

Beyond Audio, **HiFi ROSE**

Complete HiFi Network Streamer **RS250**



rose

Beyond Audio, **HiFi ROSE**



Complete HiFi Network Streamer RS250

- Reference Grade All-in-One Network Streamer
- Network Streamer + DAC
- High-Resolution Music Playback available(DSD512, PCM 32bit/768kHz)
- A Femto Clock provides Ultra Precision
- The Special Linear Power Supply Configuration minimizes electrical noise

Hi-Res	DSD	Native DSD512	In/Out Port	Headphone Out	3.5mm
	PCM	32bit / 768kHz		USB Audio In	USB B Type 2.0
In/Out Port	Digital In	Optical, Coaxial	Network Connection	USB Audio Out	USB A Type 3.0
	Digital Out	Optical, Coaxial		Ethernet	10/100/1000 BASE-T
	Analog In	Line In		WiFi	802.11 a/b/g/n/ac (2.4GHz/5GHz)
	Analog Out	Pre-out_RCA		Bluetooth	V4.0 / V3.0+HS
	HDMI Out	4K			

Connectivity Bluetooth, DLNA, Airplay, Spotify Connect, Roon Ready

Design 278*202*85 mm / 3.2 kg / 8.8" Wide viewing angle touch screen / Color : Silver



High Performance Network Streamer RS150

- Flagship Network Streamer
- Network Streamer + DAC
- High-tech DAC design for pure sound with low noise and low distortion
- High-Resolution Music Playback available(DSD512, PCM32bit/768kHz)
- A Femto Clock provides Ultra Precision
- The Special Linear Power Supply Configuration minimizes electrical noise

Hi-Res	DSD	Native DSD 512	In/Out Port	HDMI Out	4K
	PCM	32bit / 768kHz		USB Audio In	USB B Type 2.0
In/Out Port	Digital In	Optical, Coaxial, AES/EBU, HDMI ARC, USB Audio	Network Connection	USB Audio Out	USB A Type 3.0
	Digital Out	Optical, Coaxial, AES/EBU, I2S-DVI, I2S-RJ45		Ethernet	10/100/1000 BASE-T
	Analog In	Line In		WiFi	Optional_dongle
	Analog Out	Pre-out_XLR, Pre-out_RCA		Bluetooth	Optional_dongle

Connectivity Bluetooth, DLNA, Airplay, Spotify Connect, Roon Ready

Design 430*316*123 mm / 13 kg / 14.9" Wide viewing angle touch screen / Color : Black, Silver



HiFi Network Streamer RS201 Series

- Reference Grade All-in-One Network Streamer
- Network Streamer + DAC + AMP
- Built-in High-Performance Power Amplifier(50W*2ch)
- High-Resolution Music Playback available(DSD256, PCM32bit/384kHz)
- A Femto Clock provides High Precision
- Digital equipment, preamplifier connection available
- Awarded the world's three major design awards(ReDDot, GOOD DESIGN, PIN-UP)

Hi-Res	DSD	Native DSD 256	In/Out Port	Headphone Out	3.5mm
	PCM	32bit / 384kHz		USB Out	USB A Type 3.0 / 2.0
In/Out Port	Digital In	Optical	Network Connection	AMP	50W X 2CH(4Ω)
	Digital Out	Optical		Ethernet	10/100/1000 BASE-T
	Analog In	Line In		WiFi	802.11 a/b/g/n/ac (2.4GHz/5GHz)
	Analog Out	Pre-out_RCA		Bluetooth	V4.0 / V3.0+HS
	HDMI Out	4K			

Connectivity Bluetooth, DLNA, Airplay, Spotify Connect, Roon Ready

Design 278*202*85 mm / 2.3 kg / 8.8" Wide viewing angle touch screen / Color : Silver



HiFi Media Player RS301

- High-end All-in-One Speaker
- Network Streamer + DAC + AMP + SPEAKER
- 3-Way full-range speaker configuration
- High-Resolution Music Playback available(DSD256, PCM32bit/384kHz)
- Powerful sound playback with dual passive woofer engine design(Patented technology)
- Awarded the world's three major design awards(ReDDot, PIN-UP, iF)

Connectivity Ethernet, WiFi, Bluetooth, DLNA, Airplay

Rear Micro USB, USB A Type, USB B Type, Micro SD, Headphone, AUX

Design 360*110*108 mm / 1.9 kg / 5" IPS touch panel / Color : Silver



Premium Media Player RS350

- Casual All-in-One Speaker
- Network Streamer + DAC + AMP + SPEAKER
- 3-Way full-range speaker configuration
- Playback of various file formats available (Music, Video, Image)
- Powerful sound playback with dual passive woofer engine design (Patented technology)

Connectivity WiFi, Bluetooth, DLNA, Airplay

Rear Micro USB, USB A Type, Micro SD, Headphone

Design 364*110*120 mm / 1.5 kg / 5" IPS touch panel / Color : White



HiFi ROSE CD Drive RSA780

- USB-isolator Adopted to block motion noise
- USB-B Type Port Adopted for HiFi Audio
- 900g weight for CD playback without external shaking
- Minimized Motion Noise by applying Insulators
- Provides CD Ripping Features

Rear USB B Type

Design 152*152*25 mm / 0.9 kg / Color : Silver



Innovative ROSE OS System



Spotify Connect

Spotify Connect allows you to play and wirelessly control Spotify music on your ROSE OS over a network. With the Spotify Connect function, you can enjoy a variety of music with Hi-Fi sound quality on your ROSE device.



Hi-Res Audio

HiFi ROSE devices are certified with a "High-Resolution Audio" license from the JAS (Japan Audio Society).



TIDAL

Enjoy music streaming and videos with TIDAL's unique features. Supports MQA Full Decoder, so you can enjoy high-resolution music.



4K Video

You can enjoy high-definition videos on YouTube, TIDAL, and Bugs, and play video files in various formats.



Qobuz

Enjoy music streaming with Qobuz's various functions. Support for Hi-Res Audio (24bit/192kHz) means you can enjoy high-resolution music.



MQA

Supports MQA's Full Decoder. Enjoy studio mastering sound quality.



Roon Ready

ROSE OS is fully compatible with Roon Core, with Roon Ready certification in compliance with all requirements of Roon Labs. You can enjoy Hi-Fi sound quality on your ROSE device with the powerful music management capabilities of Roon.



ROSE Tube

You can enjoy all content and music on YouTube.



Bugs

Listen to high-resolution music on Bugs. Easily connects existing functions, including login, playlists, and playback.



CD Player

Play CDs by connecting an external USB CD-ROM.



Radio

Listen to various Internet radio channels from around the world. Keep track of your favorite channels.



CD Ripping

Rip CDs by connecting an external USB CD-ROM and save them on a storage device.



ROSE Podcast

Listen to various podcasts from around the world.



Music Library

Manage your music files under various categories, such as albums, artists, and genres.



Clock

Various design clock functions are provided, such as alarms and weather information.



My Playlist

Create your own playlist. You can also register your friends and share it with them.

ROSE Connect Remote Application

A dedicated Remote App is provided that allows users to conveniently control and smartly manage their ROSE device. The Remote App is supported on various platforms, including the iPhone, iPad, Android phone, and PCs.

Control

You can freely and conveniently control various HiFi ROSE functions wirelessly.

Control You can control a variety of functions remotely including Music, ROSE Tube, TIDAL, Qobuz, Bugs, Radio, Podcasts, and CD Ripping.

Remote ROSE Connect includes the remote control function.

Search You can conveniently search for a variety of music in the media library.

Streaming

You can simply and easily play music stored on your phone on your ROSE device. Enjoy a lossless, high-quality streaming service.

Playlist

You can create your own playlist.

Make a playlist on Music and ROSE Tube and check it out at Home - My Music.

Share with Friends

You can share your playlists with your friends or listen to music recommended by them. Communicate with your friends through music.

Media Library

Scan the music in your local memory to organize it into various categories.



OWNER'S MANUAL

RS250 Product User Manual

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Safety Precautions

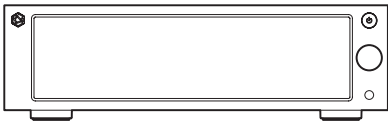
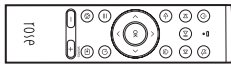
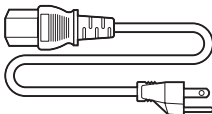



1. Warnings

- Do not apply excessive force to the product, throw it or impact it using sharp objects.
- For children, a guardian should explain to the child how to use the product properly and make sure that he or she is using it correctly.
- Use within a temperature range of 0°C - 40°C, and do not use in high-temperature or high-humidity conditions. If used in an environment below 0°C or in a high-temperature sealed environment such as a steam room, failure, corrosion, heat generation, or ignition may occur; therefore, do not place the product in an enclosed space, but install it in a well-ventilated location. In addition, moisture or liquid can damage the surface or circuits of the product.
- Be sure to use the genuine power cord provided by ROSE. Any other cord may cause operational errors or damage the product (leading to a deterioration in performance).
- Do not spill dust or liquid on the product. This may damage the parts or circuits. If the product gets wet, contact your nearest service center without turning on the power. However, the free aftersales repair service will not be available in this case.
- Do not connect the product to any antenna or accessory that is not guaranteed by ROSE, and do not place it on top of anything (iron desk, microwave oven, etc.) that may interfere with radio waves.
- Since the product is sensitive to radio waves, its performance may deteriorate if it is used in the vicinity of steel materials or equipment using electromagnetic waves.

