



LM-170IA User Manual



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Thank you for choosing our products. Please read this manual carefully before using it.



To maintain the excellent performance of LM-170IA, please ensure proper maintenance and operation. Incorrect operation may lead to misdiagnosis of faults. If you encounter any issues with this unit, please check the following things. Sometimes, problems may originate from other equipment; therefore, please check other devices and related connection cables. If the fault persists, please contact your local dealer or the sales department of our company.

Symptom	Cause	Solution
No Sound	Power LED is off	Power cord is not properly connected
		Fuse blown
		Internal failure
	Power LED is on	Volume is at minimum
		No signal input
The noise is too loud	Input signal level too high	Reduce volume knob to appropriate level
The noise is too loud	The ground wire of input signal line is open-circuit or bad contact	Replace or reconnect signal cable
	Internal failure	Contact your local dealer
Acoustic field is unacceptable	Left/right channels reversed or speaker connection reversed	Reconnect it as suggested in the manual
Remote control erratic/unresponsive	External interference	Stay away from interference sources. turn off the device, and turn it back on later
	Running low on battery	Replace with new batteries
	IR ray (from remote control to IR sensor) is blocked by something	Make appropriate adjustments based on the situation

Important Notice: 

Line Magnetic is a registered trademark of Zhuhai Line Magnetic Audio Co.LTD. Please recognize this logo when purchasing to prevent counterfeits.



Thank you for using the LM-170IA integrated vacuum tube audio power amplifier. This product is equipped with sponge sleeves inside the vacuum tube covers to prevent damage to the vacuum tubes during transportation. Before using this product, you must remove the sponge sleeves from inside the vacuum tube covers, otherwise, it may cause damage to the unit or even fire.

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Notice



This product uses original factory components designed by our company to achieve optimal performance. We are not responsible for any damage or accidents caused by the use of non-original factory components. If non-original factory components are used, any damage to the product will not be covered under warranty.

Package Contents

Before unpacking, carefully check for any signs of impact, damage or moisture. Place the packaging box with the arrow pointing upwards. Open the packaging box, and the packing list is as follows:

- 1、LM-170IA Amplifier *1
- 2、Spare Fuses *2
- 3、Power Cord *1
- 4、Remote Control *1
- 5、User Manual *1

Attention::
Before plug in the power cord, please double check whether the voltage indicated on the back panel of the amp matches the local voltage. If not match, it may cause damage to the amp even fire. Please contact the local dealer or us.

Recommendation

Please retain all packaging materials, as you may need to repack the unit for future transportation

Features

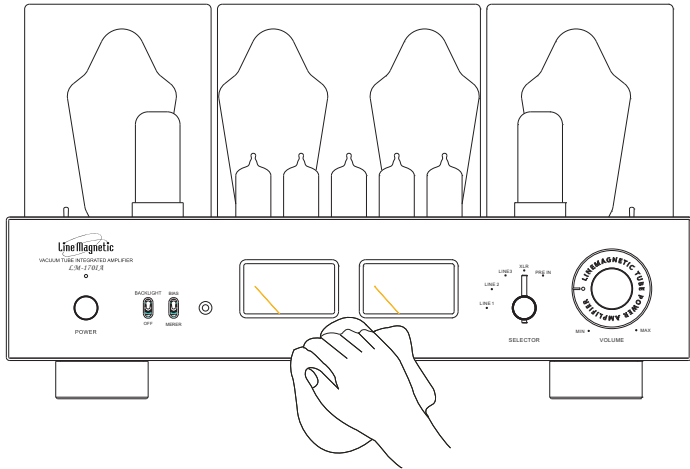
- high-grade Japanese ALPS potentiometer is applied.
- Inter-stage coupling capacitors use high-quality German Mundorf (Mcap) capacitors.
- Imported Russian vacuum tubes, ensuring stable and reliable performance.
- Dedicated auxiliary subwoofer output.
- Dedicated pre-amplifier output circuit, independently output via V6 (6922).
- The power amplifier stage uses 4 Russian KT170 vacuum tubes for Class AB push-pull power amplification.
- External KT170 current adjustment (BIAS ADJ.), with pointer-type level indication and power tube static current detection function.
- Infrared remote control, with volume control and mute function.
- Power transformer applied EI 133*80 high-quality iron core, ensuring abundant and stable power supply under large dynamic operation.
- Equipped with balanced input and pure rear-stage input.
- Output transformer applied 114*55 high-quality iron core, effectively improving audio signal conversion efficiency and widening frequency response.
- Handy plug-in type tube cover.
- Hand made construction with finest point to point wiring.
- Uses 6922 and ECC82 for voltage amplification, and 6SN7 for cathode-coupled push-pull drive of KT170, achieving ultra-linear push-pull power amplification.
- Line1, Line2, Line3: three sets of RCA input ports.

