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# RC-971

STEREO CONTROL AMPLIFIER

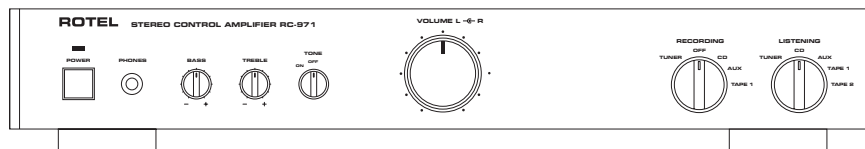
PRÉAMPLIFICATEUR STÉRÉO

STEREO-VORVERSTÄRKER

PREAMPLIFICATORE STEREO

PREAMPLIFICADOR ESTEREOFONICO

STEREO VOORVERSTERKER



## Owner's Manual

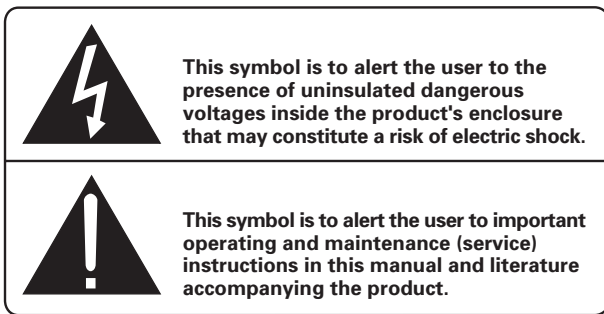
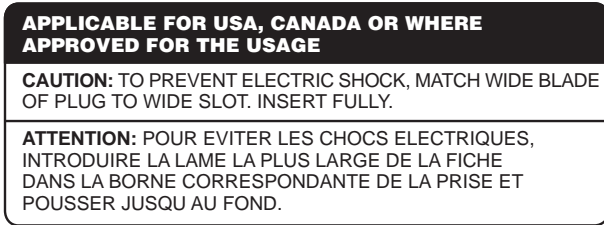
Manuel de l'utilisateur

Bedienungsanleitung

Manuale di Istruzioni

Manual de Instrucciones

Gebruiksaanwijzing



**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.

Keep the ventilation inlets on the unit unobstructed. For example, 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 STEREO CONTROL AMPLIFIER RC-971

Figure 1: Controls and Connections  
 Commandes et branchements  
 Bedienelemente und Anschlüsse  
 Controlli e Collegamenti  
 Controles y Conexiones  
 De bedieningsorganen en de ingangen voor de bronnen