2. Cautions

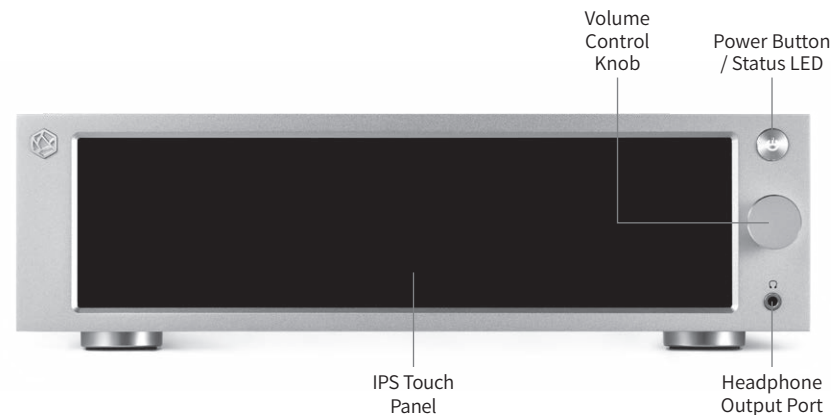
- The contents of this instruction manual are based on the initial settings of the product.
- Some functions of the user manual may be changed without prior notice to the user in order to improve product performance.
- Product features and supplementary services may vary depending on country, software specification restrictions, and service provider policy changes.
- User data (music, video files, etc.) may be erased in the case of repair due to the user's carelessness or a product malfunction. ROSE is not liable for damages caused by data loss.
- Using Bluetooth with a 2.4GHz wireless LAN may cause the WiFi connection to slow down due to signal interference or prevent Bluetooth audio from operating normally. When using these at the same time, it is recommended that you use the wireless LAN connection in the 5GHz band.
- Do not use chemical solutions (alcohol, thinner, solvent, etc.) or detergent to clean the product. Rubbing the product with a chemical solution may generate heat and cause fire. Wipe with a soft cloth or towel when cleaning.
- Do not disassemble, modify or repair the product at on your own. Our free aftersales services will not be available in such cases. If a malfunction occurs, please contact a designated service center for repair.
- Only programs provided by the manufacturer are available. Transferring randomly created files or user-modified files to the product can cause operational errors or serious product problems. ROSE is not liable for any issues stemming from such case.
- If the touchscreen is broken, do not touch it with your hands, as it may cause injury. Contact the service center.
- Install it close to an outlet to easily remove the plug.

List of Components

1	Main Body	
2	Bluetooth Remote Controller	
3	Power Cord	
4	Instruction Manual	
5	Screws for SSD Mounting	
6	AAA Batteries for Remote Controller	

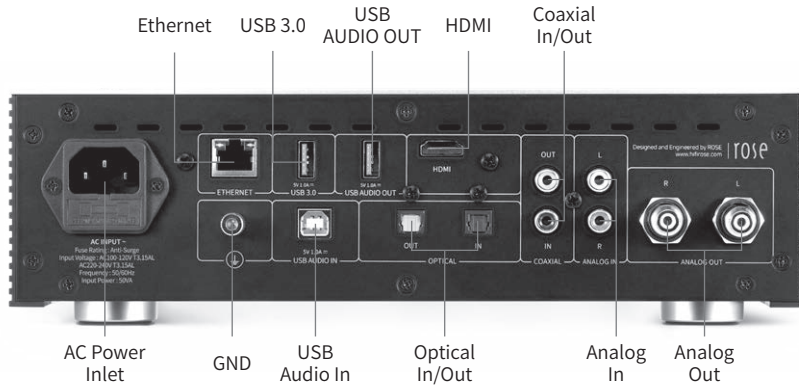
Button and Connection Locations / Functions

1. Front of the Product



Power Button / Status LED	When you press the power button, the LED flashes, and when booting is complete, the LED turns off. ※ See <i>Initial Settings - Power Button</i> for detailed functions (p. 33)
Volume Control Knob	You can adjust the volume by turning the volume control knob or dragging the volume up/down on the control screen. You can adjust the volume from 0 - 99 in 100 steps. Press on the volume control knob to mute the sound. ⚠ Caution : If you listen to music for a long time at a high volume, it may cause hearing damage.
Headphone Output Port	You can connect stereo 3-pole earphones and headphones(3.5mm). Once connected, check if the headphone icon(🎧) at the top of the screen lights up. You can choose the impedance of the headphones you are connecting on the main body settings menu. ※ <i>Simultaneous speaker and earphone output is not available.</i>
IPS Touch Panel	You can move the screen with multi-touching.

2. Rear of the Product



AC Power Inlet	Connect the AC power cable.
GND	This port is for connecting an external device to the product.
USB Audio In	You can use this product as a USB DAC on your computer after connecting this port to your computer using a USB B cable.
Optical In	Connect an optical cable to this port to receive digital signals(44.1 kHz - 192 kHz).
Optical Out	Connect an optical cable to this port to output digital signals(44.1 kHz - 192 kHz).
Analog In	Connect an RCA cable to this port to receive analog signals(max : 9.0 dBu / 2.2 Vrms).
Analog Out	Connect an RCA cable to this port to output analog signals(max : 9.0 dBu / 2.2 Vrms).
Ethernet	Connect a wired LAN cable to this port.
USB 3.0	Connect a USB storage device to this port to play music files, or connect a CD-ROM to use the ripping function.
USB Audio Out	Connect an external USB audio DAC device or a USB storage device to this port to play music files.
HDMI	Connect an HDMI cable to this port to output video signals(max. 3840x2160 /60 Hz) to your TV or monitor.
Coaxial In	Connect a coaxial cable to this port to receive digital signals(44.1 kHz - 192 kHz).
Coaxial Out	Connect a coaxial cable to this port to output digital signals(44.1 kHz - 192 kHz).

3. Remote Control



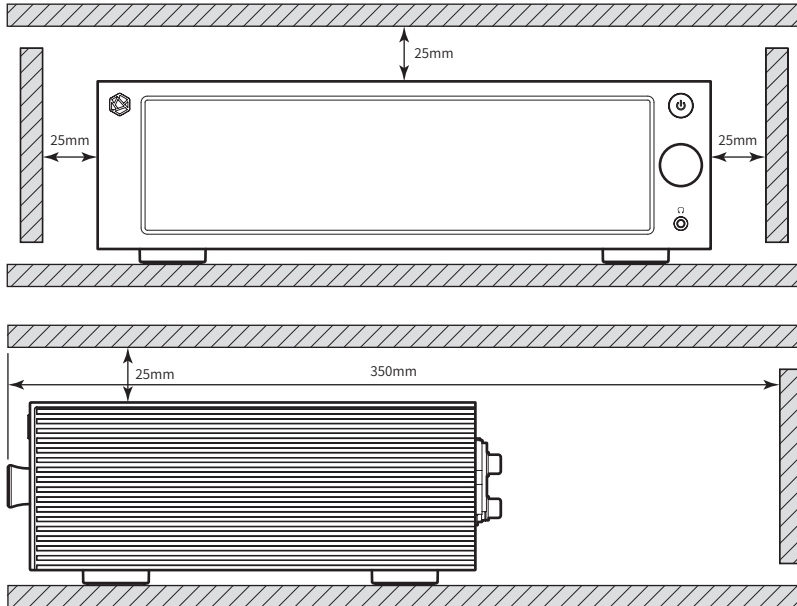
	Function	Note
1	Sleep Mode Function	Power ON/OFF
2	Mute Function	
3	Play Previous Track	Only works on the playback screen
4	Play or Pause Current Track	Only works on the playback screen
5	Play Next Track	Only works on the playback screen
6	Go Back	
7	Go to Home Screen	
8	Move Selection Up	
9	Move Selection Left	
10	Move Selection Right	
11	Move Selection Down	
12	Select	
13	Option Key	Only works for songs and videos with sub-options (favorites, queues, subscriptions) in the list
14	Sleep Timer	
15	Go to Favorites Menu	Go to the Favorites Menu set for this product
16	Go to External Input/Output Menu	Local, Optical, or Analog Change
17	Volume Down	Press and hold to adjust the volume down
18	Volume Up	Press and hold to adjust the volume up

※ The bluetooth remote controller has an average battery life of about 3~4 months. However, if the power is weak due to battery consumption, the product may malfunction; in this case, replace the battery before use.

Product Installation

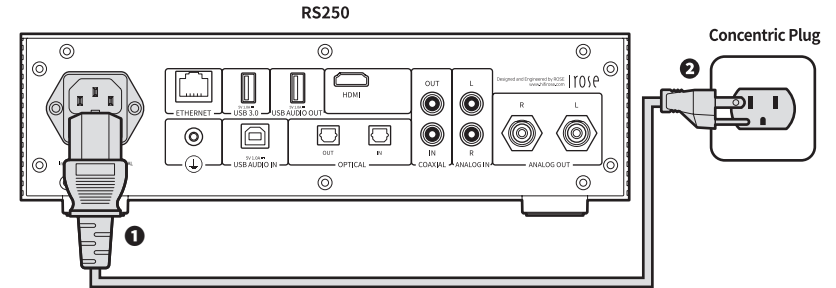
1. Product Design Direction and Installation Location

- This product is designed for proper use on a table or shelf.
- The product may malfunction due to high heat in the winter or summer. (Operating temperature : 0°C - 40°C / Storage temperature : -10°C - 50°C)
- If the installation space is small, make sure to provide adequate ventilation. You can ensure a longer life cycle for electronics by providing proper ventilation and taking care to avoid excess heat. Do not install this product directly above devices that produce heat, such as power amplifiers.
- The figure below show the minimum ventilation requirements.
- Maintain a gap of at least 2.5cm on each side of the product to prevent restrictions on air flow.
- Ensure a depth of 35cm for airflow and cabling.