Tube Replacement

Tube Basics	Common Replacement
6SN7	6H8C、6N8P、5692、CV181、ECC33
6922	ECC88、7308、E88CC
12AU7/ECC82	ECC82、5814、6189、CV4003、ECC802
KT170	

Maintenance

Clean the amplifier with soft dry rag please do not use any chemicals for cleaning.



Warranty

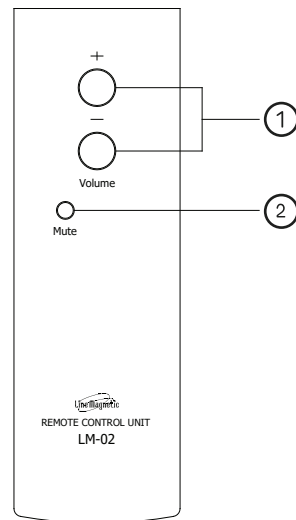
All Line Magnetic products come with a one-year warranty from the date of purchase (excluding vacuum tubes). Vacuum tubes have a six-month warranty. No fees are charged during the warranty period. Machines requiring repair must be carefully packed and sent to our company or the purchasing dealer. We are responsible for repairing the machine, and no component fees, labor fees, or shipping fees will be charged during the warranty period. The following conditions are not covered under warranty:

- 1: Machines that have been repaired or adjusted by anyone not authorized by Line Magnetic.
 - 2: Damage to the machine caused by misuse, abuse, transportation, or negligence that does not follow the operating manual.
 - 3: Our company is not responsible for any damage or loss to other equipment caused by the use of our products.
 - 4: Damage identified by us as caused by abuse.
- All warranties are subject to this warranty policy.
Warranty is based on the original purchaser and is not transferable.

Note: This manual is subject to change without prior notice. The values shown for performance specifications are nominal values for the product; each unit may have slight variations.
Please be aware of this.

Remote Control

Description



① Volume control

② Mute

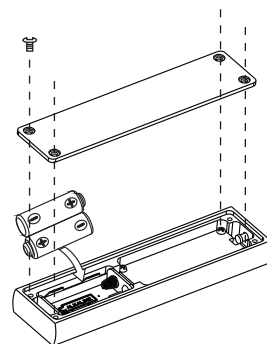
Installation/Replacement of Batteries

Installing Batteries:

- 1: Remove the battery compartment cover.
- 2: Insert "AAA" batteries according to the (+) and (-) indications.
- 3: Replace the battery compartment cover

Battery replacement:

- 1: When the battery voltage is low, the remote control's operating distance will shorten, and new batteries should be replaced.
- 2: The remote control uses two "AAA" batteries.
- 3: Do not mix old and new batteries.
- 4: Please use batteries that prevent internal electrolyte leakage.



Specification

Power Output: 130W+130W	THD: 1% (1kHz)
Frequency Response: 20Hz~35kHz (-3dB)	S/N ratio: 89dB
Input Sensitivity : RCA:0.36V BAC:0.5V PRE:1V	Input Impedance: 100kΩ
Dimensions (W×D×H) : 430mm x 490mm x 248mm	Output Impedance: 4Ω , 8Ω , 16Ω
Tubes: 6922(Russia)*3 ECC82(JJ)*2 6SN7EH(Russia)*2 KT170*4	
Power supply: ~115V/120V/220V/230V/240VV±5% (50Hz/60Hz)	Net Weight : 45KG
Working Condition: Temperature: 0°C~40°C Moisture: 20%~80% Power consumption: 750W	
Storage Condition: Temperature: -20°C~70°C Moisture: 20%~90%	
Auxiliary Output(SUB、PRE): 1.8V	

Notice: Due to continuous product improvement, the company reserves the right to change specifications without prior notice. This manual is only consistent with the product it attached. The values shown for performance specifications are nominal values for the product; each unit may have slight variations. Please be aware of this.

