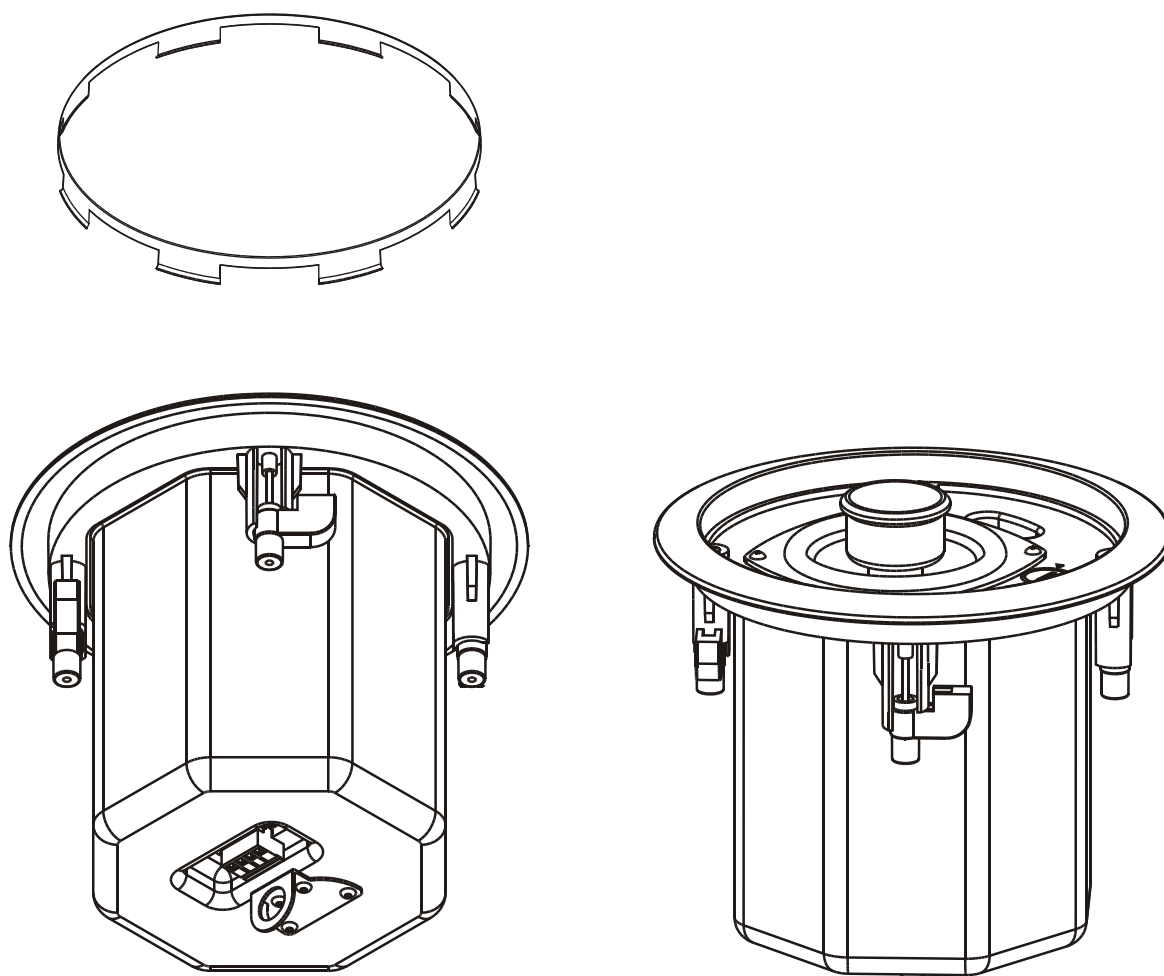


# Ceiling Loudspeaker Instruction Manual



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English

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# 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. Points for attention**

1.1 Please read through this instruction manual before operating the CSL series ceiling loudspeakers, so you will know how to set and operate your model properly. After you have finished reading the instruction manual, put it away in a safe place for future reference.

Caution: the fault setting will permanently damage your apparatus.

