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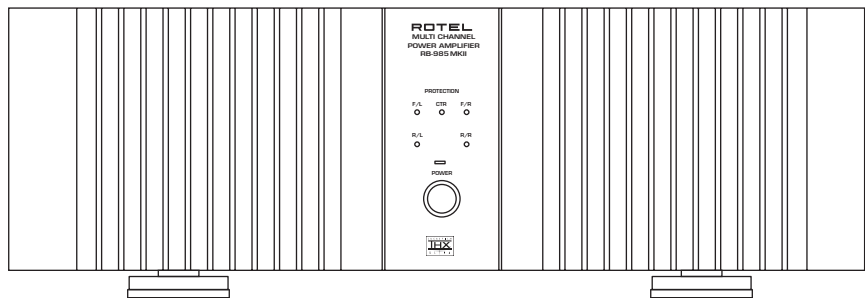
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RB-985 MKII

FIVE CHANNEL POWER AMPLIFIER
AMPLIFICATEUR DE PUISSANCE À CINQ CANAUX
FÜNFKANAL-ENDSTUFE
AMPLIFICATORE DI POTENZA A CINQUE CANALI
ETAPA DE POTENCIA DE CINCO CANALES



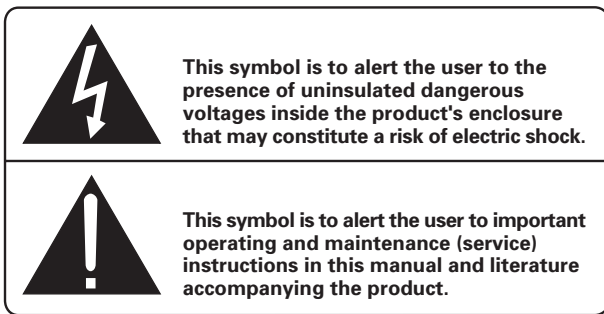
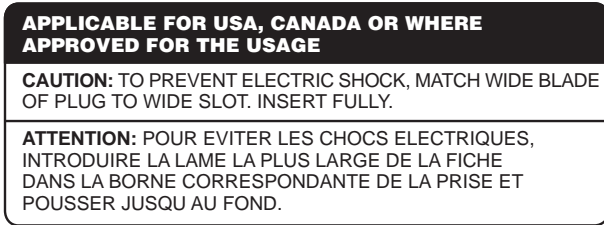
Owner's Manual

Guide d'utilisation

Bedienungsanleitung

Manuale di Istruzioni

Manual de Instrucciones



WARNING:

There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

WARNING:

To reduce the risk of fire or electrical shock, do not expose the unit to moisture or water. Do not allow foreign objects to get into the enclosure. If the unit is exposed to moisture, or a foreign object gets into the enclosure, immediately disconnect the power cord from the wall. Take the unit to a qualified service person for inspection and necessary repairs.

Read all the instructions before connecting or operating the unit. Keep this manual so you can refer to these safety instructions.

Heed all warnings and safety information in these instructions and on the product itself. Follow all operating instructions.

Clean the unit only with a dry cloth or a vacuum cleaner.

You must allow 10cm, or 4 inches, of unobstructed clearance around the unit. Do not place the unit on a bed, sofa, rug, or similar surface that could block the ventilation slots. If the unit is placed in a bookcase or cabinet, there must be sufficient clearance around the unit and ventilation of the cabinet to allow proper cooling.

Keep the unit away from radiators, heat registers, stoves, or any other appliance that produces heat.

The unit must be connected to a power supply only of the type and voltage specified on the rear panel of the unit.

Connect the unit to the power outlet only with the supplied 2-pin polarized power supply cable or an exact equivalent. Do not modify the supplied cable in any way. Do not attempt to defeat grounding and/or polarization provisions. The cable should be connected to a 2-pin polarized wall outlet, matching the wide blade of the plug to the wide slot of the receptacle. Do not use extension cords.

