RWS-4100

User's Manual



Network 4 Zone Amplifier

4 Zone	Spotify	AirPlay	Multi-Room	Internet Radio

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1. Introduction

RWS-4100 is a multi-room system that enables you to enjoy your favorite music anywhere in your home. RWS -4100
contains 4 audio amplifiers for you to connect to 4 set of stereo speakers. Each zone also contains analog and digital audio outputs for you to use as audio source. You can easily play music from online music services, your phone storage, NAS and other sources by using the 4Stream app on your iOS or Android device.

- Amplification: Each zone can provide 50Wx2@8ohms (stereo mode) or 100W@4ohms (bridge mode)
- Multi-room audio function: Play different songs in different rooms or same song in every room.
- Easy network setup: Connect to your home network and it is ready to use.
- Rich I/O interface: Each zone has separate digital input/output and analog input/output. There is also a master source input that all zones can used at the same time.

2. System Requirements

High Speed Internet Connection:
RWS-4100 needs internet connection to stream music from online music services and to get online firmware updates. You may experience performance issues with slower internet connections.
Wireless Router:
In order to use RWS-4100, you will need to have a working Wi-Fi network in your home, since the control APP on
your mobile device need to be in the same network as the streamer.
Control APP – 4Stream:
You can control RWS-4100 using our free 4Stream app on any iOS and Android device that meets these minimum requirements:

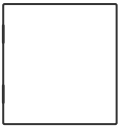




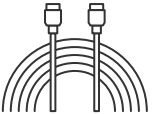
3. What's in The Box



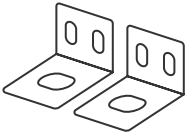
RWS-4100



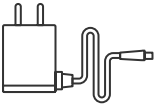
User‘s Manual



Ethernet Cable

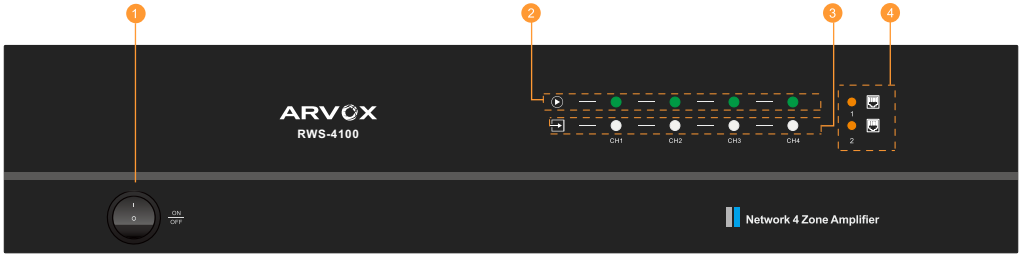


Rack Mount Brackets x2



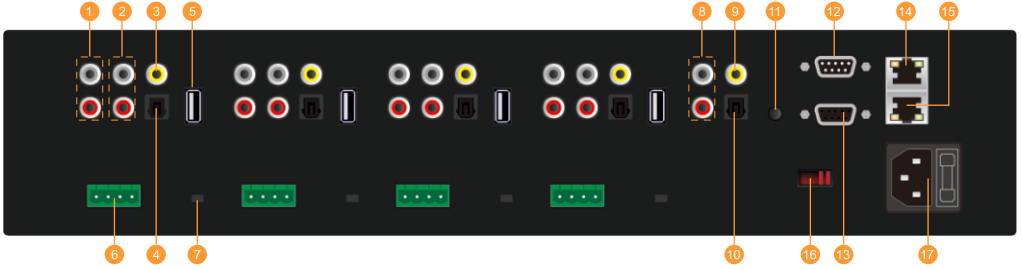
12V/2A Power Cable

3.1 Font Panel



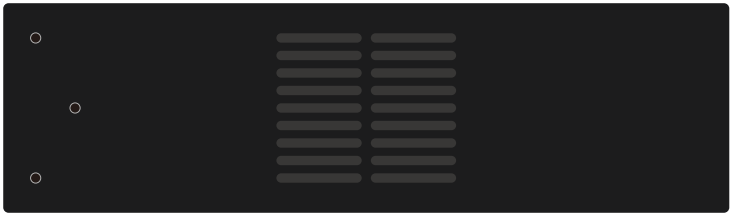
1. Power Button
2. Streaming Indicator – LED on when streaming.
3. Input Source Indicator – LED Color: White for Network Audio, Green for Line in 1 (Zone Line in), Yellow for Line in 2 (Master Line in), Magenta for Master Optical in, Cyan for Master Coaxial in, Red for USB.
4. Network Indicators – LED on when network is available.

