

# OWNER'S MANUAL

Quality. Uncompromised.

# ROTEL®



**STEREO  
DC POWER  
AMPLIFIER**

# RB-1000

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

Write your **SERIAL NUMBER** here.  
The number is located near the name plate on  
the unit's rear panel.

— SERIAL NUMBER —

**THE ROTEL CO., LTD.**

1-36-B Ohokayama, Meguro-ku, Tokyo, Japan

**INTRODUCTION**

We at Rotel would like to take this opportunity to thank you for purchasing our 1000 series audio components.

The quality sound and high performance of this component are the result of Rotel's advanced electronics technology coupled with our own love of fine music. We are confident that this superb component will meet with your full satisfaction.

We ask you to fully read this instruction manual before using your unit, in order to assure proper operation, and so that you may enjoy its full performance for many years to come.

**BEFORE ENJOYMENT/  
POWER SUPPLY**

Follow the instructions below for maximum safety:

**1. Use a wall outlet for power supply**

Be sure to connect the AC line cord directly to a household wall outlet, and not to an auxiliary outlet on another component. Be certain that the outlet voltage matches the electrical rating of the unit, found on the rear panel name plate.

**2. Connecting and removing AC cord**

Be sure to connect or disconnect the AC line cord only after turning off the power switch, to prevent possible shock noise or damage to the speakers.

**3. Furnished Convenience AC Outlet**

Do not connect other appliance(s) to convenience AC outlet if its/their total power consumption exceeds maximum rated watts labeled next to the outlet.

**4. Ventilate the unit well**

Never block any ventilation holes at the top and bottom of the unit. Be sure also to provide ample ventilation space around the unit. Poor ventilation may result in damage due to excessive heat.

**5. Do not open the cabinet**

In order to avoid electric shock or damage to the component, never open the cabinet. If a foreign object falls inside the unit by mistake, turn the power off, disconnect the wall plug, and consult a qualified electrician or your dealer.

**6. Turn the volume control initially to minimum**

When lowering the tonearm of your turntable onto a record, an excess of current in the lower frequency range may cause damage to the speakers. To prevent this, always minimize the volume setting initially.

**7. Moving the unit**

When transporting, remove the AC

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cord from the wall outlet and all other connected cords on the rear panel to prevent wire breakage and short circuits.

### 8. If the unit gets wet

If the unit should get wet, immediately disconnect the AC cord, and consult your dealer or a qualified electrician.

### 9. Cleaning and maintenance

Do not use chemicals such as benzine or thinners on the front panel. Always use a soft, dry cloth to clean the unit.

### 10. Retain the owner's manual

Retain the owner's manual near the unit, and write down the serial number (found on the rear panel) on the cover.

Note: Item 6 concerns the use of the volume adjustment on the control amplifier connected to this unit. Please be certain to read carefully the owner's manuals for both this component and the control amplifier you are using.

### EXCLUSIVE NOTE FOR U.K.

If your unit comes with a 3-core cable without a plug, make certain live, neutral and (where appropriate) earth leads are connected to the proper terminals. Check that the terminals are screwed down firmly and no loose strands of wire are present.

**WARNING: THIS APPARATUS MUST BE EARTHED.**


**IMPORTANT:** The wires in this mains lead are coloured in accordance with the following code:

**GREEN/YELLOW: EARTH**

**BLUE : NEUTRAL**

**BROWN : LIVE**

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows.

The wire which is coloured **GREEN/YELLOW** must be connected to the terminal in the plug which is marked by the letter **E** or by the safety earth symbol  or coloured **GREEN/YELLOW**.

The wire which is coloured **BLUE** must be connected to the terminal which is marked with the letter **N** or coloured **BLUE** or **BLACK**. The wire which is coloured **BROWN** must be connected to the terminal which is marked with the letter **L** or coloured **BROWN** or **RED**.

The apparatus must be protected by a 3 Amp fuse if a 13 Amp (BS 1363) plug is used. If another type of plug is used a 5 Amp fuse or lower must be used, either in the plug or adapter or at the distribution board.

