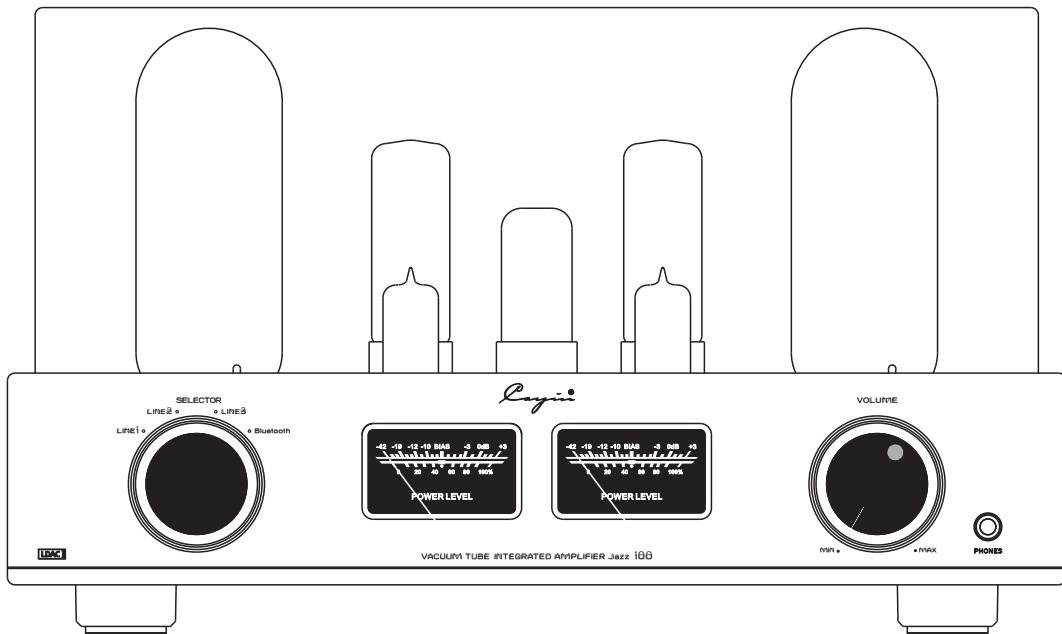


Cayin®



Jazz 100 | VACUUM TUBE INTEGRATED AMPLIFIER

User's Manual

REV: 1.0



Thanks for choosing **Cayin Jazz 100** Vacuum Tube Integrated Amplifier and please read the user's manual carefully before installation and operation.

In order to prevent damage during transportation, the amplifier is packed with protective foams surrounding the tubes. Before installation and operation, please remove these foams to avoid any risks.

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NOTE:

Cayin Jazz 100 Vacuum Tube Amplifier is designed and manufactured with our original parts and reaching the best results. We are not responsible for problems and damages caused by non-original parts replacement in the amplifier.

Package Contents

Please inspect the product package before opening it to ensure it is free from impact damage, breakage, or moisture. Upon opening the packaging box, the packing list is as follows:

1. Cayin Jazz 100 1 piece;
2. Power cord 1 piece;
3. User's Manual 1 piece;
4. Bluetooth antenna 1 piece;
5. Remote Control 1 piece;
6. Spare Fuses:
 - ①.External Main Fuse 2 pieces (~ 220V-240V : T3.15AL250V; ~ 100V-120V: T6.3AL250V)
 - ②.External Fuse for 805A Tube 4 pieces (T160mAE250V)

Recommendation:

It is recommended to save the packaging and packing materials for future shipment use.

NOTE:

Please ensure that the local voltage level matches the input voltage specified on the rear panel of the amplifier. Using a voltage that is too low or too high can cause issues. If you find that the voltage is incorrect, please contact us or your local dealer for assistance.

All other parts not mentioned above are not included.



Product Features

- ◆ **Input Stage:** Utilizes two Mullard 6JC6 NOS tubes and one JJ 6SN7 vacuum tube.
- ◆ **Driver Stage:** Utilizes two Electro-Harmonix 6L6EH vacuum tubes for amplification.
- ◆ **Power Stage:** Utilizes two custom 805A vacuum tubes for single-ended Class A amplification.
- ◆ **External Adjustments:** Includes external 805A vacuum tube bias adjustment, monitoring meter (BIAS), and hum balance adjustment functions.
- ◆ **High Voltage Delay:** A high voltage delay function (approximately 40 seconds) helps to extend the lifespan of the vacuum tubes.
- ◆ **Selectable Negative Feedback:** Offers selectable negative feedback levels, with HIGH and LOW settings to suit different listening environments.
- ◆ **Upgraded Toroidal Power Transformer:** An upgraded toroidal power transformer, designed and manufactured in-house for the Jazz 100, provides reliable performance.
- ◆ **Dual Function Meters:** Dual meters offer a retro, eye-catching design and serve as professional power meters that move rhythmically with the music. They also allow for bias adjustment and monitoring.
- ◆ **Headphone Output:** Features a headphone output for enjoying the amplifier with your headphones.
- ◆ **Remote Control:** Comes equipped with a remote control for convenient operation.
- ◆ **Handmade Construction:** Built with the finest point-to-point wiring for optimal sound quality.
- ◆ **Removable Tube Cage:** Includes a removable metallic tube protection cage.

