



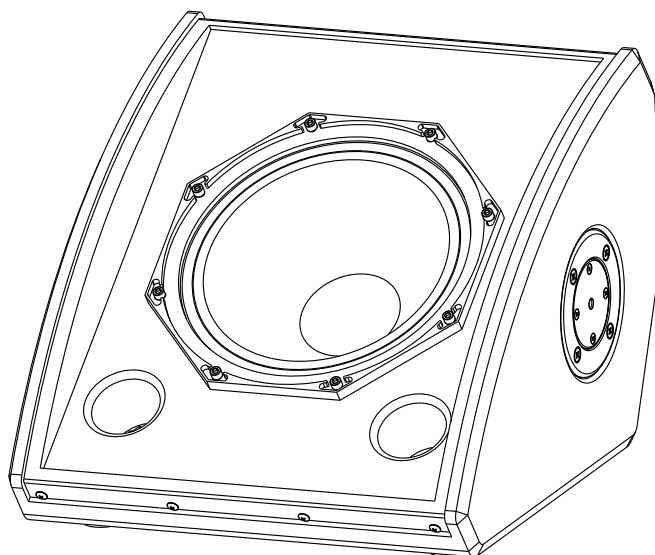
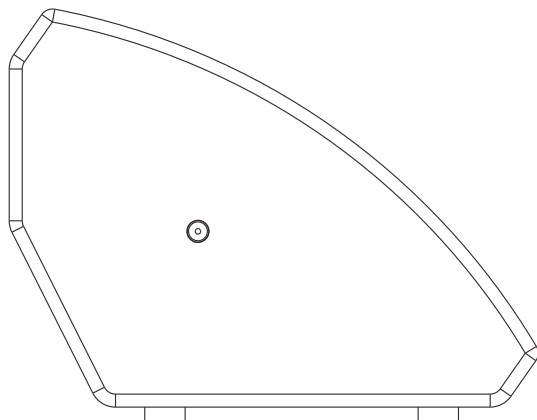
Beta Three

# CPM110

10" Two-way Full  
Range Coaxial Speaker

CPM SERIES COAXIAL SPEAKERS

## User Manual





UM-CPM110-20130408 ver A



# SAFETY INSTRUCTIONS

## PLEASE READ THIS MANUAL FIRST

Thank you for a buying  $\beta_3$  product. Read this manual first as it will help you operate the system properly. Please keep this manual for future reference.

**⚠ WARNING:** *This product must be installed by professionals. When using hanging brackets or rigging other than those supplied with the product, please ensure they comply with the local safety codes.*

	<b>CAUTION</b> RISK OF ELECTRICAL SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.		

	<b>AVIS</b> RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR	
ATTENTION : POUR RÉDUIRE LE RISQUE DE DÉCHARGE ÉLECTRIQUE, NE RETIREZ PAS LE COUVERCLE (OU L'ARRIÈRE). IL NE SE TROUVE À L'INTÉRIEUR AUCUNE PIÈCE POUVANT ÊTRE RÉPARÉE PAR L'USAGER. S'ADRESSER À UN RÉPARATEUR COMPÉTENT.		



*The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and servicing instructions.*

**⚠ ATTENTION:** *Don't refit the system or spare parts without being authorized as this will void the warranty.*


**⚠ WARNING:** *Don't place naked flames (such as candles) close to the equipment.*

1. Read the instruction manual first before using this product.
2. Please keep this manual for future reference
3. Pay attention to all warnings.
4. Obey all operating instructions.
5. Do not expose this product to rain or moisture.
6. Clean this equipment with a dry cloth.
7. Do not block any ventilation openings. Install according to manufacturer's instructions .
8. Do not install this product near any heat source, such as a, heater, burner, or any other equipment with heat radiation .
9. Only use spare parts supplied by the manufacturer.
10. Pay attention to the safety symbol on the outside of the cover.