Do not route the power cord where it will be crushed, pinched, bent at severe angles, exposed to heat, or damaged in any way. Pay particular attention to the power cord at the plug and where it exits the back of the unit.

The power cord should be unplugged from the wall outlet if the unit is to be left unused for a long period of time.

Immediately stop using the unit and have it inspected and/or serviced by a qualified service agency if:

- The power supply cord or plug has been damaged.
- Objects have fallen, or liquid has been spilled, into the unit.
- The unit has been exposed to rain.
- The unit shows signs of improper operation
- The unit has been dropped or damaged in any way

Place the unit on a fixed, level surface strong enough to support its weight. Do not place the unit on a moveable cart that could tip over.



ROTEL FIVE CHANNEL POWER AMPLIFIER RB-985 MKII

Figure 1: Controls and Connections
 Commandes et prises
 Bedienelemente und Anschlüsse
 Controlli e collegamenti
 Controles y Conexiones

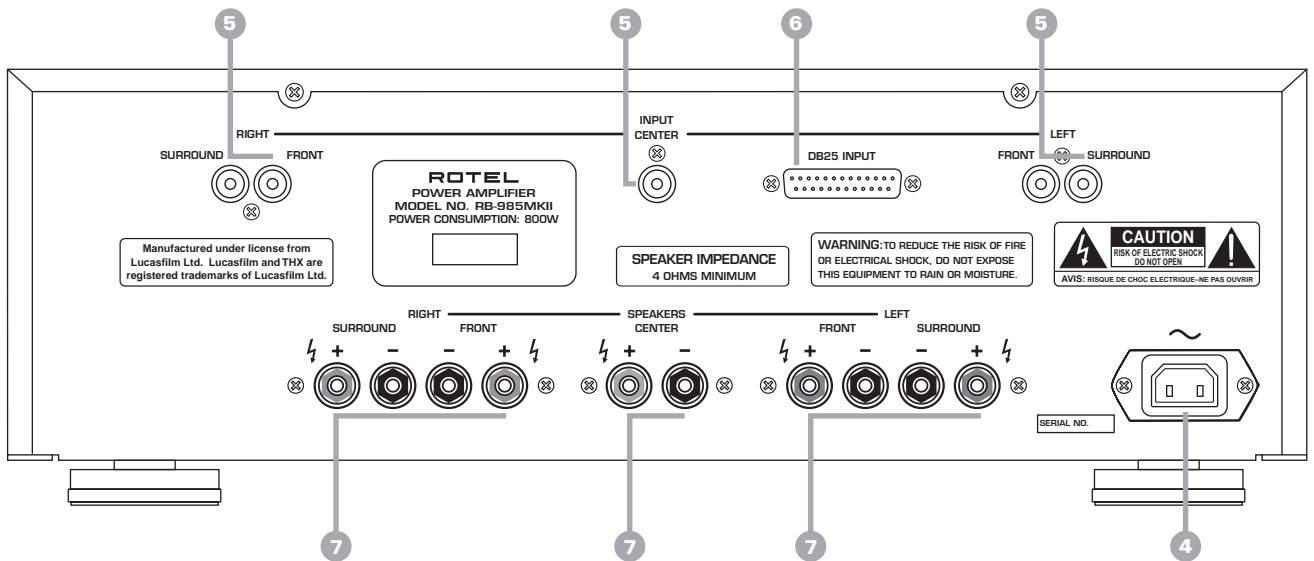
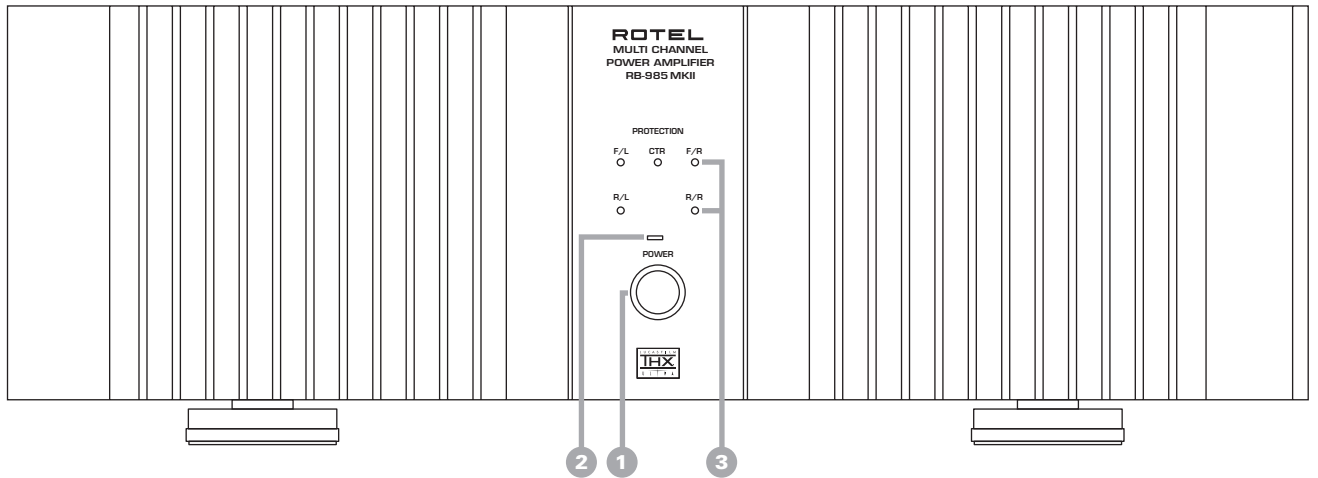
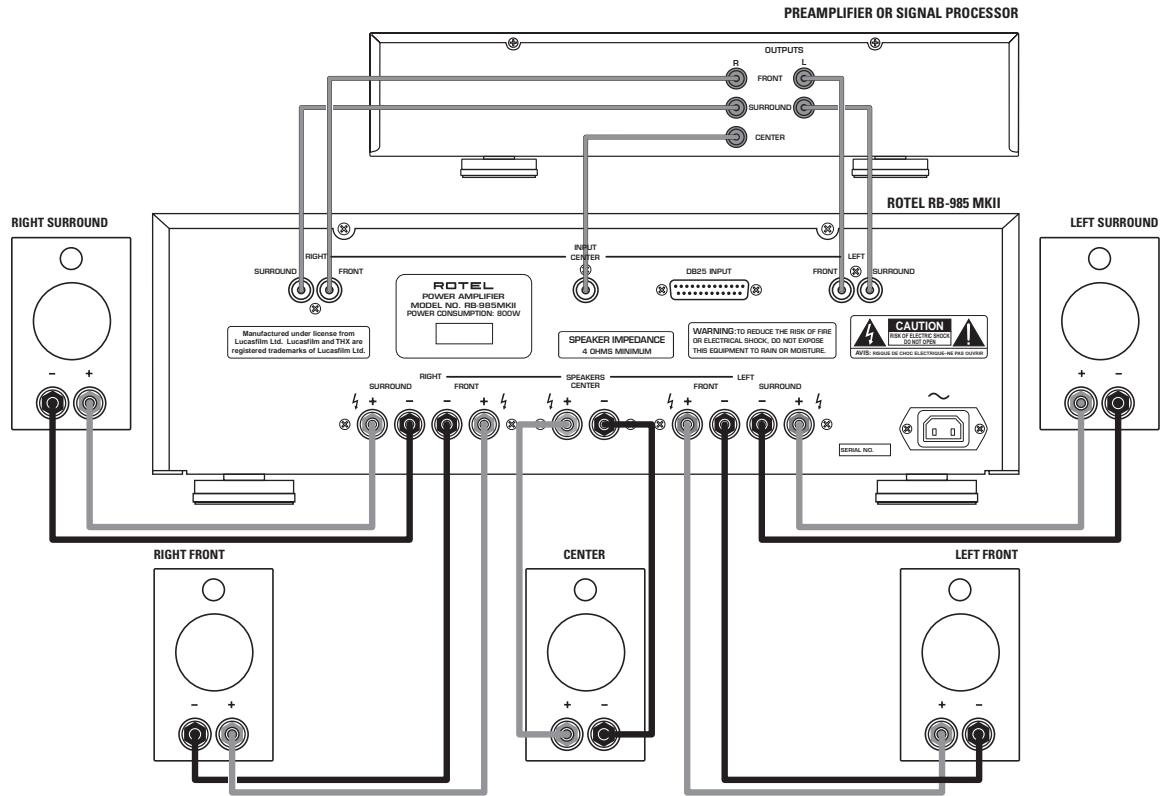


