



# **WiFi & Bluetooth Ceiling Speaker Audio Amplifier Streamer (ACS-8) User manual**

**Version V1.2**

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## 1.Overview

**ACS-8** Ceiling Speaker Audio Amplifier Streamer supports dual-band WiFi and Bluetooth wireless connection, Aux and USB input. The DSP chip and power amplifier chip of the audio amplifier are Texas Instruments Hifi level PCM5121 and TPA3255 respectively, with high signal-to-noise ratio, clear sound, strong power. Support DC24V~DC32V, The total power output of the device can reach  $60W * 2 (@ 4 \text{ ohm}) \sim 100W * 2 (@ 4 \text{ ohm})$ , which can be used with 2 pairs of CP-40(4 inch, 4ohm), CP-40-8(4 inch, 8ohm) or CP-65(6.5 inch) passive ceiling speakers.

The ACS-8 Ceiling Speaker Audio Amplifier Streamer also supports Airplay and DLNA protocols, and supports streaming music services such as Spotify, Tidal, Yandex Music, Youtube Music, Apple Music, Qobuz, vTuner, TuneIn etc. It has a rich range of audio sources and is suitable for various scenarios.

## Function Introduction

- ☐ Wi-Fi protocol: IEEE 802.11 a/b/g/n/ac 1x1 dual band WiFi 2.4 GHz and 5GHz
- ☐ Bluetooth protocol: Bluetooth 5.4 with EDR
- ☐ Support WiFi/Bluetooth/U disk playback/AUX
- ☐ Support APP interconnection control
- ☐ Support 10/100Mbps Ethernet access
- ☐ Support HTTP/HTTPS protocol
- ☐ Support Airplay/DLNA/Qplay streaming media protocol
- ☐ Support Airplay, Spotify, Bluetooth multi-room playback
- ☐ Support Spotify, Tidal, Yandex Music, Youtube Music, Apple Music, Qobuz, vTuner, TuneIn etc.
- ☐ Support common lossless audio format decoding, up to 192kHz/24bit



format

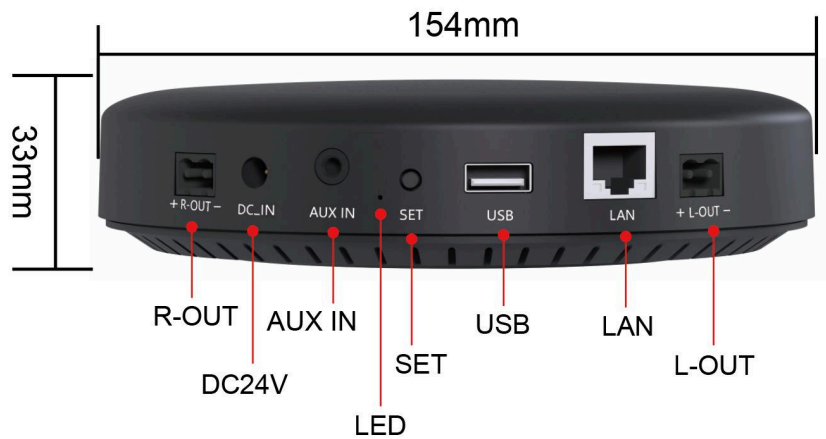
- ☐ Support MP3/AAC/FLAC/ALAC/WMA/WAV/APE/AIF/AIFF/AIFC/OGG etc.
- ☐ Support 433Mhz wireless RF remote control