Safety precautions

1. Unplug the power cord if you are not going to use the product for an extended period of time.
2. The machine will become hot after working for a long time. Please keep the unit's ventilation open and install the amplifier at a well-ventilated place to avoid troubles and fire hazard.
3. Do not operate the amplifier without a connected load or if the output is shorted.
4. Do not attempt to service this product on your own. Opening the cover may expose you to dangerous voltage and other hazards.
5. We are not responsible for any issues arising from unauthorized disassembly of the product. For service, please contact qualified technician.
6. Do not place any objects filled with liquids such as vases on the top or around the amplifier.
7. Clean with dry and clean cloth only.
8. Handle the machine with care during transportation to avoid damaging it.



- ◆ To avoid the risk of electric shock, do not remove the cover.
- ◆ No user serviceable parts inside. Refer servicing to qualified technician.
- ◆ To avoid the risk of fire or electronic shock, do not expose the unit to rain or moisture.

⚡ The thunder arrow is used to alert the user to dangerous uninsulated components that carry high voltages inside the product. These voltages are extremely high and can cause electric shock.

! The warning symbols are used to draw the user's attention to the important operating instructions and maintenance instructions mentioned in the user manual.

Specifications

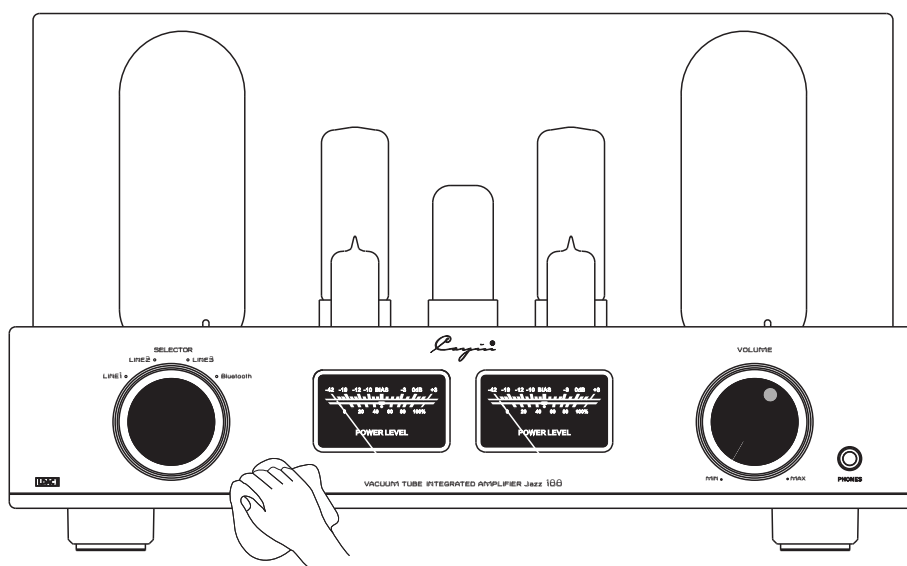
ITEM		SPECIFICATIONS
AMP	【Power Output】	46W+46W
	【Frequency Response】	12Hz~33KHz (-3dB)
	【THD】	0.2%(1W/1kHz, 10% Under Rated Power)
	【S/N Ratio】	90dB (A-Weighted)
	【Input Sensitivity】	320mV
	【Input Impedance】	100kΩ
	【Tube】	Mullard 6JC6×2、 JJ 6SN7×1、 Electro-Harmonix 6L6EH ×2、 805A ×2
	【Headphone Output】 Impedance	16Ω~300Ω
	【Input Connector】	LINE1,LINE2,LINE3 ,Bluetooth
	【W×D×H】	420mm×389mm×248mm
	【Output Impedance】	4Ω, 8Ω
	【Net Weight】	35kg
	【Power Consumption】	410W
Bluetooth	【Bluetooth Version】	V5.0
	【Bluetooth Chip】	QCC5125
	【High Fidelity DAC Chipset】	ES9018K2M SABRE32
	【Audio Format】	UAT,LDAC,apt-X,apt-X HD,apt-X Low latency,SBC,AAC
	【Effective Range】	≤10M
	【Device Name】	Cayin HD BT
【Working Condition】		Temp : 0℃~40℃ Humidity : 20%~80%
【Storage Condition】		Temp : -20℃~70℃ Humidity : 20%~90%



Maintenance

NOTE:

- ◆ Use the soft dry cloth to clean up the chassis.
- ◆ Do not use any chemicals for cleaning.