CONTENT

INTRODUCTION	3
Features	3
Description	3
Applications	3
CONNECTION	4
Speakon	4
NL4 Connection	4
System Connection Reference	4
INSTALLATION	5
Mounting Accessories	5
Installation Reference	5
TECHNICAL SPECIFICATION	6
Technical Sheet	6
Frequency Response And Impedance Curve	6
2D Dimension	7

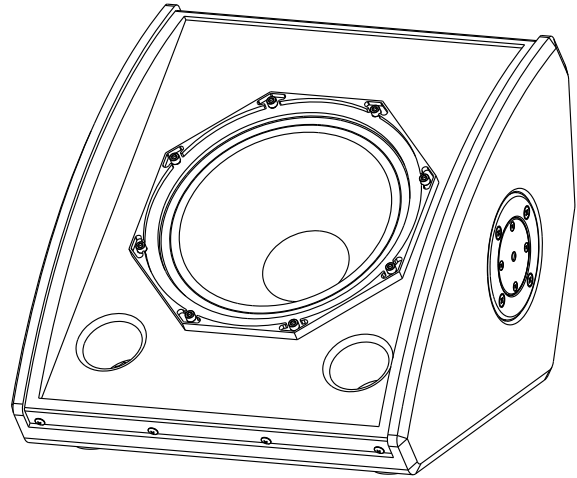
 Product information subjects to be updated without notification, please visit [www.elderaudio.com](http://www.elderaudio.com) for latest update.

## CPM110

10" Two-way Full Range Coaxial Speaker

### Features

- Two transducers two way full range speaker with coaxial horn, computerized stimulation design.
- Be composed of one 10 inch low frequency driver and one 44mm high frequency driver.
- HF horn is mounted on the LF axis.
- Used for full range sound reinforcement and can be used as ground monitor speaker.
- Apply to monitor, conference system and small scale performance.
- Flexible installation according to actual application.



### Description

3<sup>®</sup> CPM110 is a 10" Two-way Full Range Coaxial Speaker. Strict quality control during the R&D, manufacturing, materials inspection, procedure inspection and shipment inspection make sure every unit meets the high standard demand.

The cabinet is made of high intensity PLY board. Special multilayer black painting with scratch-resistand and erode-resistand feature protect the cabinet surface perfect. Selected POLYESTER damping materials absorb cabinet stand wave effectively. Built-in crossover circuit and different voltage output give the user more options.

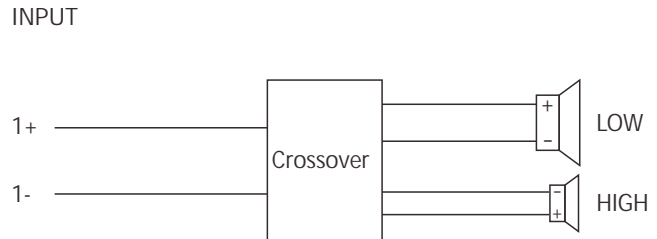
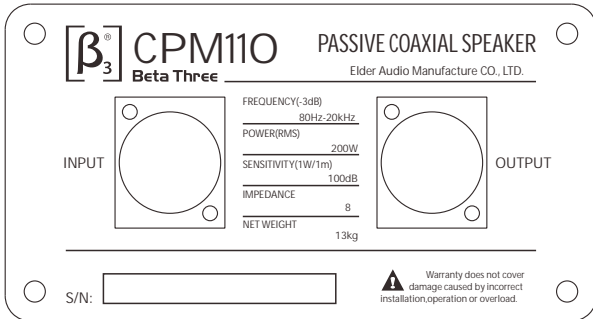
Aiming at this special cabinet, the transducers used are optimized by our experienced engineers who focus on the magnetic system and vibration system. To get the excellent performance, the engineers take a lot of advanced technology to decrease the magnetic impendence and lower the magnetic leakage, and not increase the transducer weight.

### Applications

- Church
- Small Auditorium
- Conference room
- Small performance
- Multifunctional hall

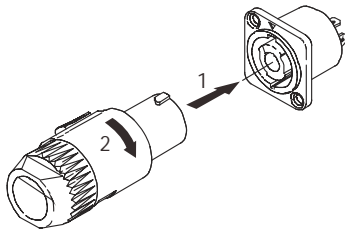
Two NL4 connectors are available for amplifier connection. Paralleled connector is very convenient for another speaker connection.