## 2. Technical Parameters

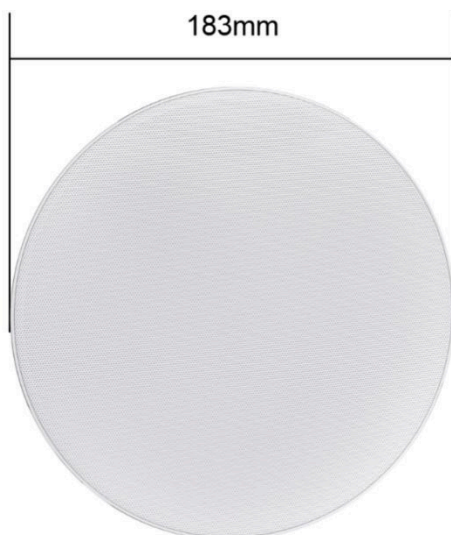
Audio I/O		
Audio Input	NETW ORK	WIFI 2.4G &5G or LAN
	BLUETOOTH	Bluetooth 5.4
	AUX IN	Max1V RMS IN
	USB DISK	MP3/AAC/FLAC/ALAC/WMA/WAV/APE/AIF/AIFF/AIFC/OGG etc.
Audio Output	SPEAKER OUT	Max 60W x 2channels@4ohm@DC 24V Max 100W x 2channels@4ohm@DC 32V Max 50W x 2channel@8ohm@DC32V
NETWORK		
Ethernet In	RJ45	Connect to router
Music Sources		
Streaming Protocol	Tidal Connect, Qobuz Connect, Airplay, DLNA	
Online Music	Spotify, Tidal, Tuneln, Qobuz, vTuner, Yandex Music, Youtube Music, Apple Music etc.	
Multi-Room function	Use APP to setup one device as master to sync music to other devices	
General		
Power	DC24V - 4A / DC32V – 5A	
Frequency	20Hz-20kHz	
THD	0.5%(@1Watt)	
SNR	>90db	
Remote	Remote Control	
Size	154mm x 33mm	

### 3. Product Structure Description

#### Audio Amplifier Streamer Interface Description

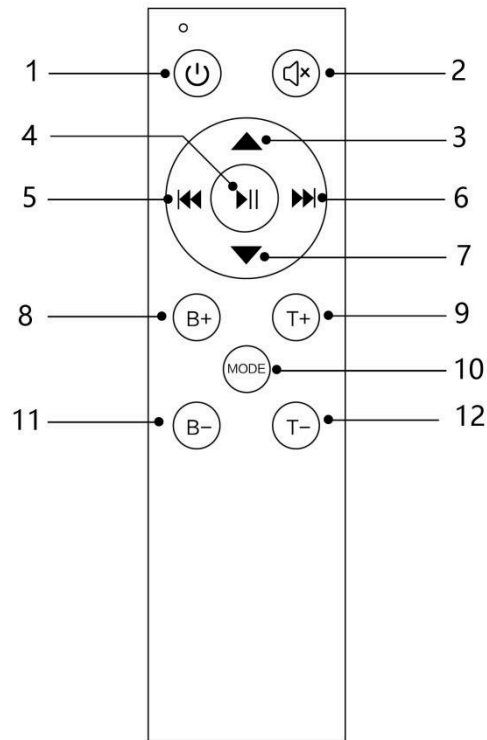


#### CP-40 Passive ceiling speaker (IPX 6 Waterproof)



#### 4. Wireless Remote Control description

The wireless remote control uses a 433M wireless module, and the remote control distance is within 8 meters. CS-8 is equipped with a wireless remote control for one-to-one control.



( Remote control )

NO.	Name	Features
1	POWER	Power on / off
2	MUTE	Short press: Mute/Unmute Long press: Restore factory setting
3	VOL+	Volume Up
4	PLAY/PAUSE	Short press: Play/Pause Long press: WPS/Pair
5	PRE	Previous song
6	NEXT	Next track
7	VOL-	Volume Down
8	B+	BASS UP
9	T+	TREBLE Up



10	MODE	Short press: (Network-->BT-->AUX-->USB), Long press: Reset system parameters
11	B-	BASSdown
12	T-	TREBLEdown

\*Instructions for wireless remote pairing steps (the device has been paired before leaving the factory):

1. Short press the SET KEY on the back of the device three times in quick succession, and the speaker will announce "remote ready for paring"
2. Long press the standby button of the wireless remote control for 3 seconds until the speaker broadcasts "remote paired successfully", then the pairing is successful and the wireless remote control can be used.

## 5. Instructions for use

**Please follow bellow instructions to use ACS-8 Ceiling Speaker Audio Amplifier Streamer.**

### 5.1 APP application

Please download the **iAudioCloud** from the APP Store or google play so as to use CS-8. The APP in the following document descriptions refers to the **iAudioCloud**.

