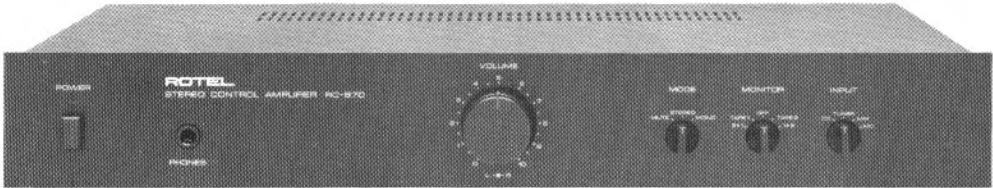


# owners manual



Quality. Uncompromised.

# ROTEL<sup>®</sup> RC-870

STEREO CONTROL AMPLIFIER

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**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 rear panel.



# ENGLISH

## STEREO CONTROL AMPLIFIER RC-870

### INTRODUCTION

We at Rotel want to thank you for purchasing our audio product.

Rotel audio products are designed to use the latest electronic technology, and they incorporate our long experience as a specialist manufacturer of audio equipment. We are confident that you will find satisfaction in the high quality sound and top performance, and that you will find pleasure in the functional beauty achieved through human-engineering concept. Before starting operation, please read this instruction manual thoroughly and acquaint yourself with the proper mode of using the unit and all its connections.

We hope you will enjoy top-notch 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 to a household wall outlet. 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. 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.

#### 4. 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.

#### 5. 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.

#### 6. Moving the unit

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

#### 7. If the unit gets wet

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

#### 8. 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.

#### 9. Owner's manual

Keep the owner's manual near the unit, and record the serial number (found on the rear panel) on the cover.

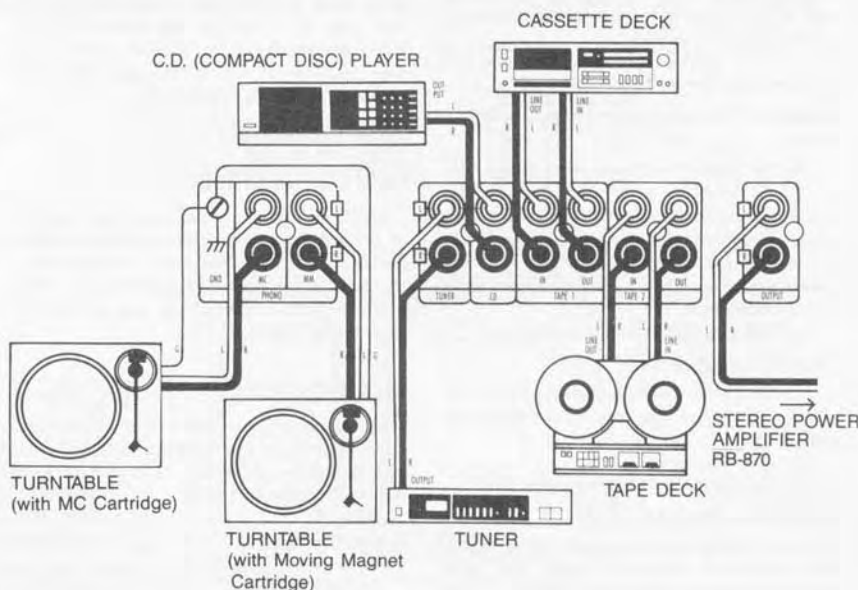
**Caution (applicable to the U.S.A., Canada, Hong Kong, and Southeast Asia):** On the rear panel of the RC-870 are two sets of AC outlet through which power is supplied to audio equipment (turntable, CD player, tuner, cassette deck, etc.) you use in conjunction with the RC-870. Each AC outlet is the switched type, turned on or off upon switching on or off the power in the RC-870, and has rating of 200 watts maximum. Do not attempt to connect equipment whose power consumption exceeds the rating of these AC outlets. Never connect a power amplifier to these AC outlets.

### CONNECTING COMPONENTS

Connect all necessary audio components to the rear panel of the unit, using RCA pin cords. See the illustration for properly completed connections. When connecting RCA pin cords, be sure that L (left) and R (right) markings on each component are matched correctly. Connect the grounding wire of the turntable to the terminal marked GND on the amplifier.

**Note:** The unit is provided with two sets of PHONO input terminals, labeled MM and MC respectively. When using a turntable equipped with a moving magnet (MM) type cartridge, use the PHONO MM terminals. When using a turntable with an MC type cartridge, use the PHONO MC terminals.