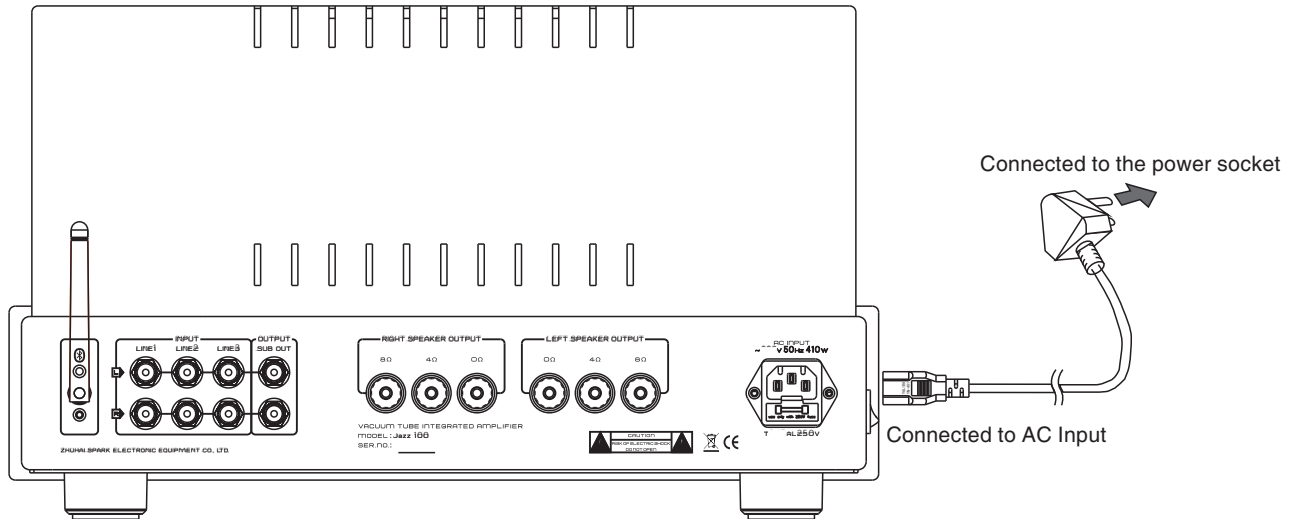
Warranty Service

1. This product is warranted for a period of twelve months beginning from the date of purchase.
2. The defective product must be returned to your dealer or us for repairing.
3. The warranty doesn't extend to any product that has been opened without permission of our company.

NOTE:

The information in this manual is subject to change without further notice.

Precautions



Connection of power cord:

Connect the speaker cables and signal cable first and then insert the power cord into the power socket.

NOTE:

- ◆ Connect the power only after finishing rest of the connections.
- ◆ It is normal that power transformer becomes hot for extended period of operation.
- ◆ Unplug the power cord if you're not going to use the product for an extended period of time.
- ◆ Please ensure that the local voltage matches the operating voltage indicated on the device. We are not responsible for any damage caused by connecting to an incorrect voltage.



Front Panel

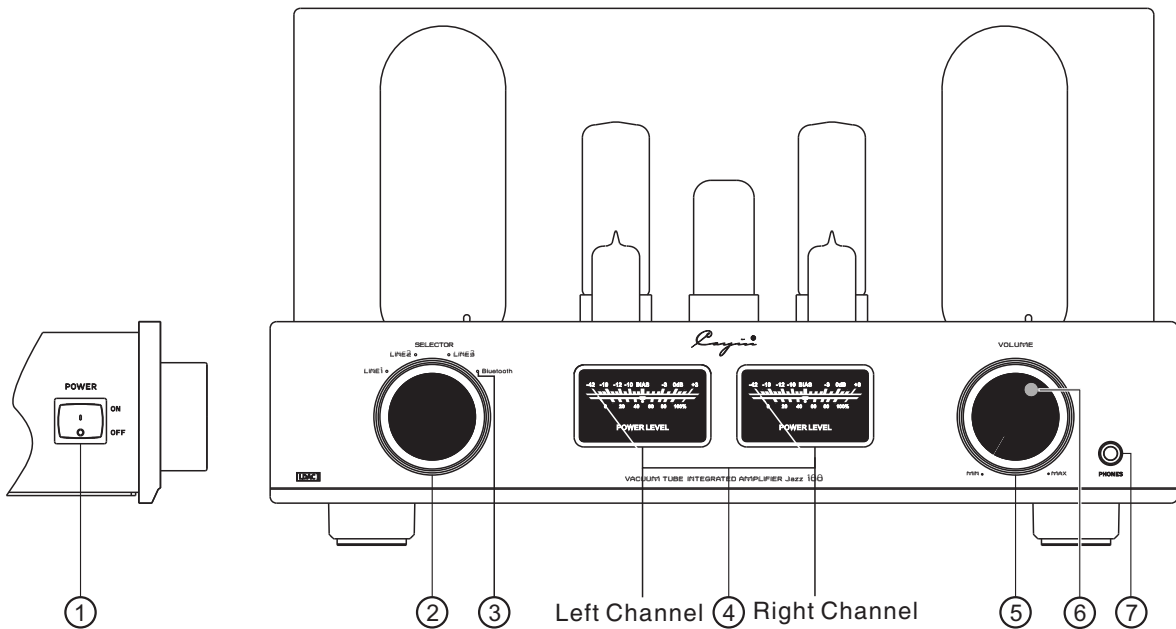


Diagram 1

1. Power Switch

Used to switch on/off the amplifier.

2. Input Selector

Used to choose 4 types of audio sources.

There is an indicator next to both the LINE1-4 and the Bluetooth label.

When the light is on, it indicates that the corresponding input has been selected.

3. Bluetooth indicator:

Indicator Flickering : The Bluetooth module is activated awaiting for connection.

Indicator Remain Steady : The Bluetooth has been connected successfully.

4. Power Level Meter/Bias Meter

Power Level Meter: Indicate the output level of the amplifier .

Bias Meter: (Only left indicator will light up).

Monitor and adjust the Bias Level of the Power tubes .

For instruction of power tube bias adjustment, please refer to the 'Top Panel' - 'Bias Adjustment'.

5. Volume Knob

Used to control volume

6. IR Remote Sensor

Used to receive the signal of remote control.

7. Headphone Socket

Plug in, and you can enjoy the same excellent output through the headphone socket as you would from the speaker output.