Safety Precautions

- 1: the power cord should be unplugged to prevent accidental incidents when amplifier is not going to be turn on for an extended period of time.
- 2: The surface of this amplifier may become hot during operation. Do not block the ventilation holes and place the unit in a well-ventilated area. Poor ventilation can lead to excessive internal temperatures even malfunctions or fire.
- 3: Forbidden to operate as unload.
- 4: In working condition, the output end should not be left open or short-circuited to prevent damage to amplifier.
- 5: Do not attempt any internal maintenance unless you know what you doing, specially some of internal components are electriferous.
- 6: We are not responsible for performance degradation or any damage caused by unauthorized internal modifications. Any repairs must be performed by professional service personnel.
- 7: This product must not be exposed under dripping or splashing water. It could cause some serious damage to this product.
- 8: Clean the panel and external device with a soft rag periodically. Forbidden to use any type of diluent, alcohol or other volatile liquids for cleaning as they can damage the surface layer and cause stains even erase various markings. Do not use insecticides any where near amplifier.
- 9: Handle with care when moving to avoid any damage to the amplifier.
- 10: During thunderstorms, unplug the power cord from the socket to prevent lightning damage to the amplifier.

Recommendation: Before you install the amplifier, please double check that other related equipment is well connected and ready. The following precautions should be taken when placing the amplifier.

- 1: Do not place the amplifier in direct sunlight or near other heat sources.
- 2: To prevent overheating, ensure that the amplifier's heat dissipation vents are not covered by other objects.
- 3: Avoid moisture or dust.
- 4: When placing the amplifier, ensure easy connection to the power supply and other related equipment.
- 5: This amplifier should be placed stably, with all four feet evenly supported.
- 6: Maintain a distance of at least 15cm between the power amplifier and surrounding walls.

Safety Precautions



WARNING: To prevent the risk of electric shock, do not remove the outer casing (or bottom cover); if repairs are needed, please contact a professional service technician. To avoid fire and electric shock hazards, do not expose this unit to rain or moisture.



The lightning bolt with an arrowhead within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

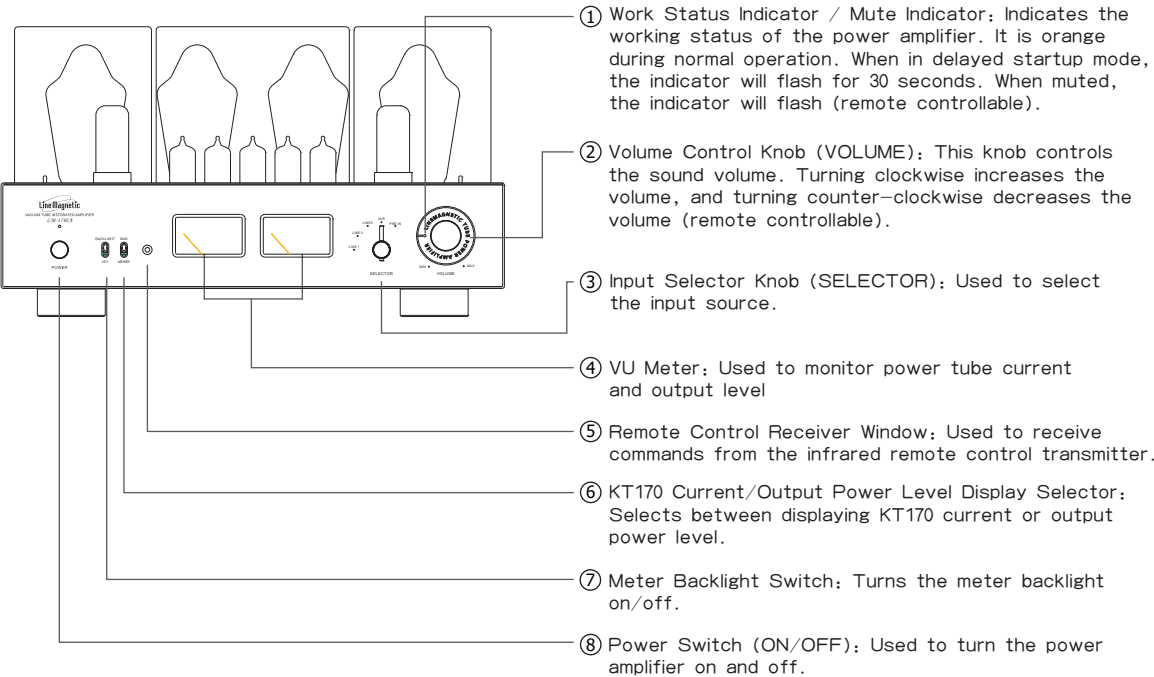


The warning mark inside equilateral triangle is used to remind user to pay attention to important operational/maintenance instructions mentioned in the manual.