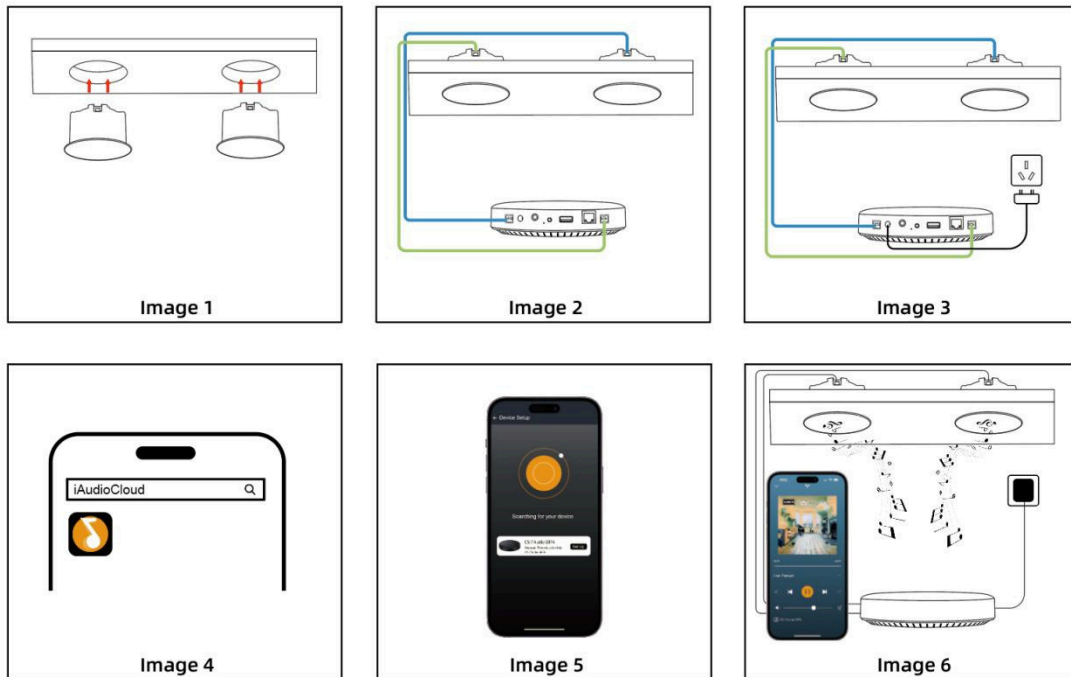


iAudioCloud

### 5.2 Connection and installation

The CS-8 Audio Amplifier Streamer should be used in conjunction with the CP-40-8(8ohm) or 2 pairs of CP-40(4ohm, in series connection) passive ceiling speakers.

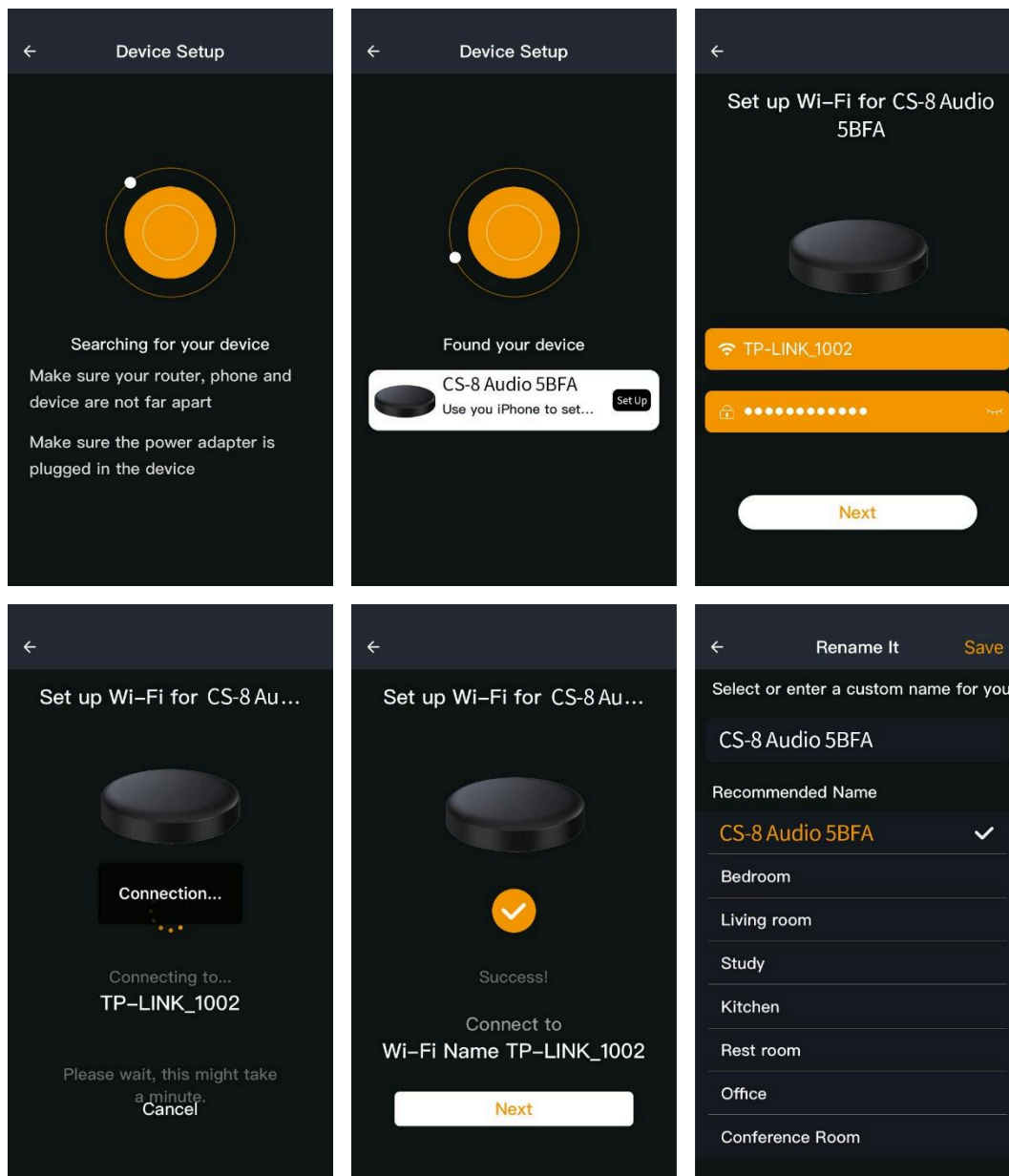
**Installation and connection are as shown in the following diagram:**