### Terminal Plate

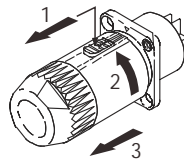


### NL4 Connection

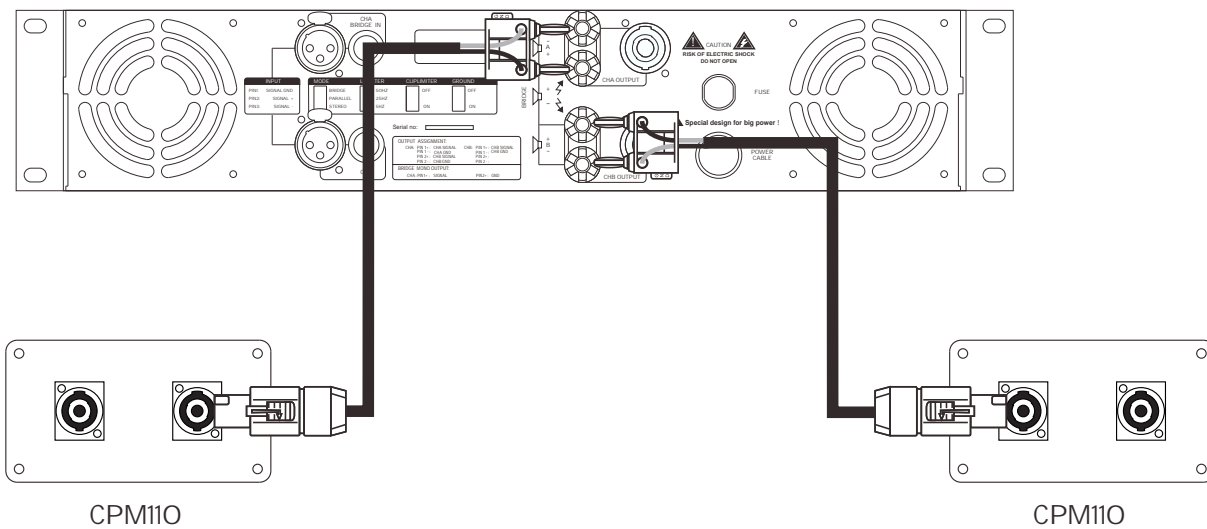
1. Connect



2. Disconnect



### System Connection Reference



- ⚠ **Attention:** The impedance of connected speaker must match the impedance of amplifier output.
- ⚠ **Attention:** Make sure the polarity of speaker and amplifier correctly.

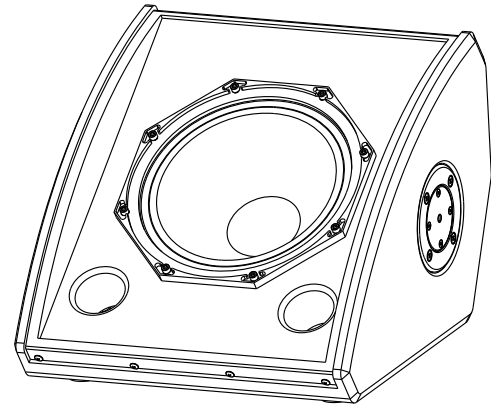
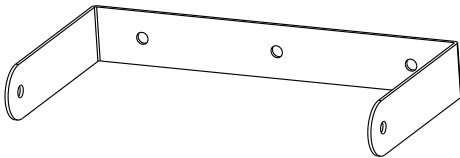
## Mounting Accessories(Optional)

M10 mounting points are very convenient and efficient for the different application with special brackets.

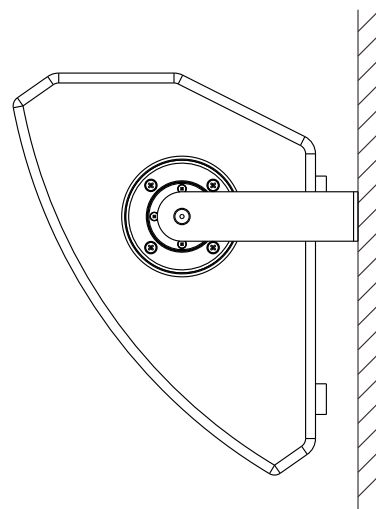
## Installation Reference


1.Reference A

1. U-Bracket



2.Reference B



 **Warning:** Make sure the mounting accessories safety factor not less than 5:1 or meet the local standard during installation .