2. How to Connect the Power Cord

- This product contains a removable power cord. Please connect the power cord after all other connections are completed. First, connect the power cord to the product's AC inlet port, and then connect it to an outlet.

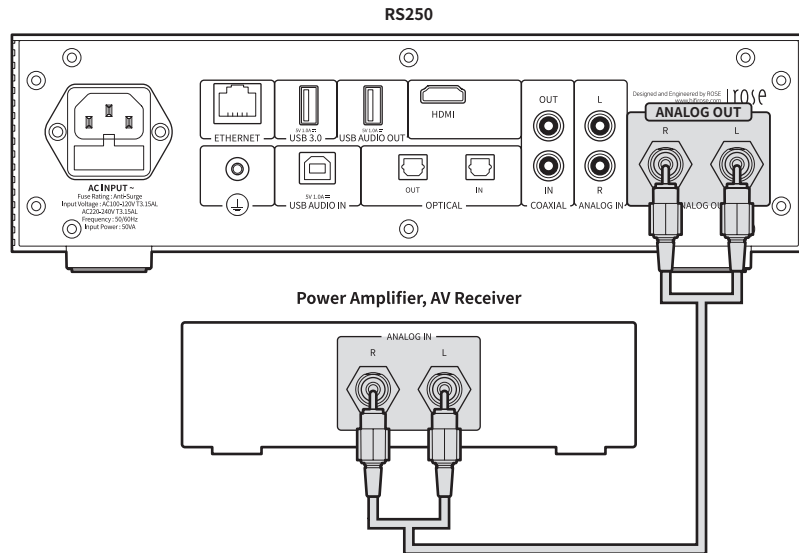


⚠ Caution : When disconnecting the power cord, always disconnect the outlet first.

3. How to Properly Connect the Rear Port and the Cable

3-1. Connecting the Analog Output Port and the Power Amplifier or AV Receiver

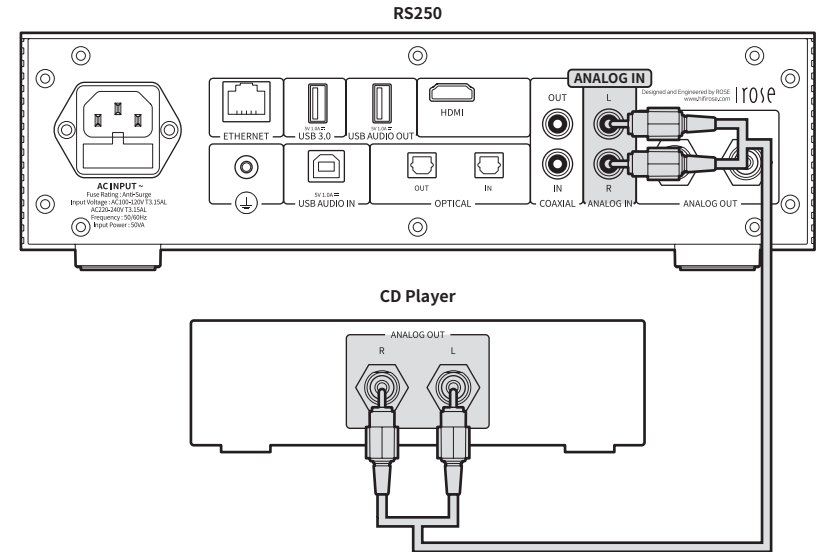
- You can connect the analog audio output of this product to the analog input of a power amplifier or AV receiver as shown below.
- You can select 'Variable' or 'Fixed' through the pre-out level settings to adjust the volume of the analog audio output of this product.



⚠ Caution : Before connecting the product to the power amplifier, set the volume to mute or below step 5 and then connect it using an RCA cable. When music is being played on this product with the volume turned up, a loud shock sound may occur when the cable is connected.

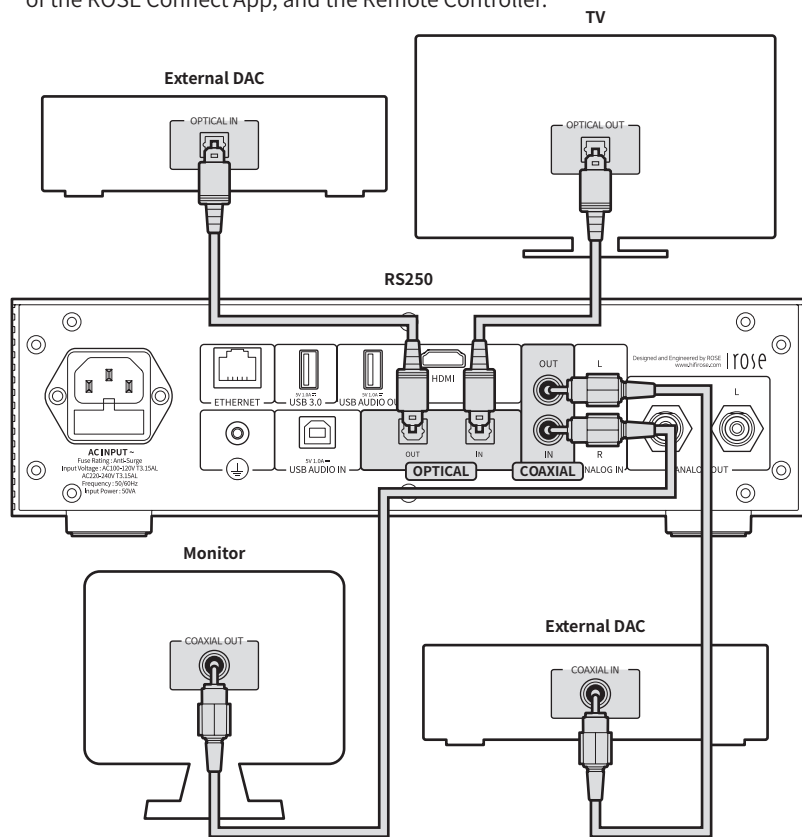
3-2. Connecting the Analog Input Port and the Audio Device

- As shown in the figure below, you can connect the analog output of an external device such as a CD player to the analog input of this product.
- When using the analog audio input as a source, you must switch the input source to 'ANALOG IN' in the Input/Output Settings. Input/Output Settings can be changed from the home screen, settings, settings of the ROSE Connect App, and the remote controller.



3-3. Connecting the Digital Input/Output Port and Audio Device (TV or Digital Input/Output Support Device)

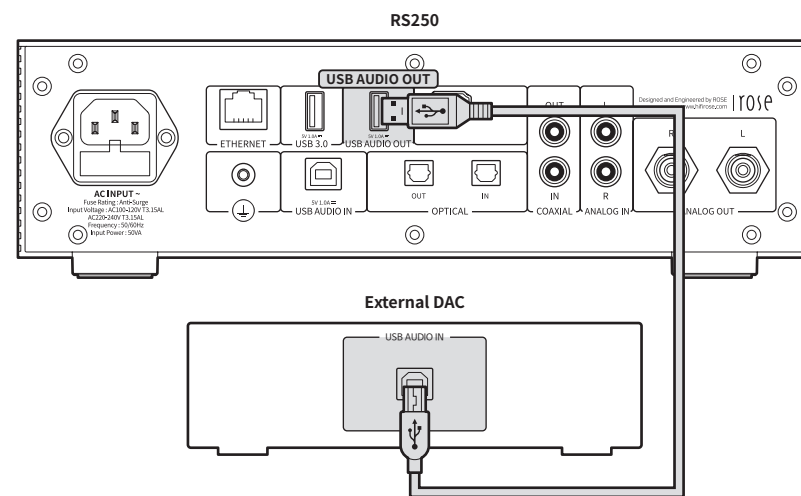
- As shown in the figure below, you can connect the digital input/output of an external device to the digital (Optical/Coaxial) input/output port of this product to use it.
- This product can reproduce linear PCM signals with sampling frequencies of 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz and 192kHz.
- When using a digital input, you need to switch the input source to 'Optical In' or 'Coaxial In' in the Input/Output Settings.
- To export digital output, the output mode must be set to 'Optical Out' or 'Coaxial Out' in the Input/Output Settings.
- Input/Output Settings can be changed from the home screen, Settings, Settings of the ROSE Connect App, and the Remote Controller.



⚠ Caution : Do not input signals other than linear PCM signals such as Dolby Digital, DTS, AAC, etc., into this device. Doing so may generate noise and damage the speaker.