Rear Panel

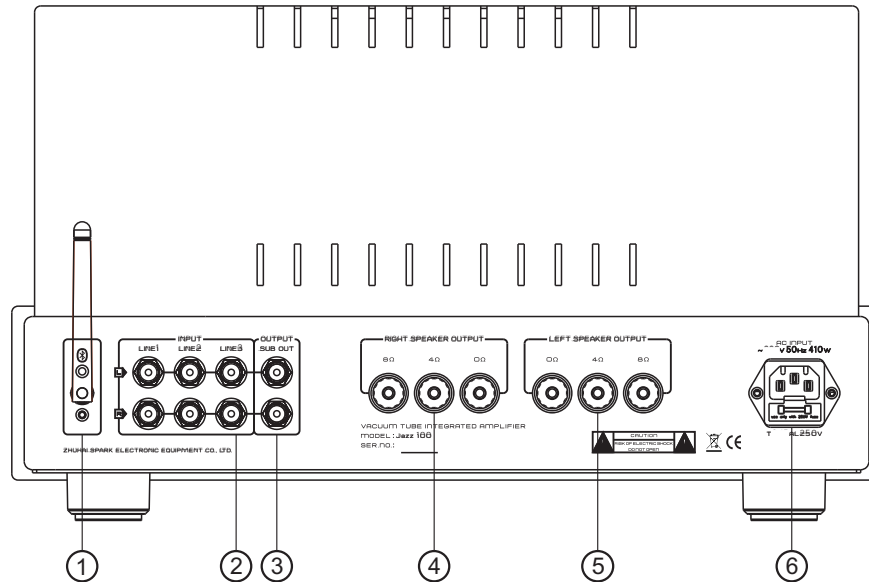


Diagram 2

1. Bluetooth Antenna

Please connect the Bluetooth antenna to the amplifier in order to use the Bluetooth function

2. Line Input Terminals

Used for audio source input.

3. Sub Output

A pair of Subwoofer Outputs is located on the rear panel. If you wish to integrate subwoofer into the system, you can use the terminals located here.

4. Right Channel Output

Used to connect with the right channel of speaker.

5. Left Channel Output

Used to connect with the left channel of speaker.

6. Power Socket with Main Fuse

Main fuse is located just below the power socket. Replace the fuse with the same type as indicated.



Top Panel

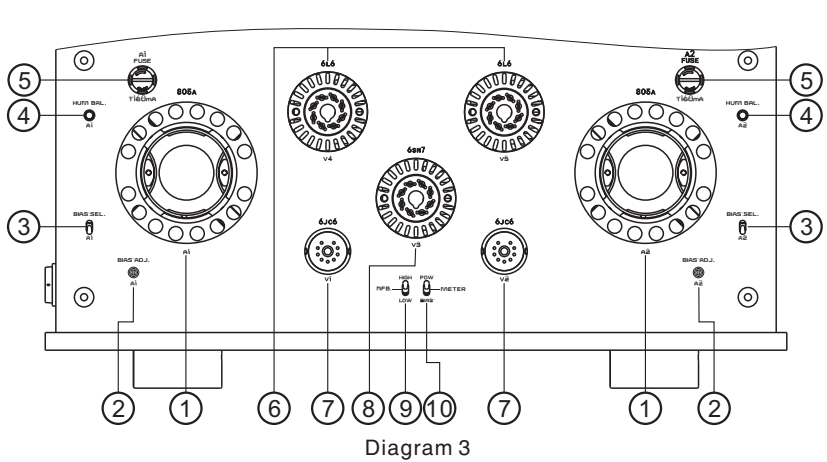


Diagram 3

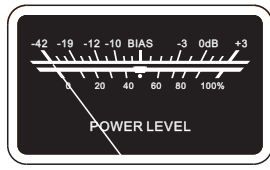


Diagram 4
Bias meter when not working

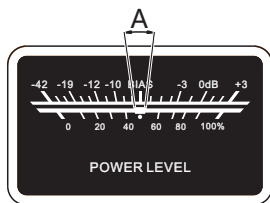


Diagram 5
Bias meter during bias adjustment
Note: During bias adjustment, the pointer should remain within the A zone; however, it may fluctuate due to voltage variations.

- 1. **A1, A2:** 805A
- 2. **Bias Adjustment Knob for Power Tubes (A1, A2)**
- 3. **Bias Selector (A1, A2)**
Used to select corresponding tube for bias adjustment.
- 4. **HUM Balance Adjustment Knob for Power Tubes (A1, A2)**
- 5. **External Fuse for 805A Tube:** T160mAE250V
- 6. **V4, V5:** Electro-Harmonix 6L6EH
- 7. **V1, V2:** Mullard 6JC6
- 8. **V3:** JJ 6SN7
- 9. **NFB Selector**
Used to select NFB HIGH or LOW working state.
- 10. **METER/Bias Switch**
Select between Power Level Meter and Bias Meter. Turn to POW the Meters will show the Output Level of Left and Right Channel. Turn to BIAS Left Meter will show the Bias Level of Power Tube (Diagram 5).

How to adjust the HUM of 805A:

Set the digital multimeter to the AC voltage range, and connect the black and red probes to the 0Ω and 8Ω speaker output terminals, respectively. Turn the volume knob to the

minimum or mute position. Use a flat screwdriver to adjust the HUM BAL. Knob (4), and monitor the multimeter until the reading reaches the lowest value. You can also adjust by ear, listening for the least hum from the speaker output. The same method applies to the other channel.

