



Owner's Manual





Contents

Luxman
STEREO POWER AMPLIFIER M-200

Thank you for purchasing Luxman's Stereo Power Amplifier M-200.

Luxman was created in 1925 when radio broadcasting started in Japan and has long offered its great acoustics to the audio world. Luxman has been highly rated both at home and abroad as an excellent brand for high quality audio products.

We believe the biggest value we feel when converting artists' enthusiasm into audio is the feeling of impressiveness and our focus on the device. We appreciate the fact that you chose Luxman and enabling yourself to share interest and value towards audio and music.

In order to use this device safely, please read this owner's manual before using it. By doing so, you can play music in the highest quality utilizing full function of this device. After reading, please keep it with the warranty card and the safety instruction at an appropriate place.

Appreciate if this device serves your needs for a long period of time.

Precautions.....	1
Features of M-200	2
Names and Functions.....	3
Display Switch Settings	6
Connections.....	7
Block Diagram	11
Specifications	12
Troubleshooting.....	13

Precautions

Installation place

This product shall be installed in a well-ventilated and effectively heat-released place.

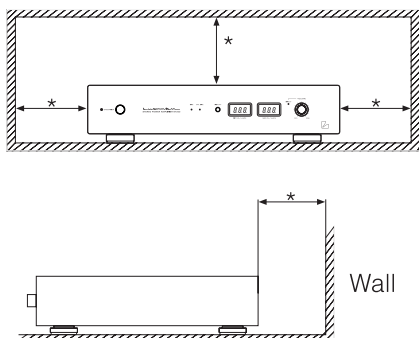
Especially, installation of this product where direct sunlight is present, where the temperature rises excessively high such as close to heater, or where it is humid or dusty may cause a malfunction even if heat is efficiently released. Therefore, do not install this unit in such places.

Ventilation holes

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. This can cause malfunctioning.

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 unit to input devices such as a CD/DVD player, a tuner, and a recorder, be sure to turn off the power of this unit and all other connected devices. Failure to observe this may generate a strong noise resulting in speaker damage or cause a 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, exercise

extra care not to short-circuit between ⊕ and ⊖ of the speaker terminals and speaker input terminals of this unit. If a large signal is applied to the amplifier with its circuit left short-circuited, a large current may be passed through the output circuit and cause a malfunction.

Sound is not generated immediately after the power supply is turned on.

This amplifier is equipped with a time muting circuit in order to separate the output circuit. Therefore, no sound is generated immediately after the power supply is turned on.

If the volume control of the amplifier is moved to a high sound level before the time muting circuit is cancelled, a loud sound is suddenly generated. Please be advised that the volume control shall be set to low level at first and adjusted after sound control shall be set to low level at first and adjusted after sound comes out of the speakers.

Protection circuit

This product is equipped with the protection circuit that is activated upon detection of overcurrent, abnormally high temperature, and DC drift to protect the amplifier and speakers. When the protection circuit is activated, the output to the speaker terminal is shut off and the standby indicator blinks to show that this product is in the muting state. If the protection circuit is frequently activated after a lapse of a certain time and turning on the power again, please consult your dealer.

Repair and adjustments

When repairs or adjustments are needed, please ask your dealer where you bought the product.

Cleaning

For cleaning, use a piece of soft cloth to wipe the product such as cleaning cloth available on the market. If the product has become remarkably dirty, remove the dirt with soft cloth absorbing a small amount of neutral detergent, and then wipe the unit with dry cloth. Do not use a solvent like benzine or thinner because such a substance can often damage the exterior.

Features of M-200


STEREO POWER AMPLIFIER M-200

Compact chassis design

This unit is a 2-channel stereo power amplifier that has a compact body as small as B4-paper size.

Push-pull steps

Bipolar transistor push-pull structure 25W+25W (8Ω) rated power output.

BTL connection mode

BTL connection mode can be selected by combining 2 units to implement high quality and high-power monaural amplifier.

Two systems of input selector

Switch between RCA unbalanced input and XLR balanced input (connector made by Neutrik) to support high-quality balance signal transmission.

Balance input phase changeover switch

Mounted with the balanced input phase changeover switch, which is convenient for connecting input devices (control amplifiers, CD players, etc.).

Volume direct function

There are 2 modes: Variable input mode which can be connected directly with CD players or Direct input mode which is for bypassing the sound volume.

High inertia power source

High inertia power circuit combined with high capacity EI-Core type power transformer and customized 5200μF×2 condenser blocks.

Parallel speaker relay

Impedance in the speaker output line is lowered by mounting low resistance large speaker relay in a 2-parallel structure.

Schottky barrier diode

For the power rectifier circuit, shot key barrier diodes, which has low switching noise and the power conversion into direct voltage is effective.

Original OFC wire

For internal wirings, original OFC wires are used, which are made of spiral wrap shield with non-plated finish to realize natural signal transmission.