3-4. Connecting the USB Audio Output Port and the External DAC

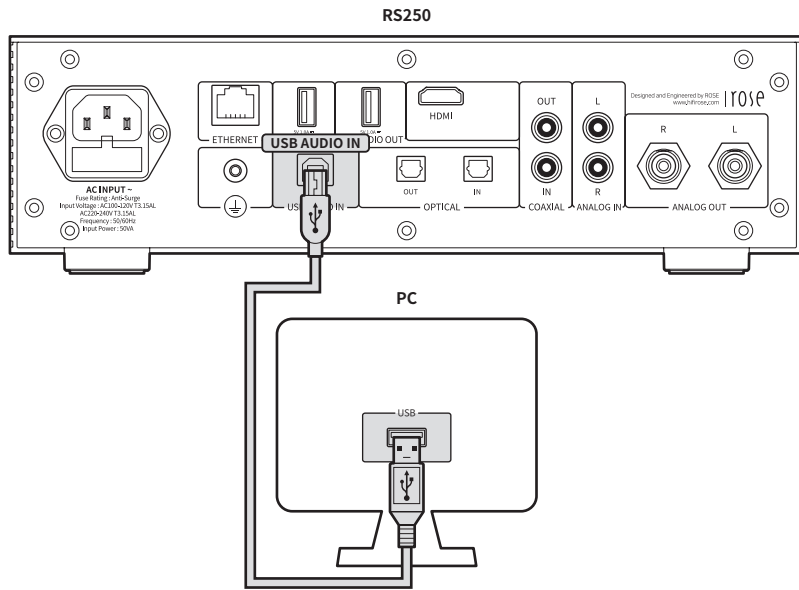
- This product has a USB Audio Out terminal that allows you to connect a separate USB DAC.
- After connecting an external USB DAC to the USB Audio Out terminal of the product, you must activate the output device as an external USB DAC in the Input/Output Settings.



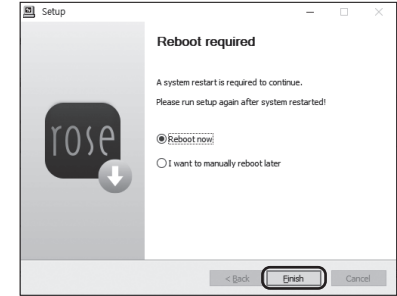
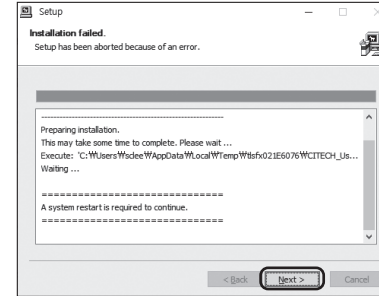
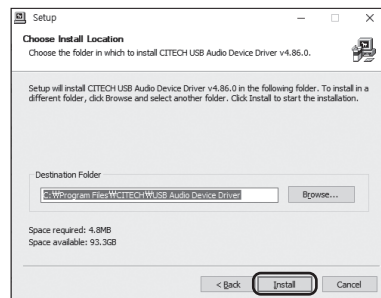
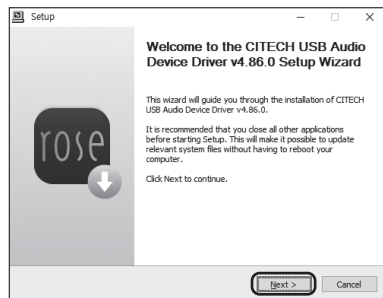
※ This product complies with the USB Audio Class 2.0 standard.

3-5. How to Connect the USB Audio IN

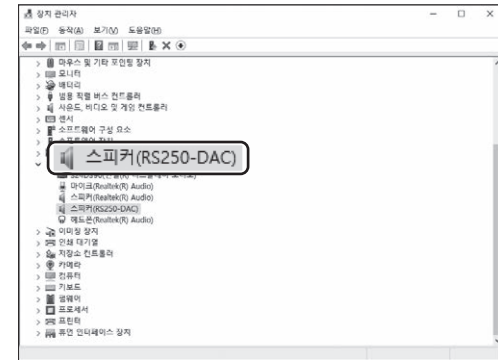
- Connect the device as shown in the figure below.



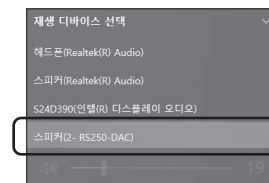
- **3-5-1.** Download Rose_UsbAudio_v4.86.0.zip from the ROSE website (www.hifirose.com).
- **3-5-2.** When you unzip the downloaded Rose_UsbAudio_v4.86.0 file and run Rose_UsbAudio_v4.86.0.exe, a screen will appear as shown in the image below. Select Next.



- **3-5-3.** Reboot after installing the USB Audio Sound and universal serial bus controller.
- **3-5-4.** After driver installation is complete, when you switch the source to 'USB IN' in the Input/Output Settings, the RS250-DAC will appear on your PC as shown below.



- **3-5-5.** Once you set the sound device to RS250-DAC in the system tray area of your PC, the USB IN is ready for use.



4. External Memory(USB) and SATA Storage

- This product can connect to USB and SATA storage devices.
- When connecting a storage device using the SATA method, it is recommended that you use an SSD.
- USB storage devices are compatible up to 10TB and SATA storage devices up to 4TB.

※ SSD must be purchased separately and only products of 7mm thickness can be used.

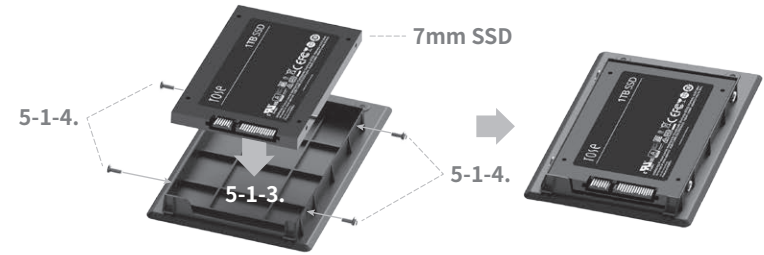
5. How to Connect an SSD

5-1. How to insert the SSD

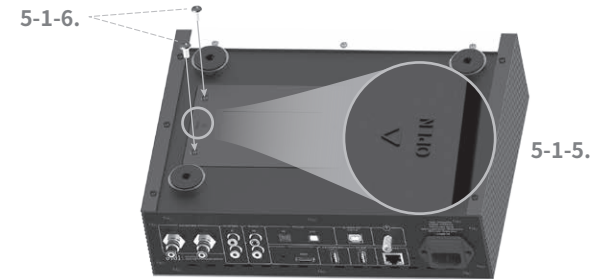
- **5-1-1.** Remove the SSD Cover Screws(2pcs) on the bottom of the main body.
- **5-1-2.** Remove the SSD Cover by pushing on the OPEN indicator.



- **5-1-3.** Set the SSD to the connection port on the SSD Cover.
- **5-1-4.** Fix the SSD to the SSD cover with the SSD Mounting Screws(4pcs).



- **5-1-5.** Assemble SSD cover with the SSD on the main body.
- **5-1-6.** Re-fix the screws(2pcs) after pushing on the LOCK indicator.



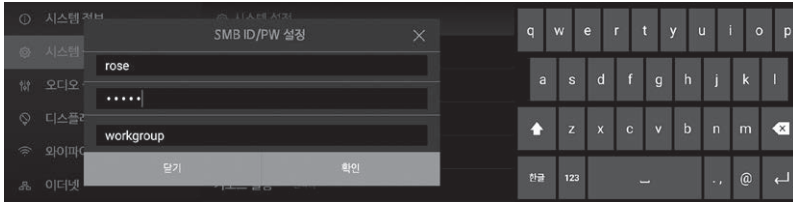
5-2. How to Format After Installing the SSD

- You can format any SSD connected to this product from the SSD Format menu under System Settings.



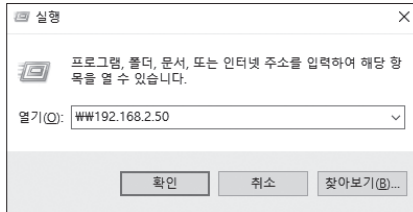
5-3. How to copy files over the Network

- Set the SMB ID/PW in Storage Settings under System Settings.



- After entering **WROSE** IP on your PC, enter the ID/PW that you set up for the SMB. Any storage connected with this product will appear and you will be able to copy the files directly from your PC.

※ To connect to the SMB of this product from a PC, both devices must be connected to the same network.



6. Network Connection

- This product can be connected to a network via a wired or wireless connection.

6-1. Ethernet Connection(Wired)

- After connecting a LAN to the rear Ethernet port, select ON from the Settings - Ethernet menu to connect to the network.
- When connected normally, the IP address and other information are received automatically.

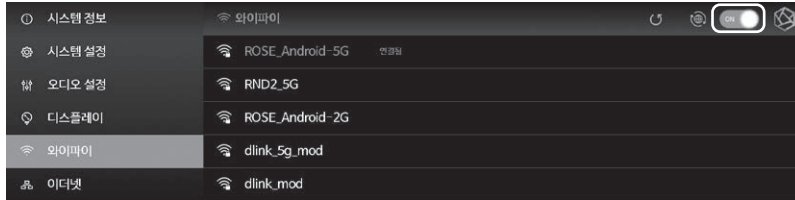


- **6-1-1.** After connecting the ethernet cable, you will be able to use this product as a WiFi hotspot. After entering the network name and password, you can enable the hotspot function to allow other devices to connect to this WiFi hotspot using the password.

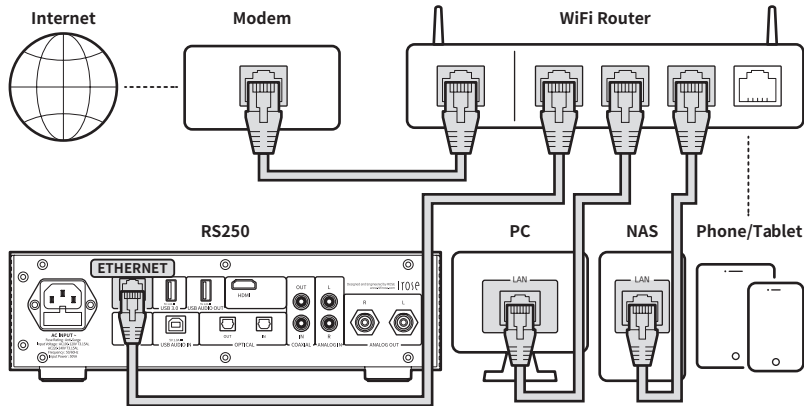


6-2. WiFi Connection(Wireless)

- When WiFi is turned On in the Settings - WiFi menu, currently available SSIDs appears and the product connects to the network after one of the SSIDs is selected.