Figure 2: Preamp Input and Speaker Output Connections
Prises d'entrée du préamplificateur et prises de sortie des enceintes
Anschlußdiagramm (Cinch-Eingänge und Lautsprecher)
Collegamenti di ingresso dal preamplificatore e delle uscite dei diffusori.
Conexiones de la Señal de Entrada y Salidas a las Cajas Acústicas



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About Rotel

A family whose passionate interest in music led them to manufacture high fidelity components of uncompromising quality founded Rotel over 30 years ago. Through the years that passion has remained undiminished and the family goal of providing exceptional value for audiophiles and music lovers, regardless of their budget, is shared by all Rotel employees.

The engineers work as a close team, listening to, and fine tuning each new product until it reaches their exacting musical standards. They are free to choose components from around the world in order to make that product the best they can. You are likely to find capacitors from the United Kingdom and Germany, semi conductors from Japan or the United States, while toroidal power transformers are manufactured in Rotel's own factory.

Rotel's reputation for excellence has been earned through hundreds of good reviews and awards from the most respected reviewers in the industry, who listen to music every day. Their comments keep the company true to its goal – the pursuit of equipment that is musical, reliable and affordable.

All of us at Rotel thank you for buying this product and hope it will bring you many hours of enjoyment.

About the THX Ultra™ System

THX is an exclusive set of standards and technologies established by the world-renowned film production company, Lucasfilms Ltd. THX grew from George Lucas' personal desire to make your experience of the film soundtrack, in both movie theaters and in your home theater, as faithful as possible to what the director intended.

Movie sound tracks are mixed in special movie theaters called dubbing stages and are designed to be played back in movie theaters with similar equipment and conditions. The soundtrack created for movie theaters is then transferred directly onto Laserdisc, VHS tape, DVD, etc., and is not changed for playback in a small home theater environment. THX engineers developed patented technologies to accurately translate the sound from the movie theater environment into the home, correcting the tonal and spatial errors that occur.

Before any home theater component can be THX Ultra certified, it must incorporate the THX technologies and also pass a rigorous series of quality and performance tests. Only then can a product feature the THX Ultra logo, which is your guarantee that the Home Theater products you purchase will give you superb performance for many years to come.

Lucasfilm and THX are trademarks of Lucasfilm Ltd.
All rights reserved

Getting Started

Thank you for purchasing the Rotel RB-985 MKII Power Amplifier. When used in a high-quality music or home theater system, it will provide years of musical enjoyment.

The RB-985 MKII is a high-power, five-channel power amplifier, providing the highest level of audio performance. Discrete output devices, a massive power supply, premium components, and Rotel's Balanced Design ensure superb sound quality. High current capability allows the RB-985 MKII to drive the most demanding loudspeakers.

Be aware that the RB-985 MKII is capable of high power levels, in excess of 100 watts per channel. Make sure that your speakers can handle the power of the RB-985 MKII. If in doubt about your speakers, ask your authorized Rotel dealer for advice.

The RB-985 MKII is straightforward in its installation and operation. If you have experience with other stereo power amplifiers, you shouldn't find anything perplexing. Connect some high-quality RCA cables to your preamp or signal processor and the RB-985 MKII inputs, wire up your speakers, and enjoy.