3.2 Back Panel



1. Pre-Out
2. Line in (Line 1 in APP)
3. Digital Coaxial Out
4. Digital Optical In
5. USB port
6. Speaker out
7. Stereo/Bridge mode switch
8. Master Line In
9. Master Coaxial In
10. Master Optical In
11. Reset Button
12. RS232 Pass Through Port
13. RS232 Port
14. Network Output
15. Network Input
16. Voltage Selection Switch (115V/230V)
17. Power Plug

3.3 Side Panel

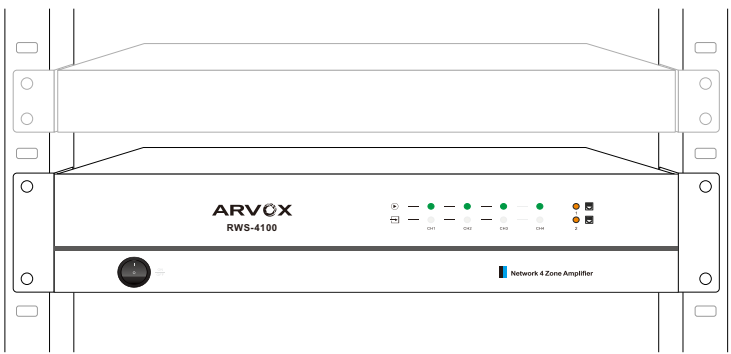


Screw holes for mounting brackets

4. Placing your RWS-4100

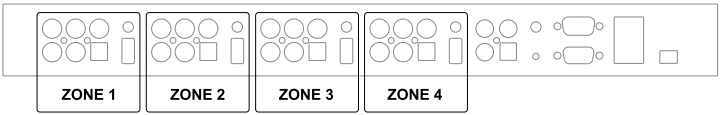
RWS-4100 size is standard 2U size, you can easily install into an equipment rack. Attached the included rack mounting brackets on each side of RWS-4100 if you want to mount it on to a standard EIA equipment rack.

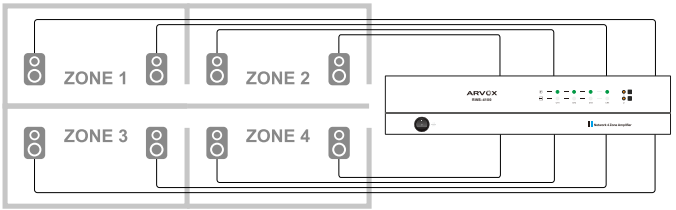
-- Align the rack mounting brackets with the screw holes on the side and screw in the screws tightly.



5. Zone Connection

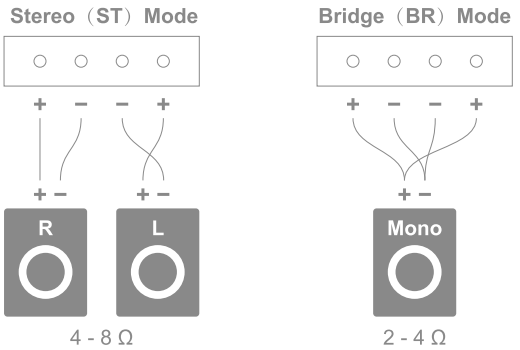
You can play the same audio source in all four zone at the same time, you can also play different audio sources in different zones.





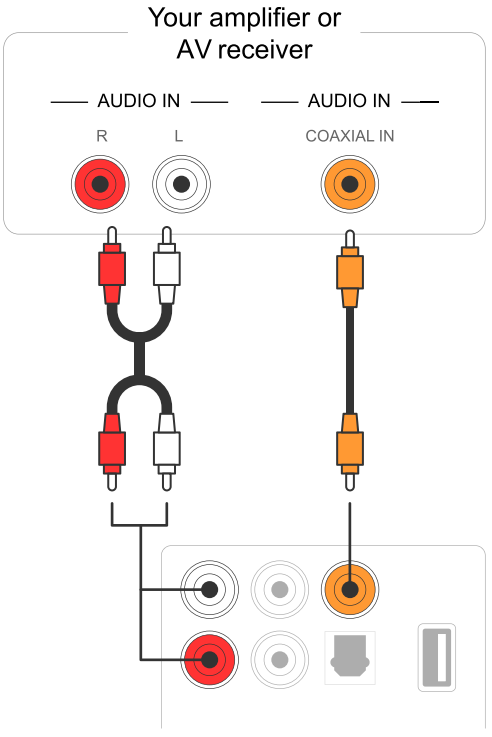
5.1 Connect Your Speakers

Connect your stereo speaker to the speaker output using the phoenix connector.
You can also switch to Bridge mode (BR) to connect to a Mono speaker.



