ROTEL hifi

RCD 970BX

Stereo Compact Disc Player

Owners Manual

Please write the serial number and purchase date of this RCD 970BX for your records in the space provided.

Serial Number _____.

Purchase date _____.

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SAFETY INSTRUCTIONS

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Explanation of Graphical Symbols

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user 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 the user to the presence of important operating and maintenance 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 for future reference.
3. **Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** - All operating and use instructions should be followed.
5. **Water and Moisture** - The appliance should not be used near water - for example, near a bathtub, 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.

PORTABLE CART WARNING

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.

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 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, heat registers, stoves or other appliances (including amplifiers) that produce heat.
10. **Power Sources** - 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. **Grounding or Polarization** - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
12. **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 and plugs, convenience receptacles and the point where they exit from the appliance.
13. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.
14. **Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through the openings.
16. **Damage Requiring Service** - The appliance should be serviced by qualified factory-authorized service personnel when:
    - The power-supply cord or the plug has been damaged; or
    - Objects have fallen, or liquid has been spilled into the appliance; or
    - The appliance has been exposed to rain; or
    - The appliance does not appear to operate normally or exhibits a marked change in performance; or
    - The appliance has been dropped, or the enclosure damaged.
17. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified factory-authorized service personnel.

DANGER: Invisible laser radiation when you open the top cover, audio direct exposure to laser beam

CLASS 1 Laser Product. Complies with DHHS 21 CFR 1040.10 and 1040.11.

CAUTION: Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.

APPLICABLE FOR U.S.A., CANADA OR WHERE APPROVED TO THE USAGE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQÚ AU FOND.

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A WORD FROM All OF US AT ROTEL

We thank you for purchasing our RCD 970BX Digital Compact Disc Player. We have been designing and manufacturing high quality, high performance audio electronics for more than 30 years. This CD player was designed to offer lifelike sound and is a natural extension of our love for music. Our passion for good sound and our love of music is well known. We believe that the music played through the RCD 970BX will be a source of enjoyment to you for many years to come.

Rotel is committed to making quality products to enhance your life. We have designed this CD player to be durable, easy to use and to have *high fidelity to the original sound.* Please read the owners manual to ensure that the RCD 970BX is properly installed and able to offer optimum performance. We appreciate being a part of your life.

FEATURES OF THE RCD 970BX CD PLAYER

This CD player uses a Bitstream Continuous Calibration Digital to Analog Converter and an 16x Oversampling 20 Bit Digital Filter. This D/A conversion system has very low noise levels compared to conventional bitstream designs and is free from spurious signals. It also has excellent low level linearity. We believe this helps to make RCD 970BX a superb sounding CD player.

We have manufactured the RCD 970BX with the Philips CDM-9 loader and a single-beam laser system. These are high performance designs and help us achieve our goal to make RCD 970BX an excellent sounding CD player. Rotel engineers have designed this CD player with simple features. We have eschewed needless complication and features that are not used regularly. Rotel likes simple designs for their inherent ease of use. We believe the RCD 970BX will be a source of pleasure for years to come in your stereo system.

INSTALLATION OF THE RCD 970BX

Please place the unit on a **DRY**, level surface away from direct sunlight. Avoid placing objects on top of the RCD 970BX. Do not allow water to fall onto or into the RCD 970BX as this could damage the circuitry. Avoid installing the CD player in a location where excessive heat, humidity, vibration or moisture will be a problem.

We recommend installing the RCD 970BX in furniture designed to house audio components. This will allow the CD player to be on its own shelf with nothing stacked on top of it. This will minimize potential interference with other components in your system, such as your tuner. Component furniture will also reduce or suppress vibration and all audio components will provide improved sound when free from vibration. Ask your **ROTEL*hi fi Authorized Dealer*** for advice about component furniture and proper installation of audio components.

ELECTRICAL REQUIREMENTS

This CD player is designed to work on AC voltage and the correct voltage is displayed on the Back Panel. **Do not attempt to operate the RCD 970BX on incorrect voltage as this will damage the circuitry and will void your warranty.** If you are in doubt about the correct voltage for this CD player we suggest that you please read the label on the back panel or consult your **ROTEL*hi fi Authorized Dealer*** for confirmation of the correct voltage.

