



INDOOR OR OUTDOOR FULL RANGE SPEAKER CABINET USER'S MANUAL



English

Important Safety Instructions



ATTENTION: RISQUE DE CHOC ÉLECTRIQUE NE PAS OUVRIR.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE

AVERTISSEMENT: NE PAS EXPOSER CE MATERIEL À LA PLUIE OU L'HUMIDITÉ AFIN DE RÉDUIRE LE RISQUE D'INFLAMMATION OU DE CHOC ÉLECTRIQUE



This symbol, wherever used, alerts you to the presence of un-insulated and dangerous voltages in the product enclosure. These are voltages that may be sufficient to constitute the risk of electric shock or death.



This symbol, wherever used, alerts you to important operating and maintenance instructions. Please read.



Protective Ground Terminal



AC mains (Alternating Current)



Hazardous Live Terminal

ON: Denotes the product is turned on.

OFF: Denotes the product is turned off.

CAUTION

Describes precautions that should be observed to prevent damage to the product.



Warning! This symbol indicates a hot surface. Certain parts of the housing can become hot during operation. After use, wait for a cool-down period of at least 10 minutes before handling or transporting the device.



Warning! This device is designed for use below 2000 metres in altitude.



Warning! This product is not intended for use in tropical climates.

CAUTION : Risk of fire or explosion if the battery is replaced by an incorrect type

ATTENTION : Risque d'incendie ou d'explosion si la batterie est remplacée par un type incorrect

WARNING: Remove batteries if exhausted or if they will not be used again for a long period.

- The incorrect use of batteries can cause electrolyte leakage and will corrode the compartment or cause the batteries to burst, therefore:
- Do not mix battery types, e.g. alkaline with zinc carbonate.
- When inserting new batteries, replace all batteries at the same time.



Dispose of this product should not be placed in municipal waste and should be separate collection.

Service Instructions

- Refer all servicing to authorized service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Disconnect power cord before servicing.
- Replace critical components only with factory parts or recommended equivalents.
- For AC line powered units: Before returning repaired unit to user, use an ohmmeter to measure from both AC plug blades to all exposed metal parts. The resistance should be more than 2,000,000 ohms.

1. Read and keep these instructions. Heed all warnings and follow all instructions.
2. **Warning** (if applicable): Please refer to any important information (e.g., electrical, safety, etc.) printed on the exterior bottom enclosure or rear panel before installing or operating the product.
3. Clean only with dry cloth.
4. **Water and Moisture** (if applicable): Do not use this apparatus near water. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus. Electrical equipment should NEVER be kept or stored in damp environments.
5. (If applicable) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Do not install this equipment in a confined or "boxed-in" space such as a bookcase or similar unit, and maintain good ventilation conditions. The ventilation should not be impeded by covering the ventilation openings with items such as newspaper, tablecloths, curtains, etc.
6. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not place exposed flame sources such as lighted candles on the apparatus.
7. (If applicable) This product should be connected to a power supply only of the type described in these operating instructions, or as marked on the unit.
8. (if applicable) Be careful not to damage the power cord. When moving or not using the appliance, secure the power cord (e.g., wrap it with a cable tie). Before using it again, make sure the power cord has not been damaged. If the power cord has been damaged at all, bring the unit and cord to a qualified service technician for repair or replacement as specified by the manufacturer.