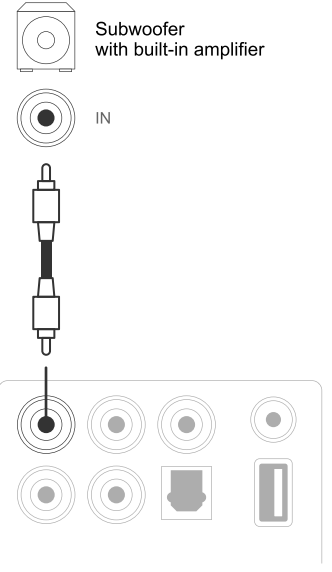
5.2 Connect to External Amplifier or AV Receiver

Connect the LINE OUT output to the input on your amplifier or AV receiver using the appropriate cable. RWS-4 100 supports both analog output (RCA) and digital output (Coaxial).



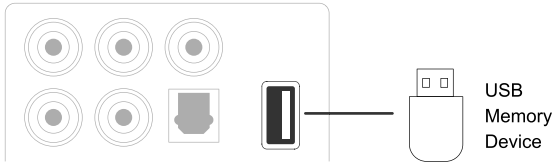
5.3 Connect to External Subwoofer

Connect the LINE OUT “L” output to the input on your active subwoofer or subwoofer amplifier.



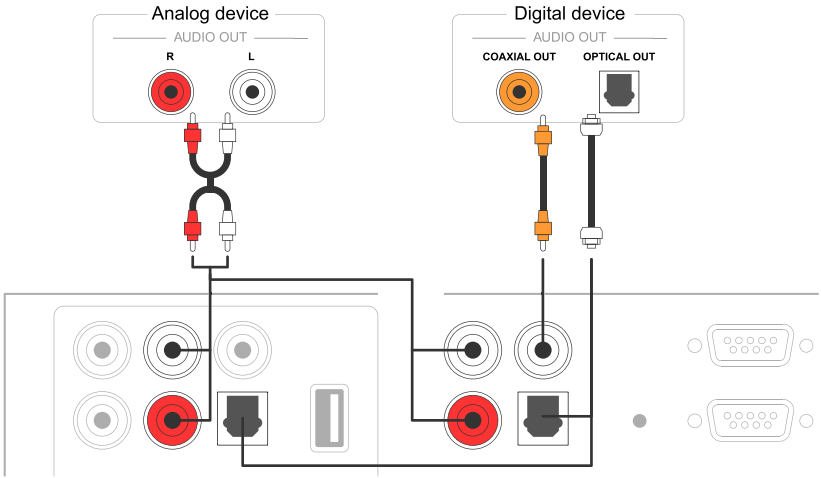
5.4 Connect to USB Storage Device

To play music stored in a USB storage device, just plugin a USB storage device containing music files to the USB port of the Zone you want to play with.



5.5 Connect to Audio Playback Device

Connect the LINE IN, OPTICAL IN in each zone or LINE IN, COAXIAL IN, OPTICAL IN in the master input area to an audio playback device, it can be a CD player, portable music player or any device with audio output using the same connector.
In the APP, LINE IN in each zone is represent as Line in, LINE IN in the master input area is represent as AUX. Optical IN in each zone is represent as OPT1, Optical IN and Coaxial IN in the master input area is represent as OPT2 and COX.