1. Make a hole at the appropriate position on the ceiling to install the CP-40-8 passive ceiling speaker. The hole diameter should be  $162 \pm 2$  MM. 2. Connect the ceiling speaker to the corresponding channel output of the CS-8 audio amplifier streamer using the audio cable according to the position of the speaker. 3. Plug the power adapter of the matching power supply into the CS-8 audio amplifier streamer to supply power, and wait for the device to start up completely. 4. Download the iAudioCloud APP. 5. Open the mobile APP and follow the prompts in the APP to connect the CS-8 to the wireless network or insert an Ethernet cable. 6. Use the mobile APP to play music.



The steps for setting up a wireless network are as follows



## 5.3 Display and Operation

### 5.3.1 Display Description

The indicator light of the CS-8 Audio Amplifier Streamer is used to indicate the working status of the mode. Users can use CS-8 according to the indicator light. The LED descriptions are as follows:



Indicator Light	Mode	Status	Description
White	Network	Flashes quickly	The device is starting
		Flashes Slowly	WiFi is waiting for pairing
		Light always on	The device is connected to the network
Blue	Bluetooth	Flashes quickly	The device is starting
		Flashes Slowly	Bluetooth is waiting for pairing
		Light always on	The device is connected to Bluetooth
Green	AUX	Light always on	AUX IN mode
Cyan	USB Disk	Light always on	USB Disk Player mode
Source Color	-	Fast flash once	Adjust volume
		Fast flash twice	The loudest volume or the smallest volume

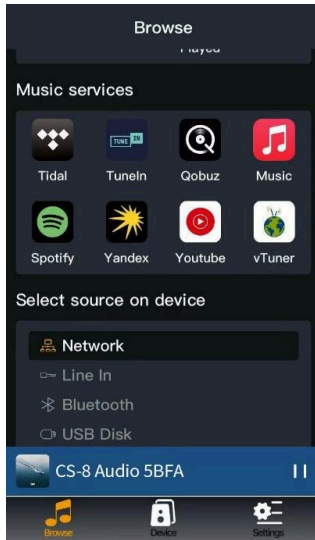
### 5.3.2 Operation instructions

- **Standby and Power on:** When CS-8 is working, short press the standby button on the remote control to control the CS-8 to enter standby and stop the music, and turn off the Source indicator light; When the CS-8 is in standby, short press the standby button on the remote control to wake up and turn on CS-8.
- **Network configuration and pairing:** When CS-8 is working, long press the Set button on the back of the device for 2 seconds to release the WiFi hotspot for re-configuring the network or to disconnect the current Bluetooth connection for re-pairing.