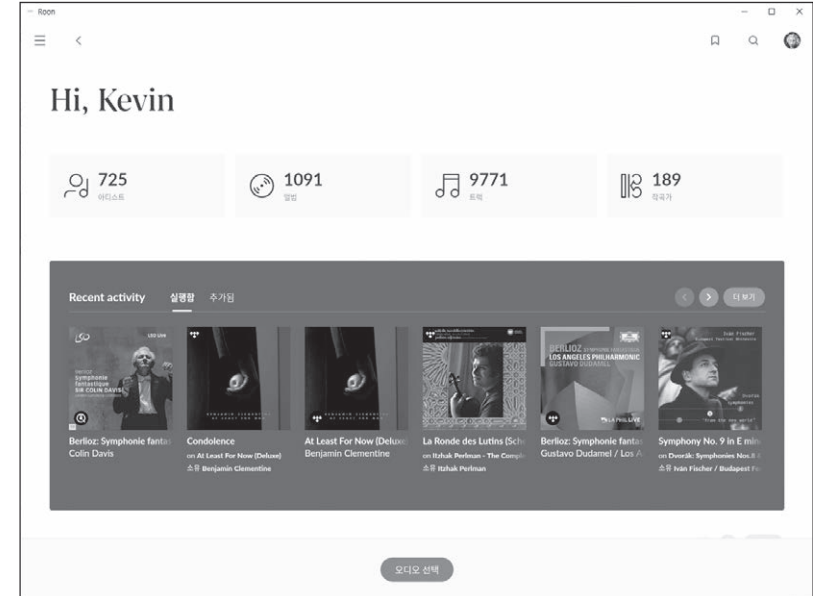
※ You can remotely control this product by downloading and installing the ROSE Connect Premium App available through the Google Play Store and App Store on your smartphone.



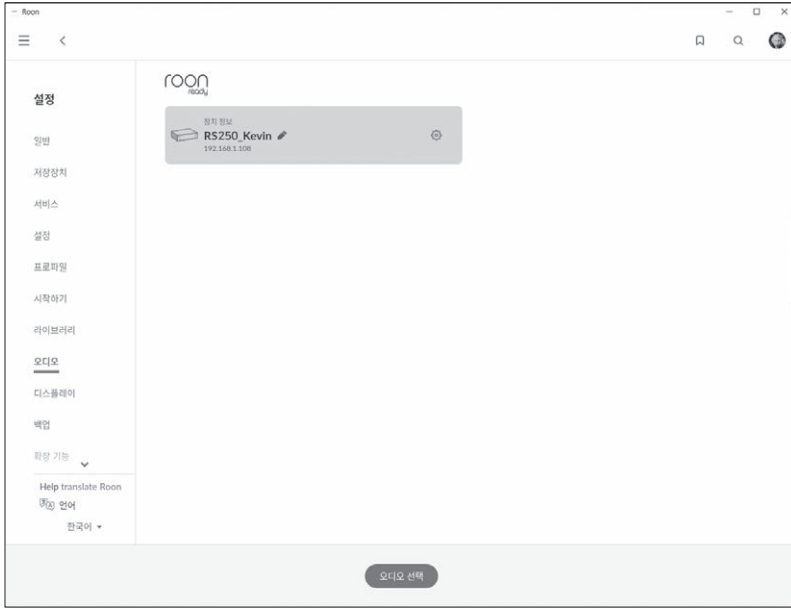
※ To control this product on your smartphone(ROSE Connect Premium), it must be connected to the same network.(You can configure a single network using wireless network extenders, bridges, etc.)

7. How to Connect Roon Ready

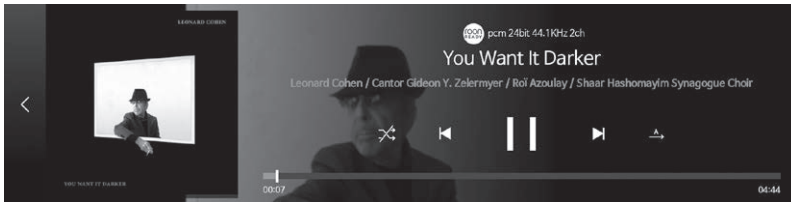
- To use Roon, first access the website(<http://roonlabs.com>) and create an account. Download Roon Core and install the software on your PC.
- Various tracks managed by Roon Core will appear.



- Select this product from 'Select Audio' under Settings - Audio.






- Once connecting with ROSE is completed, you can control and listen to the sound source by running the music in Roon.



※ To control this product from Roon, it must be connected to the same network.

Initial Settings

1. Power Button

- **1-1.** You can turn this product on and off by pressing the power button briefly.
 - 1-1-1.** When the power button is pressed briefly, the product enters standby mode when the power is on, or is turned on when the power is off.
 - 1-1-2.** If you press the power button during booting, the product will turn off.
- **1-2.** Press the power button for 3 seconds to display the [Screen OFF | Shutdown | Reboot] menu.
 - 1-2-1.** LCD OFF(): The sound is played and only the screen turns off. If you press the power button again while the LCD is off, the screen turns on.
 - ※ This function can only turn off the screen while the product is in use.
 - 1-2-2.** Shutdown(): The power will be turned off.
 - 1-2-3.** Reboot(): The product will turn off and on and then display the home screen.

※ If you touch a screen other than the menu, it will be canceled.

- **1-3.** Power button LED status : Screen on (LED OFF) / Screen off (LED ON)
- **1-4.** Pressing the power button for 5 seconds will force a reboot.

2. Input/Output Settings

- Select the 'Input/Output Settings' icon on the main screen to move to the Input/Output Settings menu.



2-1. INPUT

- You can select an Input by selecting the icon from the INPUT Settings menu. When activated, the icon color changes to gold and a check mark appears.

※ Only one input can be selected at a time.

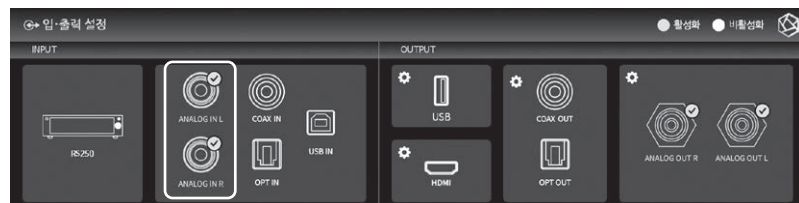
2-1-1. RS250

- Set this product to Internal mode. Select this as the default setting mode at initial startup when using a music or streaming source from a storage device.
- If an external input is in use, it is automatically selected if you play the music or stream on the storage device.



2-1-2. ANALOG IN

- When using Analog Audio Input as a source, select the input source as 'ANALOG IN' under Input/Output Settings.



2-1-3. COAX IN

- When using COAX IN as a source, select the input source as 'COAX IN' under Input/Output Settings.



2-1-4. OPT IN

- When using OPT IN as a source, select the input source as 'OPT IN' under Input/Output Settings.



2-1-5. USB IN

- When connecting this product to a PC and using it as a USB DAC, select the source as USB IN under Input/Output Setting.

※ Please refer to 'Product Installation - How to Connect USB Audio IN'.

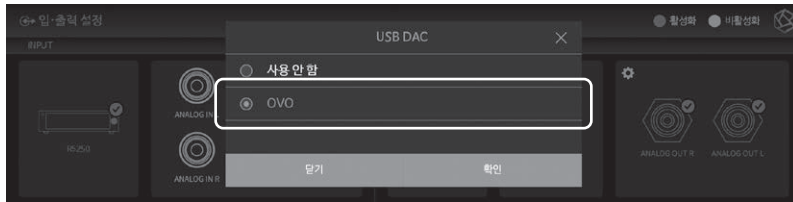


2-2. OUTPUT

- You can enable/disable Output Settings by selecting the icon in the Output Settings menu.
- When activated, the icon color changes to gold and a check mark appears. Only one of USB, HDMI, and Internal DAC can be selected.
- For Internal DAC, you can enable multiple output ports.

2-2-1. USB DAC

- When you connect a USB DAC and select USB, a list of connected USB DACs appears. Select the USB DAC you want to use from the list.



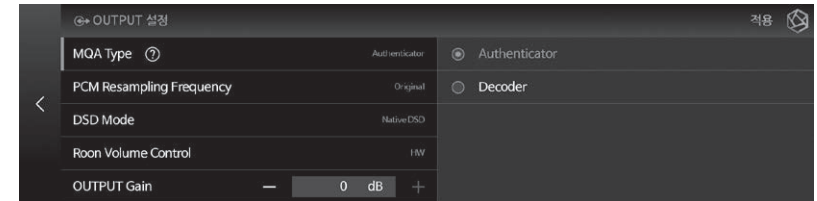
- If you select USB DAC, the model name of the selected USB DAC appears and becomes available.



- If you select the USB DAC Setting icon, the following USB DAC Setting screen appears.