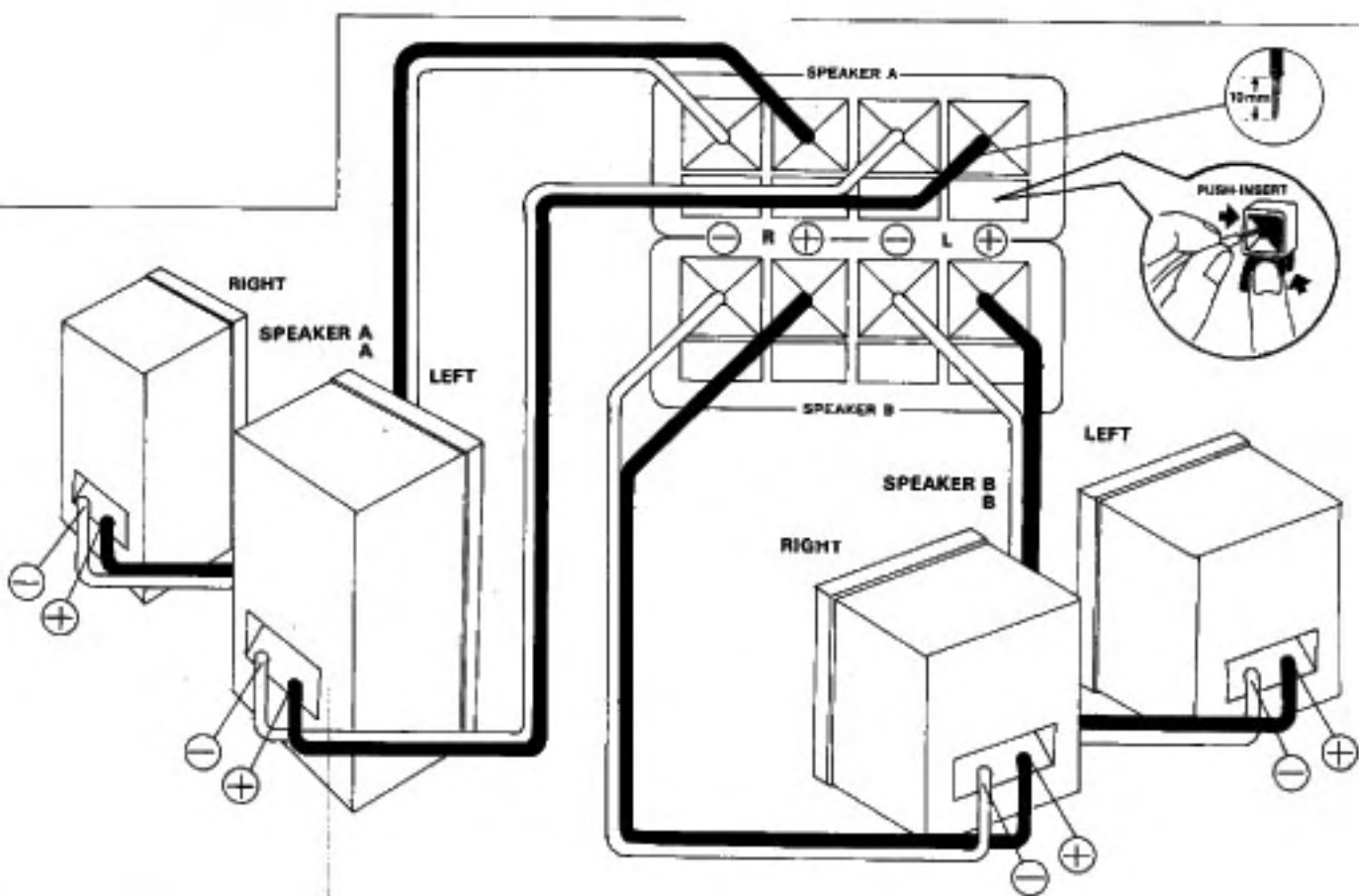
**INSTALLATION**

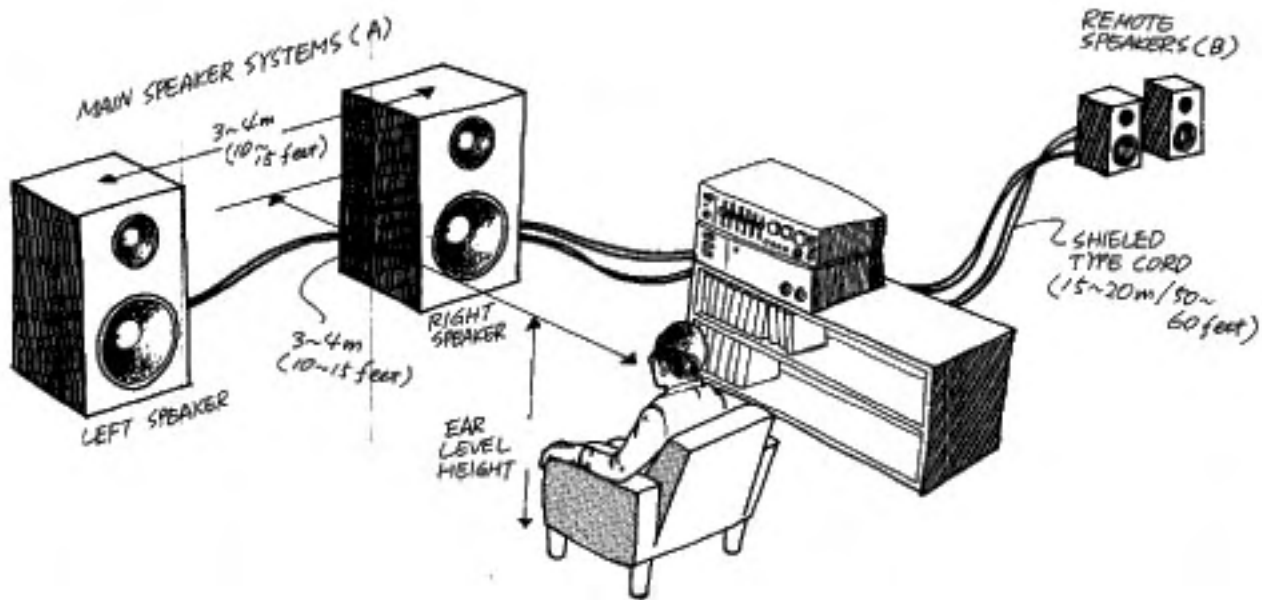
Be sure to place the unit in a level and flat place where it is free from humidity, vibration, high temperature and not exposed to direct sunlight.

Be careful not to place the unit in a highly enclosed place such as near a wall or on a bookshelf. A poor ventilation will cause undesirable effects to the unit.

**SPEAKERS**

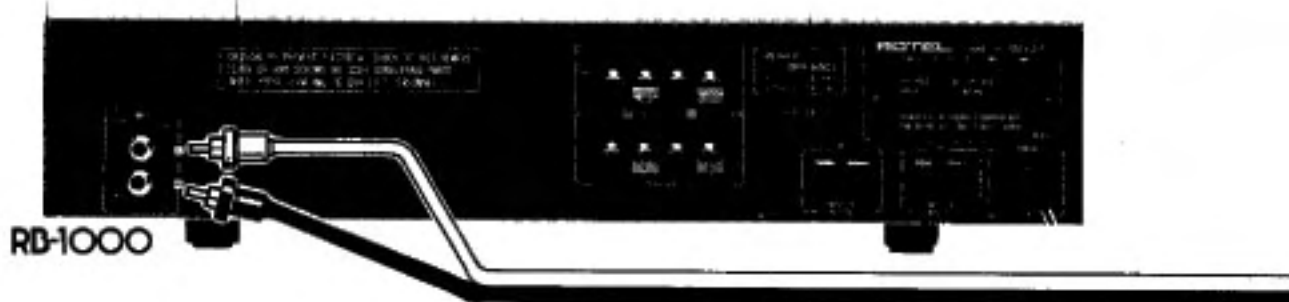
Be sure to use only speakers rated at 4 ~ 16 ohms. The unit will accept 2 pairs of speaker systems, but if the 2 systems are to be driven simultaneously, each speaker should be rated at 8 ~ 16 ohms. The speaker impedance may be found on the name plate or the instruction manual of the speaker.

**SPEAKERS CONNECTION**



### CONNECTION OF CONTROL AND POWER AMPLIFIERS

Connect the OUTPUT terminals of the control amplifier to the INPUT terminals of the power amplifier. Be certain that respective right and left terminals are properly matched.