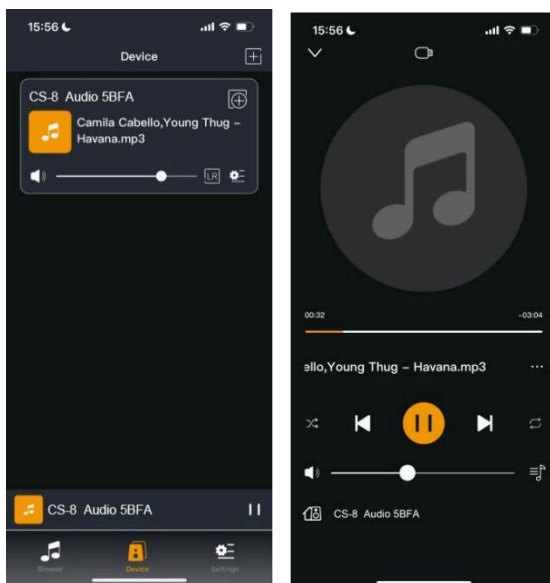




- **Source switching:** When the ACS-8 is working, short press the MODE button on the remote control to switch the Source. The cycle sequence of switching is WiFi->BT->AUX->USB; You can also directly select Source in the APP( as shown below).



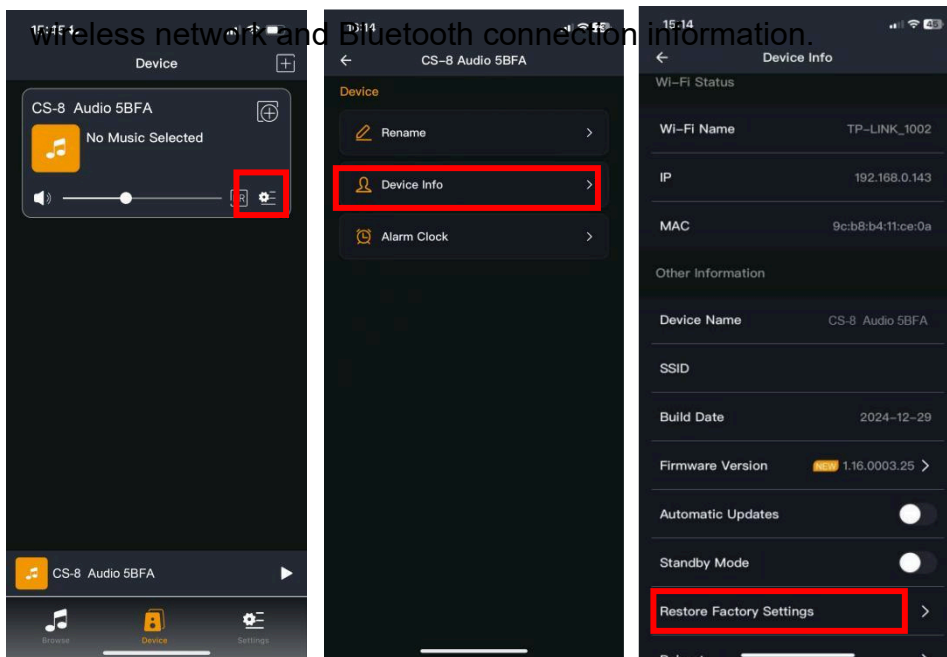
- **Master Volume adjustment:** The master volume of the CS-8 is divided into 32 levels, and can be adjusted through remote control and APP.



- **Audio operation:** During CS-8 audio playback, It supports the remote control and the APP to control the previous/next song, playback and pause, also support dragging the playback progress in the APP.



- **BASS/TREBLE adjustment instructions:** ACS-8 can use the remote control or APP to adjust BASS and TREBLE. There are 11 BASS/TREBLE levels for adjustment, and the positive and negative gains are 5db respectively. The output of power amplifier will change with the adjustment.
- **Parameter reset:** When the ACS-8 is working, long press the MODE button of the remote control to reset the system parameters of the CS-8, and reset the BASS, TREBLE and volume to the factory default status.
- **Restore factory settings:** In the Device interface of APP, Select the Device Enter the setting Device Info, Press “ Restore Factory Settings”, CS-8 can be operated to restore factory Settings (as shown below), or long press the SET KEY on the back of device for 8 seconds. Reset the system parameters to the factory default state, and clear the