Note: The normal operating voltage for this amplifier is AC 115V/120V/220V/230V/240V ±5%. Please confirm that the power supply voltage meets the requirements. Voltage that is too high or too low may prevent the unit from operating normally, or even shorten its lifespan. This product is suitable for safe use in non-tropical climates and at altitudes of 2000m or below.

Function Description

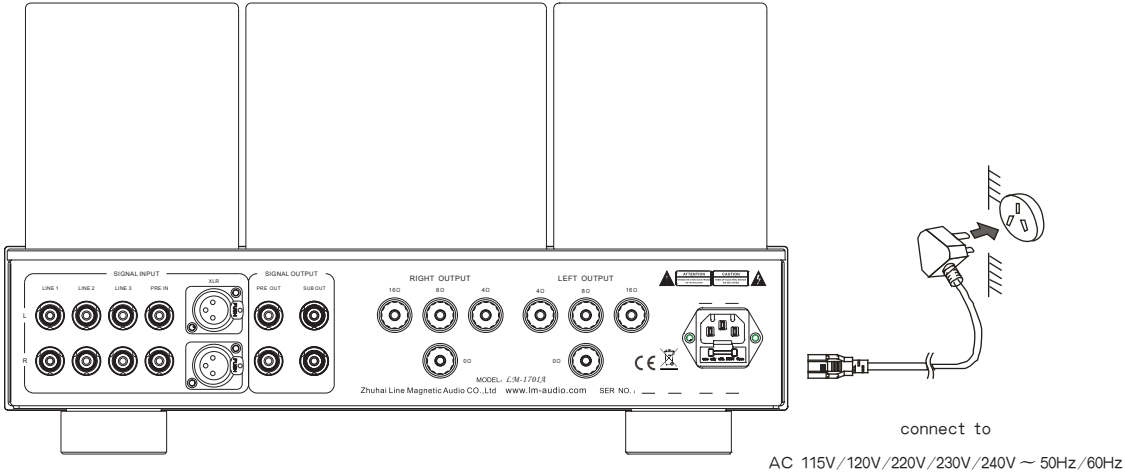
Front panel



Power On

IMPORTANT: BEFORE TURNING ON THE AMPLIFIER:

Connect the speaker cable and signal cable first and then plug the power cord of amplifier into the power socket.



Notice:

- 1: It is normal for the power transformer of this unit to generate heat during prolonged use.
- 2: If the unit will not be used for a long time, please unplug the power cord.
- 3: Only connect the power cord after all equipment and speakers are connected.
- 4: When your audio system is operating, do not plug or unplug signal cables or speaker cables, as this may damage this unit and other equipment.
- 5: After turning off the power switch, wait for 2 minutes before turning it on again to avoid damaging the vacuum tubes..

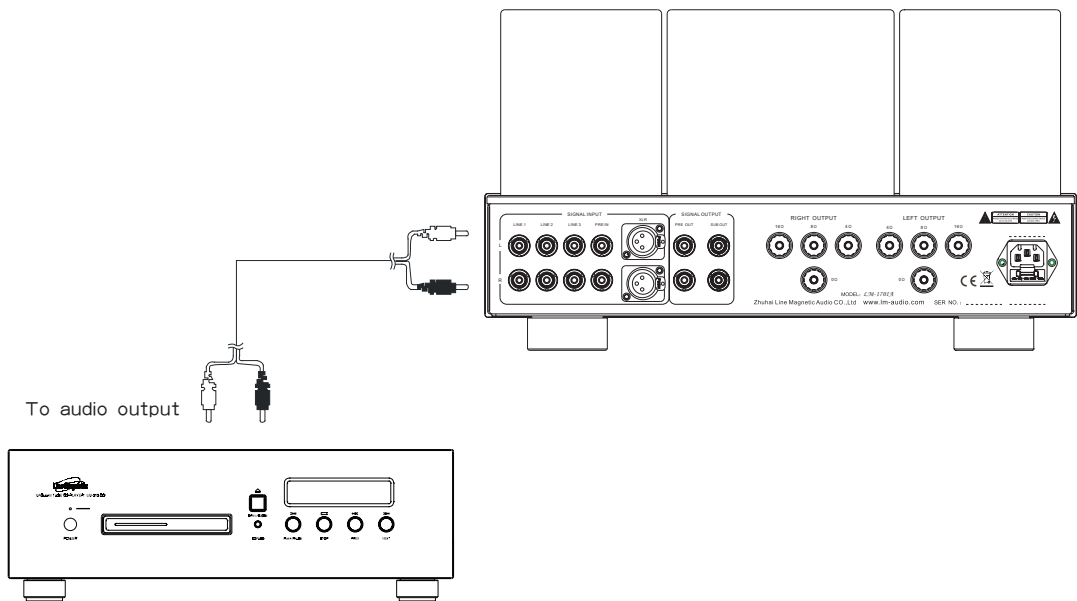
Warning: The voltage of your power supply must match the voltage marked on the back panel of the device.