1.2 Don't operate your CSL ceiling loudspeaker over the setting specification, or it will affect the apparatus's life span and performance.

1.3 Don't use solvents or ethanol to clean your CSL ceiling loudspeaker.

1.4 Don't open the unit for repaired by yourself. No user serviceable parts inside. Please refer servicing to qualified service personnel.

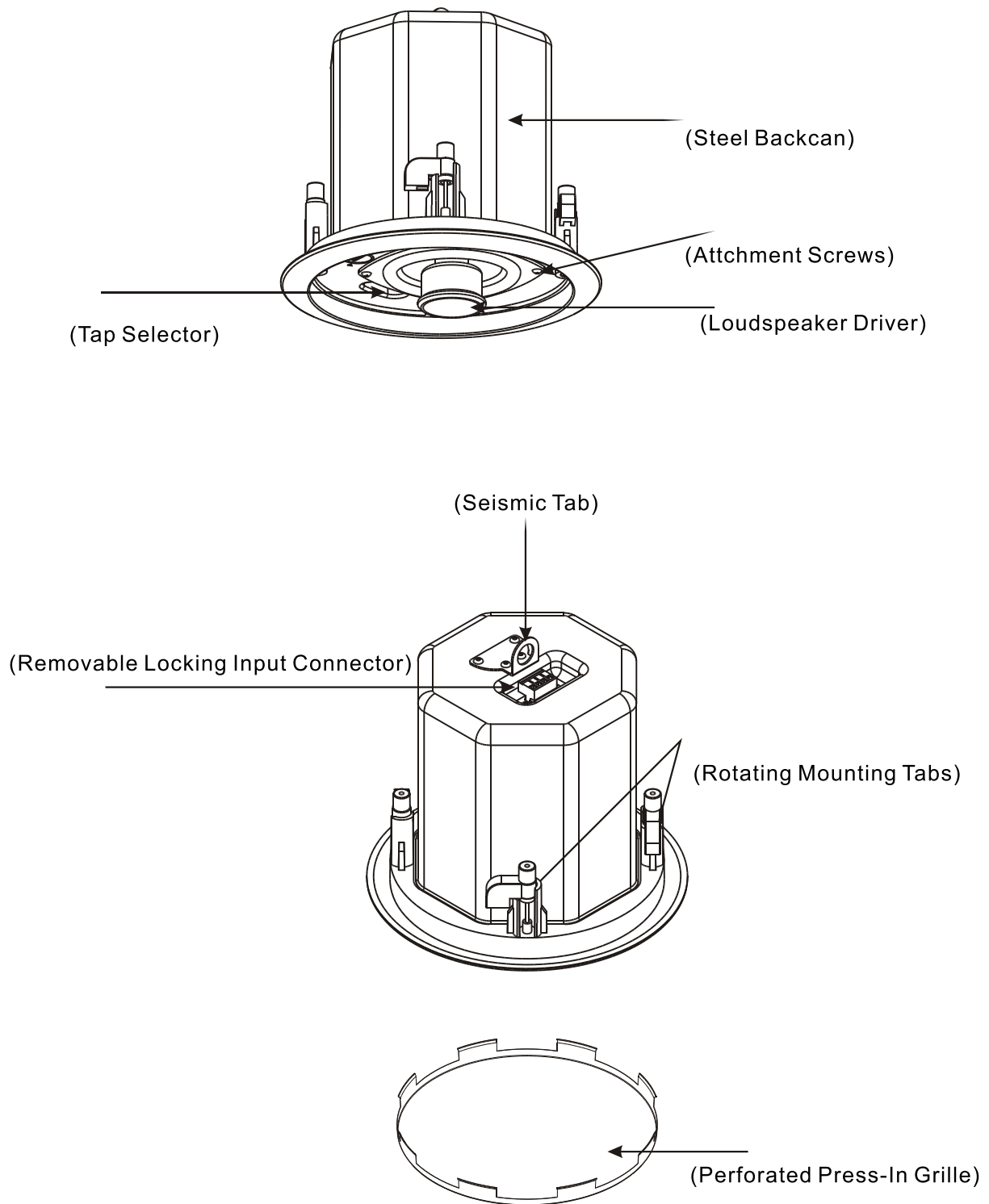
Thank you very much for expressing you confidence in our products by purchasing CSL series ceiling loudspeakers. In order to get the best out of your ceiling loudspeaker, please go through this instruction carefully.