Round pattern circuit board

Round pattern circuit board wiring for realizing smooth voltage transmission aligned with delicate stream of sound signals.

7-segment LED

Equipped with multifunctional display equipped with 7-segment LED with high legibility (brightness control, speaker impedance and hold time setting).

Loopless chassis structure

Loopless chassis structure's independent construction shutouts the rising of ground impedance caused by chassis leakage current.

18mm pitch RCA terminal

Equipped with an 18 mm pitch RCA terminal with gold plating manufactured by Neutrik that supports large plug connections.

Large-sized speaker terminal

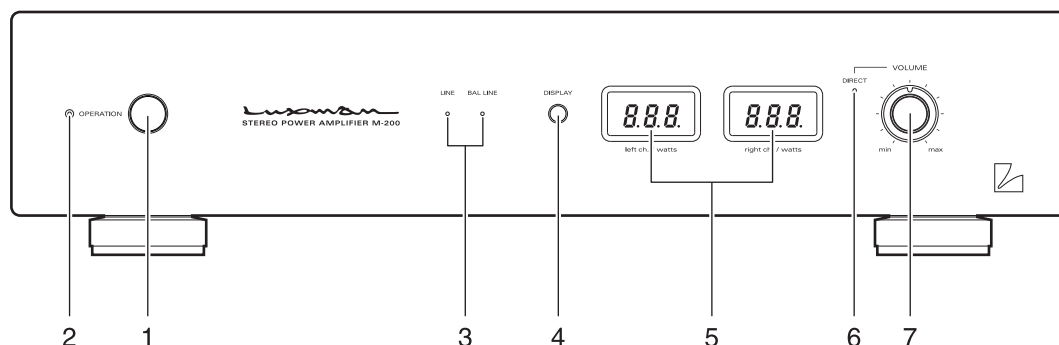
In-line (Left/Right same characteristics layout speaker terminal) is easy to install to very thick speaker cables, and supports Y lug connector.

AC inlet

AC inlet which enables the mounting of external power cables.

Names and Functions

Front panel



1. Operation switch (OPERATION)

This switch turns the power supply ON/OFF.

When wiring or connection is performed, be sure to turn off this switch.

2. Operation indicator (OPERATION)

Blinks in the time muting mode when the operation switch is turned on and lights up when the operation state is activated afterward.

3. Input indicator (LINE / BAL LINE)

Lights up at the input device to be selected with the input switch (LINE / BAL LINE).

4. Display switch (DISPLAY)

Adjusts the brightness for display window, set hold time on power meter and to set speaker impedance. (See page 6 for instructions for setup.)

5. Display window

This presents the level of the output (W).

And this also presents the parameters of selectable configurations.

6. Volume direct indicator (DIRECT)

This indicator lights when the volume direct switch (DIRECT / VARIABLE) on the rear panel is set on DIRECT.

If this indicator is lighting, input signals don't go through the volume circuit, so the volume won't change by tuning the volume control.

7. Volume control (VOLUME)

Allows volume adjustment when VARIABLE is selected on volume direct switch (DIRECT / VARIABLE) located on the rear panel the body. It will mute when dialed completely to the left, and increase the volume when dialed to the right.

When the volume direct switch (DIRECT / VARIABLE) is set on DIRECT, and an input terminal with direct output with no volume control such as CD players are connected, it will become full power mode the whole time and this may damage the speaker.

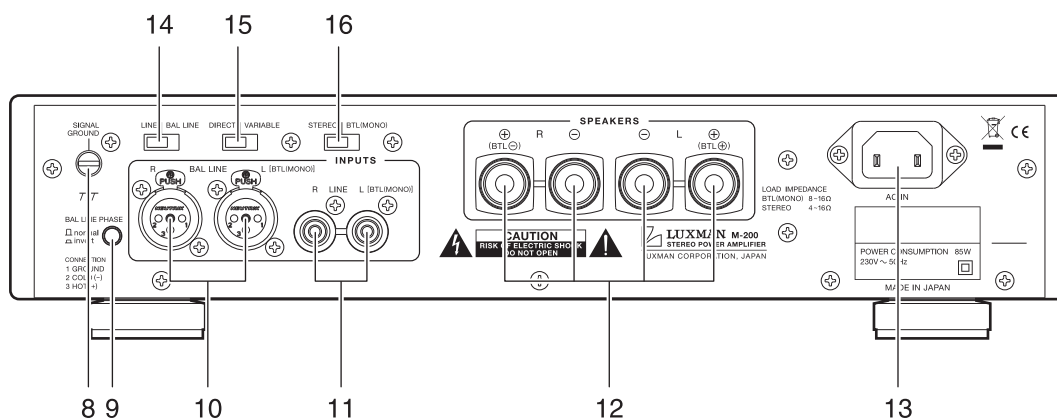
For these input devices, always relay it through a control amplifier or other equipments with volume control or set the volume direct switch (DIRECT/ VARIABLE) located at the back to VARIABLE, turn down the volume to low and set the volume to your preferred level while confirming that the sound comes out from the speaker.