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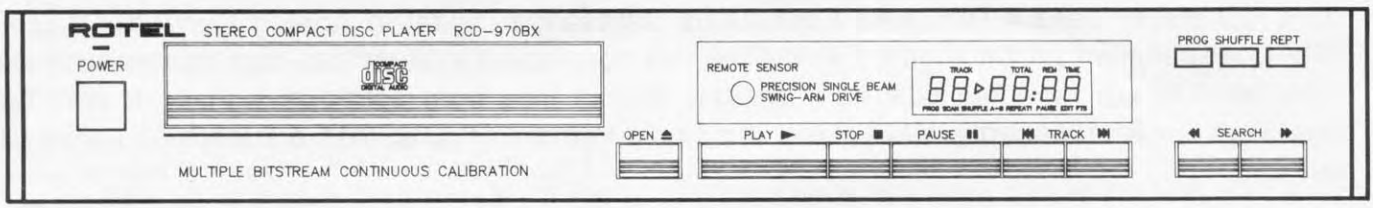
power cord from the wall always hold the plug firmly and then pull it out of the wall socket. *Do not unplug the power cord from the wall by pulling the cord only. This may damage the power cord and create a hazardous condition.* We recommend that the RCD 970BX be connected to the mains' wall socket or a power line filter, not an extension cord.

If you wish to clean the cabinet on the RCD 970BX we suggest that you clean it with a soft, DRY cloth. *Never use cleaning compounds or solvents to clean the cabinet as they may damage the finish or remove the labels.* They could also damage the circuitry if any residue falls inside the CD player.

There are ***NO*** user serviceable parts inside the RCD 970BX. **Please do not open the cabinet as this will expose you to the risk of potentially dangerous high voltage, the risk of shock and the LASER inside could also be HAZARDOUS to your health and eyesight.** This could also damage the circuits and possibly void your warranty.



Please refer to this drawing of the Front Panel when reading the section about Controls and the Display on the RCD 970BX.

CONTROLS ON THIS CD PLAYER

The **POWER** button will turn the CD player **ON** and **OFF**. Push it in and the RCD 970BX will turn ON. The **POWER INDICATOR LIGHT** and the **DISPLAY** will illuminate at the same time. If you push the Power button again the power will go OFF and the Power Indicator Light and the Display will extinguish.

The **OPEN, PLAY, STOP, PAUSE AND TRACK** buttons are *underneath* the display.

The **PROGRAM, SHUFFLE, REPEAT,** and **SEARCH** buttons are to the *right* of the display. We have attempted to make the most used controls easy to find.

The display includes the **REMOTE SENSOR** for receiving the Infra Red signals from the **REMOTE CONTROL HANDSET**. *Please be certain not to block this as the Remote Control Handset will not function if this is covered or blocked.*

The **OPEN** button will Open the drawer after you have pushed it. The display will read OPEN when you do this. A second push of the button will close the drawer and the display will show the Track numbers and the Total Time on the disc. Pressing the **PLAY** button while the drawer is open will cause the drawer to close and will start Play. The display will read PLAY when you do this. You may pre select a track number before pressing Play and the CD player will begin play with the selected track number. When the drawer closes without a disc the display will read dISC.

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The **STOP** button will stop all functions and the display will show the Track numbers and the Total Time of the disc.

Pressing the **PAUSE** button will make the CD player stay in the same place on the CD, the CD will still spin and the display will show the word PAUSE. *No sound will be heard until you press the* **PLAY** *button.*

The **TRACK** buttons (I<<, >>I) will advance to the next Track (>>I) or will go back to the previous Track (I<<) on the disc. If you are in the middle of a song and you press the I<< Track button once, the player will begin the *previous* song again. If you are in PAUSE and you press the I<< Track button once it will proceed to the previous track and wait for you to press the PLAY button. Pressing the >>I Track button during PLAY will cause the CD player to skip to the *next* track on the disc. If you press the **PLAY** button *during* a song then the RCD 970BX will begin the *same* song again.

The **PROGRAM** button will be used when you Program songs on the disc for play in a specific order or to make a recording of your favorite songs. To begin a Program, load a disc into the drawer and press the OPEN button. The RCD 970BX will read the table of contents and show the Total Track Numbers and the Total Time. Next select the Track Number you wish to Program. It will be shown in the display. Press the Program button and the song will be entered into the Program memory. The display will show the word PROGRAM, the Program number for the song and the Total Time of the Program. Repeat this for the tracks you wish to program. The RCD 970BX will remember up to 20 tracks in a Program. Press the Program button again and it will cause the programmed tracks to appear in sequence, one at a time, in the display panel.

Pressing the **OPEN** or the **STOP** button will erase a PROGRAM from the memory.

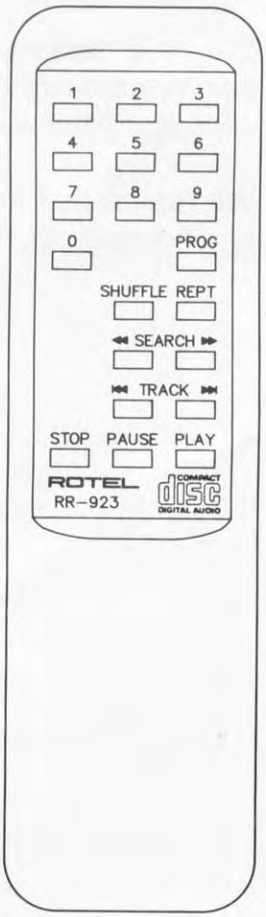
SHUFFLE play will play a disc randomly till it finishes all of the songs on the disc. SHUFFLE will appear in the display when you use this function.