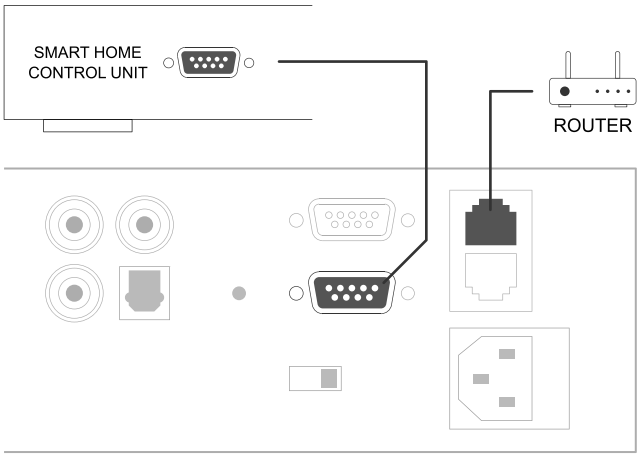


5.6 RS232 Serial Port

RS232 serial port is reserved for connection to smart home control unit to control RWS-4100. You can use the Pass-Through port to connect to another RWS-4100 for group control.

5.7 Connect to Network

Connect RWS-4100 to your home router using a LAN cable to add it into your home network. You can use the NETWORK OUT port to connect another device to the same network.



6. Download 4Stream APP

The 4Stream APP is the controller of the whole system. Install 4Stream APP in your mobile device and you can control and stream music anywhere in your home.
The application supports English, Spanish, French, German, Italian, Portuguese, Korean, Simplified Chinese, Traditional Chinese and Japanese.
You can download 4Stream App for iOS or Android by searching “4Stream” in App Store or Google Play.

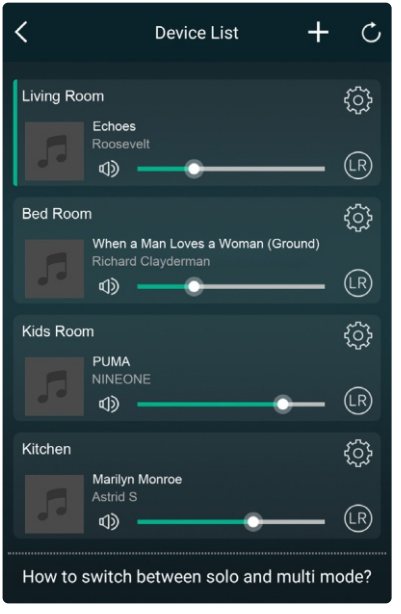
4STREAM

Google Play

Download on the App Store

7. Using RWS-4100

Once you have connected your RWS-4100 to yournetw ork and install 4Stream app in your mobile device, you can start playing music to different rooms. You can list en to different music in different room or the same mu sic in all rooms in sync.



7.1 Selecting a ZONE

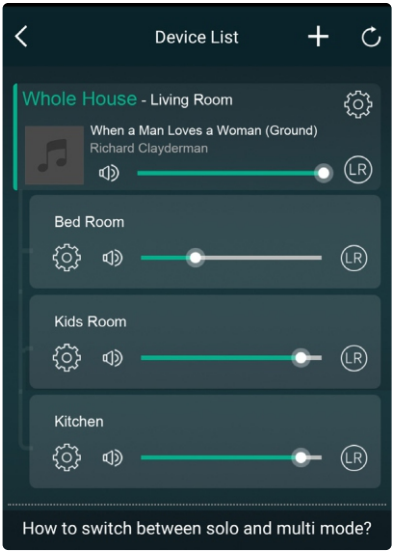
In 4Stream APP you will see all the connected devices in the same network.
1. Select the device you want to control, the selected device will have a green bar appears on the left side.
2. Swap to the left to open the list of music sources.
3. Select an online or local music source from the list to start streaming your music.

7.2 Play Same Music to Multiple Rooms

You can play the same music to multiple rooms simultaneously by pulling a device over another device to from a group. The device list on top of the group is the master device, the music stream to the master device will also playback on other devices in the same group.

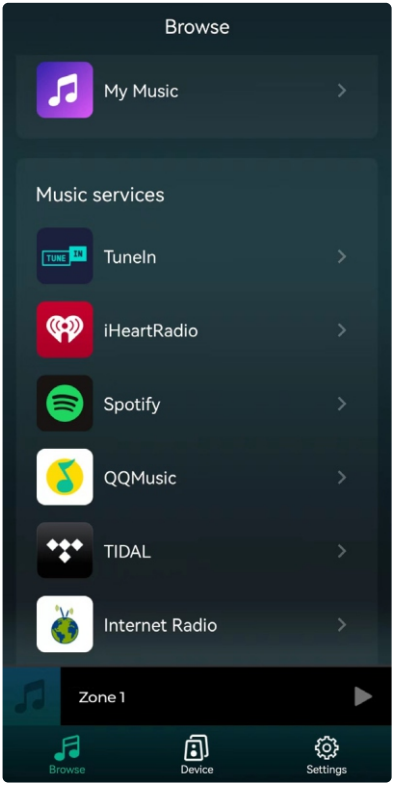
If your music source is from the master source input, there is no need to group the devices, since all the devices can access the master source input.