## Technical Specification

System:	Passive full range wooden speaker with painting
System components:	1 × 10LF
	1 × 44mm HF
Frequency response(-3dB): <sup>1</sup>	80Hz-20kHz
Frequency response(-10dB):	70Hz-20kHz
Sensitivity(1W@1m): <sup>2</sup>	100dB
Max. SPL(1m): <sup>3</sup>	123dB/129dB(PEAK)
Power:	200W (RMS) <sup>4</sup> 400W (MUSIC) 800W (PEAK)
Rated impedance:	8 Ohms
Crossover point:	1.3kHz
Cabinet:	Wedge shape
Mounting accessories:	2 × M10 Hanging point
Painting:	Cabinet coated by Polyurethane paint; grille is powder coated
Connector:	NL4 × 2
Cabinet dimension: (W × D × H)	385 × 406 × 317mm (15.2 × 16.0 × 12.5in)
Package dimension: (W × D × H)	495 × 395 × 485mm (19.5 × 15.6 × 19.1in)
Net weight(pc):	13.0kg(28.6 lbs.)
Gross weight(pc):	15.0kg(33.0 lbs.)

## Speaker Testing Method

### 1. Frequency Response

Use Pink noise to test the speaker in the anechoic chamber, adjust the level to make the speaker work at its rated impedance and set the output power at 1W, then test the frequency response 1m away from the speaker.

### 2. Sensitivity

Use full range Pink noise which has been modified using an EQ curve to test the speaker in the anechoic chamber, increasing the signal to make the speaker work at its rated impedance and set the power output at 1W, then test the sensitivity 1m away from the speaker.