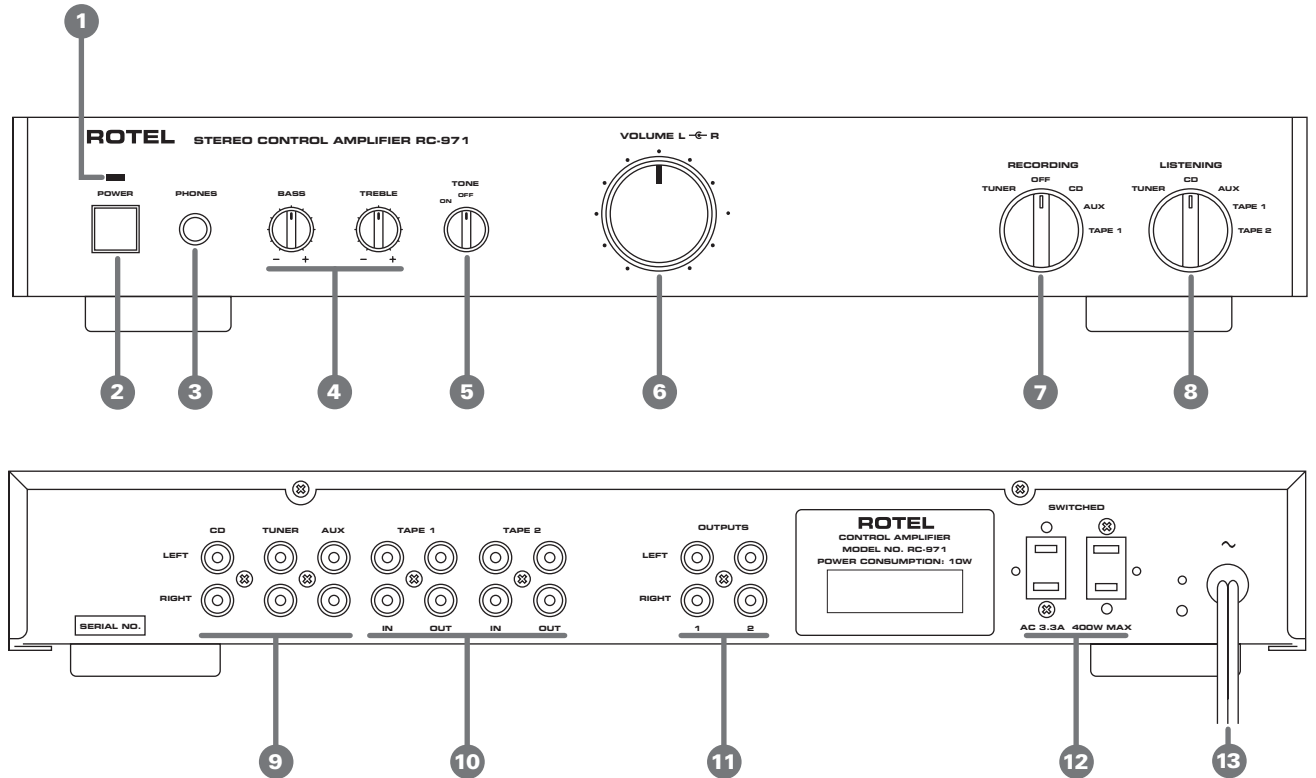
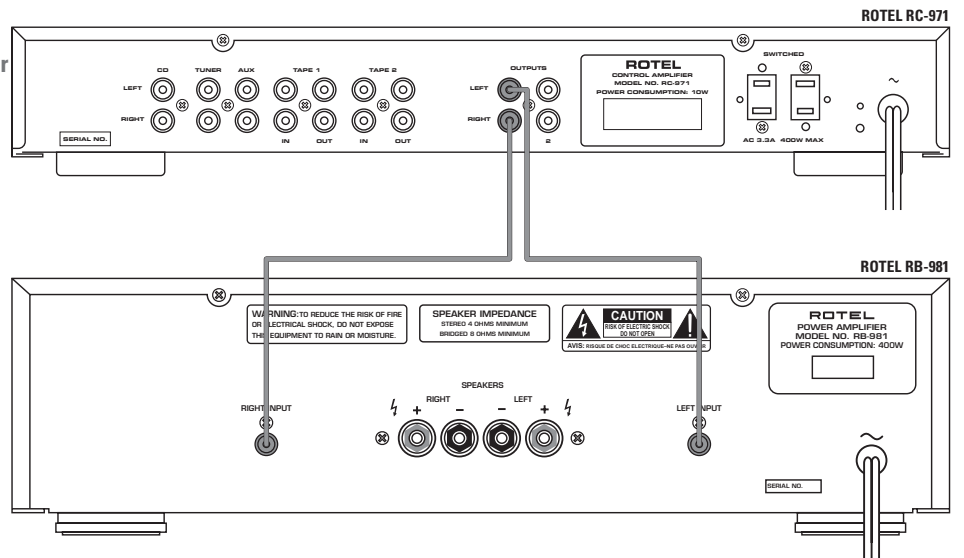
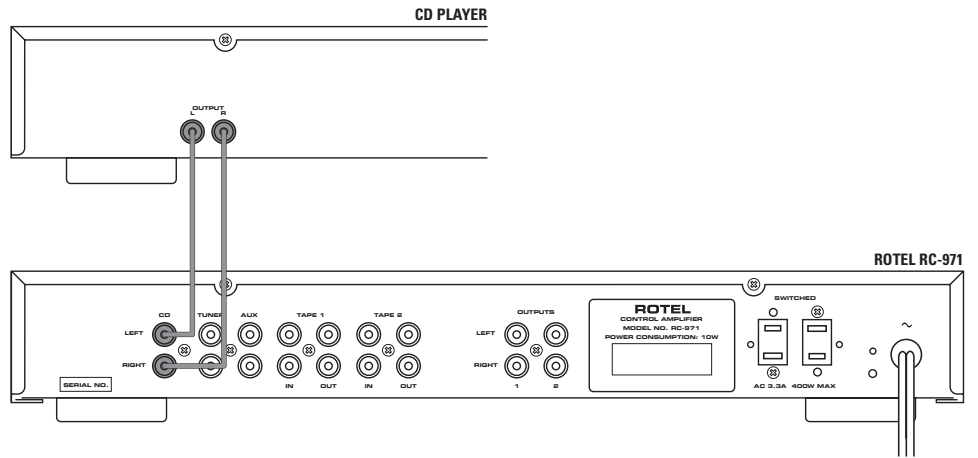