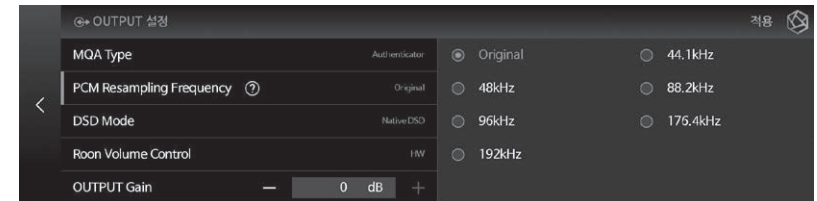
2-2-1-1. MQA Type

- Set the MQA playback mode. You can select Authenticator or Decoder mode.
- Only original sound or decoded audio data can be exported to digital output; full-decoded audio data cannot be exported.



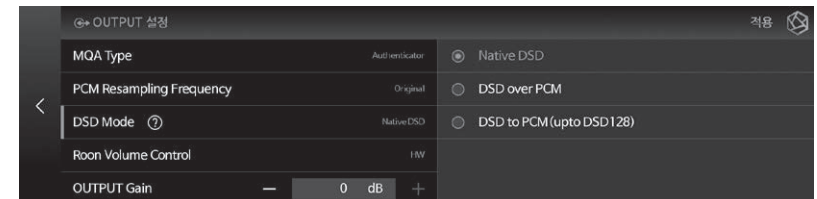
2-2-1-2. PCM Resampling Frequency

- This is the menu for Setting the Sampling Frequency. Select Original Sampling Rate if you want to output the original sound, or select your desired sampling rate(48kHz, 96kHz, 192kHz, etc.) to use the re-sampling function.



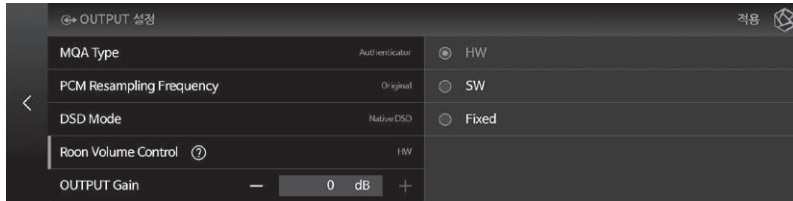
2-2-1-3. DSD Mode

- Select the transmission format(Native, DOP, PCM) of audio samples to be delivered to the DAC when playing DSD music files. For USB DACs, you must select and use Native, DOP, or DSD to PCM to play DSD music files, depending on whether or not the DAC you connected to is supported.



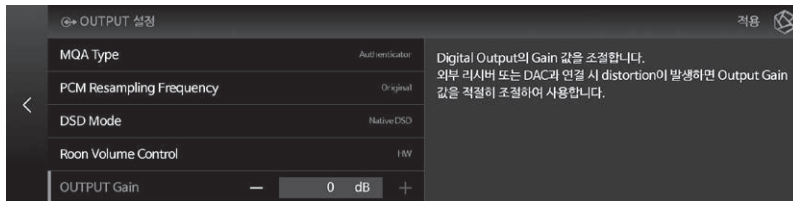
2-2-1-4. Room Volume Control

- Select the volume control method(Hardware, Software, Fixed) in Room Ready mode. You can select Hardware/Software/Fixed for USB DAC, but if the USB DAC does not support the hardware volume control function, the volume will not be adjusted when 'Hardware' is selected.



2-2-1-5. OUTPUT Gain

- Adjust the gain value for Digital Output. If distortion occurs when connecting to an external receiver or DAC, adjust the Output Gain value accordingly.



2-2-2. HDMI

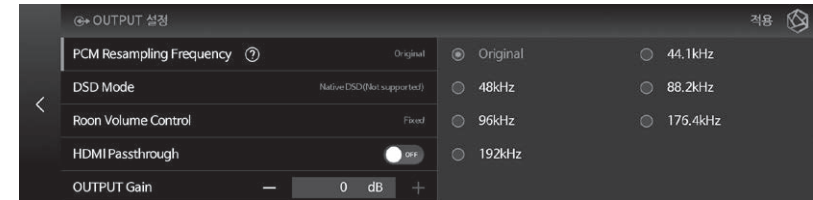
- You can set up HDMI.



- When you select the setting icon for HDMI, the HDMI Settings screen appears as shown below.

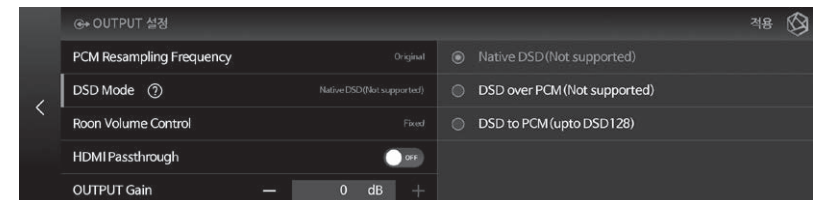
2-2-2-1. PCM Resampling Frequency

- This is the menu for Setting the Sampling Frequency. Select 'Original Sampling Rate' if you want to output the original sound, or select the desired sampling rate(48kHz, 96kHz, 192kHz, etc.) to use the re-sampling function.



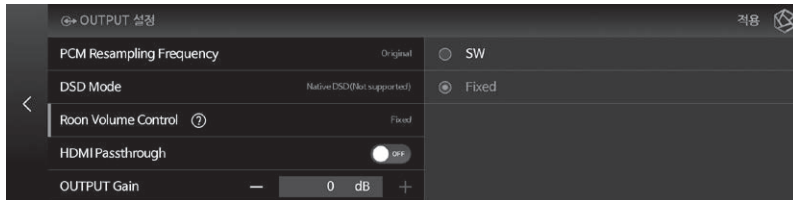
2-2-2-2. DSD Mode

- Select the transmission format(Native, DOP, PCM) of Audio Samples to be delivered to the DAC when playing DSD music files. For HDMI output, only DSD to PCM is possible.



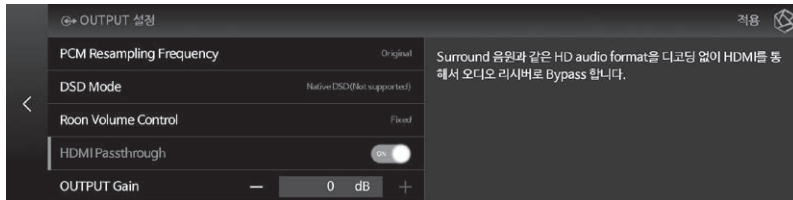
2-2-2-3. Roon Volume Control

- Select the volume control method(Hardware, Software, Fixed) in Roon Ready mode. For HDMI Output, you can select from 'Software' or 'Fixed'.



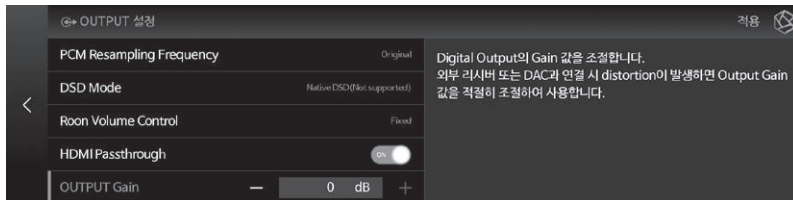
2-2-2-4. HDMI Passthrough

- This bypasses HD Audio Formats such as Surround Sound Files to the Audio Receiver through HDMI without decoding.



2-2-2-5. OUTPUT Gain

- Adjust the Gain Value for Digital Output. If distortion occurs when connecting to an external receiver or DAC, adjust the Output Gain Value accordingly.



2-2-3. Digital

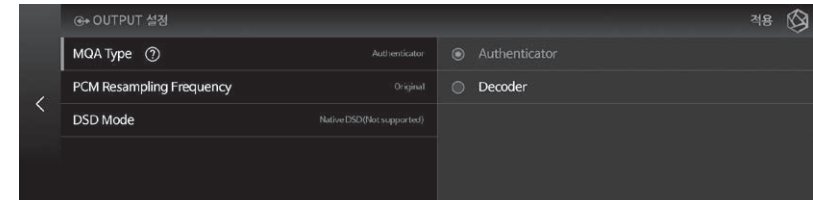
- Here you can set COAX OUT and OPT OUT.



- If you select the Digital Setting icon, the Digital Output Settings screen appears as follows.

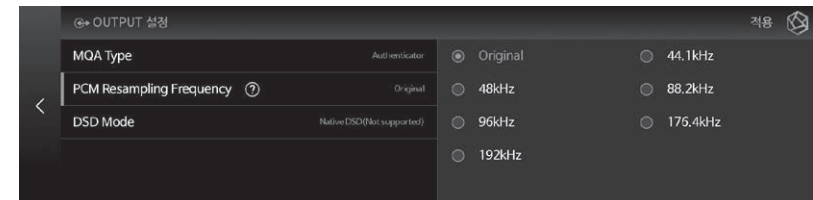
2-2-3-1. MQA Type

- Set the MQA playback mode. You can select Authenticator or Decoder mode. Only original sound or decoded audio data can be exported to digital output; full-decoded audio data cannot be exported.



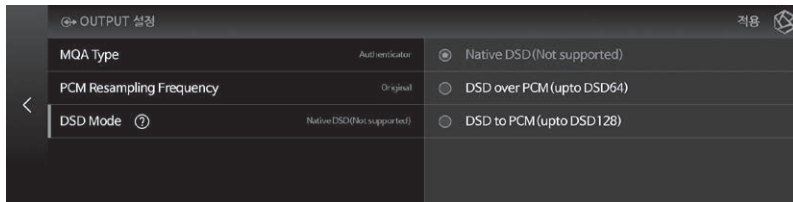
2-2-3-2. PCM Resampling Frequency

- This is the menu for setting the sampling frequency. Select 'Original Sampling Rate' if you want to output the original sound, or select the desired sampling rate(48kHz, 96kHz, 192kHz, etc.) to use the re-sampling function.