Instructions on Bias Adjustment of the Power Tubes:
Turn the METER selector switch (10) to BIAS, then push and hold the BIAS SEL. (3) backward. Using a flat screwdriver, adjust the corresponding BIAS ADJ. (2) while monitoring the position of the BIAS meter (Only the left side is displayed). The needle should point to the center. The adjustment method is the same for both A1 and A2 vacuum tubes.

Once all adjustments are complete, please turn the Meter Selection Switch back to the POW position.

Example: Bias Adjustment for A1 Tube:

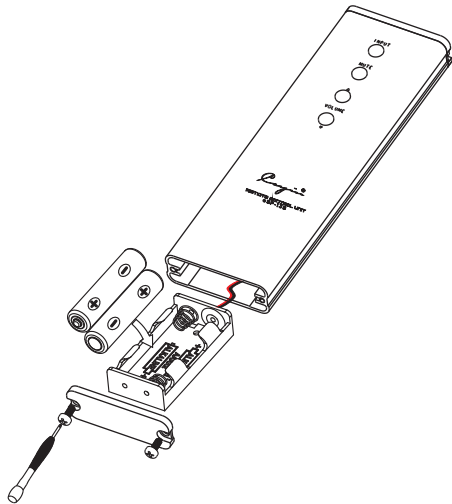
- 1. Turn Meter Selection Switch to BIAS.
- 2. Turn BIAS SEL. Switch to A1 Side.
- 3. Use flat screwdriver to adjust the BIAS ADJ. of A1 and make sure the needle of the Left Meter keeps in the Center.
- 4. Turn the Meter Selection Switch back to the POW position when finished.

Method for Bias Adjustment for A2 Tubes is the same.

NOTE

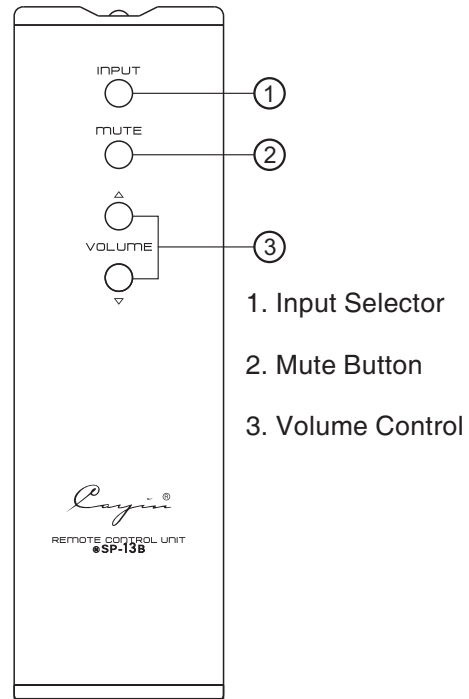
- ◆ Be careful of the high temperature of the tubes during operation.
- ◆ Replace the tubes carefully and correctly.
- ◆ Power tubes must be matched for well function.

Remote Control

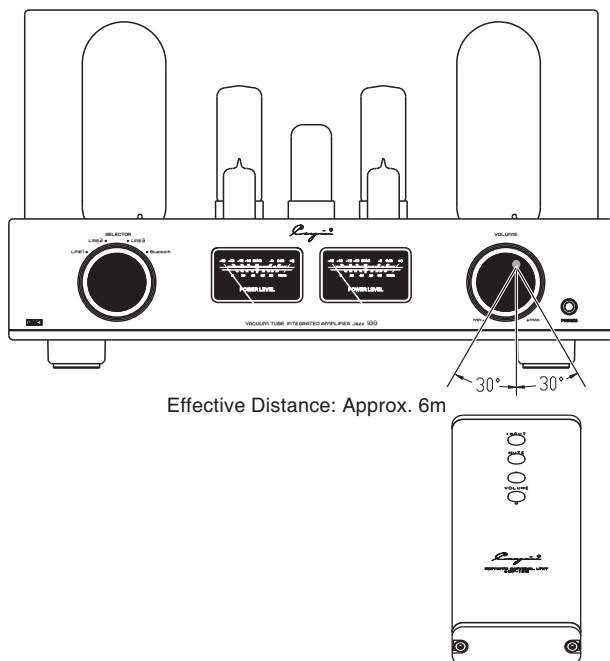


Installation

1. Place the remote control with top facing up.
2. Use the attached hexagon screwdriver to remove the bottom cover.
3. Pull out the (AAA) battery case carefully (be aware not to break the connected wires).
4. Put in the batteries with correct polarity.
5. Push the battery case back in and secure the bottom cover with the screws.



1. Input Selector
2. Mute Button
3. Volume Control



NOTE:

- ◆ Avoid rough handling or exposing the remote control to moisture.
- ◆ Replace the batteries timely.
- ◆ Don't mix new and old batteries together. Use the batteries with the same specification.
- ◆ Remove the batteries if you do not plan to use the remote control for an extended period.
- ◆ It is recommended to use high-quality batteries.



Installation

Carefully read and follow the manual for installation:

- ◆ Do not place the machine near heat sources such as radiators, heat registers or other products that produce heat.
- ◆ In order to avoid being overheated please keep the unit's ventilation open.
- ◆ Do not expose this appliance to rain or moisture.
- ◆ Keep the amplifier in a certain distance so that it can be easily connected.
- ◆ Amplifier should install steadily and make sure all four feet are on the same level.
- ◆ Keep the amplifier over 15cm's distance to the surrounding walls.