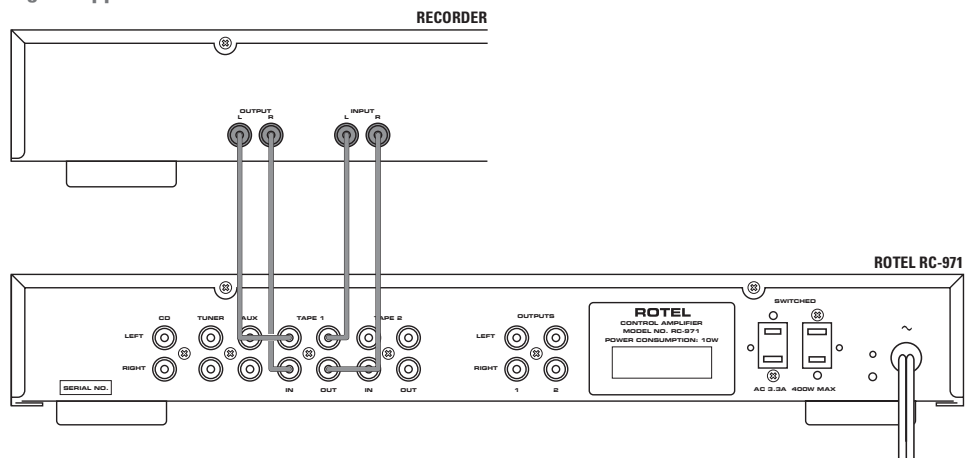
Figure 2: Output Connections  
 Prises de sortie  
 Anschluß einer Endstufe  
 Collegamenti d'uscita  
 Conexiones de Salida  
 De verbindingen met de eindversterker



**Figure 3: Line Level Input Connection**  
**Branchement des sources niveau Ligne**  
**Anschluß eines CD-Players**  
**Collegamenti ingresso linea**  
**Conexiones de Nivel de Línea**  
**De verbindingen met de lijnniveaubronnen**



**Figure 4: Recorder Connections**  
**Branchements d'un magnétophone**  
**Anschluß eines Recorders**  
**Collegamenti registratore**  
**Conexión de Componentes de Grabación**  
**De verbindingen met een opname/weergave apparaat**



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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.

## Getting Started

Thank you for purchasing the Rotel RC-971 Stereo Control Amplifier. When used in a high-quality music audio system, it will provide years of musical enjoyment.

The RC-971 is a full featured, high performance preamplifier. All aspects of the design have been optimized to retain the full dynamic range and subtle nuances of your music. The RC-971 has a highly regulated power supply incorporating a Rotel custom-designed power transformer. This low impedance power supply has ample power reserves, which enables the RC-971 to easily reproduce the most demanding audio signals. This type of design is more expensive to manufacture, but it is better for the music.