### CONTROL FUNCTIONS

(1)

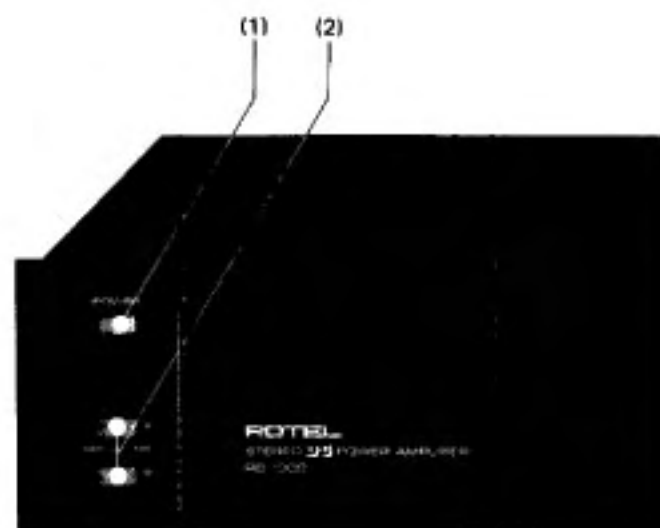
#### Power Switch

Pressing this switch will turn the power on, and the pilot lamp will illuminate, indicating that the unit is functioning.

(2)

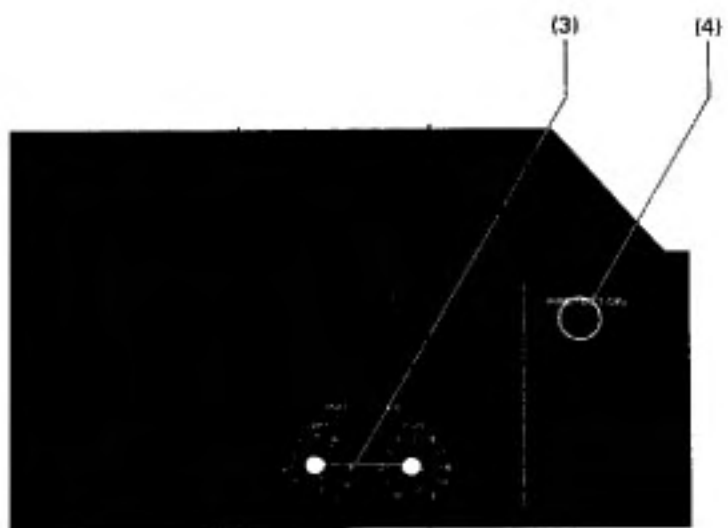
#### Speaker Switches (A & B)

Use this switch to select which of the speaker systems connected to the A and B terminals on the rear panel you wish to listen to. Both systems may also be driven simultaneously.





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CONTROL AMPLIFIER



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(3)

### **Input Level Control**

Input level is controlled independently for right and left channels. Input level is increased as the knobs are turned to the right and decreased as they are turned to the left. The use of these controls allows the listener to compensate for differences in efficiency between right and left speakers.

(4)

### **Protection Indicator**

This lights up when the protection circuit has gone into effect, as it is intended to protect the speakers and components in the event of a speaker short, a malfunction in the component, or a surge in electric current. (When the power is first turned on, the protection circuit will light up for about 7 seconds to prevent a loud pop-noise due to power transient. This does not indicate a malfunction.)

Should the indicator go on, immediately turn the power switch off and investigate the source of the trouble. After correction, turn the power on once again. Hence the protection circuit will not be deactivated until the power is turned off. However, when the signal from the control amplifier is unstable, the circuit may be automatically deactivated even though the power switch is not manipulated. In such case, the problem is probably in the control amplifier.



## **OPERATION**

Before operating the unit, check to be certain that power source connections and connections between the control amplifier, speakers, etc. have been made correctly.

Volume is adjusted by the control amplifier. Before turning the power on, set the volume control to the minimum position.

1. Select either the A or B speaker system. Set the right and left input level controls to "10".

2. Turn the power on.

3. Following the momentary action of the protection circuit, the unit will begin normal operation.

4. As you listen to the program, use the control amplifier volume control to adjust the sound to the desired level.

5. If there should be any difference in output between right and left channels, use the input level controls to make the appropriate adjustments.

