

Owner's Manual

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Precautions



Installation place

Install this unit in a location where good ventilation and heat radiation is assured.

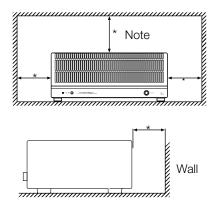
Do not install it where the temperature is high such as in direct sunlight, or where it is dusty or humid, as this could result in damage to this unit despite proper heat radiation.

Ventilation holes

The ventilation holes on the top and bottom boards of this product must not be blocked because this unit is a vacuum tube amplifier and generates considerable heat. If the amplifier is installed on a rack or the like, secure ample space for cooling and leave the door open. Do not pile up other things on the amplifier and never put articles on it. Failure to observe this may cause a malfunction.

Note:

For heat dispersal, do not install this equipment in a confined space such as a book case or similar unit.



Precautions in connecting with other components

When connecting this product to input devices such as a control amplifier, be sure to turn off the power of this product and all other connected devices. Otherwise, a very strong noise may be generated and destroy the speakers. In the worst case, this can cause equipment malfunction. The pin-plug to be inserted in each input terminal of this unit shall be pushed in firmly. If the grounding terminal is inadequately connected, noises including hum may be generated, resulting in an adverse S/N ratio.

Cautions in connecting speakers

When making speaker system connections, be sure not to cause short-circuiting between \oplus and \ominus of the speaker terminals and speaker input terminals of this unit. If signals are applied to the amplifier with its circuit left short-circuited, a large current may be carried in the output circuit and cause malfunctioning.

The sound is not generated shortly after the power supply is turned on.

This product is a vacuum tube amplifier, and therefore, it cannot deliver a sound until the vacuum tube heaters warm up.

You can enjoy music 1 minute or more after turning on the power. We therefore advise initially setting the volume control at a low level. After that, you may move the volume control to your favorite sound level after the initial sound comes out of the speakers.

Repair and adjustment

When repairs and adjustments are needed, please consult with the dealer where you bought the unit.

Cleaning

For cleaning, use a piece of soft cloth to wipe the unit such as cleaning cloth. When the dirt is hard to remove, use a small amount of neutral detergent to wipe, and then wipe the unit with dry cloth. Do not use a solvent like benzine or thinner because such a substance can damage the exterior.

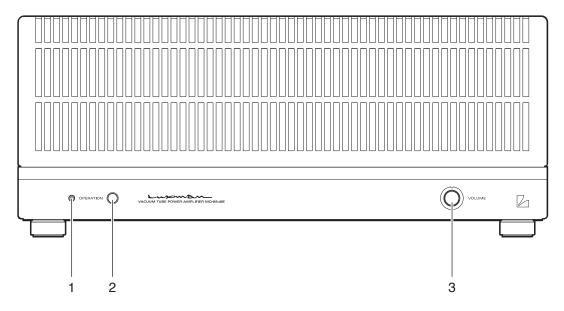
Safety caution

Caution

This unit is a vacuum tube power amplifier. Be careful not to touch this product with your bare hand because this product becomes hot in the power-on state. For safety, do not use this product in a place where children or unchained animals are present.

Names and Functions

Front panel



1. Power indicator (OPERATION)

Turns orange when the power is turned on.

2. Power switch (OPERATION)

Toggles the power on and off.

When wiring or connection is performed, be sure to turn off this switch. When turning on the power switch again after turning the unit off, wait for more than one minute.

When the power is turned off, the OPERATION indicator will stay on for a while, but it is not a malfunction.

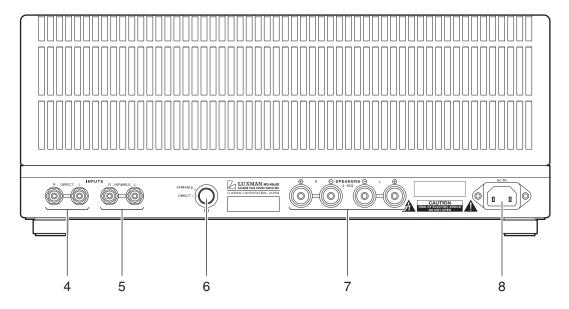
3. Volume control (VOLUME)

This function is effective only when a source component such as a CD player is connected to the VARIABLE input of this unit to adjust the input level.

When the connection is made with the direct input (DI-RECT), the signals do not go through this volume thus the sound volume does not change.

When the DIRECT input is connected, please take extra care for the volume of the other connected unit.

Rear panel



4. Direct input terminals (DIRECT)

Connects to a control amplifier or a source component. When connected to this input terminal, the signals do not go through the volume circuit, thus rotating the volume control on the front panel will not change the volume.

5. Variable input terminals (VARIABLE)

Connects to a source component, e.g. a CD player without output level control.

The sound volume can be adjusted by the volume control of the front panel.