## **2. Introduction**

CSL-50 & CSL-50CV make use of the innovative design and high quality materials to supply the ceiling loudspeaker with compact appearance and excellent performance. The CSL-50 is a compact indoor ceiling loudspeaker, which contains a coaxial 4" woofer and 3/4" titanium-coated tweeter. It provides the high fidelity full-range sound over an extremely wide coverage area, you can randomly select the output power 70V or 100V by the tap selector on the panel of CSL-50CV according to your requirement.

CSL-150 & CSL-150CV make use of the innovative design and materials to supply the ceiling loudspeaker with excellent performance. The CSL-50 is a large indoor ceiling loudspeaker, which contains a coaxial 6.5" woofer and 3/4" titanium-coated tweeter. It provides the high fidelity full-range sound over an extremely wide coverage area, you can randomly select the output power 70V or 100V by the tap selector on the panel of CSL-150CV according to your requirement.

### 3. Features Description



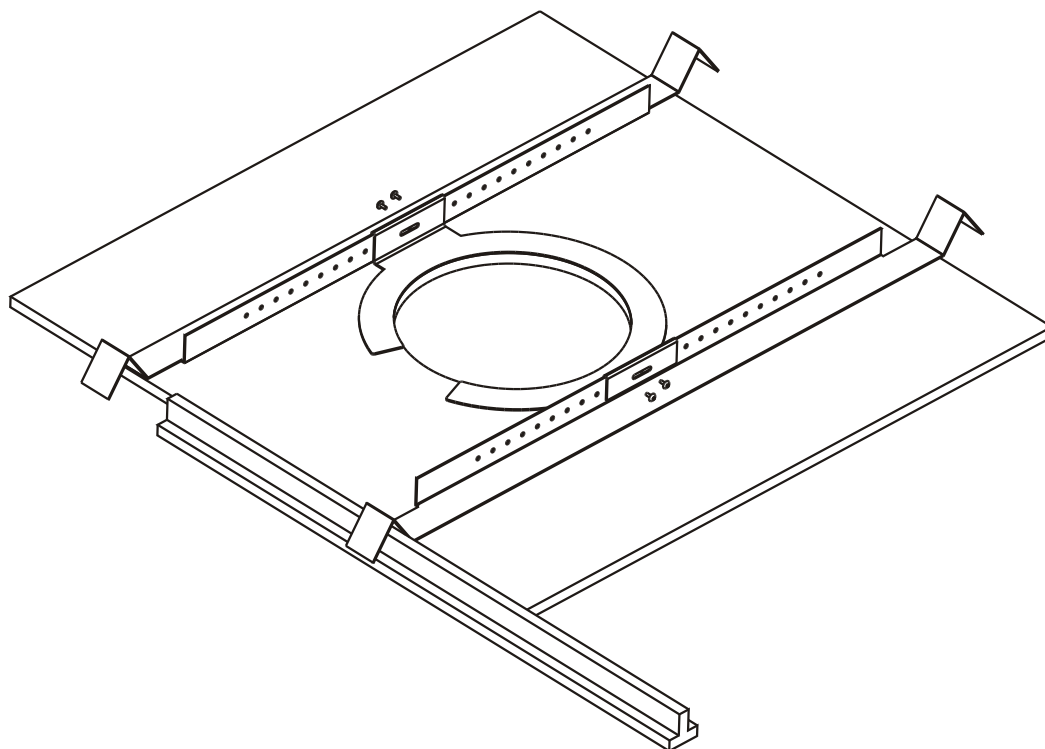
#### 4. Prepared for Installation

It is easy to install your CSL series products at a proper place of ceiling in safety way. If necessary, you can make use of the attached "C" bracket and slid track to match up your installation, then rotating the mounting tabs to lock.