The RC-971 printed circuit boards (PCB) are designed with Symmetrical Circuit Traces. This insures that the precise timing of the music is maintained and faithfully recreated. The RC-971 circuitry uses metal film resistors and polystyrene or polypropylene capacitors in important signal paths. All aspects of this design have been examined with the final goal being faithful reproduction of music.

The RC-971 is straightforward in its installation and operation. If you have experience with other stereo systems, you shouldn't find anything perplexing. Simply plug in the associated components and enjoy.

## A Few Precautions

Please read this manual carefully. It provides complete information on how to incorporate the RC-971 into your system as well as general information that will help you get optimum sound performance. Please contact your authorized Rotel dealer for answers to any questions you might have. In addition, all of us at Rotel welcome your questions and comments.

Save the RC-971 shipping carton and all enclosed packing material for future use. Shipping or moving the RC-971 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 RC-971. 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

Like all audio components that handle low-level signals, the RC-971 can be affected by its environment. Do not stack the RC-971 on top of a power amplifier. This will minimize chance it will pick up hum or interference. We recommend installing the RC-971 in furniture designed to house audio components. Such furniture is designed to reduce or suppress vibration which can adversely affect sound quality. Ask your authorized Rotel dealer for advice about component furniture and proper installation of audio components.

## Cables

Be sure to keep the power cords, digital signal cables and regular audio signal cables in your installation away from each other. This will minimize the chance of the regular audio signal cables picking up noise or interference from the power cords or digital cables. Using only high quality, shielded cables will also help to prevent noise or interference from degrading the sound quality of your system. If you have any questions see your authorized Rotel dealer for advice about the best cable to use with your system



# AC Power and Control

## AC Power Input 13

The RC-971 does not use a significant amount of power. However there are two auxiliary power outlets on the back of the unit, which can be used to supply power for other units. Consequently it is usually best to plug the RC-971 directly into a 2-pin polarized wall outlet. Avoid the use of extension cords. 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 components connected to it.

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**Note:** Do not connect the power cord for a power amplifier to the auxiliary power outlets on the RC-971. Power amplifiers often draw more power than these outlets can provide.

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Your RC-971 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.

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**Note:** Should you move your RC-971 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 RC-971 exposes you to dangerous voltages. Consult a qualified service person or the Rotel factory service department for information.

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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 2 and Power Indicator 1

The Power switch is located on the left side of the front panel. When it is pushed in the RC-971 is turned on and the Power Indicator light is illuminated. Press the Power switch again to turn the RC-971 off.

## Auxiliary Power Outputs 12 (U.S.A. version)

The RC-971 has two switched outlets on the back panel. Power is available from these outlets when the RC-971 is turned on. These outlets can provide up to a total of 400 watts. They are appropriate for supplying power to signal sources, such as CD players, tuners, or tape decks. They should not be used for power amplifiers. Connecting components that will draw more than 400 watts to these outputs could damage the Standby switch in the RC-971.

## Input Signal Connections 9

[See Figure 3 for input connection illustration.]

The RC-971 has conventional RCA type input connectors, the type found on nearly all audio equipment.

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

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The CD, Tuner, and Aux inputs of the RC-971 are “line level” inputs. These are for connecting components such as CD players, Hi Fi or NICAM Stereo video cassette recorders, tuners for audio or video, Laser Disc players or the analog output from a CD ROM drive.

The Left and Right channels are clearly labeled and should be connected to the corresponding channels of the source component. The Left RCA connectors are white, the Right connectors are red. Use high quality RCA cables for connecting input source components to the RC-971. Ask your authorized Rotel dealer for advice about cables.

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**Note:** The addition of a Rotel RQ-970BX Phono Equalizer enables you to connect a phonograph to the RC-971. See your authorized Rotel dealer for more information.

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## Recorder Connections 10

[See Figure 4 for recorder connection illustration.]