9. Unplug this apparatus during lightning storms or when unused for long periods of time.
10. Only use attachment/accessories specified by the manufacturer.
11. (If applicable) Use only the cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. Internal/External Voltage Selectors (if applicable): Internal or external voltage selector switches, if any, should only be reset and re-equipped with a proper plug for alternative voltage by a qualified service technician. Do not attempt to alter this yourself.
13. **Caution** (if applicable): Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type. Batteries (a battery pack or an installed battery) shall not be exposed to excessive heat such as sunshine, fire, etc.
14. (If applicable) Do not defeat the safety purpose of the polarized or grounding-type plug.
15. Protective earthing terminal (if applicable): The apparatus should be connected to a mains socket outlet with a protective earthing connection.
 - Denmark (*Danmark*): Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.
 - Finland (*Suomi*): Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.
 - Norway (*Norge*): Apparatet må tilkoples jordet stikkontakt.
 - Sweden (*Sverige*): Apparatens skall anslutas till jordat uttag.
16. **For Class II apparatus only:** This symbol means the equipment is a Class II or double-insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth. When servicing use only identical replacement parts installed by an instructed person or with the use of ready-made leads or cords.
17. **Warning** (if applicable): Provide an earthing connection before the mains plug is connected to the mains. When disconnecting the earthing connection, be sure to disconnect it after pulling the mains plug out from the mains.
18. (If applicable) Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
19. **Warning** (if applicable): To prevent possible hearing damage, do not listen at high volume levels for long periods.
20. This apparatus is for professional use only. Intended operational climate: moderate.



FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) This device may not cause harmful interference, and
 - (2) This device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



General Note on the Declaration of Conformity: We hereby declare that this device is in accordance with the essential requirements of the European Directive 2014/53/EU or 2014/30/EU (LVD: 2014/35/EU; GPSD: 2001/95/EC).

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1. THE MATTER NEEDING ATTENTION

- Please read the manual before using the product. Make the best proper setting according to the manual. Please save the manual after setting for referring to in future.
- If you want to change the setting, please consult the manual again to confirm the specifications are right. The specifications of incorrect setting maybe cause permanent damage to the product. Please be careful.
- Don't set the product exceeding the specifications, otherwise it will endanger the life and property of the product.
- Don't use an organic solvent or alcohol detergent when clean the appearance of the product.
- If your product is damaged or work abnormally, don't repair it yourself. Please contact the service personnel as soon as possible.

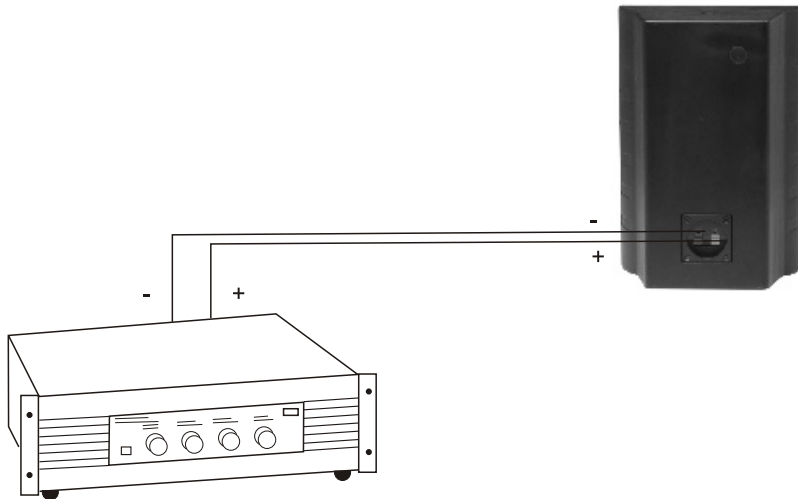
2. INTRODUCTION

CSB series have good performance, many specifications and full range control. They're used indoors or outdoors. They can be arrayed abreast. You can choose the optional accessories such as mounting bracket and distribution transformer. These accessories can show the design value of versatile control for this series. The appearance structure is component of HIPS cabinet, and 4", 6.5", 8" woofers and 1" tweeter. Two channels crossover. The standard impedance of the cabinet is 8 Ohms. It can show the special tone quality of this product.