When wiring or connection is performed, be sure to turn off this switch.

Names and Functions

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STEREO POWER AMPLIFIER M-200

Rear panel



8. Signal ground (Grounding Terminal) (SIGNAL GROUND)

Is a signal ground terminal for devices to be connected to this unit. This terminal is used to reduce noise when other devices are connected. This terminal is designed not for grounding for safety.

9. Phase inverter (BAL LINE PHASE)

Change the phase when the balance input terminal is used. The phase shall be corresponding to the phase of the input device.

- | | |
|--|----------|
| <input type="checkbox"/> Normal position | ① GROUND |
| | ② COLD |
| | ③ HOT |
| <input type="checkbox"/> Invert position | ① GROUND |
| | ② HOT |
| | ③ COLD |

10. Balance input terminal / INPUTS (BAL LINE)

Are the balance type input terminals of the LINE level for an XLR connector.

11. Line input terminal / INPUTS (LINE)

Are used for high-level signal inputs from a CD/DVD player, a SACD player, a turner, a video deck, a TV, and other such devices.

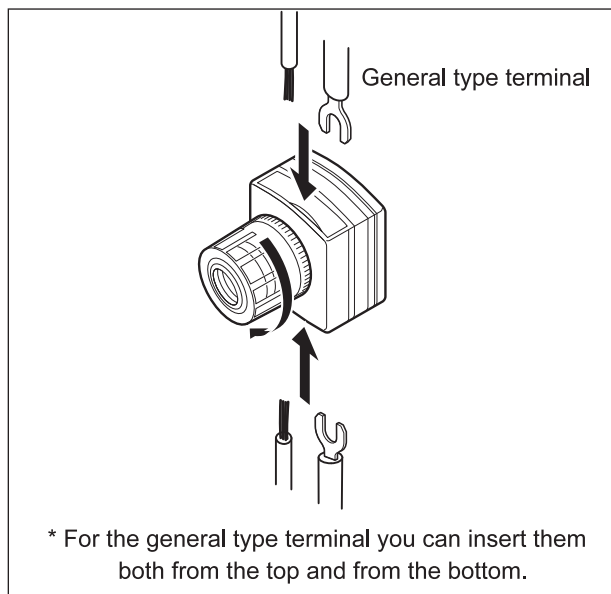
When BTL (BTL (MONO)) is selected, only signal from L side is available.

There is no signal output from the R side input terminal.

Names and Functions

12. Speaker terminal (SPEAKERS)

Connects a speaker system. The right speaker terminal shall be connected to the R side, and the left speaker terminal shall be connected to the L side in consideration of the polarity. When BTL (BTL (MONO)) is chosen the device will become a monaural power amplifier so another M-200 is needed for stereo playback. Connect the right or left speaker terminal as displayed within.



13. AC inlet (AC IN)

Connect the accessory power cable.

14. Input select switch (LINE / BAL LINE)

Selects an input signal to the RCA unbalanced input terminal and the XLR balance input terminal.

15. Volume direct switch (DIRECT / VARIABLE)

Selects between DIRECT mode where the input signal is sent directly to the power amplifier without going through volume circuit, or VARIABLE mode where the input signal go through volume circuit before reaching the power amplifier.

16. STEREO/BTL switch (STEREO / BTL (MONO))

If the switch is set to STEREO, this device will operate as a stereo power amplifier.

If the switch is set to BTL (BTL (MONO)), this device will operate as a monaural power amplifier.

Memory Reset

Perform the following steps to return all settings to its default setting.

- (1) Turn off the power.
- (2) While pressing the device display switch, turn on the operation switch.

Press and hold display switch for more than 5 seconds.

This completes the operation.

Default setting

Item	Set value
Dimmer	HI (normal)
Hold time	1 (sec)
Speaker Impedance	8 (Ω)

Display switch settings

Below setting can be done with display switch (DISPLAY)

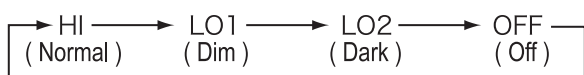
- (1) Adjusts the brightness of the display window. (Dimmer function),
 - (2) Sets the hold time for the power meter,
 - (3) Sets impedance of connected speakers,
- These setting will be saved in flash memory after switching off power.

(1) Dimmer function

The brightness of the display window can be adjusted in four levels (HI, LO1, LO2, OFF) from the ON position to the OFF position.

Press display switch (DISPLAY) shortly (less than one second) and the current brightness level will be displayed.

If the display switch (DISPLAY) is pressed once again when the brightness is displayed, the brightness will change as shown in the figure below.



If you select (Off), the word OFF will be displayed for several seconds and disappear.

This setting will be saved in flash memory after switching off power.

