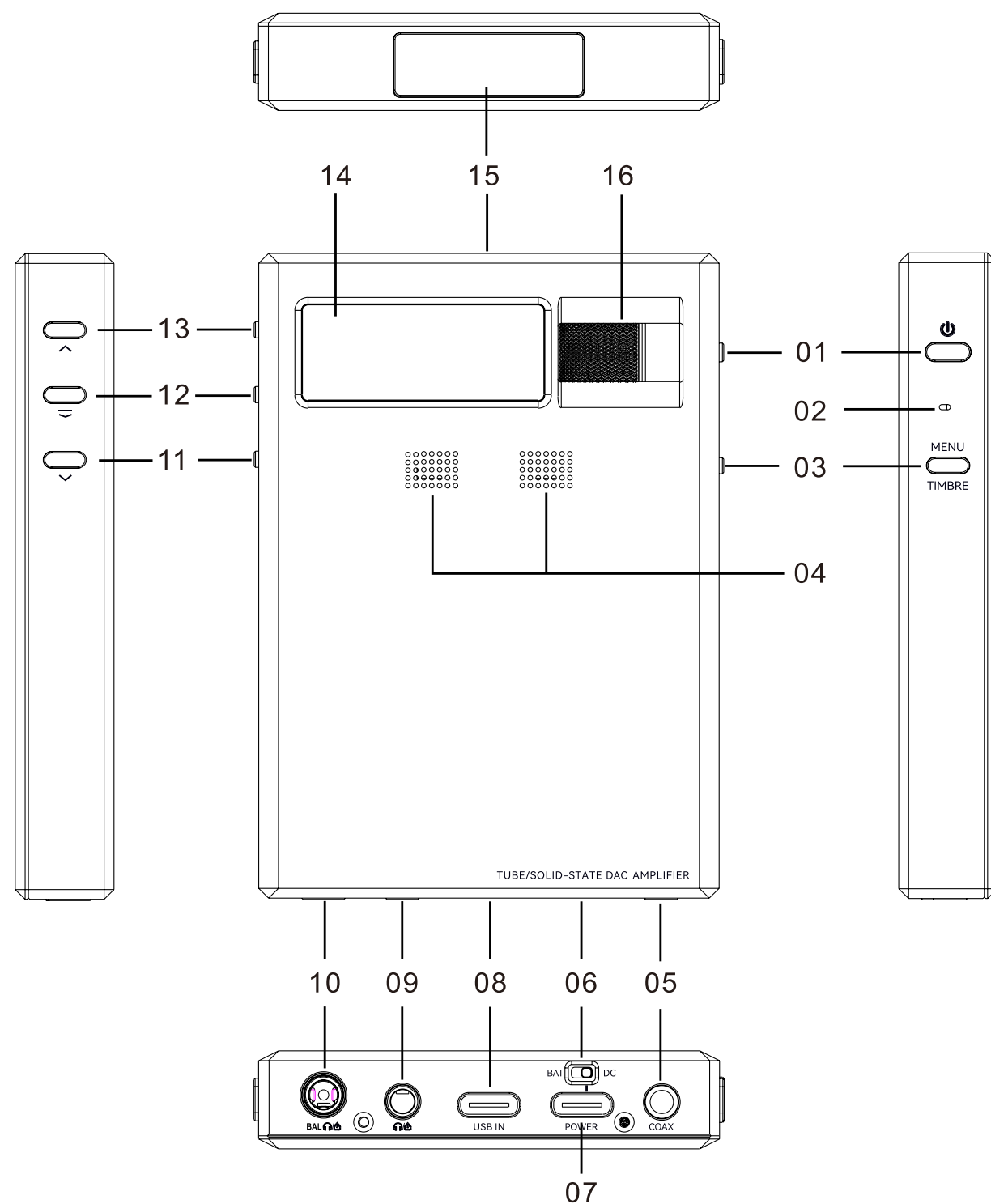


# RU9 Tube/Solid-state DAC Amplifier

## **User Manual**





## Basic Operation

### 1. Power Button

Long press to power on/off; short press to turn the screen on/off.