NOTE:

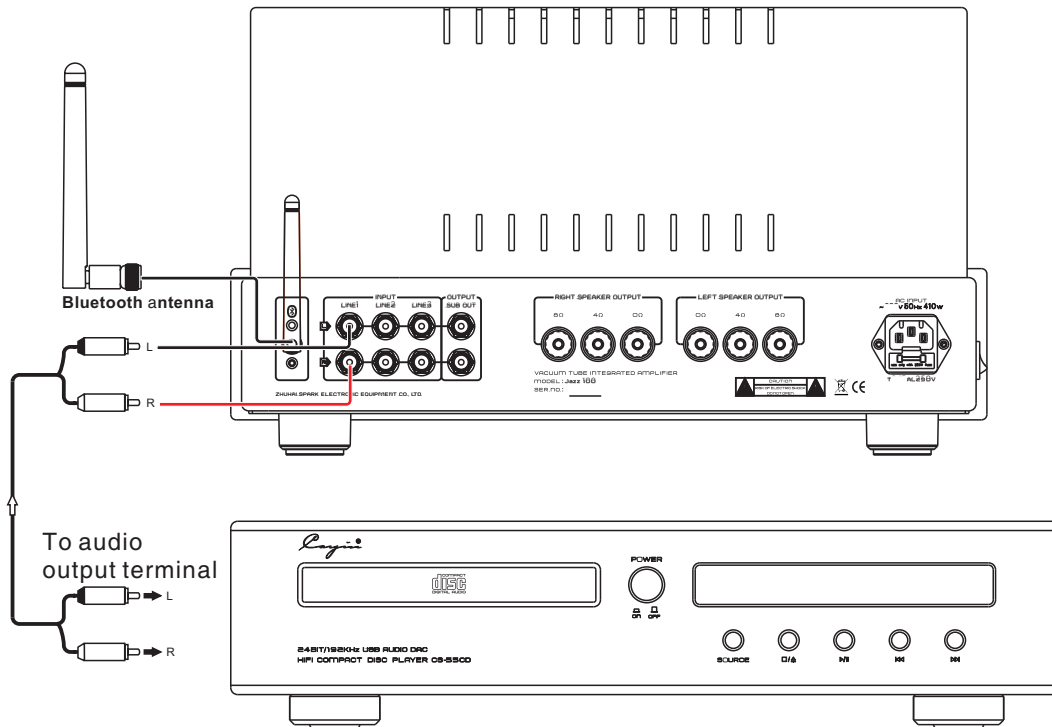
Please make sure local voltage level is matched with the input level of the amplifier, which indicates on the rear panel. Too low or too high voltage may cause problems or shorten the amplifier's life.

Tube Replacement

Tubes for the Machine	Tubes Replacement
Customized Cayin 805A	805
JJ 6SN7	6SN7GT, 6H8C, 6N8P
Electro-Harmonix 6L6EH	EL34, 6CA7, 6L6, 5881, 6550, KT88, KT90
Mullard 6JC6	EF184, 6EJ7, 6BX6, EF80

Audio Connection

Connection Method of Cayin Jazz 100 with Other Audio Equipment:
Refer to the pictures below for guidance.



Bluetooth Instruction:

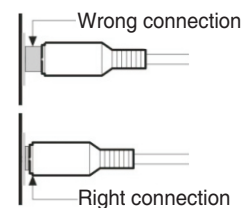
1. Please turn the knob to Bluetooth before using Bluetooth function.
2. Check the status of the Bluetooth indicator:

The indicator will flicker when the Bluetooth is in pairing mode. Please turn on Bluetooth and search for the device name “Cayin HD BT” on your audio source device (such as a music player, phone, or tablet that supports Bluetooth). Once connected successfully, the indicator will remain lit, allowing you to play audio from the device via Bluetooth.

If the connected device is not the one you intended, please turn off the Jazz 100 and restart it. When the indicator begins to flicker again, follow the steps above to connect to the desired device.