3. CONNECTION DESCRIPTION

SIMPLE CONNECTION DESCRIPTION:

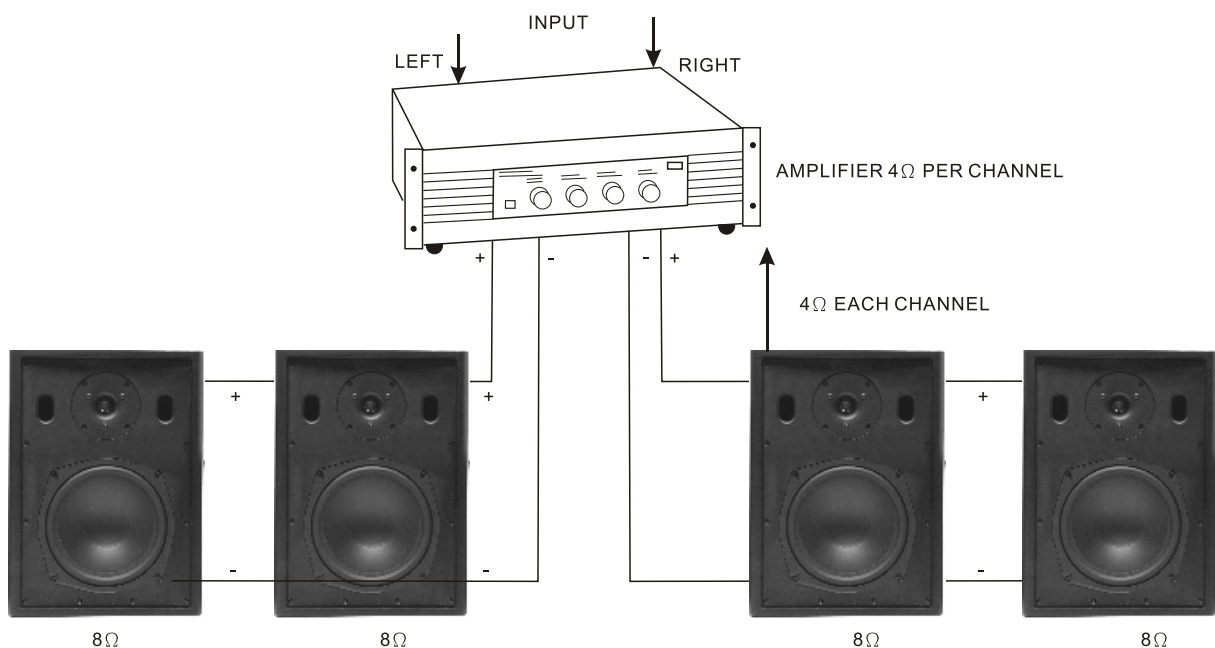
Connect "+", "-" output of amplifier directly to red "+" and black "-" sockets on the back of speaker cabinet.



(figure1)

FURTHER CONNECTION DESCRIPTION:

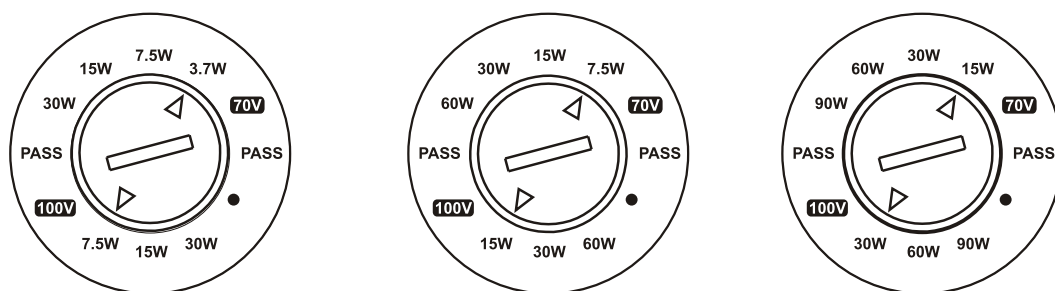
Since every speaker has a nominal impedance of 8 Ohms, an amplifier channel can connect many speakers.