### 2. a. Sample Rate Indicator LED

- Orange: 44.1/48 kHz
- Orange-Green: 88.2/96 kHz
- Royal Blue: 176.4/192 kHz
- Violet: 352.8/384 kHz
- Cyan Blue: 705.6/768 kHz
- White: DSD

### b. Charging Indicator LED

- Red: Pulses during charging, stays solid when fully charged;
- If charging while playing music, only the charging indicator is on, format indicator will turn off.

### 3. MENU/TIMBRE Button

Short press to switch timbre (Transistor, Classic, Modern); Long press to enter the system settings menu.

### 4. Tube Window

### 5. COAX Output/Input Port

### 6. BAT/DC Power Switch

- “BAT”: Powered by internal battery
- “DC”: Powered by external DC input (only works when POWER USB port is connected to an external power source; otherwise, it continues to draw power from the internal battery)

### 7. POWER Input Port

For internal battery charging or external DC power input.

### 8. USB IN Input Port

For receiving digital signal from external USB source.

### 9. 3.5mm Output Jack

Connect 3.5mm headphones (PO) or external amp (LO).

### 10. 4.4mm Output Jack

Connect 4.4mm balanced headphones (PO) or external amp (LO).

### 11. Next Track Button (only works with USB/Bluetooth source)

### 12. Play/Pause Button (only works with USB/Bluetooth source)

### 13. Previous Track Button (only works with USB/Bluetooth source)

### 14. Display Screen

Shows current input source, timbre, volume, gain, output mode, sample rate, etc.

### 15. Bluetooth Receiver Window

### 16. Multi-function Knob

- Rotate upward to increase volume;
- Rotate downward to decrease volume;
- Can also be used for selecting options in the system settings menu.

Thank you for purchasing the Cayin RU9 Tube/Solid-state DAC Amplifier. Please read this manual carefully before use to help you quickly understand the basic operations of the device.

## Package Contents

1. RU9 Tube/Solid-state DAC Amplifier — 1 unit
2. Type-C Cable — 1 piece
3. USB-A to USB-C Adapter — 1 piece
4. User Manual — 1 booklet
5. RU9 Leather Case — 1 piece

**Function Settings**  
Long press the “MENU/TIMBRE” button to enter the system settings menu.

**1. Input Source Selection**  
In the settings menu, rotate the knob to “Source” option, then short press the “MENU/TIMBRE” button to enter the source setting menu. Rotate the knob to choose between “USB”, “BT”, and “S/PDIF” inputs.

**2. Gain Setting**  
In the settings menu, rotate the knob to “Gain” and short press the “MENU/TIMBRE” button. Then, rotate the knob to choose from dB (High), MdB (Medium), or LdB (Low) gain levels. Please select based on your headphones and listening preferences.

**3. Line Out Level Selection**  
In the settings menu, rotate to “Line Out” and press “MENU/TIMBRE” to enter the output level setting. Rotate the knob to choose from “H” (High), “M” (Medium), or “L” (Low) according to your external audio device requirements.

**4. Output Mode Selection**  
In the settings menu, rotate to “Output”, then press “MENU/TIMBRE” button to enter output mode setting menu. Use the knob to choose from “PO”, “LO”, or “S/PDIF” outputs.

**5. USB Audio Class (UAC) Selection**  
In the settings menu, rotate to “Output”, then press “MENU/TIMBRE” button to enter output mode setting menu. Use the knob to choose from “UAC 1.0” or “UAC 2.0”.  
In most cases (e.g., PC, smartphones, tablets), you can choose UAC 2.0. However, for certain gaming consoles, UAC 1.0 may be required for proper compatibility.

**6. USB IN Selection**  
In the settings menu, rotate to “USB IN” and short press “MENU/TIMBRE” to enter the USB IN input setting menu. Rotate the knob to choose between:

- “Audio Only”: Transfers audio signal only.
- “Audio and Power”: In this mode, the USB port handles both audio transmission and power delivery to the device, but it does not charge the internal battery.