The Tape 1 and Tape 2 inputs and outputs can be connected to any record/playback device that accepts standard line level analog input and output signals. Typically that will be a conventional tape recorder.

When connecting a recorder to the RC-971 remember that the *outputs* of the recorder must be connected to the tape *inputs* of the RC-971. Similarly the tape *outputs* of the RC-971 must be connected to the *inputs* of the recorder. As with other sources be sure to connect the Left and Right channels of each device to the proper channels on the associated components. Use high quality connecting cables to prevent loss of sound quality.

## Output Connections 11

[See Figure 2 for RCA output connection illustration.]

The RC-971 has RCA-type output connectors that are compatible with the inputs of most power amplifiers. Use high quality cables and be sure to connect the Left and Right channel outputs of the RC-971 to the correct channels of the amplifier.

Note: There are two sets of outputs on the RC-971. The second set of outputs may be used in custom system configurations to drive a second power amplifier or to supply a signal to a special signal processor.

## Front Panel Controls

### Volume Control 6

The front panel Volume control is actually two separate controls. The control knobs are “friction connected”, so both controls normally operate together. Turn the controls *clockwise* to increase the volume, or *counterclockwise* to decrease the volume.

The two controls can be operated separately by holding one control knob while turning the other. Normally this is necessary only to compensate for problems in the program material.

### Tone On/Off Switch 5

When the switch is in the Off position the tone control circuits are bypassed to ensure the purest possible sound. Leave the switch in the Off position unless you want to use the tone controls. Turn the switch to the On position if you want to adjust the tone controls.

### Bass and Treble Controls 4

When the Tone Switch is in the On position, turning the Bass and Treble controls adjusts the tone balance of the sound. Turn the controls *clockwise* to increase the bass or treble output. Turn the controls *counterclockwise* to decrease the bass or treble output.

A properly set up high-performance audio system produces the most natural sound with little or no adjustment of the tone controls. Use these controls sparingly. Be particularly careful when turning the controls up (clockwise). This increases the power output in the bass or treble range, increasing the load on the amplifier and speakers.

## Listening Selector 8

The setting of the Listening Selector controls which of the input signals goes to the main outputs and onto the power amplifier – or, more simply, which source is heard.

## Recording Selector 7

The setting of the Recording Selector controls which of the input signals goes to the record outputs. When you are not recording, the Recording Selector should be set to the Off position to minimize the chance of interference from other components in the system.

Having a separate Recording and Listening selector adds a significant degree of flexibility in how you can use the RC-971. For example by setting the Record Selector to CD and the Listening Selector to Tuner you could record a CD onto a tape while listening to the tuner.

There is no Tape 2 position on the Recording Selector. Consequently, if you wish to duplicate (“dub”) a recording from one recorder to another, the source unit must be connected to Tape 1 input. Set the Recording Selector to Tape 1. Connect the unit recording the signal to the Tape 2 output.

## Phones Output 3

The Phones output allows you to connect headphones for private listening. This output accommodates standard stereo phone (1/4”) plugs. If your headphones have another type of plug, such as a 1/8” mini-plug, you will need an adapter plug. Contact your authorized Rotel dealer, to get the correct adapter plug. Note: Plugging in a set of headphones does not cut off the signal to the outputs. The power amplifier will continue to receive a signal and the speakers will continue to play.

## Troubleshooting

Most difficulties in audio systems are the result of incorrect connections, or improper control settings. If you encounter problems, isolate the area of the difficulty, check the control settings, determine the cause of the fault and make the necessary changes. If you are unable to get sound from the RC-971, refer to the suggestions for the following conditions:

### Power Indicator Is Not Lit

The Power Indicator should be lit whenever the RC-971 is plugged into the wall power outlet and the Power Switch is pushed in. If it does not light, test the power outlet with another electrical device, such as a lamp. Be sure the power outlet being used is not controlled by a switch that has been turned off.