If using a control amplifier with high output impedance in combination with this unit, use of the connection cable as short as possible is recommended to avoid unnecessary treble attenuation.

6. Input selector (VARIABLE/DIRECT)

Variable or direct input can be switched.

Select the name of the terminals connected to the device to play back by operating this switch.

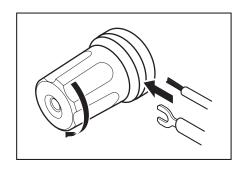
When switching the input, be sure to turn off the power. If the power is on while switching, large noise might be generated.

7. Speaker terminals (SPEAKERS)

Connects a speaker system.

The right speaker terminals shall be connected to the R side, and the leftspeaker terminals shall be connected to the L side in consideration of the polarity \oplus and \ominus .

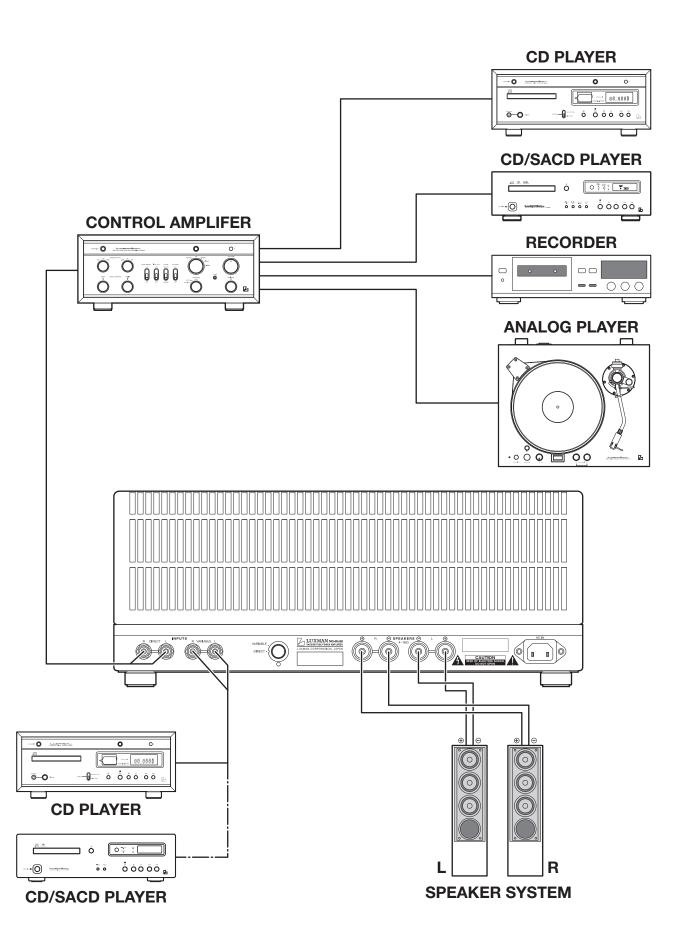
The range of the impedance of the speaker to be connected should be between 4 Ω and 16 Ω .



8. AC inlet (AC IN)

Connects the accessory power cable. The power shall be supplied from a household wall socket.

Connections



Before Connecting

Before connecting other devices, connect the jack side of the accessory power cable to the AC inlet of this unit.

When connecting, turn off the power supply of this unit and the power supplies of auxiliary devices to prevent unexpected accidents that may be caused by noise.

How to connect power supply

Use the accessory power cable and insert the AC plug in the outlet on the wall in the room where the unit is installed.

How to connect CD player, control amplifier

Connect the output terminal of a control amplifier to the input terminal with 2 (R and L) pin-plug cables.

When using a source device without the volume adjusting function, such as a CD player, connect to the VARIABLE input terminal. When using a source device with the volume control, such as a control amplifier, connect to the DIRECT input terminal.

Select DIRECT or VARIABLE input with the input selector.