## 6. Speaker connection diagram

The load impedance of each output port of the audio amplifier streamer should be  $\geq 4$  ohm. Please pay attention to the impedance specification of each



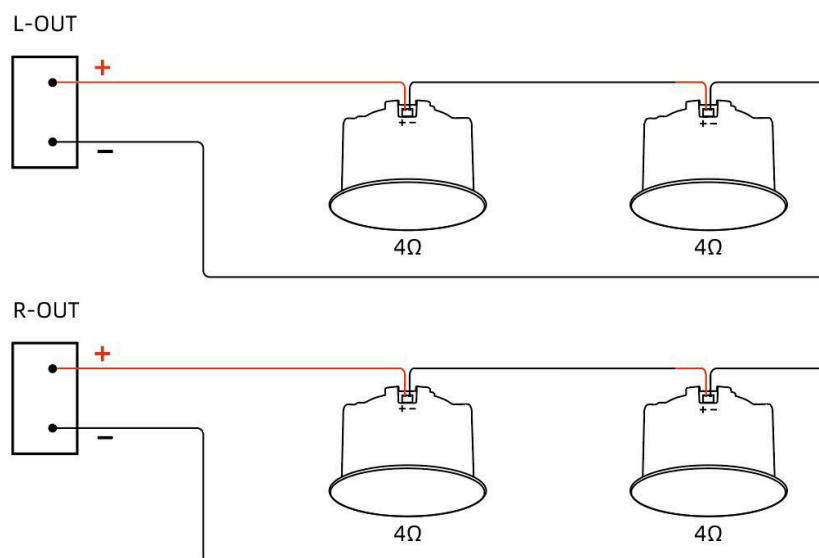
speaker in the following diagram.

**\* Please note that when using DC32V power supply, each power output is 20V, which is not suitable for connecting a single CP-40 (4 ohm). If the power exceeds the maximum power of the speaker, and there is a risk of damaging the speaker. When connecting CP-40, please use the following series connection method.**

## Passive ceiling speakers connection

### 1) Series connection method: 4pcs (CP-40)

#### Series Connection

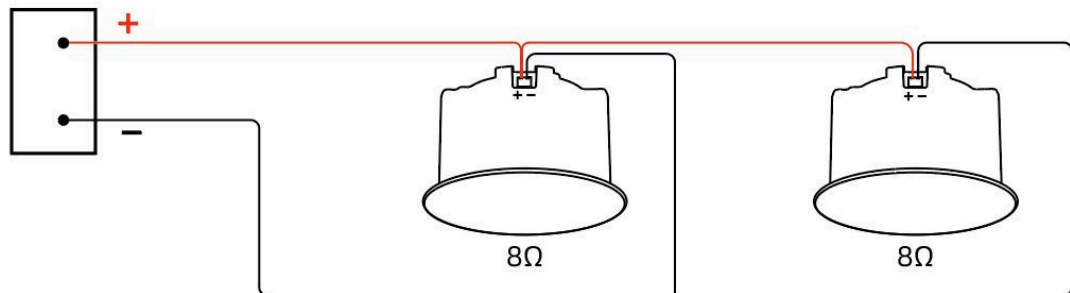


In the series connection method, if the power output port is 20V (with DC 32V power supply) and the impedance of each speaker is 4 ohm, then the power output of each speaker is 25W.

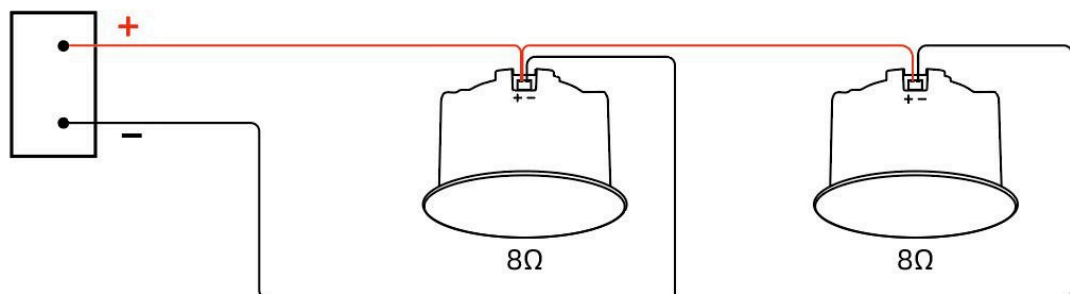
## 2) Parallel connection method: 4pcs (CP-40-8)