*There will be a small delay between the audio source and the 4 zones when in multizone mode, all 4 zones will be in sync with no delay between them.
*There is no delay when you use the master source input as input source for the 4 zones. No need to group them together, ungroup them to play in sync with the input source.



7.3 Listen to Online Music

RWS-4100 can work with famous online streamingmu sic services like Spotify, Tidal, Qobuz, Deezer, Amazon Mu sic, QQ Music, TuneIn, Internet radio, iHeartradio. You can easily stream music or playlist from your account wirele ssly and play on your home audio system.



7.4 Spotify

To use Spotify, you need to have Spotify premium account. You will find the device in device list in Spotify application and choose the device you want to stream.

7.5 Airplay

The device supports Airplay1, you can choose Airplay in iOS device and play music.

7.6 Qplay

The device supports QQ music using Qplay protocol, you need to turn on Qplay in QQ music application setting and then find the device in Qplay list

7.7 Listen to Local Music

RWS-4100 can stream local music stored in yourmo bile phone, USB storage drive, NAS using DLNA protocol, PC software like itunes, or UPnP/DLNA 3rdparty software. Click on “My Music” to select the local device you want to play from.
Note: iOS based devices have blocked the access to iTunes library.

*Our system only supports NAS using DLNA protocol.

7.8 Music Playlist

You can create music playlist and add local music to the list for streaming.

7.9 Play Music From Line In

- Connect an external audio source to line-in port using RCA cable.
- Choose line in mode in the 4Stream application to switch to line in mode.
- Line in is the line in port of the current zone, AUX is the line in port Of the master input source.

7.10 Play Music From Optical/Coaxial In

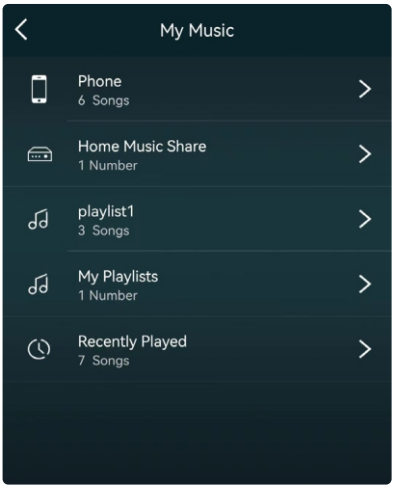
- Connect an external audio source to Optical in of a zone or Optical, Coaxial in of the master input source.
- Choose OPT1 (zone), OPT2 (master) or COX in the 4Stream application to switch to the corresponding mode.

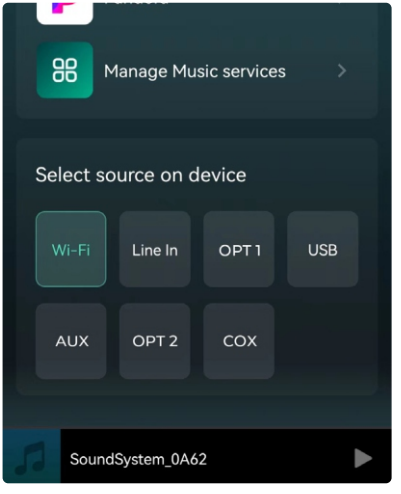
7.11 Play Music From PC

You can stream audio stored in your Mac and Windows PC by using iTunes, 3rd party UPnP/DLNA streaming program like Foobar2000, Music Bee or Serviio.

7.12 Changing Output Channels

You can change the output channel of the zone, you can change between Left channel only, Right channel only or Stereo. You can set Zone 1 to play Left channel and Zone 2 to play right channel, group them together to make stereo. By default it is set to Stereo.





7.13 Device Settings

Rename: You can rename each zone to different name to fit your needs.

Speaker Info: You will see the device information like device's IP address, Device name, Firmware Version and Restore Factory Default.

Alarm Clock: Setup music alarm clock, music can choose from Preset list, internet radio, iHeartRadio, Napster, Tidal, Spotify, Deezer and NAS.