(2) Power meter hold time setting

M-200 power meter displays the greatest output (W) within the set time. Power display changes according to the time setting.

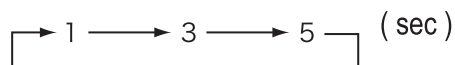
Hold time can be selected from three selection, 1 second, 3 seconds, and 5 seconds.

Press the display switch (DISPLAY) for about 2 seconds. The left display window will display "HLd" (hold time) or "SP" (speaker impedance).

Press display switch (DISPLAY) shortly (less than one second) and the display will switch between "HLd" and "SP". While displaying "HLd", press display switch (DISPLAY) for about 2 seconds. This will initiate hold time setting mode.

The right display window will show a flashing display of current hold time setting.

Press display switch shortly (less than one second) and the hold time will change as shown in the figure below.



When the desired value is displayed, press display switch (DISPLAY) for about 2 seconds. It will set the hold time and the device will exit setting mode.

If the desired value is displayed and left for 5 seconds, it will also set the hold time and the device will exit setting mode.

This setting is stored in the flash memory even when the power is turned off.

(3) Speaker impedance setting

This setting is use to display the power meter value more accurately.

Select the closest value to the connected speaker's impedance from these three options, 8Ω, 6Ω, and 4Ω.

Press display switch (DISPLAY) for about 2 seconds. The left display window will display "HLd" (hold time) or "SP" (speaker impedance).

Press display switch (DISPLAY) shortly (less than one second) and the display will switch between "HLd" and "SP". While displaying "SP", press display switch (DISPLAY) for about 2 seconds. This will initiate speaker impedance setting mode.

The right display window will show a flashing display of current speaker impedance setting.

Press display switch (DISPLAY) shortly (less than one second) and the speaker impedance will change as shown in the figure below.



When the desired value is displayed, press display switch (DISPLAY) for about 2 seconds. It will set the speaker impedance and the device will exit setting mode.

If the desired value is displayed and left for 5 seconds, it will also set the speaker impedance and the device will exit setting mode.

This setting is stored in the flash memory even after the power is turned off.

Connections

Before connections

Before connecting to other devices, please connect the supplied power cable jack (the one with two holes) to the AC inlet of this device.

How to connect power supply

Use the accessory power cable and insert the AC plug in a AC outlet on the wall in the room where the unit will be installed

How to connect CD player, DVD player, tuner, or other devices

Please connect the output terminal of the input device to the input terminal of this device using two (left and right) pin cables or a balance cable.

When using an input device with no volume control, such as CD player, etc., set direct volume switch (DIRECT / VARIABLE) to VARIABLE. Choose DIRECT when using an input with volume control function, such as control amplifier, etc.

Adjust direct volume switch between (DIRECT / VARIABLE) according to the connected device.

How to connect speakers

(stereo connection)

Connect the right-channel speaker to the right speaker terminal of the M-200 stereo power amplifier and the left-channel speaker to the left speaker terminal of the M-200 stereo power amplifier and the left-channel speaker to the left speaker terminal. Correctly connect the "⊕" terminal of the speaker system to the speaker terminal "⊕" (red) of this unit and also the "⊖" terminal of the speaker system to the speaker terminal "⊖" (black) of this unit. If the "⊕" or "⊖" terminal is reversely connected one side of the right of left speaker, the acoustic phases of the sound played from the right and left speaker systems are also reversed. The sound level in low range will be reduced and the acoustic stability will worsen, thus failing in normal stereo playback.

(BTL connections)

When you choose BTL (BTL (MONO)) the device will become a monaural power amp so another M-200 will be necessary to do a stereo playback.

Connect the M-200 speaker port for the left channel to the speaker for the left channel and the M-200 speaker port for the right channel to the speaker for the right channel.

Please be sure to connect each speaker system's ⊕ port to this device's LEFT SPEAKER terminal's red (BTL ⊕ side) port and the ⊖ port to this device's RIGHT SPEAKER terminal's red (BTL ⊖ side) port.

In order to have normal stereo playback you must be careful not to turn the left and right channels or the ⊕ ⊖ port connections upside down.

Within the speaker converter switch box are things to which the ⊖ side of the speaker terminal is connected to communal grounding. When the device is in BTL connection mode, the inverted output side will short-circuit the communal grounding and cause too much electrical current to flow. A safeguard circuit is running and will cause failure so please do not use these kinds of switch boxes.