**7. PCM Filter Setting**  
In the settings menu, select “PCM Filter” and short press “MENU/TIMBRE” to enter the filter setting menu. Available options include:  
“Sharp”, “Slow”, “SD Sharp”, “SD Slow”, “Super Slow” and “Low Dispersion”.

**8. DSD Filter Setting**  
In the settings menu, select “DSD Filter” and press “MENU/TIMBRE” to enter the DSD filter setting menu. Available options include:  
“Narrow” and “Wide”.

**9. Brightness Setting**  
In the settings menu, select “Brightness” and press “MENU/TIMBRE” to enter the Brightness setting menu. Available options include:  
“H (High)”, “M (Medium)” and “L (Low)”.

**10. Display Timeout Setting**  
In the settings menu, rotate to “Display OFF” and short press “MENU/TIMBRE” to enter the screen time-off setting menu, you can choose from:  
“Never”, “10S”, “20S”, “40S”, “50S”, “60S”.

**11. Version Info**  
In the settings menu, rotate to “Version”, press “MENU/TIMBRE” and the current firmware version will be displayed.

**Note: If there is no interaction for around 5 seconds, the system will automatically return to the main menu.**

**Tip: For optimal sound performance, when connecting the RU9 to a digital source via USB Audio, it is recommended to set the digital source’s volume to maximum and use the RU9 to control playback volume.**

Product Core Specifications	
3.5mm Single-ended Output	
Output Power	160mW @ 32Ω
THD+N	0.006% (1kHz, Output: 1.0V)
SNR	114dB (20Hz–20kHz, A-weighted)
Dynamic Range	115dB (20Hz–20kHz, A-weighted)
Frequency Response	20Hz–42kHz (0.5dB), PCM DSD256
Channel Separation	76dB (1kHz, 20Hz–20kHz)
Output Impedance	0.5Ω
4.4mm Balanced Output	
Output Power	400mW @ 32Ω
THD+N	0.006% (1kHz, Output: 1.4V)
SNR	112dB (20Hz–20kHz, A-weighted)
Dynamic Range	115dB (20Hz–20kHz, A-weighted)
Frequency Response	20Hz–42kHz ( 0.5dB), PCM DSD256
Channel Separation	92dB (1kHz, 20Hz–20kHz)
Output Impedance	1.0Ω
3.5mm Single-ended Line Out	
Output Level	1.2 Vrms (Fixed, 1 kHz, @ 10 kΩ)
THD+N	0.02% (1kHz, 20Hz–20kHz)
SNR	113dB (20Hz–20kHz, A-weighted)
Dynamic Range	114dB (20Hz–20kHz, A-weighted)
Channel Separation	100dB (1kHz, 20Hz–20kHz)
4.4mm Balanced Line Out	
Output Level	2.4 Vrms (Fixed, 1 kHz, @ 10 kΩ)
THD+N	0.02% (1kHz, 20Hz–20kHz)
SNR	112dB (20Hz–20kHz, A-weighted)
Dynamic Range	114dB (20Hz–20kHz, A-weighted)
Channel Separation	102dB (1kHz, 20Hz–20kHz)

Product Specifications:			
DAC	AK4493SEQ ×2	Tube	KORG Nutube 6P1
Display	0.96" TFT	Battery	3.85V 2000mAh
Dimensions	Approx. 100 × 70 × 15 mm	Weight	Approx. 150g

Battery Performance Data			
Test Condition		Playback of 44.1kHz music, volume at 30, high gain, screen off, with 32Ω IEMs	
Battery Life		Tube Mode / 4.4mm Balanced	Transistor Mode / 3.5mm Single-ended
	PO	~ 4.3 Hr	~ 4.7 Hr
	LO	~ 3.1 Hr	~ 3.5 Hr
Charging Time	Standard Charger (5V–1.5A)	~1.3 Hr	

| USB Input | Supports PCM 44.1–384kHz, DSD64/128/256 |

Note: For Windows operating systems, a dedicated USB Audio driver may be required.