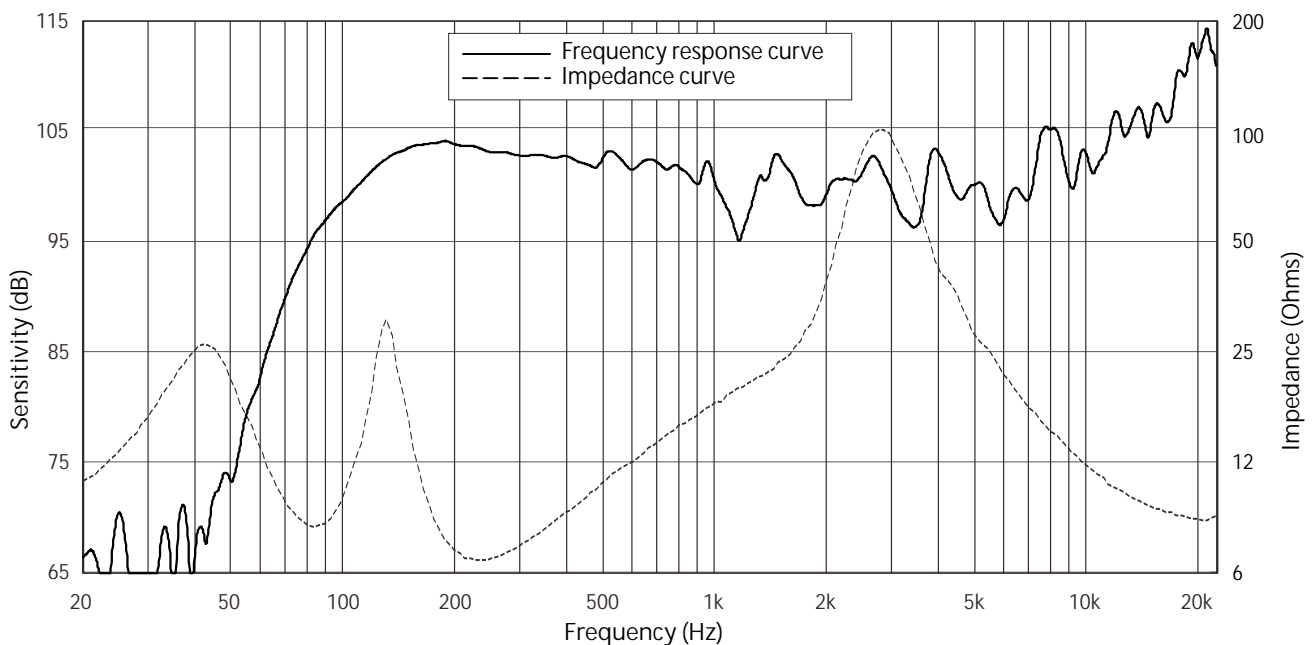
### 3. MAX.SPL

Use full range Pink noise which has been modified using an EQ curve to test the speaker in the anechoic chamber, increase the signal to make the speaker work at its maximum power output level, then test the SPL 1m away from the speaker.

### 4. Rated Power

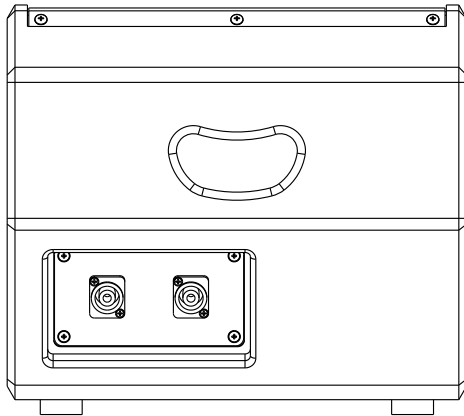
Use Pink noise to the IEC#268-5 standard to test the speaker, increase the signal for a continuous period of 100 hours, the rated power is the power when the speaker will show no visible or measurable damage.

## Frequency response curve & Impedance curve

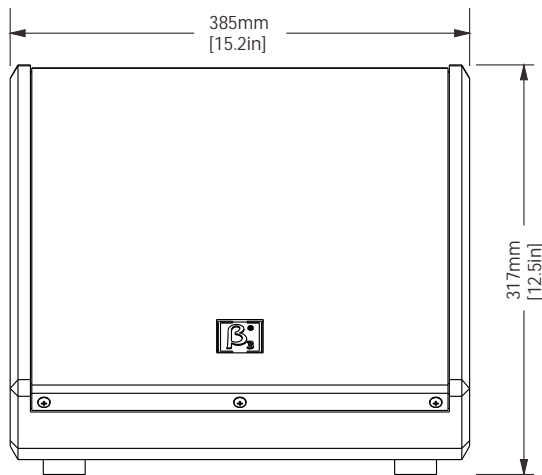


2D Dimension

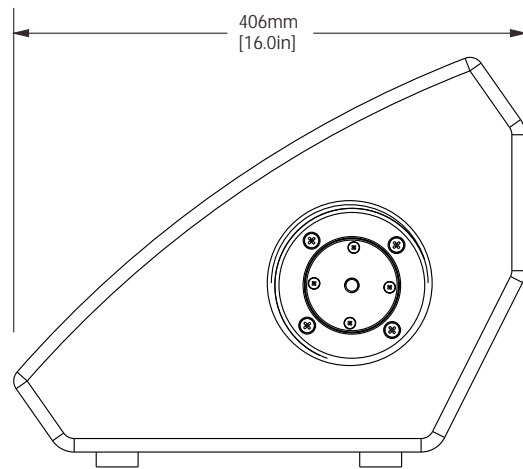
Back view



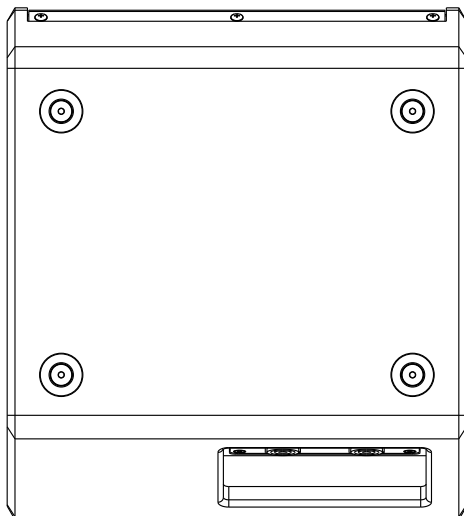
Front view



Side view



Bottom view





Notes:



**Beta Three**