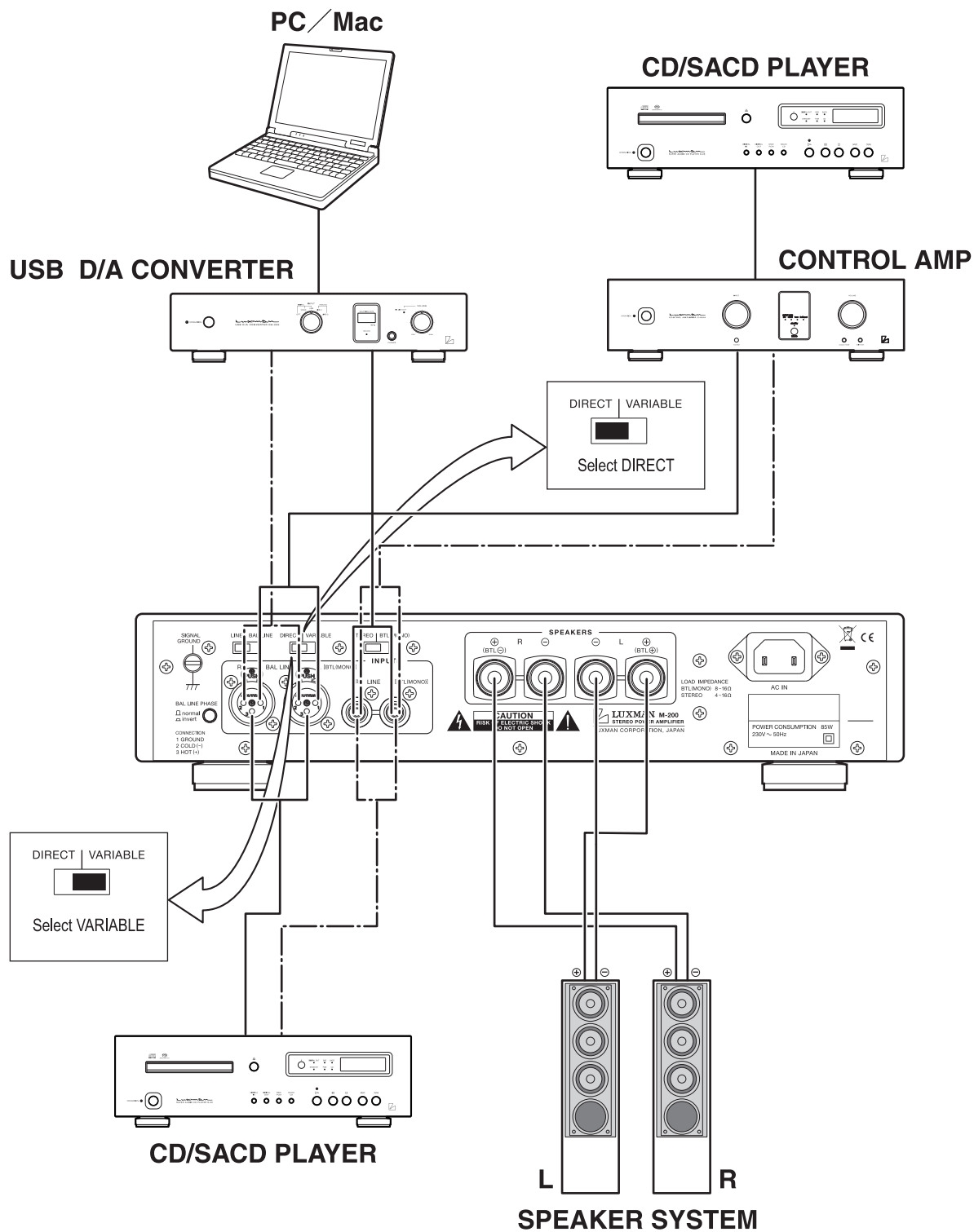
When in BTL connection mode please either directly connect to the speaker system or use a switch box that independently converts the speaker terminal's ⊖ side also.

In order to protect the amps and speakers from excessive input, please have this device's operation switch turned to off when connected to input devices or speaker systems.

After connecting, check that they have been connected properly before activating the device.