Please visit [www.cayin.cn](http://www.cayin.cn) to download and install the appropriate driver for your device.



## General information about mobile devices

- Please only connect your mobile device to a high-quality charger that meets the product specifications.
- Place the device in a well-ventilated area when charging, as the temperature during charging is higher than during normal playback. Do not cover the device while charging.
- Charge the battery at room temperature. Charging at very high or low temperatures can cause battery malfunctions during charging.
- Do not use the device while it is charging.
- If your device has additional storage space, only use memory cards that meet the device's specifications.
- 

## Safety instructions for mobile devices

- Do not use the device in extreme environments such as heat, cold, dust, smoke or high humidity.
- Do not place the device near objects that can emit strong magnetic fields, e.g. TV sets, monitors, loudspeakers, induction cookers, etc.
- Do not use the device during thunderstorms.
- Do not press several buttons at the same time.
- Make sure that the device does not fall, get squashed or collide with hard objects.
- Do not use chemical solvents or cleaning agents to clean the device.
- It is normal for the device to become slightly warm during charging or playback.
- Make sure that the volume is set correctly before using the headphones. Excessive volume can damage your ears. Be careful not to listen to music for too long or at too high a volume.
- Please do not use the player while charging.
- If you do not use this device for a long time, you must still charge it regularly to maintain battery performance.
- Please do not attempt to open the device, as this may cause damage and void the warranty. Please contact your local dealer if you require warranty and/or repair service.
- If an image is displayed on the screen for a long time, it may cause burn-in on the screen. (Afterimage).
- The screen may be damaged by poor quality protective films and stickers.
- Never insert foreign objects into openings not intended for this purpose, such as headphone jacks, USB jacks, speaker jacks, etc.
- Never operate the device while driving a motor vehicle, running, cycling, etc. Make sure you can hear your surroundings at all times.
- Do not place the device in fire and do not attempt to heat the player. This may cause the battery to explode. If you notice that the device's battery is getting too hot, turn off the player and disconnect the charging cable, headphones and any connected external devices. GB8898-2011 (Audio, video and similar electronic devices – Safety requirements), China Quality Certification Centre (CQC)

**EN**

Use these headphones only for the intended applications.  
Austrian Audio cannot accept any liability for damages resulting from improper handling or misuse.



Listening to personal stereo equipment at full volume for long periods can damage the user's hearing.

Complies with IEC 62368-1:2018 for mobile audio equipment.



Declaration of Conformity at <https://austrian.audio>



When the product reaches the end of its life, separate the housing, electronics and cables and dispose of all components in accordance with local waste disposal regulations!

**DE**

Verwenden Sie diesen Kopfhörer nur für die vorgesehenen Anwendungen.  
Für Schäden infolge unsachgemäßer Handhabung oder missbräuchlicher Verwendung kann Austrian Audio keine Haftung übernehmen.



Das lang andauernde Tragen von Kopfhörern bei voller Lautstärke kann das Gehör schädigen.

Entspricht dem Standard IEC 62368-1:2018 für mobile Audio-Geräte.



Konformitätserklärung auf <https://austrian.audio>



Am Ende der Lebensdauer des Produkts, trennen Sie Gehäuse, Elektronik und Kabel und entsorgen Sie alle Komponenten gemäß den örtlichen Abfallentsorgungsbestimmungen.



### Manufacturer

9 Lianfa Road, Shuanglin Zone,  
Liangang Industrial Park, Zhuhai City,  
Guangdong Province, China  
Website: [www.cayin.cn](http://www.cayin.cn)  
verantwortliche Person: John Huang  
Email: [john@cayin.com](mailto:john@cayin.com)

### Responsible person in the EU

Thomas Deyerling · Cayin Audio Distribution GmbH  
An der Kreuzheck 8  
61479 Glashütten  
Telefon: +49 (0)6174-9554412  
E-Mail: [info@cayin.com](mailto:info@cayin.com)  
Web.: [www.cayin.com](http://www.cayin.com)