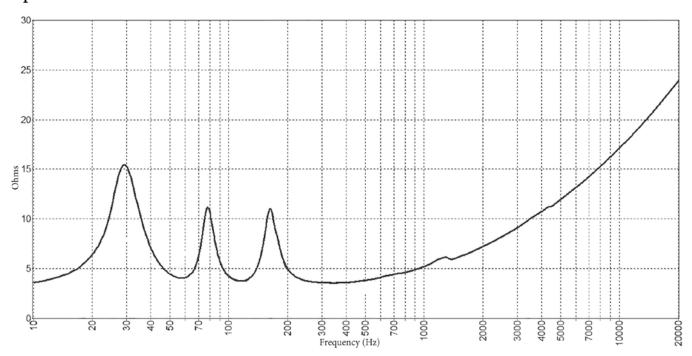
The enclosure shall be constructed from prime-grade 15 mm plywood. The grilles shall be of heavy-duty steel. The loudspeaker shall be equipped with a total of three (3) suspension points and shall be fitted with a M20 threaded pole-mount plate on the top, and a handle on one side. The external wiring shall be via either two 4-pin twist-lock or one 4-pin Euroblock connectors. The loudspeaker shall be 9.45 inches (240 mm) high by 18.5 inches (470 mm) wide by 14.57 inches (370 mm) deep weighing 25.3 pounds (11.5 kg). The finish shall be a paintable lightly textured black or white.

The ultra-compact subwoofer shall be the Crest Audio CPL 265B<sup>+</sup> with included U-Bracket.

## Frequency Response



## Impedance





www.crestaudio.com



Features and specifications subject to change without notice.

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