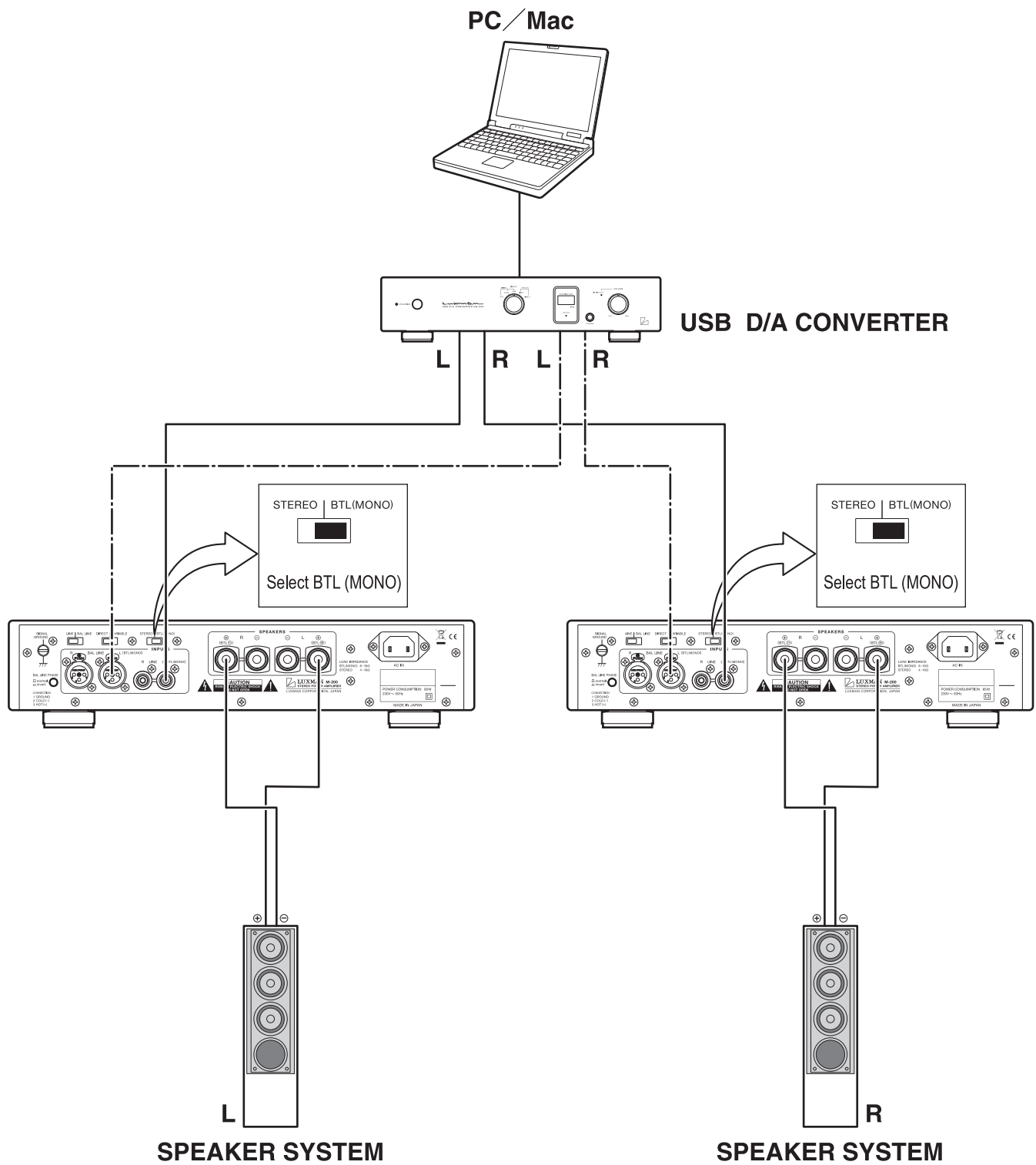
Connections

Stereo Connection



Connections

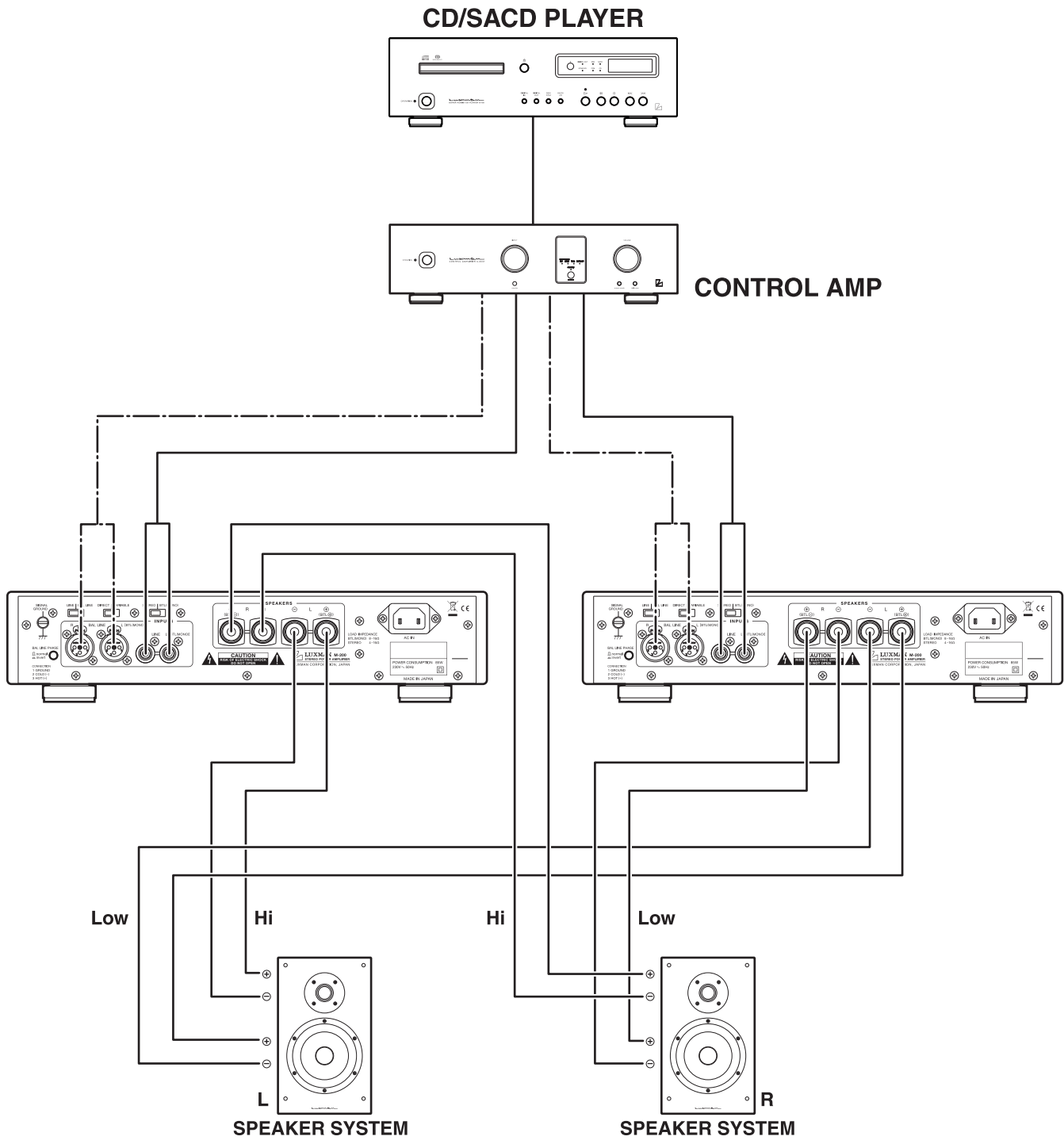
BTL Connection



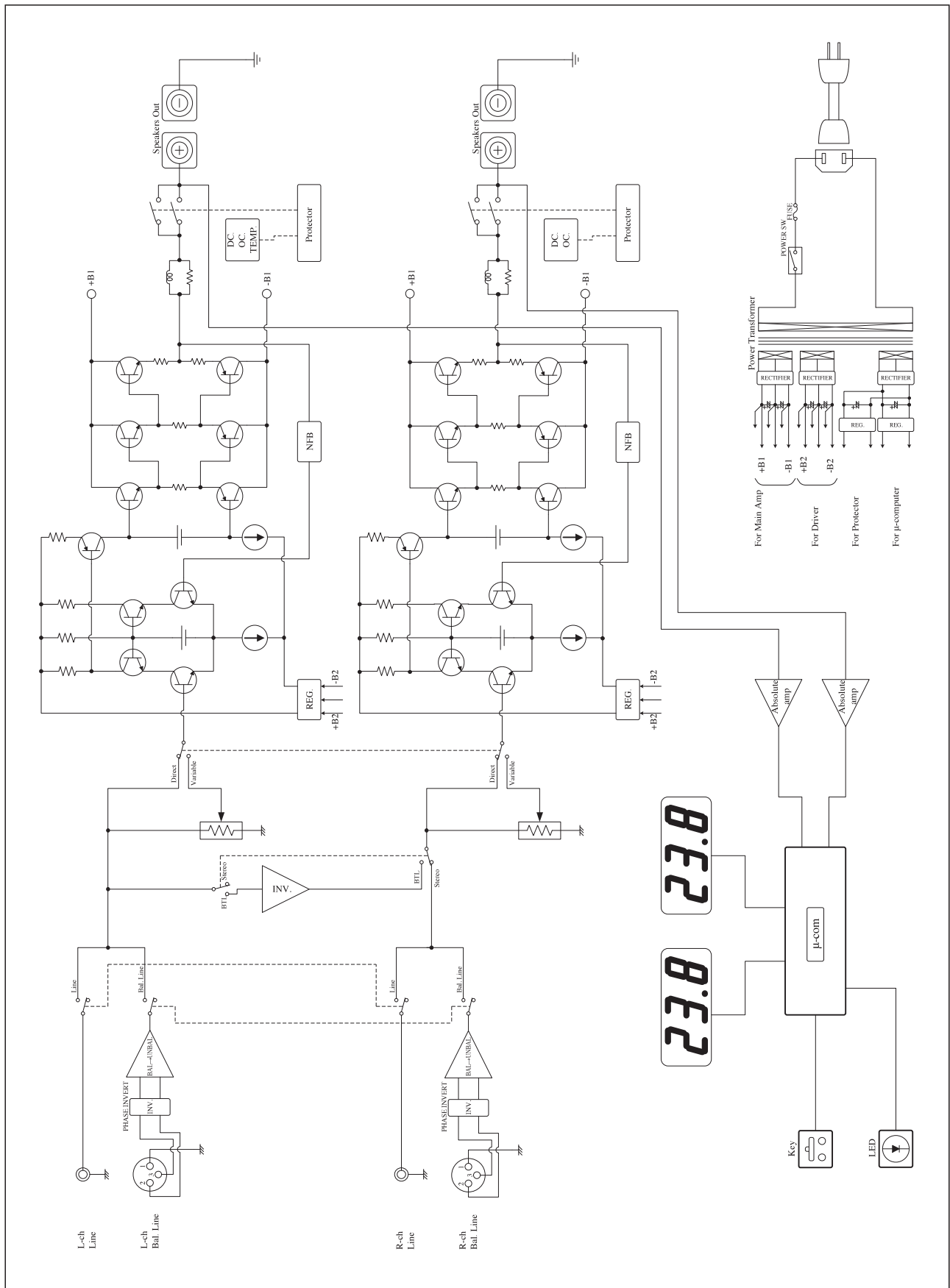
Connections

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Bi-amp Connection



Block Diagram



Specifications

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Continuous power output	(Normal)	25W + 25W (8Ω)
		35W + 35 W (4Ω)
	(BTL)	70W (8Ω)
Total harmonic distortion		0.005% (8Ω, 1 kHz, both channels simultaneous drive)
		0.06% (8Ω, 20~20kHz both channels simultaneous drive(-3dB))
Input sensitivity / input impedance	LINE:	: 1V / 16 kΩ
	BALANCE	: 1V / 33 kΩ
Amplification	STEREO	: 23dB
	BTL	: 29dB
S/N Ratio	LINE	: 107dB or over (IHF-A weighted, input shorted)
	BALANCE LINE	: 102dB or over (IHF-A weighted, input shorted)
Frequency response		: 20Hz ~ 20,000Hz (-0.2dB)
		: 10Hz ~ 100,000Hz (within -3dB)
Damping factor		:100
Accessory devices		<ul style="list-style-type: none"> • Display window Power meter (brightness adjustment, speaker impedance setting, hold time setting) • Display switch • Input select switch • Volume direct switch • Volume control • Stereo/BTL switch • Phase inverter
		<ul style="list-style-type: none"> • Warranty card • Safety instruction
Attachments		<ul style="list-style-type: none"> • Power cable • Owner's Manual
Power supply voltage		230V ~ 50Hz
Power consumption		85 W
		32 W (No input)
Dimension		364 (W) X 81 (H) X 297 (D) mm