## **THE PROTECTION CIRCUIT**

The RB-1000 incorporates all possible safety measures by combining multiple protection circuits to prevent accident or damage.

If for some reason the protection circuit is activated, there will be a sudden cut-off of sound from the speakers, and the protection indicator will light up.

If no sound is produced after performing the previously mentioned checks, the reason may be due to the functioning of the protection circuit. First, turn off the power and disconnect the plug from the electrical outlet, and check to be sure that the speaker cables are not short circuited. Also, if two pairs of speaker systems are being used simultaneously, check to see whether or not the impedance of each speaker exceeds 8 ohms (if it is below 8 ohms, the unit will be overloaded due to low impedance). After checking the above points, turn the power on, and the protection circuit will be automatically deactivated and the unit start functioning again.

**HUM AND NOISE**

In any high fidelity installation, hum may be caused by the interconnection of a record player, tuner and amplifier, and speakers as result of the cables, different grounds or locations of components. If hum is experienced with your unit, disconnect everything but the speakers from the unit. If the hum persists, reverse the power plug at the power source.

Plug in the record player and if hum or howling appears, move the record player away from the speakers as much as possible.

Note hum may also be induced by defective connection cables or by running these cables too close to a strong AC field.

When your unit picks up noise during the reception of broadcasts, causes are mostly due to external objects such as fluorescent lamps and house appliances using motor or thermostat, or others that may induce the noises.

Either relocating the unit away from the noise sources or using an improved outdoor antenna may readily solve the problem.

In the event you cannot find the causes, consult your dealer or a qualified electrician.

**VOLTAGE SELECTION**

**Not available for U.K., Canada and Scandinavia**

The unit is a variable voltage equipment that can run on 120V, 220V or 240V power supply. Your unit should already be preset at the proper voltage for use in your area. However, if you move to an area where the power supply voltage is different, the voltage setting can be manually changed. **BE SURE THAT YOUR UNIT IS NOT CONNECTED TO THE POWER SOURCE BEFORE ATTEMPTING TO MAKE THIS CHANGE.**

To check the voltage setting, remove the name plate on the rear panel and locate the **VOLTAGE SELECTOR**. Use a screwdriver to turn the voltage selector to the required voltage.

## SPECIFICATION:

Continuous Power Output . . . . .	.65 watts* per channel min, RMS both channels driven into 8 ohms or 75 watts* per channel both channels driven into 4 ohms from 20 to 20,000Hz with no more than 0.03% total harmonic distortion.
Total Harmonic Distortion . . . . . (20 Hz to 20,000Hz)	No more than 0.03% (Continuous rated power output) No more than 0.01% (32.5 watts per channel power output, 8 ohms) No more than 0.01% (1 watt per channel power output, 8 ohms)
Intermodulation Distortion . . . . . (60Hz : 7kHz = 4 : 1)	No more than 0.03% (Continuous rated power output) No more than 0.01% (32.5 watts per channel power output, 8 ohms) No more than 0.01% (1 watt per channel power output, 8 ohms)
Frequency Response . . . . .	.5 - 100,000Hz + 0dB, -1.0dB (1 watt per channel power output, 8 ohms)
Input Sensitivity/Impedance . . . . .	.1V/20 kohms
Damping Factor . . . . .	.50 (20 to 20,000Hz, 8 ohms)
Hum and Noise . . . . .	.110dB (IHF, A network)
Residual Noise . . . . .	.150µV
Crosstalk (10kHz) . . . . .	.55dB (reverse channel shorted)
Power Requirements . . . . .	.120V/60Hz or 220V/50Hz or 240V/50Hz or 100, 120, 220, 240V/50 - 60Hz
Power Consumption . . . . .	.500 watts (max.)
Dimensions (overall) . . . . .	W 430mm (16-15/16") H 98mm ( 3-27/32") D 290mm (11-13/32")
Weight (net) . . . . .	.7.1kg/15.62 lbs.

Note: Specification and design subject to possible modification without notice

\*Measured pursuant to the Federal Trade Commission's Trade Regulation Rule on Power Claims for Amplifiers. (Applicable to the U.S.A. only)