A Few Precautions

Please read this manual carefully. In addition to basic installation and operating instructions, it provides valuable information on system configuration, as well as general information that will help you get optimum performance from your system. Please contact your authorized Rotel audio retailer for answers to any questions you might have. In addition, all of us at Rotel welcome your questions and comments.

Save the RB-985 MKII shipping carton and all enclosed packing material for future use. Shipping or moving the RB-985 MKII in anything other than the original packing material may result in severe damage to your amplifier.

Fill out and send in the owner's registration card packed with the RB-985 MKII. Also be sure to keep the original sales receipt. It is your best record of the date of purchase, which you will need in the event warranty service is ever required.

Placement

The RB-985 MKII generates heat as part of its normal operation. The heat sinks and ventilation openings in the amplifier are designed to dissipate this heat. The ventilation slots in the top cover must be open. There should be 10 cm (4 inches) of clearance around the chassis, and reasonable airflow through the installation location, to prevent the amplifier from overheating.

Likewise, remember the weight of the amplifier when you select an installation location. Make sure that the shelf or cabinet can support its considerable bulk. Again, use common sense.

Power and Control

Power Input 4

Because of its high power rating, the RB-985 MKII can draw considerable current. Therefore, it should be plugged directly into a 2-pin polarized wall outlet. Do not use an extension cord. A heavy duty multi-tap power outlet strip may be used if it (and the wall outlet) is rated to handle the current demanded by the RB-985 MKII and all the other components connected to it.

Be sure the power switch on the front panel of the RB-985 MKII is turned off (in the out position). Connect the supplied power cord to the power input receptacle on the back of the RB-985 MKII. Then, plug the other end of the power cord to the power outlet.

Your RB-985 MKII is configured at the factory for the proper AC line voltage in the country where you purchased it (either 115 volts AC or 230 volts AC with a line frequency of either 50 Hz or 60 Hz). The AC line configuration is noted on a decal on the back panel.

Note: Should you move your RB-985 MKII amplifier to another country, it is possible to reconfigure your amplifier for use on a different line voltage. Do not attempt to perform this conversion yourself. Opening the enclosure of the RB-985 MKII exposes you to dangerous voltages. Consult a qualified service person or the Rotel factory service department for information.

If you are going to be away from home for an extended period of time such as a month-long vacation, it is a sensible precaution to unplug your amplifier (as well as other audio and video components) while you are away.

Power Switch 1 and Power Indicator 2

The power switch is located on the front panel of your amplifier. To turn the amplifier on, push the switch in. The LED indicator above the switch will light, indicating that the amplifier is turned on. To turn the amplifier off, push the button again and return it to the out position.

Protection Circuitry 3

The RB-985 MKII features a thermal protection circuit that protects the amplifier against potential damage in the event of extreme or faulty operating conditions. Unlike many designs, the RB-985 MKII's protection circuit is independent of the audio signal and has no impact on sonic performance. Instead, the protection circuit monitors the temperature of the output devices and shuts down the amplifier if temperatures exceed safe limits.

Most likely, you will never see this protection circuitry in action. However, should a faulty condition arise, the amplifier will stop playing and an LED indicator on the front panel will light up.

If this happens, turn the amplifier off, let it cool down for several minutes, and attempt to identify and correct the problem that caused the protection circuitry to engage. When you turn the amplifier back on, the protection circuit will automatically reset and the indicator LED should go out.

In most cases, the protection circuitry activates because of a fault condition such as shorted speaker wires, or inadequate ventilation leading to an overheating condition. In very rare cases, highly reactive or extremely low impedance speaker loads could cause the protection circuit to engage.

If the protection circuitry triggers repeatedly and you are unable to isolate and correct the faulty condition, contact your Rotel audio retailer for assistance in troubleshooting.

Input Signal Connection 5

[See Figure 2 for wiring illustration.]

The RB-985 MKII has conventional RCA type input connectors, the type found on nearly all audio equipment.

Note: Do not connect inputs to both the RCA and DB25 inputs. (See the following section.) Use one or the other.