		(Depth, including 11mm front knob and 28mm rear terminal)
Net weight		7.0kg

* Specifications and appearance are subject to change without notice.

Troubleshooting

While the unit is used, an unusual phenomenon may be confused as a malfunction for a certain reason. Prior to asking us for repair services, please check the table below and read the instruction manual for the subsidiary devices. If the cause of the malfunction cannot be identified, please contact your dealer.

Problem	Cause	Solution
No power is supplied even though the power switch is pressed.	<ul style="list-style-type: none"> The power plug is disconnected from the wall outlet, or it is not completely inserted. The power plug is disconnected from the AC inlet, or it is not inserted completely. 	<ul style="list-style-type: none"> Insert the power plug in the wall outlet securely. Insert the power plug in the AC inlet securely.
No sound is generated.	<ul style="list-style-type: none"> The volume control is set to the minimum level. The input selector is not set in the playback source position. Cable connections are incomplete. The output level of the input device is set to the minimum position. 	<ul style="list-style-type: none"> Rotate the volume control clockwise to adjust the sound volume. Set the input selector in the playback source position. Make cable connections securely. Adjust the output level.
No sound comes out on one side. There is only mono output and the volume is low. Abnormal sound localization. No bass sound.	<ul style="list-style-type: none"> The connecting cable is not connected on one side only. The device is connected to as a BTL but the Stereo/BTL setting is set to STEREO. The device is connected to a Stereo but the Stereo/BTL switch is set to BTL (MONO). The control amplifier's balance control is biased to one side. Connections to L channel and R channel are reversed. The ⊕ ⊖ of one side of the speaker system are reversed. 	<ul style="list-style-type: none"> Make cable connections securely. Set the Stereo/BTL switch to BTL (MONO) when the device is connected to as a BTL. Set the Stereo/BTL switch to STEREO when the device is connected to a Stereo. Adjust the amplifier's balance control to your preferred position. Connect the L channel and R channel properly. Connect the ⊕ ⊖ of both sides of the speaker system properly.
Humming sound (boon or zzz noise) is generated.	<ul style="list-style-type: none"> The ground side of the pin-plug cable has no contact with the terminal. 	<ul style="list-style-type: none"> Make connections securely so that the ground side of the pin-plug cable makes contact with the terminal.
Display window does not lit.	<ul style="list-style-type: none"> Dimmer adjustment is set to "Off". 	<ul style="list-style-type: none"> Set the dimmer to "On" with the display switch.



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