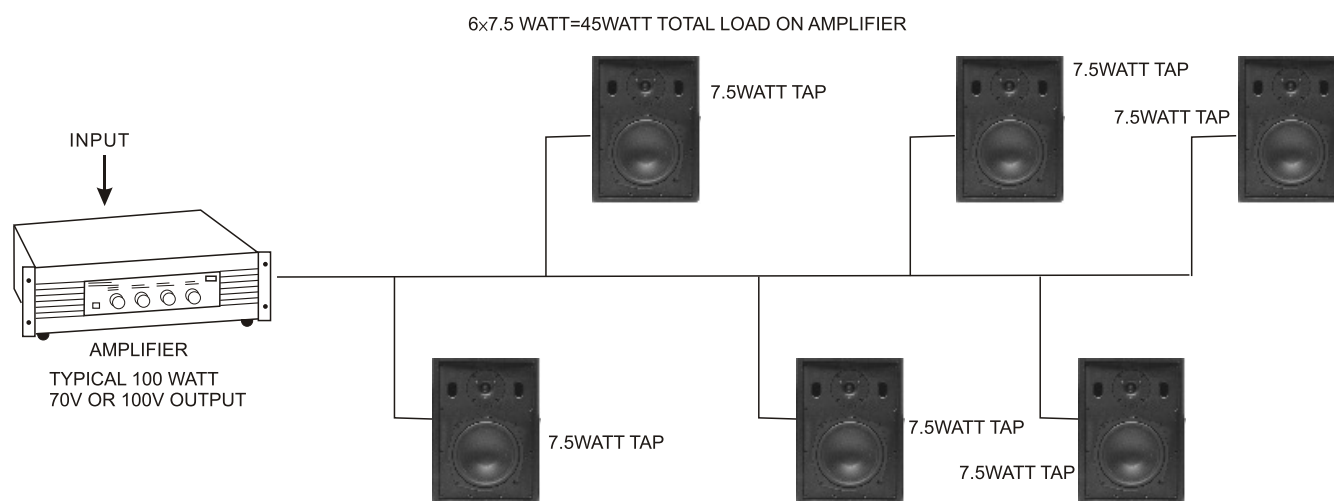
(figure2)

LEVEL DISTRIBUTION SYSTEM (CONTROL "CV" MODEL) CONNECTION DESCRIPTION:

Level distribution system (control "T" model) control 50CV, control 150CV and control 175CV models have built-in transformer of 70/100V. These speakers need a level distribution amplifier. When connect a normal 8 Ohms speaker, you can connect the "+" and "-" output of amplifier to red "+" and black "-" sockets on the back of speaker cabinet. Set transformer to desired voltage, not like normal 8 Ohms speaker, which perhaps connects many CV series speakers to one amplifier channel. Finally set your desired output power to the band switch on the front panel. After finished setting (CSB-50CV, CSB-150CV or CSB-175CV), fix the iron net. Such the setting of the product is completed. (Please see figure 3A). In this case, the total power of all the speakers can't exceed the nominal power of amplifier. (Please see figure 3B. One 100W amplifier channel can drive 13 speakers of 7.5W, i.e. $13 \times 7.5 = 97.5 < 100$). For safety, the total power of all the speakers should be less than 3/4 nominal power of amplifier (One 100W amplifier channel can drive 10 speakers of 7.5W, i.e. $10 \times 7.5 = 75W$).



(figure3A)



(figure3B)