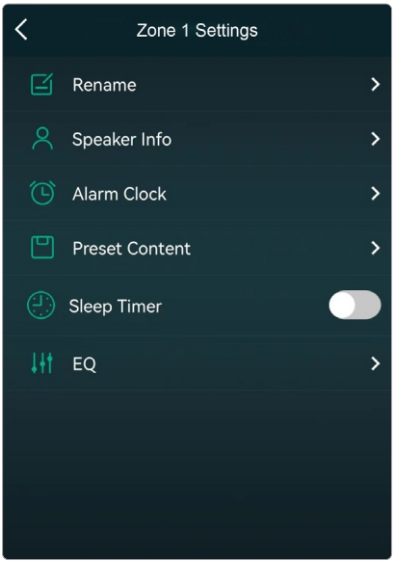
Preset Content: You can store 10 different playlist or radio station to the Preset list for quick access.

Any list or station with the speaker icon can be preset. Click on the speaker icon and you can assign it to the preset list.

Sleep Timer: Setup a Countdown timer to stop music.

EQ: You can control treble and bass of the device.

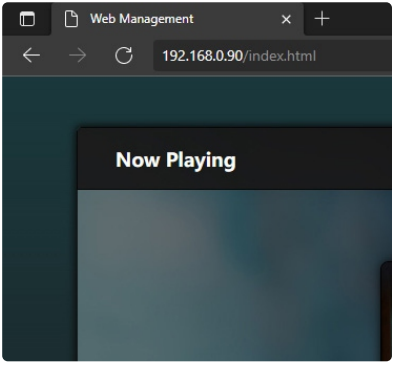
Restore Factory Settings: Long press the Reset button for 8 sec to restore the device to factory default settings. This will reset all the zone names, volume and current input source.



8. Web Player Interface

You can access the web player interface by entering the ip address of the device to a web broswer.

*You can find the device ip address by clicking on device setup icon, then select Speaker Info.



8.1 Playback Interface

You can control the volume, Play/Pause, previous/next song, repeat and shuffle function for songs or station you currently playing or access the preset songs/stations you have setup.

You can also change the input source of the device.

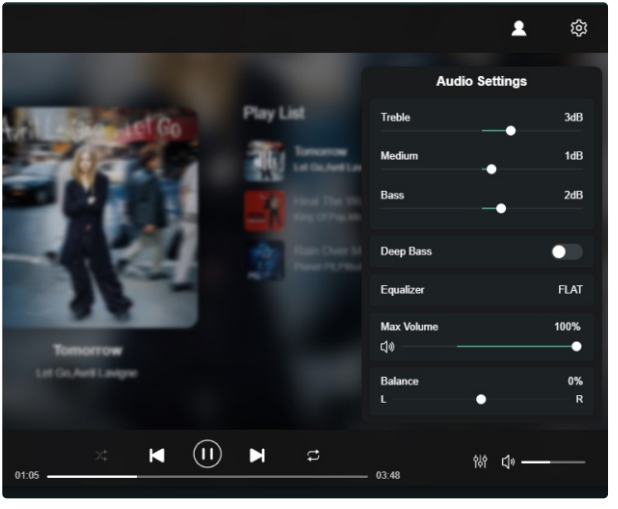
If you have favoirte internet radio station and know it's streaming URL, you can input it in the URL Play list for easy access.



8.2 EQ Interface

In the EQ menu, you can setup different EQ Settings.

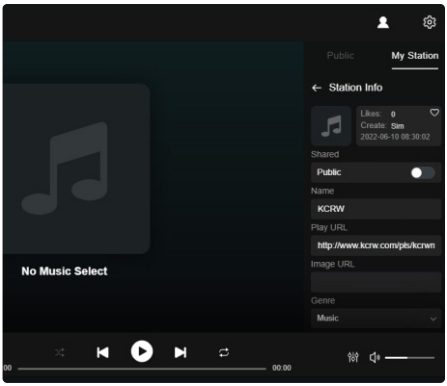
You can change the Treble/Medium/Bass level, turn on/off Deep Bass, select Equalizer, Set the max volume level and change L/R channel balance.