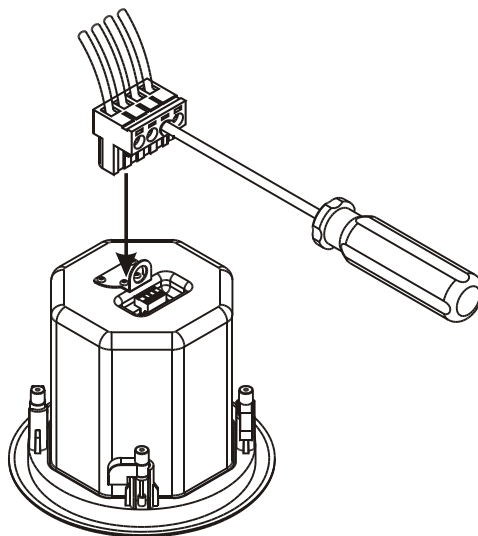
Installation accessories: "C" bracket, slid track.

#### 5. Installation Steps

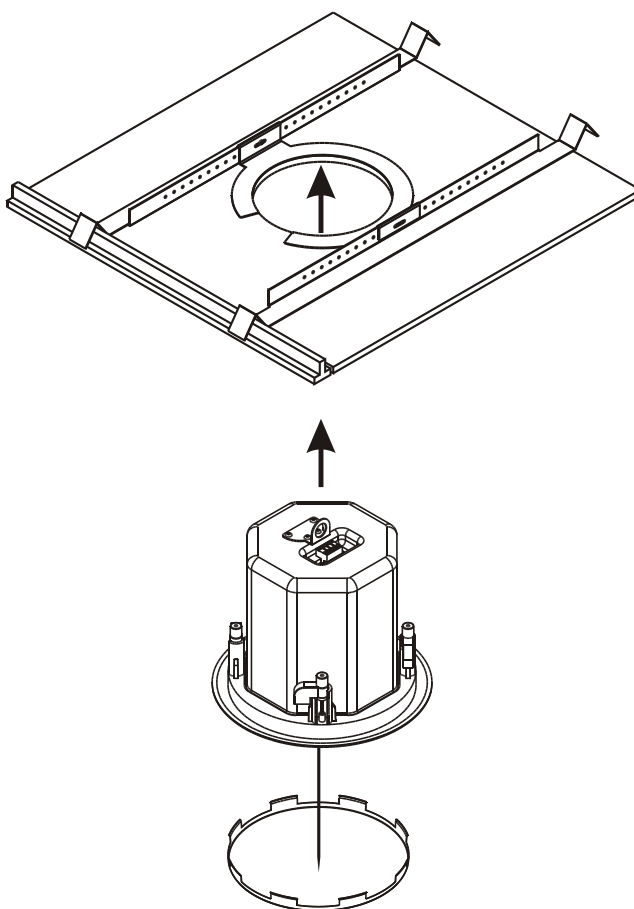
5.1 First, drill a round hole into the ceiling in accordance with the dimension of "C" bracket, then use the slid track to mount the "C" bracket on ceiling. The further details are as follows:



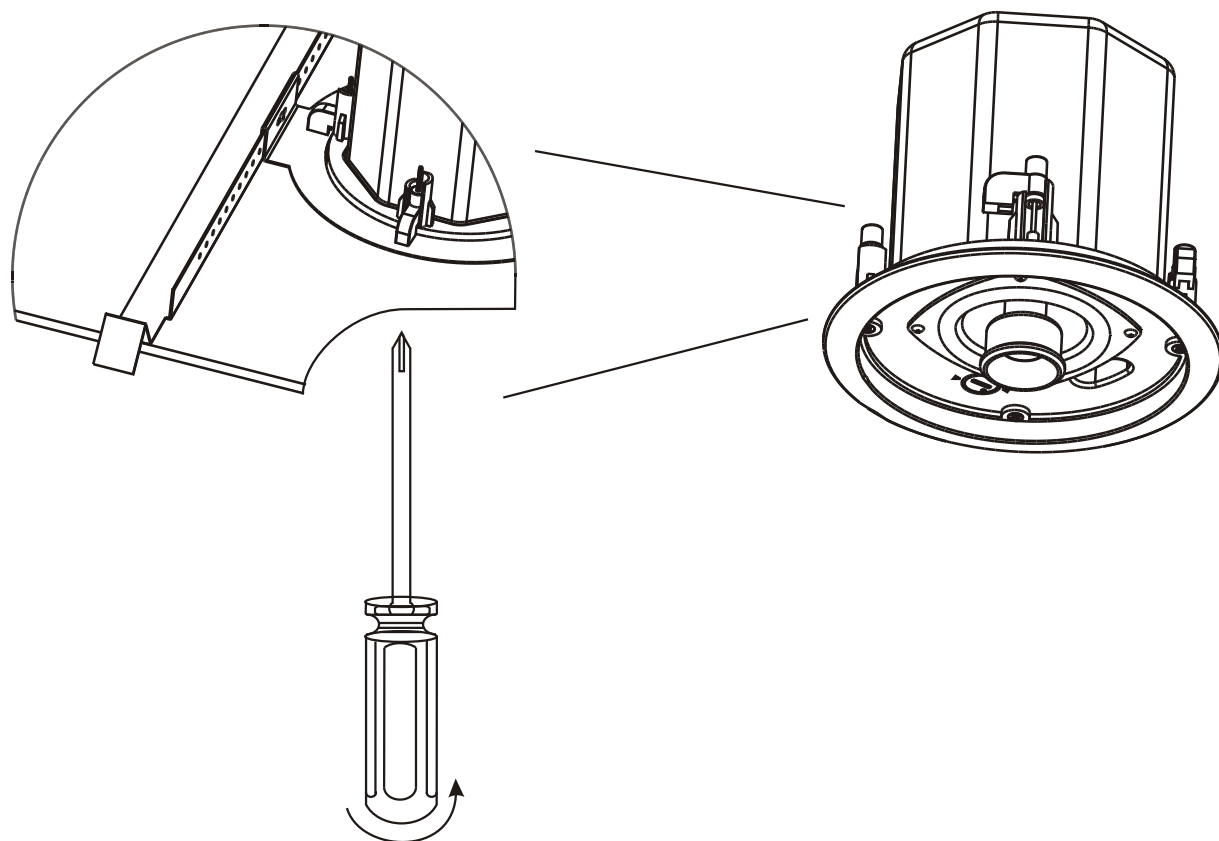
5.2 Please remove the removable locking input connector of CSL-50/50CV or CSL-150/150CV, and then finish the wiring work before installing your unit. The further details are as follows:



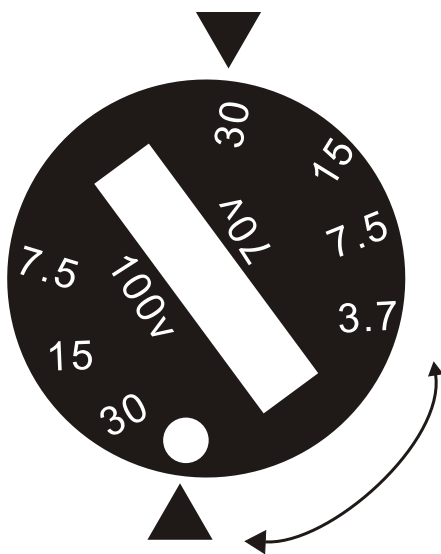
5.3 After the step1 and 2, put the unit into the ceiling round hole after inserting the input connector into the connecting socket of CSL-50/50CV or CSL-150/150CV. The further details are as follows:



5.4 After the step 3, rotating the mounting tabs to lock the unit at the specified place.  
The further details are as follows;