The **REPEAT** button will allow you to play a whole disc or a programmed song or songs repeatedly until you cancel this function by pressing STOP. This may be combined with SHUFFLE play as well. The word REPEAT is shown in the display when you choose this function.

The **SEARCH** buttons (<<, >>) will cause the CD player to go forward or backwards in time quickly when playing a song. This is a two speed design and will begin slowly and then become fast.

The **REMOTE CONTROL** handset duplicates all the functions on the Front Panel of the RCD 970BX except the OPEN button.

The keys on the Remote Control are *color coded* for ease of use. The Direct Access Track buttons are **grey**. The Function, **STOP** and **PAUSE** buttons are **black**. The **PLAY** button is **orange**.



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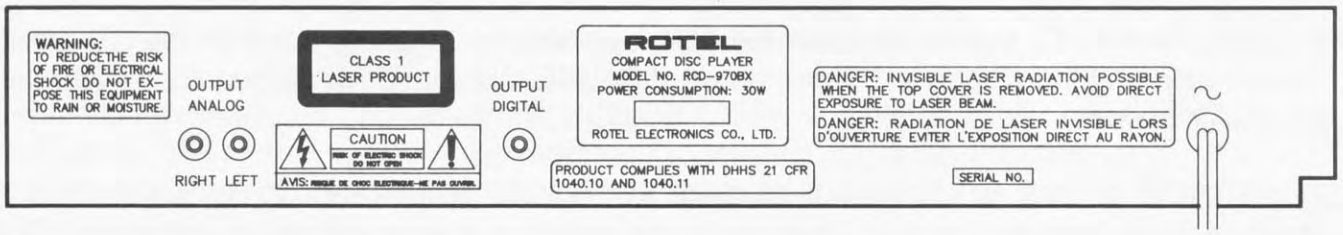

Please refer to this drawing of the Rear panel of the RCD 970BX when connecting to your stereo system.

CONNECTING THE RCD 970BX TO YOUR STEREO SYSTEM

The rear panel of the RCD 970BX has the OUTPUT connections for the CD player. These are RCA jacks and are designed to be connected to the CD or AUX input of your stereo integrated amp, receiver or preamplifier. Please observe the correct Left and Right Channel connections for optimum enjoyment of your stereo. *High performance patch cables will improve the sound of your stereo and we recommend them.* Ask your **ROTEL*hi fi AUTHORIZED DEALER*** for advice about cables for analog and digital signals.

There is a 75 ohm Coaxial Digital Output on the back panel. This is to be connected with a quality 75 ohm impedance RCA cable to the input on your external Digital to Analog Converter.

A FINAL WORD FROM ROTEL ABOUT THIS CD PLAYER

We have designed this CD player for high performance using test equipment and the human ear. We believe that both methods are useful in the design of audio electronics. *This is time consuming but we feel that the music benefits from this care and attention to detail.*

We realize that there are many choices available in the market today and we thank you again for choosing our RCD 970BX Digital Compact Disc Player to play your CDs. *Enjoy the music!*

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SPECIFICATIONS

RCD 970BX COMPACT DISC PLAYER

Frequency Response	20-20,000 Hz ± 0.05 dB
Channel Balance	± 0.5 dB
Phase Linearity	± 0.5 degree
Total Harmonic Distortion + Noise	0.0025% @ 1 kHz
Intermodulation Distortion	0.0025 % @ 1 kHz
Channel Separation	> 100 dB @ 1 kHz
Signal to Noise Ratio	> 105 dB
Dynamic Range	> 100 dB
Digital to Analog Converter	Multiple Bitstream Continuous Calibration (MBCC)
Digital Filter	20 Bit, 16x Oversampling
Speed Accuracy, Wow and Flutter	Quartz crystal precision
Output Level	2.0 Volts rms
Output Impedance	200 Ohms
Digital Output	0.5 Volt P.P.
Load Impedance	75 Ohms
Power Requirements	115 volts AC 50/60 Hz 230 volts AC 50/60 Hz
Power Consumption	30 watts
Weight	4.9 Kgs / 10.8 Lbs
Dimensions	440 mm (W) x 72 mm (H) x 316 mm (D) 17-3/8" (W) x 2-7/8" (H) x 12-7/16" (D)

All specifications are accurate at the time of printing. Rotel reserves the right to make improvements without notice.

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