Our company will not be responsible for any fire or other accidents caused by any voltage other than the specified one.

Connection

Audio Connection

This section describes the standard method for connecting main equipment to the LM-170IA



Audio Connection Notes:

- Always refer to the instruction manuals of the equipment to be connected.
- Do not plug in the power cord until all connections are complete.
- The red terminal (marked R) is for the right channel; the black terminal (marked L) is for the left channel.
- Ensure all plugs and terminals are securely inserted. Improper connections may lead to noise, poor performance, or equipment damage.
- Do not bundle audio cables with power cables and speaker cables, as this may adversely affect sound quality.

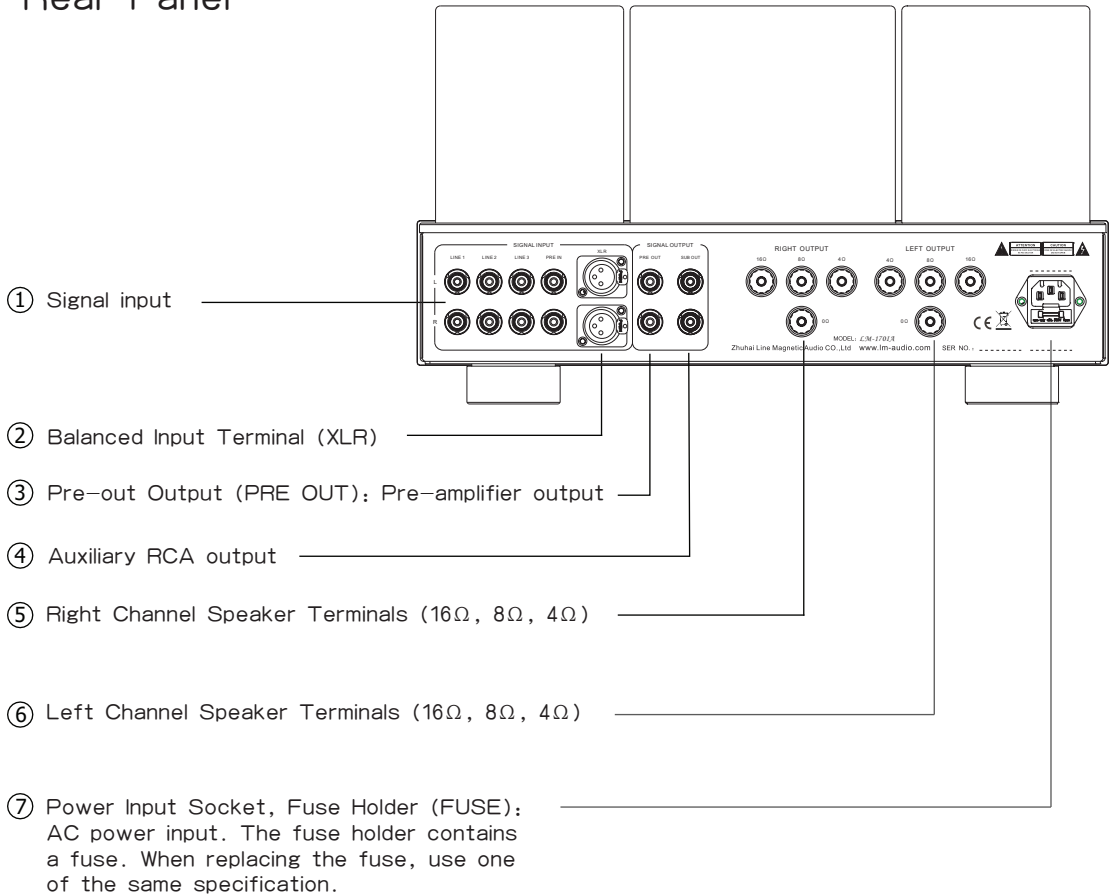
Power On

Please double check all connections and power supply voltage before turning on.

