ROTEL®

POWER AMPLIFIER
RHB05

OWNER'S MANUAL

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 on the rear panel.

SAFETY INSTRUCTIONS

EXCLUSIVE NOTE FOR U.K.

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

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

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 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 colour BROWN or RED.

• Explanation of Graphical Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert you 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 exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Read Instructions — All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions — The safety and operating instructions should be retained four for future reference.
3. Head Warnings — All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions — All operating and other instructions should be followed.
5. Water and Moisture — The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
6. Carts and Stands — The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. Wall or Ceiling Mounting — The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat — The appliance should be situated away from heat sources such as radiators, stoves, or other appliances that produce heat.
10. Power Source — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Power-Cord Protection — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
12. Cleaning — The appliance should be cleaned only as recommended by the manufacturer.
13. Nonuse Periods — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
14. Object and Liquid Entry — Care should be taken so that objects do not fall into and liquids not spilled into the inside of the appliance.
15. Damage Requiring Service — The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the cabinet damaged.
16. Servicing — The user should not attempt to service the appliance beyond those means described in the operating instructions. All other servicing should be referred to qualified service personnel.
17. Grounding or Polarization — The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.

INTRODUCTION

A WORD FROM ROTEL

The people at Rotel would like to take this opportunity to thank you for purchasing an RHB05 power amplifier. This is one of our RH Series High End components and has been designed to provide the highest possible performance in a compact size chassis. All aspects of the design have been thoroughly researched and tested. The ultimate goal for the RH Series components is the faithful recreation of the musical experience. To achieve this end, we use high quality test equipment and then we listen and evaluate our designs. Our goal is to make the best possible power amplifier while retaining the musicality and the nuance of the music. This requires time and a lot of listening. The result will reward you and make music more enjoyable for you. The RHB05 will provide you with satisfaction for years to come.

We have been designing and manufacturing quality high fidelity products for more than thirty years. Our commitment to high quality and excellent sound is well known. The people at Rotel love music and the enjoyment it can provide. This is why we strive to create the finest possible amplifiers, CD players, preamplifiers and tuners in the world. The RH Series is made to these design and listening criteria. We are pleased that you have chosen this component for your system.

Please read this instruction manual carefully to ensure proper installation and use of the RHB05 power amplifier. Please keep this manual and the box (including the packing material) in case you should move or in the event that the unit should need service. We thank you for purchasing our RHB05 amplifier to amplify your music. We appreciate being a part of your life.

UNPACKING AND INSTALLING

Please refer to the drawings of the Front and Rear panels to visualize the instructions in the text.

Carefully unpack your power amplifier and place it gently in its intended location. Place it on a firm, flat surface where it will be free from dust, direct sunlight, excessive humidity, moisture, heat or cold. *It should not have anything stacked on top of it and should have a minimum of 75mm (3") clearance above it for cooling.*

THIS UNIT IS DESIGNED TO WORK ON THE VOLTAGE SPECIFIED ON THE BACK PANEL ON THE ROTEL NAME PLATE. *DO NOT ATTEMPT TO OPERATE THE UNIT WITH INCORRECT VOLTAGE.* IF IN DOUBT ABOUT THE CORRECT VOLTAGE, ASK YOUR AUTHORIZED ROTEL DEALER FOR ADVICE OR INFORMATION.

THE CABINET

There are *NO user serviceable parts inside this unit.* Do not attempt to open the cabinet, as this could damage your power amplifier and void your warranty. If this unit is dropped or does not seem to function properly, disconnect the unit and consult your Rotel dealer.

If any moisture or a foreign object falls into the cooling vents in the top of the amplifier, it should be immediately unplugged from the AC mains and checked by your Rotel Dealer.

CLEANING YOUR POWER AMPLIFIER

If this device becomes dirty, wipe it with a CLEAN, DRY, SOFT cloth. The end panels will also benefit from polishing in this way. Never use liquid cleaning compounds of any type as residual moisture may cause short circuits and damage your amplifier. *This would also void your warranty.*

CONNECTING THE RHB05 TO YOUR SYSTEM

The power amplifier has INPUT RCA jacks on the rear panel., Be sure that you observe the correct connections for the Left and Right channels on the RHB05. This amplifier is non inverting. *If it is operated with a preamplifier that is an inverting design you may wish to connect the speaker cables with opposite polarity. Consult the manufacturer or your Authorized Rotel dealer for more information about this.* If you have a Rotel preamplifier it is also non inverting and all connections should be made in a normal way.

We recommend using low capacitance, high quality RCA patch cables from the output jacks of your preamplifier to the input of your RHB05. These should be plugged in while the RHB05 is **OFF**. High quality wires can have a beneficial effect on sound quality. We suggest choosing a quality cable set by auditioning several brands to see which is most compatible with your system.