2-2-3-3. DSD Mode

- Select the transmission format(Native, DOP, PCM) of Audio Samples to be delivered to the DAC when playing DSD music files.
- In Native mode, Analog Output supports up to DSD512 when playing DSD, but Digital Output does not produce sound.
- In the case of DOP mode, no sound is produced through Analog Output, and audio data is transmitted up to DSD256 through Digital Output. For Optical and COAX, up to DSD64 is supported.
- The DSD to PCM mode supports up to DSD128 and sounds simultaneously from Digital and Analog Outputs.



2-2-4. Analog

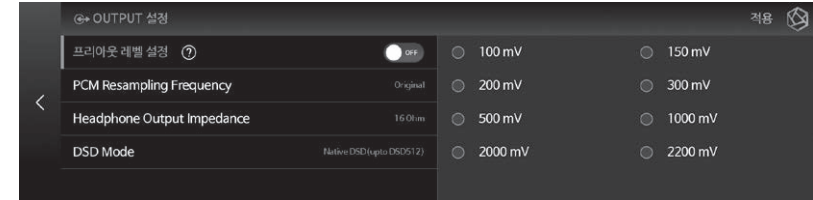
- You can set up the Analog Out.



- If you select the Analog Setting icon, the Analog Output Settings screen appears as follows.

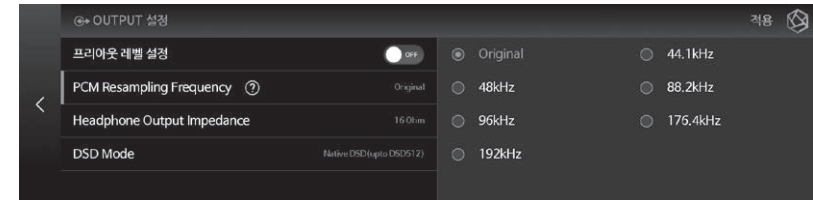
2-2-4-1. Pre-Out Level Settings

- This fixes the Pre-Output Level. This product can be used by fixing the Output Level with inputs within the acceptable range of the AMP connected, without using volume control.



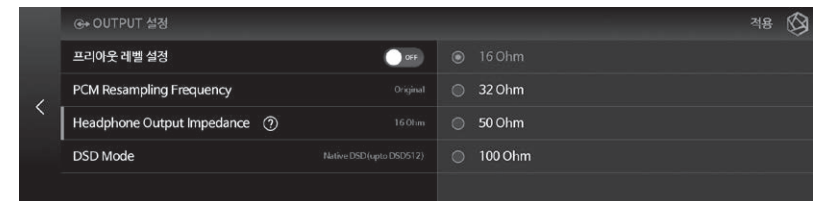
2-2-4-2. PCM Resampling Frequency

- This is the menu for setting the Sampling Frequency.
- Select 'Original Sampling Rate' if you want to output the original sound, or select the desired Sampling Rate(48kHz, 96kHz, 192kHz, etc.) to use the re-sampling function.



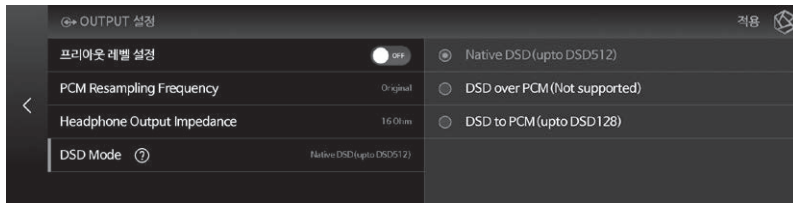
2-2-4-3. Headphone Output Impedance

- This is the menu for setting the Output Impedance of your headphones.
- You can enjoy better sound quality by selecting the Output(16Ω, 32Ω, 50Ω, or 100Ω) that matches your headphone specifications.



2-2-4-4. DSD Mode

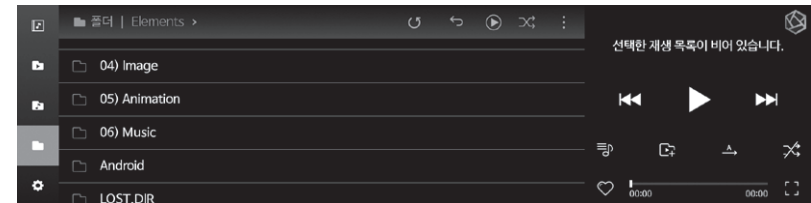
- Select the transmission format(Native, DOP, PCM) of Audio Samples to be delivered to the DAC when playing DSD music files.
- In Native mode, Analog Output supports up to DSD512 when playing DSD, but Digital Output does not produce sound.
- In the case of DOP mode, no sound is produced through Analog Output, and Audio Data is transmitted up to DSD256 through Digital Output. For Optical and COAX, up to DSD64 is supported.
- DSD to PCM mode supports up to DSD128 and sounds simultaneously from Digital and Analog outputs.



Playback

1. Basic Operation

- You can play Music and Video files by connecting a USB storage device to a USB port on the back of this product.
- SATA HDD/SSD can be installed at the bottom of this product.
※ Thickness : 2.5inch/7mm
- You can play files on the storage device by entering the 'Music/Video' - 'Folder' tab.

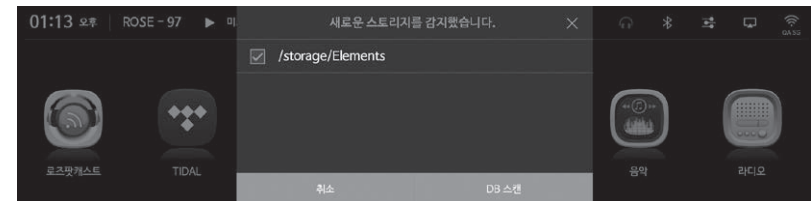


2. Media Library

- You can save Music using the storage media or network shared folder as a Library(DB) by scanning the media.

2-1. Media Scan Operation

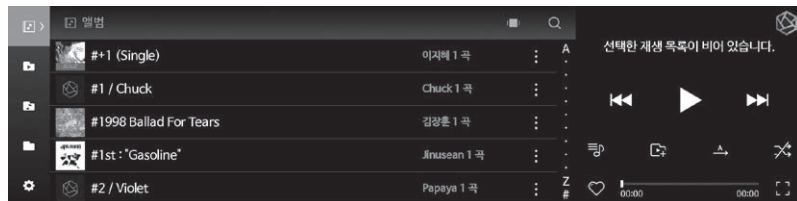
- When you connect a new storage device to a USB port on the rear of the device, a new storage detection pop-up appears.



- When you select the 'DB Scan' button in the new storage pop-up, media scanning of the connected storage device begins. (Depending on storage capacity, the time to complete media scanning may vary.)
- During DB scanning, the 'analyzing media' loading image is displayed at the bottom left of the main screen of the product.



- After the DB scan is complete, the album art and list of Music and Videos is displayed, and you can play the music.
- You can also add, research, and delete DBs through the Music/Video and Settings menus.



2-2. After Completing the Media Scan

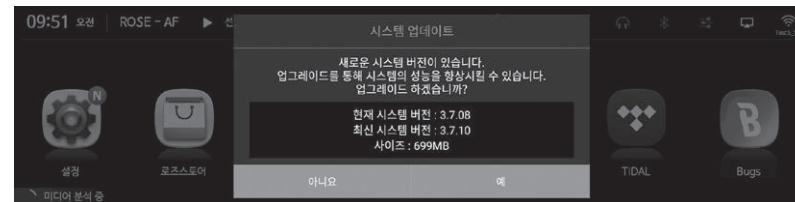
- The list of albums is displayed using the album art, and you can play the entire track list for an album.
- You can sort and play music by album, artist, genre, and composer.
- You can search for music by artist and album name.
- You can save your favorite music and albums using the Playlist and Favorite features.

Supplementary Information

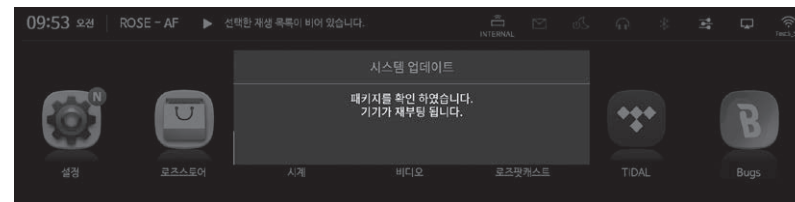
1. Firmware Update

1-1. OTA Update Progress

- The system update pop-up appears when connected to the network if a new update is available.



- If you select the 'Yes' button in the system update pop-up, the OTA update will begin.



- After rebooting, the SW system update is complete.

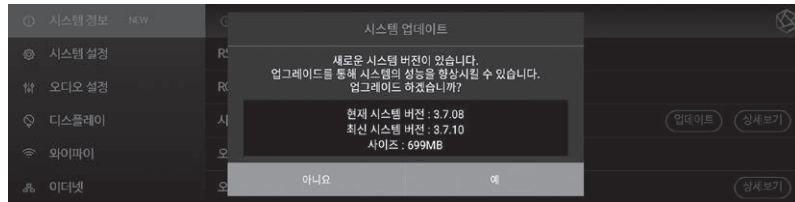
⚠ **Caution** : Forcibly turning off the power during the update may cause problems.