### Parallel Connection

L-OUT



R-OUT

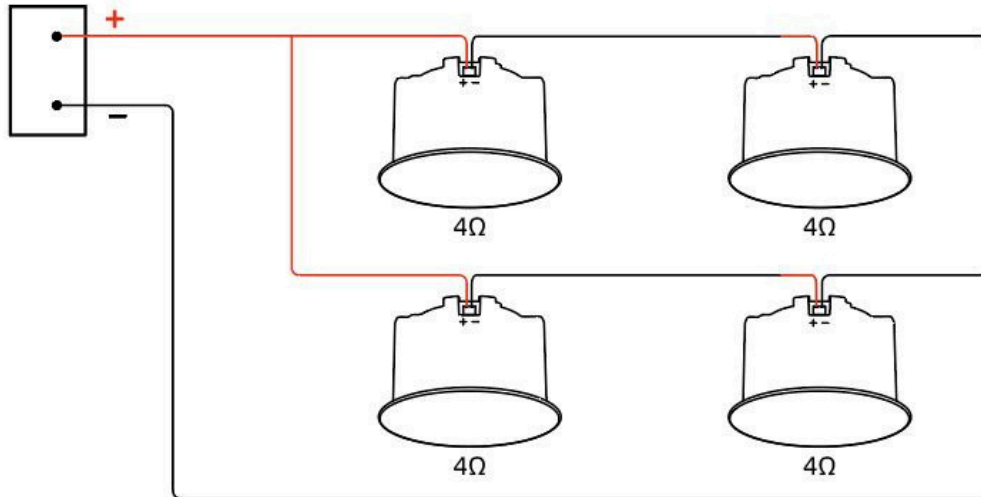


In the parallel connection method, if the power output port is 20V (DC32V power supply), and the impedance of each speaker is 8 ohm, then the power output of each speaker is 50W.

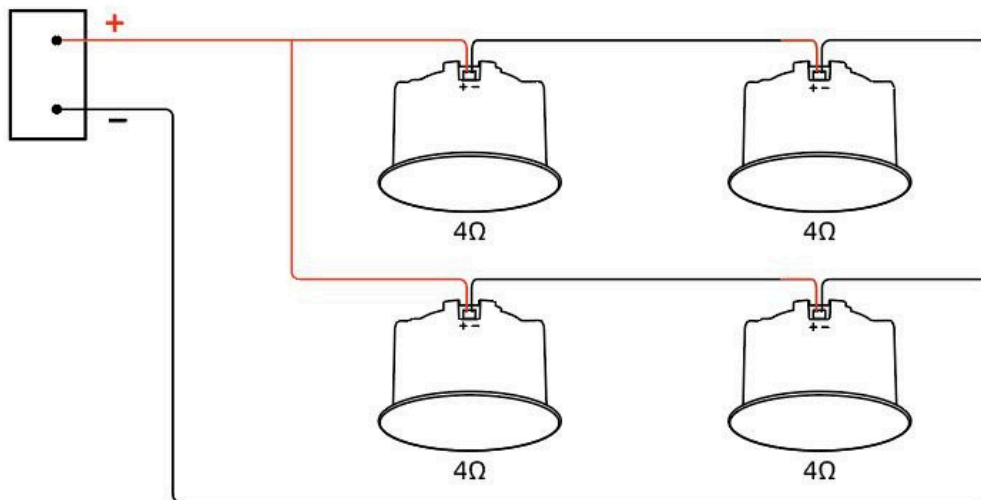
### 3) Series - Parallel connection method: 8pcs (CP-40)

#### Series-Parallel connection

L-OUT



R-OUT



In the series-parallel connection method, if the power output port is 20V (with DC 32V power supply) and the impedance of each speaker is 4 ohm, then the power output of each speaker is 25W.



## 7. Parts list

NO.	Name	Qty
1	CS-8 Ceiling Amplifier Streamer	1Pcs
2	CP-40-8 or CP-40 Passive ceiling speaker	2Pcs/4Pcs
3	32V or 24V Power Adapter	1Pcs
4	Power cord	1Pcs
5	Wireless remote control	1Pcs
6	Speaker terminal connector	2pcs
7	Screwdriver	1pcs
8	Speaker Cable (6 m)	1pcs
9	User Manual	1pcs