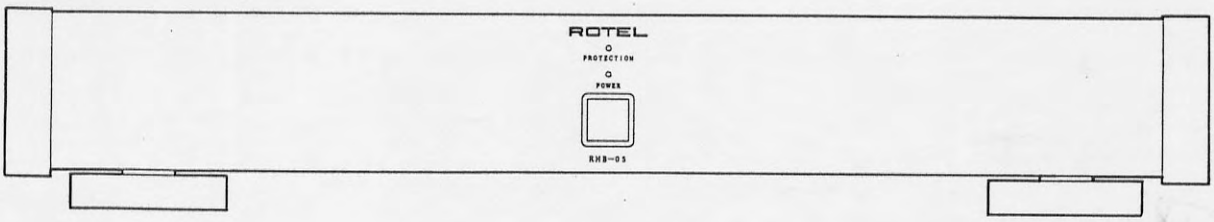
Speaker cables should be high quality, low capacitance designs. In the event that the cable you choose is high in capacitance, the RHB05 needs to be adjusted internally to provide optimum sound quality. CONSULT YOUR AUTHORIZED ROTEL DEALER WHEN WISHING TO HAVE THIS ADJUSTMENT PERFORMED.

To decide if your chosen speaker cable is high or low capacitance you should read the cable manufacturers literature or consult the dealer or manufacturer.

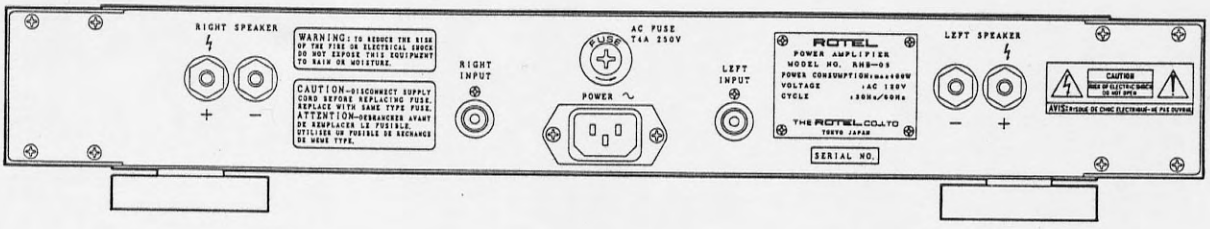
The RHB05 has output terminals that will accept banana plugs, bare wire or spade lugs. The **Red** terminal is **Positive** and the **Black** terminal is **Negative**.
(This is true for both the Left and Right channels.) Be certain that the connections are tight and no stray wires are touching between the Red and Black output terminals.

Make all connections to the amplifier while it is turned off or unplugged. This is a high power amplifier and unplugging an RCA patch cable while the amp is on could potentially damage a speaker if a "pop" noise is created. We strongly recommend that all wiring changes be made when the amplifier is OFF.

FRONT PANEL



REAR PANEL



FRONT PANEL CONTROLS AND INDICATORS

POWER BUTTON

Push the Power Button in to turn the amplifier ON and the red Power LED will light. Push the button again and it will turn the amplifier OFF. The Power LED will go out.

PROTECTION INDICATOR

When the amplifier is turned on the Protection indicator will illuminate for a few seconds. During this time no sound will be heard through the amplifier. This is designed to allow the amplifier circuits to stabilize before connecting them to the speakers.

If the amplifier overheats for any reason the Protection circuit will activate and the Protection LED will be illuminated. *No sound will be heard through the amplifier during this time.* The amplifier will begin play again when the temperature of the unit is lowered. If the circuit continually activates there may be a problem with the speakers or the speaker wires. Investigate to discover if there is a short circuit in the wires or in the connections on the back of the amplifier.

If the circuit activates and there is no apparent difficulty with the wiring or the speakers, unplug the amplifier and call your Rotel dealer for advice.

"BREAK IN PERIOD"

New components need to be "aged" or "burned in" in order to fully provide the best sound quality. This amplifier will provide good sound from new but will be even more musical after approximately 100 hours of playing time.

This will happen as a natural process and will require no extra effort or worry on your part. It will just improve the already excellent detail and musicality inherent in the RHB05. We suggest that the amplifier does not need to be used for 100 hours continuously to "break in" properly. Normal use and enjoyment will be sufficient to accomplish this.

A FINAL WORD ABOUT THIS AMPLIFIER

We have listened to and fine tuned this design extensively during the design and development phase. We have done this because the RH Series is our expression of high performance audio equipment. We did not design this with a price in mind, merely the finest possible sound and performance. We hope you enjoy owning this amplifier for years as it provides you with trouble free service and most importantly, *MUSIC*.

SPECIFICATIONS RHB05 POWER AMPLIFIER

Frequency response	10 to 130,000 Hz +0 or –1 dB
Signal to noise ratio	120 dB (IHF A)
Input impedance	30 k Ohms
Sensitivity	0.775 volts
Speaker Impedance	4-8 Ohms
Rated Output	100 watts at 8 Ohms 20-20,000 Hz
	160 watts at 4 Ohms 20-20,000 Hz
Total Harmonic Distortion	0.03% (20-20,000 Hz, continuous rated power)
Intermodulation Distortion	0.03% (continuous rated power)
	60 Hz:7 kHz = 4:1
Slew Rate	±40 volts/microsecond
Damping Factor	550 (20-20,000 Hz at 8 Ohms)
Voltage required	120 volts/60 Hz, 220,230,240 volts/50 Hz
Power consumption	400 watts
Dimensions	470 mm (W) × 80 mm (H) × 365 mm (D)
	18 1/2″ × 3″ × 14 3/8″
Weight (net)	13.5 kg (29.7 lbs.)