1-2. Update via the Settings Menu

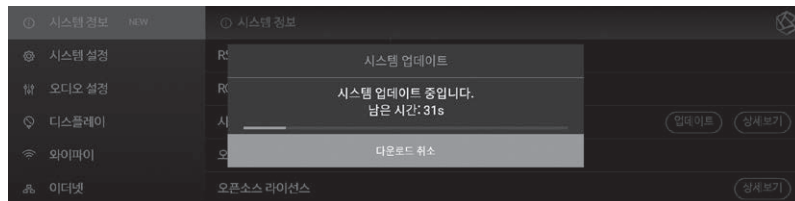
- Whenever a newer version is available, the 'Update' button is displayed in the system version information in the Settings menu.



- When you select the update button, the system update pop-up appears.



- If you select the 'Yes' button in the system update pop-up, the OTA update will begin.

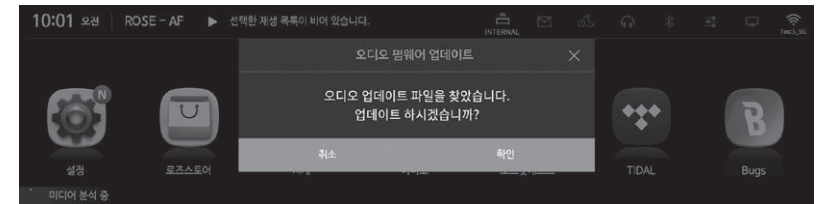


- After rebooting, the SW system update is complete.

⚠ **Caution** : Forcibly turning off the power during the update may cause problems.

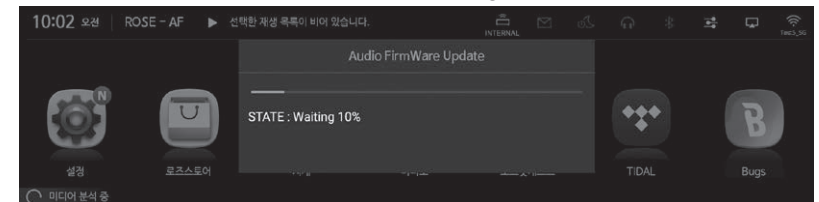
1-3. How to Install the MCU when an Update Pop-Up Appears

- If A Firmware Update is available after the System Update, the Update window will be automatically displayed and you can proceed with the Firmware Update.
- Firmware Updates may require two or more reboots, and if additional Firmware Updates are required, an Update window will appear again.

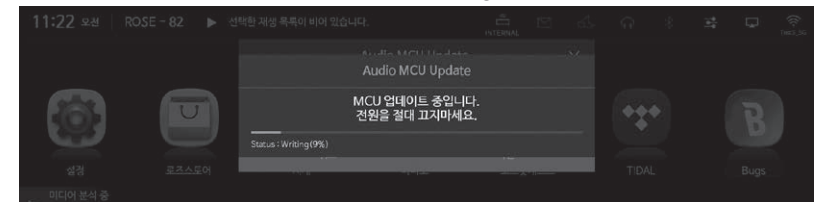


- When you select 'Yes', the Update Installation Progress Pop-up(Progress Rate) is displayed.

<XMOS Firmware Update Progress Pop-Up>



<MCU Firmware Update Progress Pop-Up>



- The firmware Update is complete after the System reboots following installation.

⚠ **Caution** : Forcibly turning off the power during the update may cause problems.

2. Factory Reset

- A Factory Reset is recommended when the product does not work or Internet Firmware Upgrade fails. Upon factory reset, all custom settings, including DB scan data, settings and storage data for each app, apps installed through the ROSE Store, WiFi network settings, shared files, and saved playlists, are reset. Reset is required after a factory reset.
- This product can be reset or restored to its factory settings.
- You can return it to the factory settings by going to Settings - System Settings - Factory Reset.

Product Specifications

1. Specifications

Part		Specifications
OS		Customized Android 7.1
Design	Size	278(W) x 202(D) x 76(H)mm
	Weight	3.2kg
	Display	8.8" TFT LCD & Capacitive Touch Screen (MIPI-DSI)
CPU	Hexa Core CPU	Dual-core Cortex-A72 up to 1.8GHz Quad-core Cortex-A53 up to 1.4GHz
GPU		Mali-T864 GPU, OpenGL ES1.1/2.0/3.0/3.1, OpenVG1.1, OpenCL, DX11
Memory		LPDDR3 4GByte
Network Connection	Ethernet	10/100/1000 BASE-T
	WiFi	802.11 a/b/g/n/ac (2.4GHz/5GHz)
	Bluetooth	V4.0 / V3.0+HS
Audio Service	Streaming	Airplay / DLNA / Roon Ready / Spotify Connect
	Music Service	TIDAL / Qobuz / Bugs / ROSE Tube / Internet Radio / ROSE Podcast
In/Output	Audio Input	Optical x 1, Coaxial x 1, Analog-In x 1, USB DAC x 1
	Audio Output	Optical x 1, Coaxial x 1, Analog-Out x 1
	Video Output	HDMI 2.0 x 1(up to 3840 x 2160 / 60Hz)
	Media Connection	File System : NTFS / exfat / FAT32 Network Protocol : SMBv1, SMBv2 / FTP / WebDav Storage Interface : USB3.0 x 2, SATA x 1
Supported Codec	Audio	MQA, WAV, FLAC, AIFF, WMA, MP3, OGG, APE, DFF, DSF, AAC, CDA, AMR, APE, EC3, E-EC3, MID, MPL, MP2, MPC, MPGA, M4A, ALAC PCM : 8kHz~768kHz(8/16/24/32bit per Sample) Native DSD : DSD64(2.8MHz)/DSD128(5.6MHz)/DSD256(11.2MHz)/ DSD512(22.4MHz)
	Video	ASF, AVI, MKV, MP4, WMV, MPEG-1, MPEG-2, MPEG-4 H.263, H.264, H.265, VC-1, VP9, VP8, MVC, H.264/AVC, Base/Main/High/High10 profile@level5.1 up to 4Kx2K@30fps H.265/HEVC, Main/Main10 profile@ level 5.1 High-tier up to 4Kx2K@60fps

Power	Input Voltage	AC100-120, AC220-240V 50/60Hz
	Input Power	50VA
	Fuse	T3.1AL / 250V
Update		SW update via internet, USB OTA, ROSE Store
Remote Control Feature	Remote Controller	Bluetooth Remote Controller
	Remote App	ROSE Connect (Android, iOS) / Google PlayStore, App Store
Accessory		Power Cord x 1, Bluetooth Remote Controller x 1 (AAA Battery x 2), Manual x 1, SSD Screw x 4

2. Analog Audio Specifications

DAC Chip	
ES9038Q2M(ESS) x 1 (Single Stereo Design)	
Analog In	
Input Impedance	100kΩ
Input Frequency Response	20Hz to 20,000Hz(+/-0.5dB)
Maximum Input Level(20Hz~20kHz)	Max 2.0Vrms
Preout	
DAC Chip	ES9038 Q2M(ESS) x 1(Single Stereo Design)
Output level	Max 2.3Vrms, Unbalanced
THD	0.0002%(1kHz 2.3Vrms Unbalanced output)
THD + N	0.0003%(1kHz 2.3Vrms Unbalanced output)
IMD	-102dB(SMPTE 4 : 1, 60Hz : 7KHz)
Signal to Noise Ratio	116dB(A-wt)
Dynamic Range	Max 126 dB(CCITT filter)
Stereo Crosstalk	Better than -133dB, 20~20kHz
Output Frequency Response	20Hz to 20,000(+/-0.5dB)
Output Impedance	100Ω
Headphone	
Output Power	1Vrms/32Ω(MAX 2Vrms/300Ω)
Output Impedance	16~600Ω
Digital Audio Specifications	
Digital Input Signal Format	SPDIF (PCM)
Digital Input Sample Rate	44.1kHz to 192kHz, 32bit
Coaxial Inputs	0.5V p-p/75Ω
Optical Inputs	-27dbm to -17dbm (TOS Link)

Quality Guaranteed

Model Name	RS250			
Date of Purchase	20	Year	Month	Date
Place of Purchase	Firm Name			
	Telephone			
Serial No.				
Telephone				
Term of Guarantee	1 Year from the Date of Purchase			

- Name of the Company that Received the Conformity Assessment : Citech Co., Ltd.
- Manufacturer/Country of Manufacturer : Citech Co., Ltd./Korea
- Identification Code of the Certified Company: SYH
- Certification No. : R-R-SYH-RS250

Things to check before contacting a service center

- Please restart the product if touching does not work or if the screen freezes. If you press and hold the power key for longer than 5 seconds, the product will be forcibly rebooted.
- In small spaces that are not suitable for product installation conditions(p. 18), heat can cause the product to heat up and affect the life and performance of the product.
- When the device is connected to the Internet, the sound may be cut off during playback if the radio waves are unstable or weak, or if Internet usage is heavy, and there may be delays or lack of connection with wireless Internet due to the nature of wireless communication. In such a case, please move your device to another location and try to reconnect.
- Content-specific files are optimized according to product characteristics, design specifications, and business needs. Therefore, even with the same content, there may be differences in volume, tone, etc., compared to other manufacturers and other models.

Product website : www.hifirose.com

- Through the newsletter, you can get information on ROSE's latest news, events, and new products.



Memo

Memo