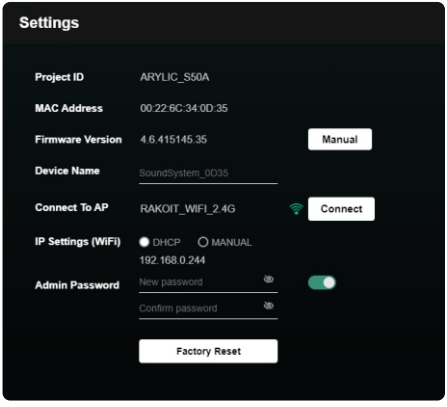
8.3 Radio Station Interface

In the Radio Station Menu, you can add your own internet radio station if you have the URL.
Once you added your own internet radio station, you can check it's info and change the settings.
You can also share it to Public, so other user can also use your station in their device.

*You will need to first register an account to use this function.
In the Public Tag, you will see all the radio stations shared by our users. You can sort them by Genre, Language or Country.



8.4 Settings Interface



In the setup menu, you can do couple of things:

When entering the setup interface, a admin password is required.
The default password is: admin
- Manual update the device firmware
- Change the Device Name
- Setup WiFi connection
- Setup Static IP Address
- Change Admin password

*If you want to setup the WiFi connection for the first time without using other method.
1. After power up the devie, connect your mobile/PC WiFi to the device SSID: SoundSystem_xxxx.
2. In the web broswer input 10.10.10.254 (this is the default ip address when there is no network being setup)
3. Goto setings and click on connect button under Connect to AP option.
4. Select the router SSID you want to connect to.
5. Enter the password if required and click on connect button.
6. Now your device is connected to your network, you will need to enter the new ip address to continue to use the web player. (since the ip address is not 10.10.10.254 anymore)

9. Firmware Update

Whenever a new firmware is available, you will be notified by a "new" icon. Click on the "new" icon to begin firmware update, it will take couple minutes.
It is recommended to update firmware when it is available, it might not only correct bugs or improve performance, but also might add new features or services.

10. Specification

4 Zone Audio I/O		
Audio Input	Line in	Max 2V RMS input
	Optical in	Max 192kHz/24bit sample rate decode PCM encoding
	USB	USB disk drive playback
Audio Output	Pre out	Max 2V RMS output
	Coaxial out	44.1kHz/16bit output
	Speaker out	50W per channel @ 8ohms, Bridged Amplifier mode 100W @4ohms per channel
Master Input Source		
Audio Input	Line in	Max 2V RMS input
	Optical in	Max 192kHz/24bit sample rate decode PCM encoding
	Coaxial in	
Network		
Ethernet In	RJ45	Connect to internet
Ethernet Out	RJ45	Output to other device to share the network
Music Sources		
Streaming Protocol	Spotify Connect, Airplay, DLNA, UPnP, Qplay	
Online Music	Spotify, Tidal, Deezer, Qobuz, Napster, Pandora, Amazon Music, Internet Radio, iHeartRadio, vTuner, QQ music, QQ FM	
Local Music	Mobile device music, NAS storage music files, USB disk drive music files	
Multizone function	1. By Master input source 2. By APP to setup one zone as master to sync music to other zone	
General		
Power	115-230V AC 50/60Hz	
Control Interface	Dual-way RS232	
Size	2U rack size	

FCC Statement:

Federal Communication Commission (FCC) Radiation Exposure Statement
When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.
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.
NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.
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.

FAQ

Q: Do your devices support airplay and third-party DLNA apps?
A: Yes. They support airplay and third-party apps like MusicBee, Foobar2000.

Q: How many zones can you group in one system?
A: 12 rooms is the maximum, while 8 zones are recommended.

Q: What distance can your wireless audio system cover?
A: Once the system is connected to your WiFi router, you can stream your music anywhere there is a WiFi signal.

Q: Can it play high resolution music?
A: Yes. Our devices can play APE and FLAC within the normal bit rate range. They also support decoding 24bit/192kHz music files.

Q: How many languages do you support?
A: Our devices will auto-detect your mobile device language and change automatically. Currently, we support English, French, German, Spanish, Chinese, Portuguese, Korean and Japanese and more on the way.

Q: What online music services do you support?
A: Spotify, Deezer, Tidal, Qobuz, Amazon Music, Napster, TuneIn radio, internet radio, iHeartRadio.

Q: Can I play local music?
A: Yes. You can play music from “MY MUSIC” on the application from local storage devices such as mobile device storage, USB thumb drives and NAS.

Q: Can the device work with Windows devices?
A: The Windows application is not available at the moment, but on the Windows PC, users can use iTunes, Foobar2000 and Spotify connect.

Q: Can all music sources play in multiroom mode?
A: Yes, the online music services, digital and analog input all can stream in multiroom mode.



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