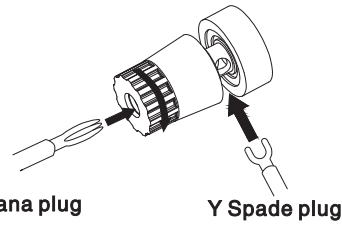
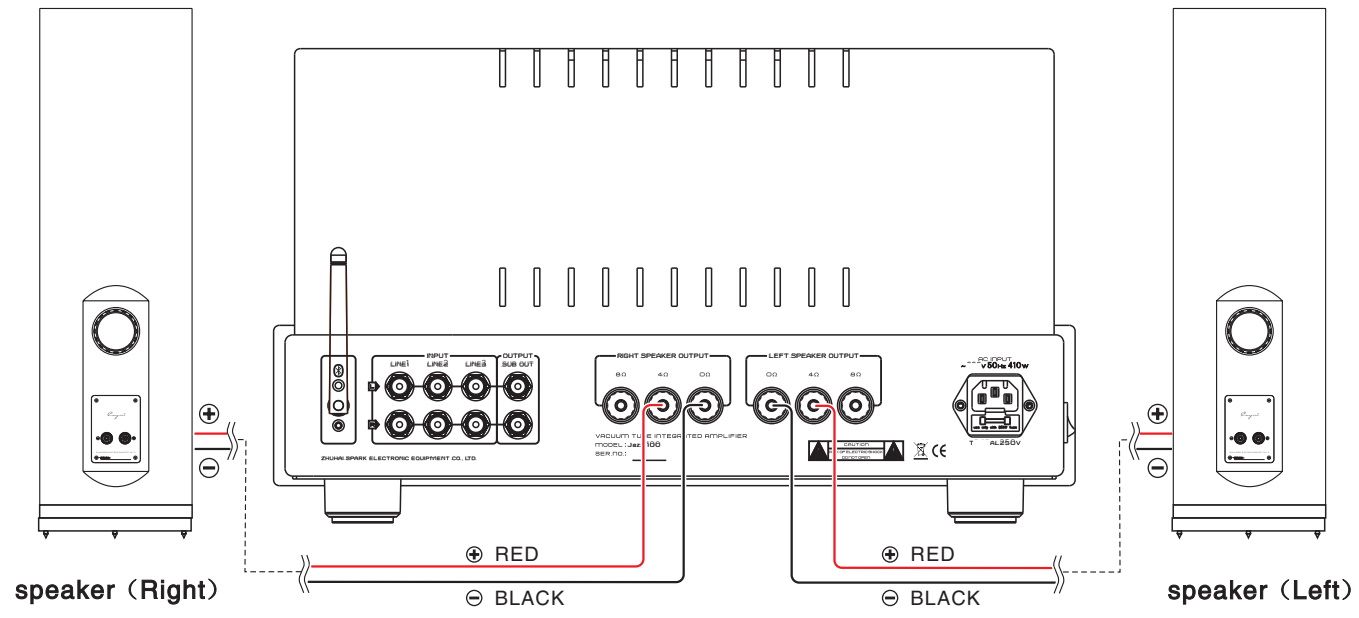
NOTE:

- Please also refer to the manuals of other connected equipments during the installation.
- It is recommended to connect the power cord and turn on the device only after all other cables have been properly connected.
- R refers to right channel while L represents left channel.
- Please take the correct guidance for connection as wrong connection may cause excessive noise, distortion or damage.
- Do not tangle signal cable together with power cable and speaker cables. As this may introduce noise and degrade audio quality.





Speaker Connection



Check the impedance of your speakers:

Connect the positive terminal of your speaker to either the 4 ohm or 8 ohm terminal, and the negative terminal to the 0 ohm terminal, separately. If your speakers are 6 ohms, you can choose either the 4 ohm or 8 ohm terminal (recommended), neither will harm the amplifier. Properly connecting the left and right speakers as instructed can ensure accurate soundstage and imaging.

Connection of speaker cables:

1. Unscrew the terminal knob
2. Insert the speaker cable
3. Screw the terminal knob

NOTE:

- Connect the speaker cables to the amplifier only after securely connecting them to the speakers.
- Ensure both speakers are connected to maintain optimal sound fidelity.
- Pay attention to the signal direction indicated on the cables.
- Be careful not to mix up the positive and negative ends of the speaker cables, as this could result in a short circuit.

Turning On

Before turning on the amplifier, please make sure all connections are correct and power supply is stable.

- Turn on the power, and the power meter light will illuminate, indicating the unit is functioning properly. If the power meter light remains off, it suggests an internal fault. Please turn off the power immediately and contact the dealer or us for assistance.
- Select the correct audio source and adjust the volume to a suitable level. You are now ready to enjoy your music!

NOTE:

1. When the audio system is under working state, do not unplug the signal cable or speaker cables, as it could cause damage to the amplifier and other equipments.
2. Please allow a 2-minute interval between turning the device off and on again. Failing to do so may cause damage to the tubes.

Small Tips

Read the Manual——Please read the user's manual carefully before installation and operation .

Keep the Manual——Please keep the manual for future reference.

Warning Signs——Don't tear off or rub off the serial number .

Operation——Follow the instructions in the Manual.

Parts—— If you are going to use parts not supplied by our company, like power cord, fuses, etc., please make sure that parts you used are compatible with the safety requirements. Otherwise it may cause fire or electric shock.

Placement——Place the amplifier on a stable, level surface. Ensure it is positioned safely to prevent any harm to children, adults, or the amplifier itself.

Power——Please make sure the local voltage is the same as indicated on the rear panel.

Overload——If the power socket is overloaded with other equipment, it may cause fire or electric shock.

Warranty Service——Do not open the product or attempt to replace any components yourself.

Opening the cover may expose you to dangerous voltages or other hazards. The warranty will not cover any product that has been opened without authorization from our company.

Troubleshooting——If any issues occur, please refer to the following troubleshooting part to identify the cause. If the problem persists, contact us for further assistance.



Troubleshooting

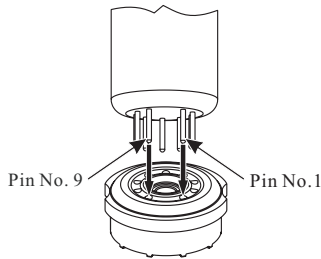
To ensure optimal performance of the machine, it is essential to adhere to proper maintenance procedures and operate it correctly. Incorrect operation may lead to abnormal functioning of the machine. Should any issues arise with the unit, please perform the following checks.