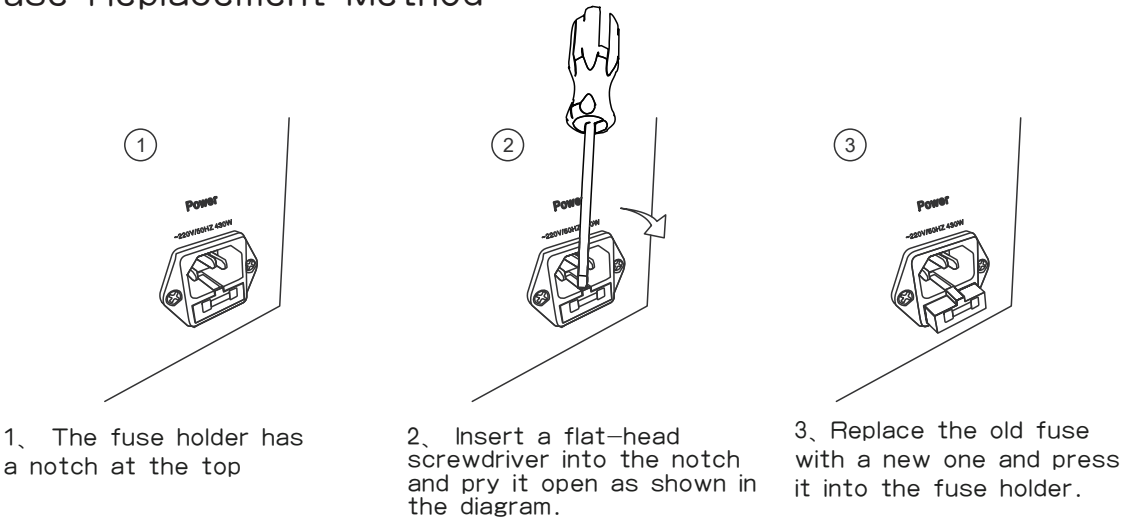
- 1、The power indicator will turn on once you turn on the power, the working status indicator will flash.
- 2、After 30 seconds, the work status indicator will light up steadily, indicating that the unit is operating normally. If the work status indicator remains off, it indicates an internal fault. Immediately turn off the power and contact your dealer or our company.
- 3、After your audio source is working properly, you can enjoy high-quality music by selecting the correct channel of audio source and adjusting volume knob to appropriate volume.

Function Description

Rear Panel

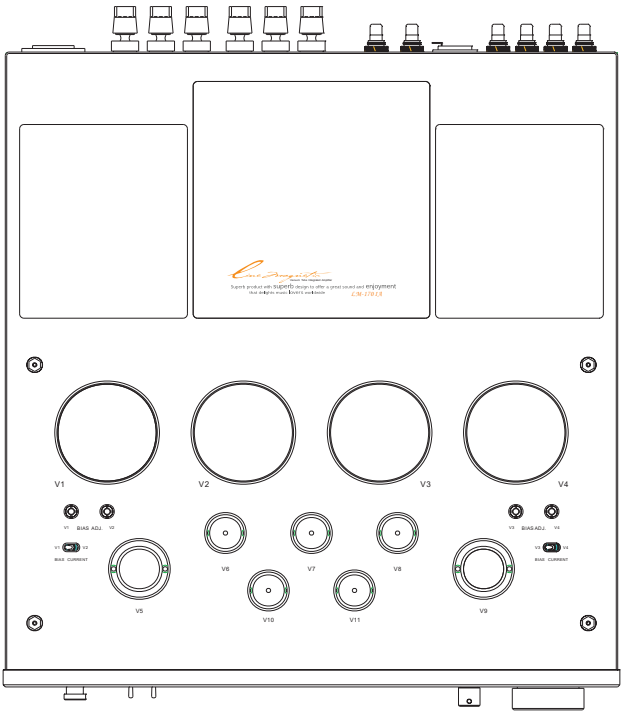


Fuse Replacement Method



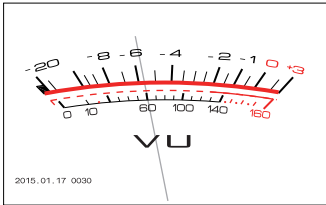
Functions description

Top Panel



KT170 Power Tube V1, V2, V3, V4 Current Adjustment

First, select the "Bias" setting on the front panel's Bias/UV selector switch. Then, turn the volume to mute. Adjust the Bias.ADJ next to the V1 tube until the VU meter pointer is at 60mA, as shown in the figure. If you have any questions, please do not hesitate to contact us or your local dealer.