4. INSTALLATION DESCRIPTION

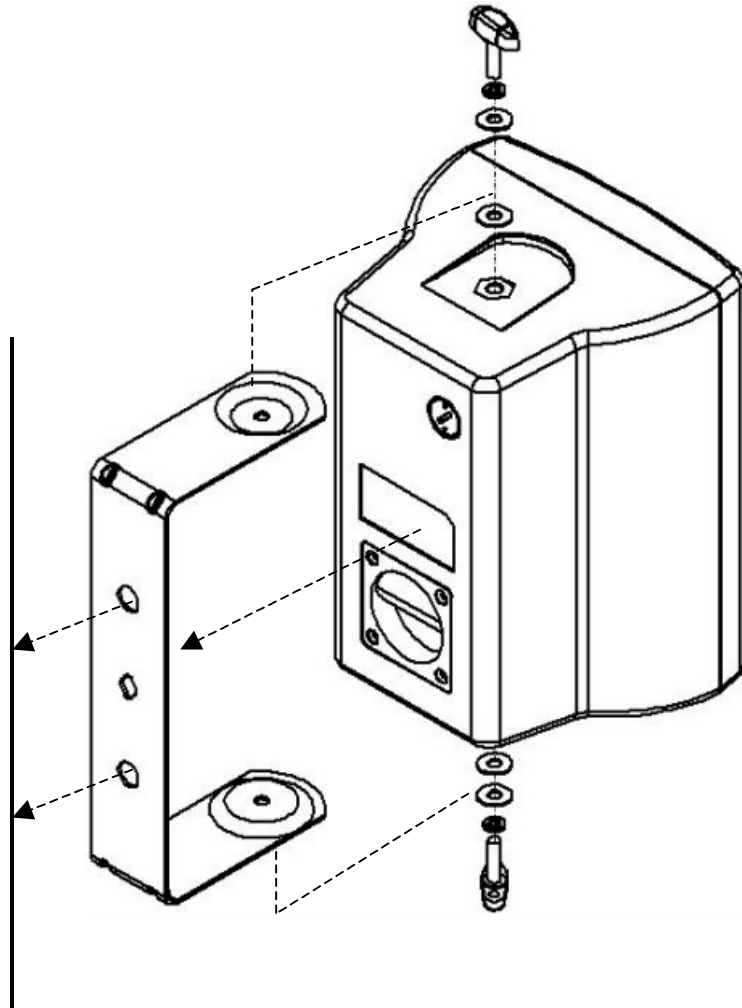
Note: Commercial audio installation system must conform to local building laws. When install speaker on wall or ceiling, please consult a building contractor with a license or a professional engineer. The corporation doesn't responsible for the improper installation or damage because of not conforming to installation description.

Installation procedure of U shape bracket is very simple and convenient, the appearance is pleasing to the eye.

Step 1: Fasten the U-shape bracket on the wall with screws. The wall material must support the weight of the cabinet.

Step 2: Place the body of cabinet in U-shape bracket and lock the plastic handles and accessories.

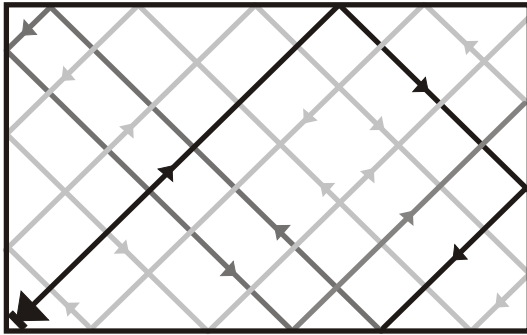
Step 3: Adjust the direction of cabinet. When you satisfy the direction (can adjust 270° to left or right), fasten the plastic handles. The installation is completed. (Please see figure 4)



(figure4)

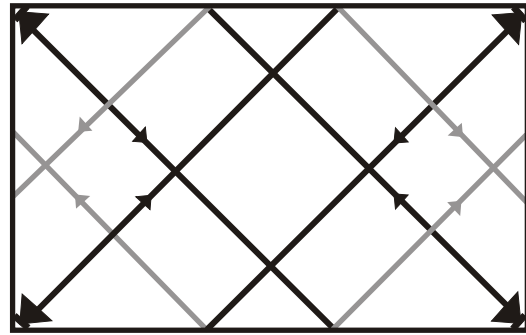
INDOOR INSTALLATION DESCRIPTION:

CSB series speakers are designed specially for fixing and using in different circumstances. The property of speakers maybe different due to different circumstances. There is an acoustic surface (wall, floor and ceiling) in a closed room, the acoustic indoor will turn complex. When acoustic wave hits the surface, a part of acoustic energy is reflected, and others are absorbed. Reflection and absorption are depending on the frequencies of acoustic wave and angle of hitting surface. When operate the cabinet, both man and furniture can absorb the acoustic energy. Please note the position of man and furniture when installing. Reverberation is the results of the reflected acoustic wave continue bouncing between the surfaces. Every reflection will loss the energy. When the acoustic hit the reflection surface, the room will be filled with random reflected acoustic wave. The music and address will be complex. It is recommended that install more speakers and make the volume of speakers lower to reduce the reverberation in high reverberating room. (Please see figure 5B)



ONE LOUD SPTAKER

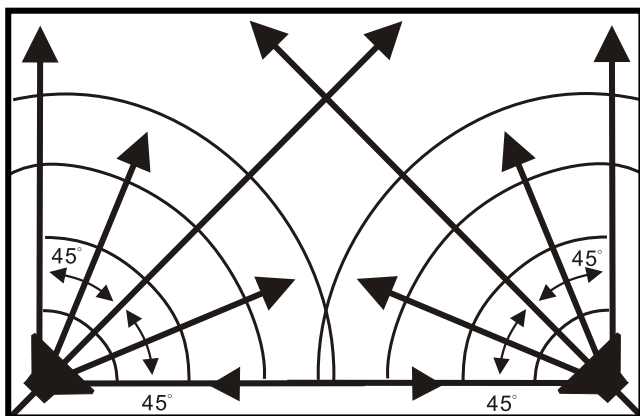
(figure5A)



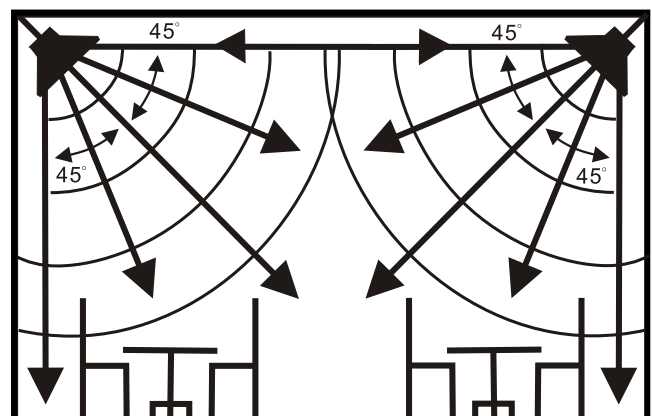
MULTIPLE QUIET SPEAKERS

(figure5B)

High frequency coverage range— Direct the center axle of the speaker to the flat surface of receiving area. The speakers of 90°x90° series can spread the high frequency tone to all the directions at the axle of 45°. If you use the speakers in large room, you can divide the room to some zones. Then decide the installing location of the speakers according to the horn mode. (Please see figure 6)



HORIZONTAL



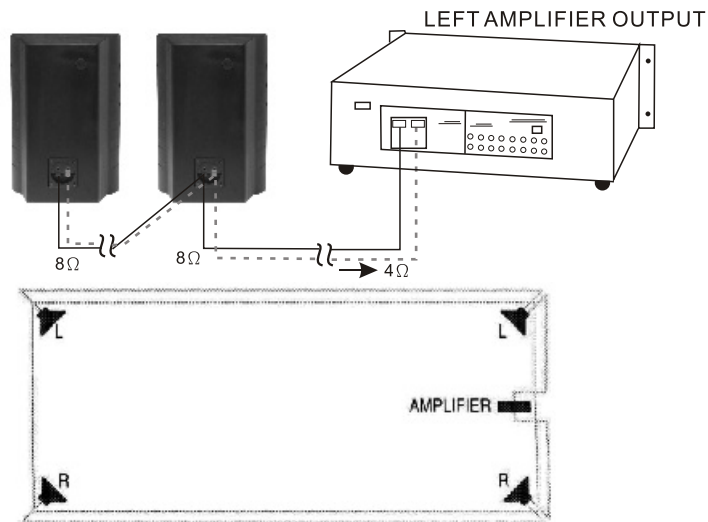
VERTICAL

(figure6)