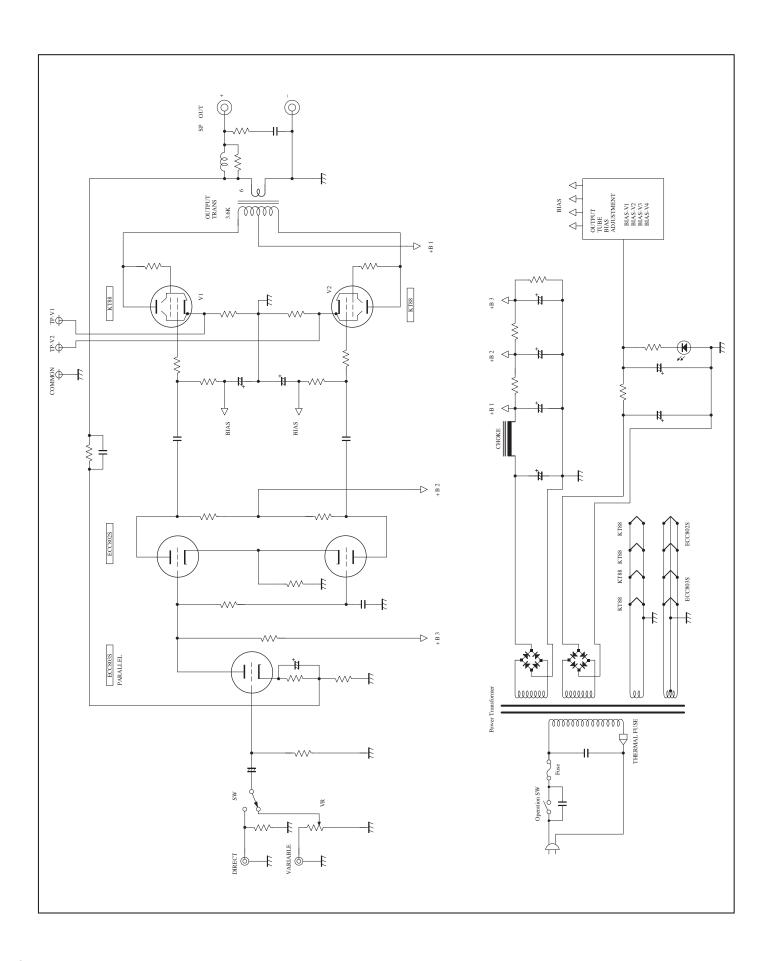
How to connect speakers

Connect the right-channel speaker to the right speaker terminals of the MQ-88uSE power amplifier and the left-channel speaker to the left speaker terminals.

Securely connect the \oplus terminal of the speaker system to the speaker terminal \oplus (red) of this unit, and the \ominus terminal of the speaker system to the speaker terminal \ominus (black) of this unit.

If the \oplus and \ominus terminal is reversely connected to either of the right or left of the speaker system, the signal phases reproduced from the right and left of the speaker system are also reversed. In such a case, be aware that the sound level in the low range will be reduced and the acoustic stability will worsen, thus the normal stereo playback is not achieved.

Block Diagram



Specifications



Continuous power output	25 W+25 W (6 Ω) 20 W+20 W (4 Ω, 8 Ω)		
Total harmonic distortion	0.15 % (1 kHz, 6 Ω, 1 W) 0.5 % (20 Hz to 20 kHz, 6 Ω, 1 W)		
Input sensitivity	790 mV/25 W		
Input impedance	100 kΩ		
S/N ratio	105 dB (IHF-A weighted, input short)		
Frequency response	20 Hz to 20 kHz (+0, -0.5 dB) 10 Hz to 100 kHz (+0, -3.0 dB)		
Input	Line: 1 x Direct input, 1 x Variable input		
Output	Large type of speaker terminal × 1		
Supplied functions	[Front panel] Power switch, Volume		
	[Rear panel] Input terminal, Input selector, Speaker terminal, AC inlet		
Circuiting system	Mullard		
Vacuum tube used	2 x ECC803S, 2 x ECC802S, 4 x KT88		
Accessories	 Power cable Owner's Manual Safety cautions Terminal protection cap 		
Power source	230 V ~ (50 Hz)		
Power consumption	220 W 150 W (no signal)		
Max. external dimensions	440 (W) × 184 (H) × 230 (D) mm		
Weight	15.8 kg (main unit)		

^{*} Specifications and appearance are subject to change without notice.

Before Asking for Repair Services

While the unit is used, an unusual phenomenon may be confused as a malfunction for a certain reason. Prior to asking our official sole distributor of your country for repair services, please check the table below and read the operating instructions for the subsidiary devices. If the cause of the malfunction cannot be identified, please contact your dealer. When we have once accepted your request for repair services, inspection fees and traveling expenses may be claimed even though the unit is found to be normal.

Problem	Cause	Solution
No power is supplied even though the power switch is pressed ON.	The power plug is disconnected from the wall outlet, or it is not completely inserted.	Insert the power plug in the wall outlet completely.
	The power plug is disconnected from the AC inlet, or it is not inserted completely.	 Securely insert the power plug in the AC in- let completely.
No sound is generated. (for both left and right channels)	• The volume control is set at the minimum level.	Rotate the volume control clockwise to adjust the sound volume.
	 The input switch is not set to the position of the source to be played back. 	 Set the input switch to the position of the source to be played back.
	Cable connections are incomplete.	Make cable connections securely.
	The output level of the input device is set to the minimum position.	Adjust the output level.
No sound comes out from one side.	 The connecting cable is not connected on one side only. 	Make cable connections securely.
Humming sound (boon or zzz noise) is generated.	The ground side of the pin-plug cable has no contact with the terminal.	 Make connections securely so that the ground side of the pin-plug cable makes contact with the terminal.
	The connecting cables are too close to the power cable.	Keep the connecting cables away from the power cable.
	Induction noise is picked up from a power transformer of another device.	Install it distant from other devices.

MEMO