### Fuse Replacement

If another electrical device works when plugged into the power outlet, and the Power Indicator still will not light, it indicates that the internal power fuse may have blown. If you believe this has happened, contact your authorized Rotel dealer to get the fuse replaced.

### No Sound

Check the signal source to see if it is functioning properly. Make sure the cables from the signal source to the RC-971 inputs are connected properly. Be sure the Listening Selector is set to the proper input. Check the power amplifier for power and proper operation. Check all the wiring between the RC-971 and the power amplifier, and the power amplifier and speakers.



## Specifications

<b>Total Harmonic Distortion (20 Hz-20 kHz)</b>	< 0.004%
<b>Intermodulation Distortion (60 Hz : 7 kHz, 4:1)</b>	< 0.004% at 1V output
<b>Input Sensitivity / Impedance</b>	150 mV / 24 kOhms
<b>Output Sensitivity / Impedance</b>	1 V / 100 Ohms
<b>Frequency Response</b>	4Hz-100kHz, +0, -3dB
<b>Tone Controls</b>	±6dB at 100 Hz and 10K Hz
<b>Signal to Noise Ratio (IHF "A" weighted)</b>	95 dB
<b>Power Requirements</b>	
<b>USA Version</b>	115 Volts, 60 Hz
<b>European Version</b>	230 Volt, 50 Hz
<b>Power Consumption</b>	10 Watts
<b>Dimensions (W x H x D)</b>	440 x 72 x 286 mm 17 <sup>3</sup> / <sub>8</sub> " x 27 <sup>7</sup> / <sub>8</sub> " x 11 <sup>1</sup> / <sub>4</sub> "
<b>Weight (net)</b>	3 kg, 6.6 lbs.

All specifications are accurate at the time of printing.

Rotel reserves the right to make improvements without notice.

## Caratteristiche

<b>Distorsione armonica totale (20 Hz - 20.000 Hz)</b>	< 0.004%
<b>Distorsione di intermodulazione (60 Hz : 7 kHz, 4:1)</b>	< 0.004% a 1 volt in uscita
<b>Sensibilita' d' ingresso/impedenza</b>	150mV / 24 kOhm
<b>Sensibilita' d'uscita/impedenza</b>	1V / 100 Ohm
<b>Risposta in frequenza</b>	4Hz - 100kHz, + 0, -3 dB
<b>Controllo toni</b>	±6dB a 100 Hz e 10KHz
<b>Rapporto S/N, (HIF pesato A)</b>	95 dB
<b>Tensione di alimentazione</b>	
<b>(Versione USA)</b>	115 Volt, 60 Hz (USA)
<b>(Versione Europea)</b>	230 Volt, 50 Hz
<b>Assorbimento</b>	10 Watt
<b>Dimensioni (LxAxP)</b>	440 x 72 x 286 mm
<b>Peso</b>	3 kg

Tutte le caratteristiche sono accurate al momento della stampa. Rotel si riserva il diritto di apportare miglioramenti senza alcun preavviso

## Spécifications

<b>Distorsion harmonique totale (20 - 20 000 Hz)</b>	≤ 0,004%
<b>Distorsion d'intermodulation totale (60 Hz : 7 kHz, 4 :1)</b>	≤ 0,004% sortie 1 volt
<b>Sensibilité/impédance d'entrée</b>	150 mV/24 kilohms
<b>Sensibilité/impédance de sortie</b>	1 volt/100 ohms
<b>Réponse en fréquence</b>	4 - 100 000 Hz + 0, - 3 dB
<b>Correcteurs de timbre - Grave/aigu</b>	±6 dB (100 Hz et 10 kHz)
<b>Rapport signal/bruit (IHF pondéré A)</b>	95 dB
<b>Alimentation</b>	
	115 V CA 50/60 Hz (USA)
	230 V CA 50/60 Hz (Europe)
<b>Consommation maxi</b>	10 watts
<b>Dimensions (L x H x P)</b>	440 x 72 x 286 mm
<b>Poids</b>	3kg

Toutes les spécifications sont certifiées exactes au moment de l'impression.