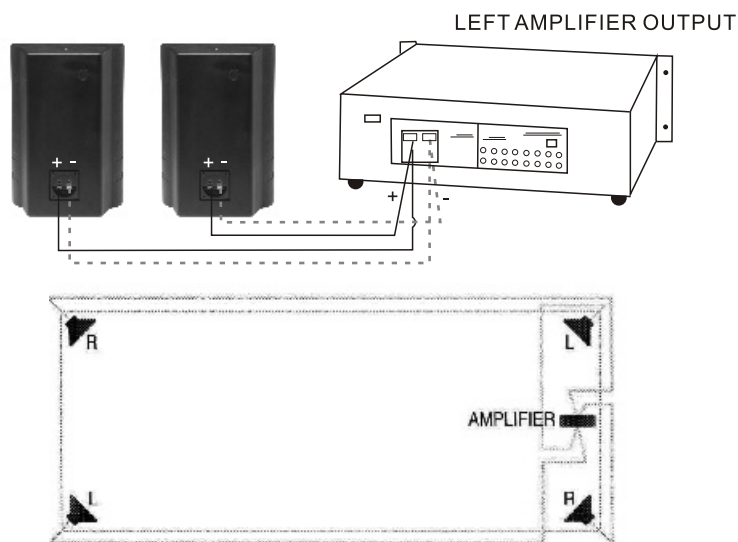
TYPICAL WIRING MODE:

Chrysanthemum chain wiring mode—This is the simplest wiring mode from amplifier to cabinet. From the amplifier to the first cabinet, then to another cabinet (Please see figure 7A).

Stereo wiring mode —This is the best wiring mode of stereo L & R . From the amplifier to each cabinets directly (Please see figure 7B).



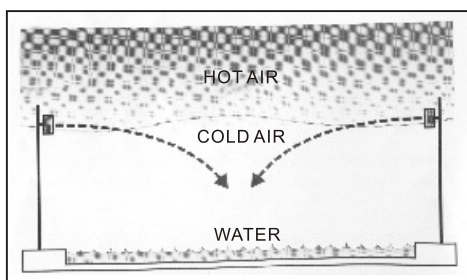
(figure7A)



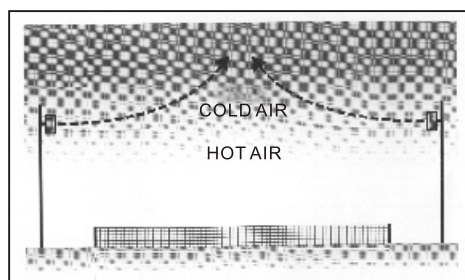
(figure7B)

OUTDOOR INSTALLATION DESCRIPTION:

The difference of temperature will influence the acoustic spreading lightly. Cold air is more highly concentrated than hot air. Acoustic spreading is faster in the low-density medium. Air is warmer, acoustic spreading is faster. Air is colder, acoustic spreading is slower. Such will form refraction.



(figure8)



(figure9)

Acoustic outdoor—The acoustic from speaker to the range we can hear, the sound pressure of background is usually 70dB-80dB. In an open area without a wall, without a floor and without a roof, acoustic strength will decrease as distance's square. For example, the distance from speaker to your ears increase to twice, the sound pressure will decrease 6dB (i.e. When the speaker is 10 meters far, the sound pressure is 100dB. If the distance changes to 20 meters, the sound pressure will decrease to 94dB.) Not all the spreading frequencies are affected uniformly. Vapour is lighter than air, and the density of dry air is lower. So the absorbed acoustic energy is less than dry air, special to the frequency above 2kHz.