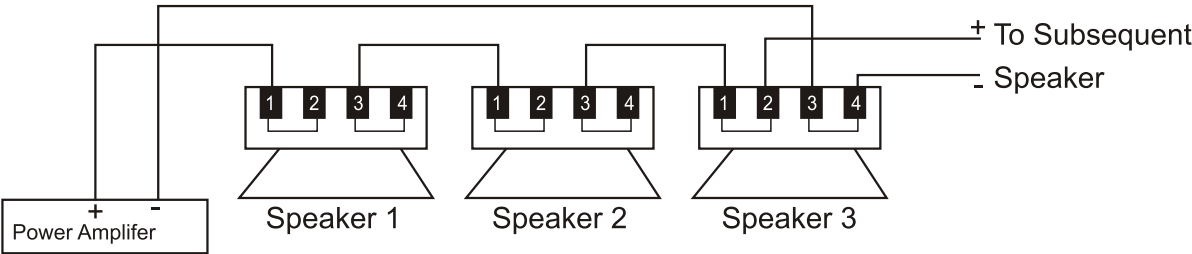


5.5 Then, you should select the required output power via the tap selector on panel.  
Finally, install the perforated press-in grille for ending the installation.

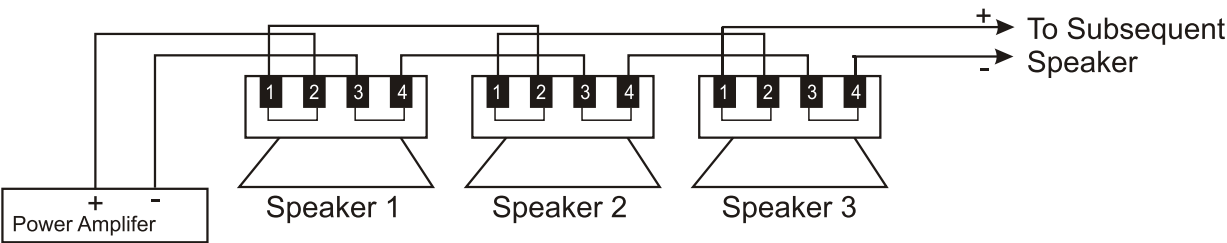


Appendix: the following figures describe the possible series/parallel connecting modes.

Series mode:



Parallel mode:



## 6. Technical Specifications

|                                 |                                                           |                                                       |
|---------------------------------|-----------------------------------------------------------|-------------------------------------------------------|
| Model                           | CSL-50CV Ceiling loudspeaker                              | CSL-150CV Ceiling loudspeaker                         |
| Built-in Speaker                | one 4"(105mm)woofer speaker                               | one 6.5"(160.6mm)woofer speaker                       |
|                                 | one piece 3/4"(19mm)tweeter speaker                       | one 3/4"(19mm)tweeter speaker                         |
| Input Power                     | rated 20W max 30W                                         | rated 30W max 60W                                     |
| Output Power                    | 3.7W/7.5W/15W/30W                                         | 7.5W/15W/30W/60W                                      |
| Input Impedance                 | 1.327K $\Omega$ /656 $\Omega$ /328 $\Omega$ /164 $\Omega$ | 656 $\Omega$ /328 $\Omega$ /164 $\Omega$ /82 $\Omega$ |
| Input Voltage                   | 70/100V                                                   | 70/100V                                               |
| Frequency Response              | 100-20,000HZ                                              | 100-20,000HZ                                          |
| Output Sound Pressure & Voltage | 86dB(1M/W)                                                | 92dB(1M/W)                                            |

|                                 |                               |                                 |
|---------------------------------|-------------------------------|---------------------------------|
| Model                           | CSL-50 Ceiling loudspeaker    | CSL-150 Ceiling loudspeaker     |
| Built-in Speaker                | one 4"(105mm)woofer speaker   | one 6.5"(160.6mm)woofer speaker |
|                                 | one 3/4"(19mm)tweeter speaker | one 3/4"(19mm)tweeter speaker   |
| Input Power                     | rated 20W max 30W             | rated 30W max 60W               |
| Output Power                    | 30W                           | 60W                             |
| Input Impedance                 | 16 $\Omega$                   | 16 $\Omega$                     |
| Frequency Response              | 100-20,000HZ                  | 100-20,000HZ                    |
| Output Sound Pressure & Voltage | 86dB(1M/W)                    | 88dB(1M/W)                      |