Rotel se réserve le droit d'améliorer les performances sans préavis.

## Características Técnicas

<b>Distorsión Armónica Total (20-20.000 Hz)</b>	<0'004%
<b>Distorsión por Intermodulación (60 Hz : 7 kHz, 4:1)</b>	<0'004% con una salida de 1 V
<b>Sensibilidad/Impedancia de Entrada</b>	150 mV/24 kohmios
<b>Sensibilidad/Impedancia de Salida</b>	1 V/100 ohmios
<b>Respuesta en Frecuencia</b>	4-100.000 Hz, +0 dB, -3 dB
<b>Actuación de los Controles de Tono</b>	±6 dB a 100 Hz y 10 kHz
<b>Relación Señal/Ruido</b>	
<b>(medida según norma IHF con ponderación A)</b>	95 dB
<b>Requisitos de Alimentación</b>	
	115 V/60 Hz (USA) o
	230 V/50 Hz (Europe)
<b>Consumo de Energía</b>	10 vatios
<b>Dimensiones (An x Al x P)</b>	440 x 72 x 286 mm
<b>Peso</b>	3 kg

Todas estas especificaciones son las correctas en el momento de la impresión del presente manual de instrucciones. Rotel se reserva el derecho a realizar modificaciones en las mismas sin aviso previo.

## Technische Daten

<b>Gesamtklirrfaktor (20 - 20.000 Hz)</b>	< 0,004 %
<b>Intermodulationsverzerrung (60 Hz : 7 kHz, 4:1)</b>	< 0,004 % (1 V out)
<b>Eingangsempfindlichkeit/-impedanz</b>	150 mV/24 kOhm
<b>Ausgangsempfindlichkeit/-impedanz</b>	1 V/100 Ohm
<b>Frequenzgang</b>	4 - 100.000 Hz, + 0 dB, - 3 dB
<b>Klangregelung</b>	±6 dB bei 100 Hz und 10 kHz
<b>Geräuschspannungsabstand (IHF A)</b>	95 dB
<b>Spannungsversorgung</b>	
	115 V CA 50/60 Hz (USA)
	230 V CA 50/60 Hz (Europe)
<b>Leistungsaufnahme</b>	10 Watt
<b>Abmessungen (B x H x T)</b>	440 x 72 x 286 mm
<b>Nettogewicht</b>	3 kg

Diese Bedienungsanleitung entspricht dem technischen Stand bei Drucklegung. Änderungen in Technik und Ausstattung vorbehalten.

## Technische gegevens

<b>Harmonische verv. (THD) (20-20.000Hz.)</b>	< 0.004%
<b>Intermodulatie verv. (60Hz. : 7 kHz., 4:1)</b>	< 0.004% bij 1V.
<b>Ingangsgevoeligheid/impedantie</b>	150 mV, 24kΩ
<b>Overbelasting pick-up ingang (MM/MC)</b>	16 mV, 160 mV
<b>Uitgangsspanning/impedantie</b>	1V/100Ω
<b>Frequentiebereik</b>	4-100 kHz. +0, -3 dB
<b>Toonregeling</b>	±6 dB bij 100 Hz. en 10 kHz.
<b>Signaal/Ruisverhouding (IHF A gewogen)</b>	95 dB
<b>Netspanning</b>	
	115 V CA 50/60 Hz (USA)
	230 V CA 50/60 Hz (Europe)
<b>Opgenomen vermogen</b>	10 Watts
<b>Afmetingen (bxhxd)</b>	440 x 72 x 286mm.
<b>Gewicht</b>	3 kg

Gegevens en ontwerp zijn voorbehouden.

# RC-971

STEREO CONTROL AMPLIFIER

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STEREO-VORVERSTÄRKER

PREAMPLIFICATORE STEREO

PREAMPLIFICADOR ESTEREOFONICO

STEREO VOORVERSTERKER

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