Note: To prevent loud noises that neither you nor your speakers will appreciate, make sure the amplifier is turned off when you make any signal connections.

Use high quality audio interconnect cables. Connect the various outputs of your preamplifier or signal processor to the corresponding inputs of the RB-985 MKII. Check these connections carefully to be sure there are no incorrect connections.

DB25 Connector Input 6

The RB-985 MKII is also equipped with a DB25 type input. This input is typically only used in professionally-installed custom systems. The DB25 input duplicates the function of the five RCA inputs. For information regarding how to use this input, contact your nearest authorized Rotel service center.

Speaker Connection

Speaker Selection

We recommend using loudspeakers with a nominal impedance of 4 ohms or higher with the RB-985 MKII. You should exercise some caution in driving multiple pairs of speakers in parallel configuration, because the effective impedance the amplifier sees is cut in half. For example, when driving two pair of 8 ohm speakers, the amplifier sees a 4 ohm load. When driving multiple speakers in parallel, it is recommended that you select speakers with a nominal impedance of 8 ohms or higher. Speaker impedance ratings are less than precise. In practice, very few loudspeakers will present any problems for the RB-985 MKII. See your authorized Rotel dealer if you have any questions.

Speaker Wire Selection

Use insulated two-conductor stranded wire to connect the RB-985 MKII to the speakers. The size and quality of the wire can have an audible effect on the performance of the system. Standard speaker wire will work, but can result in lower output or diminished bass response, particularly over longer distances. In general, heavier wire will improve the sound. For best performance, you may want to consider special high-quality speaker cables. Your authorized Rotel dealer can help in the selection of appropriate cables for your system.

Polarity and Phasing

The polarity — the positive/negative orientation of the connections — for every speaker and amplifier connection must be consistent so all the speakers will be in phase. If the polarity of one connection is mistakenly reversed, bass output will be very weak and stereo imaging degraded. All wire is marked so you can identify the two conductors. There may be ribs or a stripe on the insulation of one conductor. The wire may have clear insulation with different color conductors (copper and silver). There may be polarity indications printed on the insulation. Identify the positive and negative conductors and be consistent with every speaker and amplifier connection.

Speaker Connection 7

The RB-985 MKII has five pairs of color coded binding posts on the back panel. These connectors accept bare wire, connector lugs, or dual banana type connectors (except in the European Community countries where their use is not permitted).

The negative connectors for all the channels are black. The positive connectors for the right front and surround speakers are red. The positive connectors for the left front and surround speakers are blue. The positive connector for the center speaker is green.

Specifications

| | |
|--|--------------------|
| Continuous Power Output (20-20 kHz, < 0.03%, 8 ohms) | 100 watts/ch |
| Total Harmonic Distortion (20Hz-20kHz, 8 ohms) | < 0.03% |
| Intermodulation Distortion (60 Hz : 7 kHz, 4:1) | < 0.03% |
| Frequency Response (±0.5) | 10Hz-80kHz |
| Damping Factor (20-20,000 Hz, 8 ohms) | 260 |
| Speaker Impedance | 4 ohms minimum |
| Signal to Noise Ratio (IHF A network) | 115 dB |
| Input Impedance/Sensitivity | 27 k Ohms/1.0 volt |
| Power Requirements | |
| USA Version | 115 Volts, 60 Hz |
| European Version | 230 Volt, 50 Hz |
| Power Consumption | 800 Watts |
| Dimensions (W x H x D) 173/8" x 51/2" x 155/8" | 440 x 139 x 396 mm |
| Weight (net) | 15.5 kg, 34.1 lb. |

All specifications are accurate at the time of printing.

Rotel reserves the right to make improvements without notice.

RB-985 MKII

FIVE CHANNEL POWER AMPLIFIER

AMPLIFICATEUR DE PUISSANCE À CINQ CANAUX

FÜNFKANAL-ENDSTUFE

FINALE DI POTENZA MULTICANALE

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