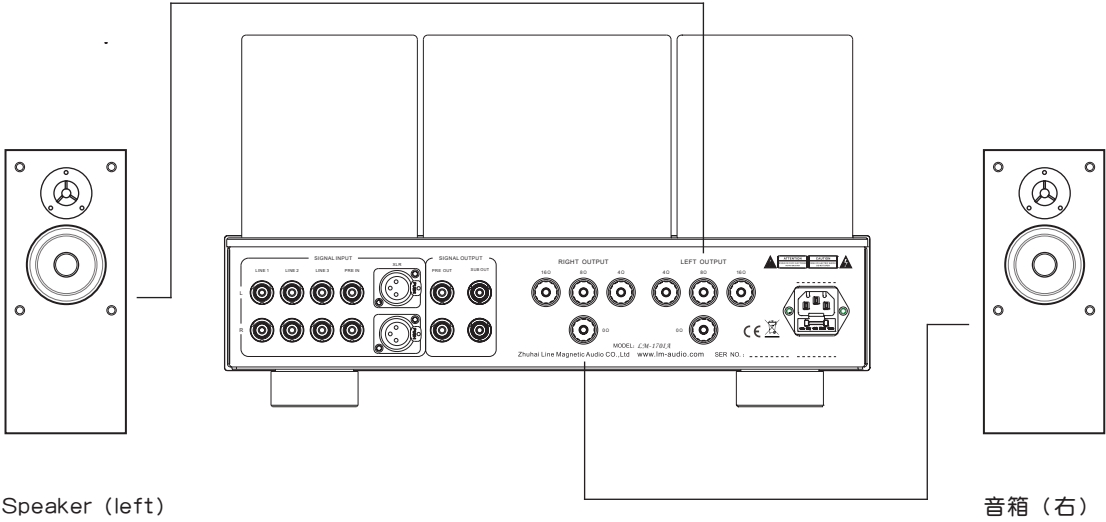
Repeat the above steps for V2, V3, and V4 tubes. Adjust the corresponding adjustable resistors for each tube so that V1, V2, V3, and V4 tubes are all in the optimal position shown in the figure. To ensure the best working condition of the amplifier, it is recommended to re-test the working status of each tube using the above method after approximately 150 hours of use.
V5、V9: 6SN7 V6、V8: 12AU7 V7、V10、V11: 6922

Notice:
1: The surface temperature of the power tubes is very high during operation; be careful of burns.
2: Power tubes and driver tubes should be used in matched pairs.

Connection

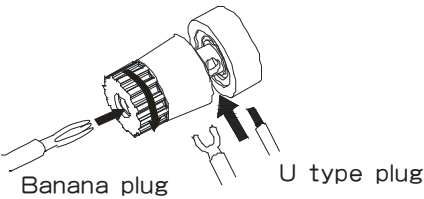
Speaker Connection:

Connect the speaker cables to the corresponding terminals on the rear of the main unit (as shown in the diagram). Please use speakers with an impedance of 4Ω, 8Ω, or 16Ω. If using 6Ω speakers, connecting to either the 4Ω or 8Ω terminals will not damage the unit. Users can choose based on the sound reproduction of their audio system; connecting to the 8Ω terminal is recommended. Connect the black wire to the negative (0Ω) terminal and the red wire to the positive (4Ω) or (8Ω) terminal. If the left and right speakers are connected incorrectly or with reversed polarity, the sound will become unnatural and the soundstage will be blurred.



How to connect the speaker cable:

- 1: Unscrew the terminal knobs.
- 2: Insert the speaker cables.
- 3: Screw the terminal knobs.



Notice:
First, connect the speaker cables to the speakers, then connect them to the amplifier.
When using this system, please connect both the left and right channel speakers. Pay attention to the signal flow direction on the speaker cables.
To prevent damage to the circuit, do not allow the positive (+) and negative (-) speaker cables to short circuit.