Problem		Cause	Remedy
NO OUTPUT	Backlight of the Meter is Off	Power cord is not well-connected.	Check power cable connection or power outlet connection
		Main fuse is out.	Replace with the same type and value fuse.
		Problem with inner parts or circuit.	Please contact with local dealer or us.
	Backlight of the Meter is On	Volume is at ZERO.	Turn up the Volume.
		NO signal input.	Check the function of the sound source.
	Check the input selection and switch to the proper input.		
Sound Distortion		High input signal level.	Turn down the volume to suitable position.
Noise output		Ground of input signal cable is open or bad contact of the input signal cable.	Replace the input signal cable with a new one.
		Components or circuits are in trouble.	Please contact with local agents or our company.
Sound field Positioning is not so good.		Signal input cables or speaker cables are wrongly connected.	Reconnect it as suggested in the manual.
Malfunction of Remote Control.		Be disturbed. Low Battery. Obstacles between the amplifier and remote.	Keep away from the source of disturbance. Turn off and restore. Replace with new batteries. Remove the obstacles.
Malfunction of Bluetooth	Power Indicator is OFF.	Bluetooth haven't start	Ensure the amplifier's audio source is set to Bluetooth.
	Power Indicator is ON.	Bluetooth be connected to other device	Restart Jazz 100

NOTE: *Cayin*[®] is the registered trademark of Zhuhai Spark Electronic Equipment Co., Ltd.

How to Install Vacuum Tubes

How to Install 9-Pin Vacuum Tubes

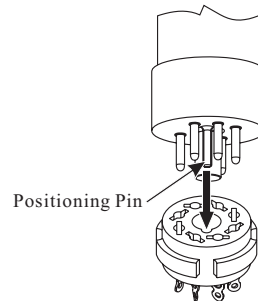


Applicable vacuum tube:
 12AU7 (ECC82)、12AX7 (ECC83)、5BK7、12BH7、
 12AT7 (ECC81)、6922 (ECC88), etc. 9-Pin vacuum tubes.

Instructions to Change and Install the vacuum tubes:
 To install a nine-pin vacuum tube, align the pins of the vacuum tube with the holes of the tube socket and insert the tube vertically up and down (as shown in the figure above).

▲ Please note that when installing the nine-pin vacuum tube, pay attention to the alignment of the vacuum tube pins with the holes of the tube socket. Otherwise wrong insertion will cause damage to the vacuum tube and prevent the amplifier from working properly, which may lead to failure of the amplifier.

How to Install 8-Pin Vacuum Tubes

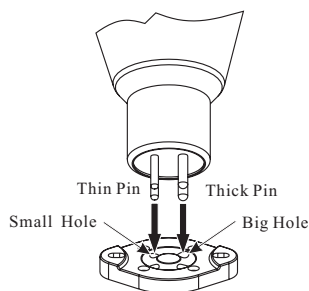


Applicable vacuum tube:
 KT150、KT170、KT88、6550、EL34、6V6、6SN7、6SL7、5AR4,
 etc. 8-pin vacuum tubes.

Instructions to Change and Install the vacuum tubes:
 To install an eight-pin vacuum tube, align the positioning pin of the tube with the grooves in the positioning holes of the tube socket, and install the tube by pulling up and down vertically (as shown in the figure above).

▲ Please note that when installing the eight-pin vacuum tube, pay attention to the alignment of the vacuum tube positioning pin with the positioning hole of the tube socket. Otherwise wrong insertion will cause damage to the vacuum tube and prevent the amplifier from working properly, which may lead to failure of the amplifier.

How to Install 4-Pin Vacuum Tubes

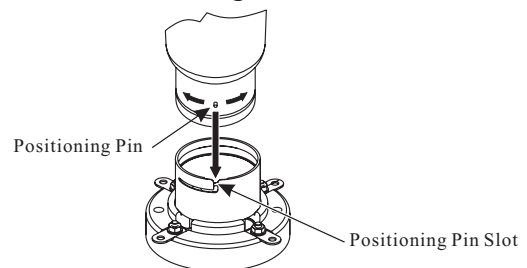


Applicable vacuum tube:
 300B、2A3 etc. 4-pin vacuum tubes .

Instructions to Change and Install the vacuum tubes:
 To install a four-pin vacuum tube, please pay attention to the thickness of different pins of the vacuum tube and the size of the tube socket hole. Thick pin should be aligned with the big hole, and the thin pin should be aligned with the small hole. Install the tube vertically up and down (as shown in the figure above).

▲ Please note that when installing the four-pin vacuum tube, pay attention to the thickness of different pins of the vacuum tube and the size of the tube socket holes. Otherwise wrong insertion will cause damage to the vacuum tube and prevent the amplifier from working properly, which may lead to failure of the amplifier.

How to Install Big 4-Pin Vacuum Tubes



Applicable vacuum tube:
 845、805、211 etc. 4-pin vacuum tubes.

Instructions to Change and Install the vacuum tubes:
 To install the big four-pin vacuum tube, align the vacuum tube positioning pin with positioning pin slot of the tube socket and then rotate 45° clockwise to tighten. (As shown in the picture above). To take out the big four-pin vacuum tube, turn the tube 45° counterclockwise and take it out upward after loosening.

▲ Please note that when installing the big four-pin vacuum tube, pay attention to the alignment of the vacuum tube positioning pin with positioning pin slot of the tube socket and then rotate 45° clockwise to tighten. It is strictly forbidden to install the vacuum tube when the positioning pin is off or missing. Otherwise wrong insertion will cause damage to the vacuum tube and prevent the amplifier from working properly, which may lead to failure of the amplifier.