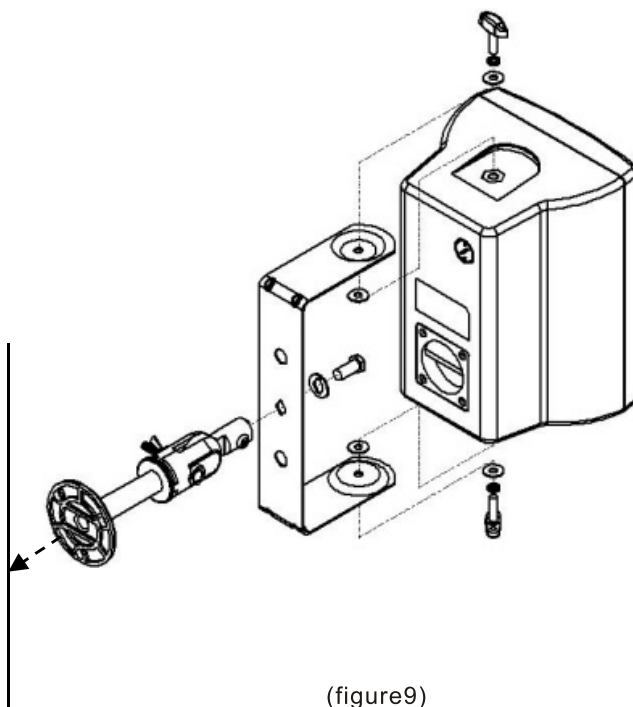
5. SPECIFICATIONS

MODEL	CSB-50	CSB-50CV	CSB-150	CSB-150CV	CSB-175	CSB-175CV
Frequency Range	80Hz~20kHz	80Hz~20kHz	50Hz~20kHz	50Hz~20kHz	55Hz~20kHz	55Hz~20kHz
Impedance	8Ω	100V/70V	8Ω	100V/70V	8Ω	100V/70V
Dimensions (HxWxD)mm	220x165x150	220x165x150	300x220x200	300x220x200	380x280x220	380x280x220
Woofer	4" wofer	4" wofer	6 1/2" wofer	6 1/2" wofer	8" wofer	8" wofer
Tweeter	1" tweeter	1" tweeter	1" tweeter	1" tweeter	1" tweeter	1" tweeter
Power Capacity	30W	3.7W-7.5W-15W-30W-PASS	60W	7.5W-15W-30W-60W-PASS	90W	15W-30W-60W-90W-PASS
Sensitivity (1W/1M)	86dB	86dB	88dB	88dB	90dB	90dB
Termination		Spring terminals, accepts banana plug		Spring terminals, accepts banana plug		Spring terminals, accepts banana plug
Net Weight (ea)	2.2kg	2.7kg	3.5kg	4.1kg	5kg	6.2kg
Crossover Frequency	2.5kHz-3.5kHz	2.5kHz-3.5kHz	2.5kHz-3.5kHz	2.5kHz-3.5kHz	2.5kHz-3.5kHz	2.5kHz-3.5kHz

6. ACCESSORIES DESCRIPTION

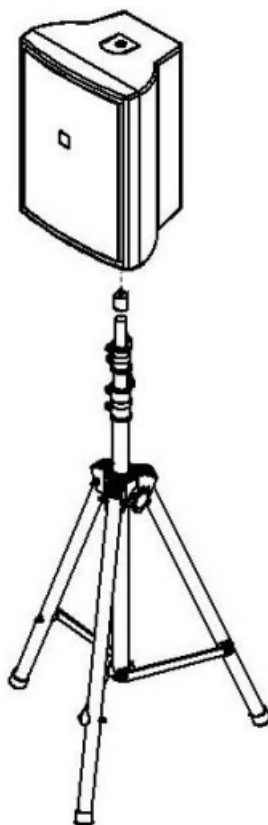
The following is optional accessories, not including in the product. They need booking additionally.

- (1) **YS-62** :U shape bracket+YS-62 (optional), please see figure 9. This accessory can provide the direction well when adjust the audio sources of CSB series cabinets (left and right 270°, up and down 120°)



(figure9)

- (2) **YS-22+F-68**: YS-22 bracket cap (optional)+F-68 feet bracket (optional), please see figure 10. This accessory can provide wider application of CSB series cabinets.



(figure10)