If you have two turntables, one with an MM type cartridge and the other with an MC type, you may connect both units simultaneously.



### SWITCHES AND CONTROLS

#### (1) Power Button

Depress this button to turn on the power in the unit. Press the button a second time to release it and to cut off the power.

#### (2) Power Indicator

Glows when power is turned on with the power button.

#### (3) Headphone Jack

For private listening, plug your headphones into this jack, which cuts off the sound from speakers. The volume of the headphone sound can be regulated with the volume control.

#### (4) Volume Control

Used to regulate the volume level. Turn clockwise to increase the volume, and counter-clockwise to reduce it. This is a dual con-

centric knob which permits either separate or combined adjustment of both channels.

#### (5) Mode Selector

Used to select the reproducing mode of the stereo signal fed into the unit. STEREO position is for normal stereo reproduction, and MONO position for monophonic reproduction. When the selector is set to MUTE position, output of the unit is cut off, and no sound will be heard.

#### (6) Tape Monitor Selector

Used to listen to a signal supplied from the tape deck. Set the selector to TAPE 1 position for the signal from a tape deck connected to TAPE 1 terminals on the rear panel, and set to TAPE 2 for the deck connected to TAPE 2 terminals. When it is set to the "1 ▶ 2" position, you can perform tape-to-tape copying from the TAPE 1

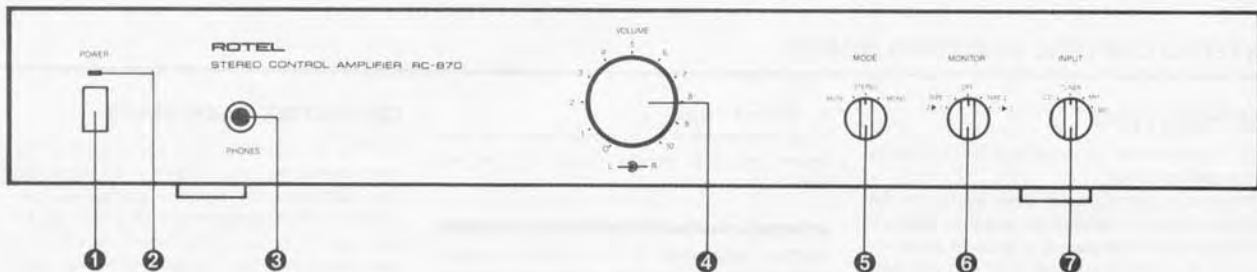
to the TAPE 2 deck. Likewise, the "2 ▶ 1" position permits copying from the TAPE 2 to the TAPE 1 deck.

Be sure to set this selector to OFF when listening to a source selected by the Input selector.

### (7) Input Selector

Selects input signal fed through the component connected to PHONO MM, PHONO MC, TUNER, and CD terminals on the rear panel. Set it to the appropriate position according to

the source you desire. Note that this selector is operable when the Tape Monitor selector is set to the OFF position.



## OPERATION

• Before commencing operation, check to see if all connections are properly made.

• Always be sure to set the volume control to the minimum position before turning on power.

### Listening from turntable

1. Set Tape Monitor selector to OFF.
2. Set Input selector to MM position for a turntable connected to PHONO MM terminals, and to MC position for a turntable connected to PHONO MC terminals.
3. Start playing turntable, and raise the volume to the desired level.

### Listening from compact disc player or tuner

1. Set Tape Monitor selector to OFF.
2. To listen to a compact disc, set the Input selector to the CD position; set it to the TUNER position to listen to radio broadcasts.
3. Play the compact disc or tune in to the desired station, according to instructions given for the equipment.
4. Raise the volume to the desired level.

### Playing back tape deck

1. Set Tape Monitor selector to TAPE 1 or TAPE 2 position according to the tape deck you are going to play back.
2. Start playback.
3. Raise the volume to the desired level.

### Recording program source

Play the desired program source according to the procedures mentioned above. The signal from the source will be sent through TAPE MONITOR OUT terminals on unit's rear panel. Put the tape deck in the record mode to record the signal. During recording, operation of Volume control, and Mode selector will have no effect on the signal being sent through TAPE MONITOR OUT terminals.

### Dubbing

By connecting two tape decks, dubbing (tape-to-tape copying) of prerecorded tapes can be performed. The unit allows two modes of dubbing: from TAPE 1 to TAPE 2 deck, and TAPE 2 to TAPE 1 deck.

1. Set Tape Monitor selector to "1 ▶ 2" or "2 ▶ 1".
2. Play back TAPE 1 (or TAPE 2) deck, and put TAPE 2 (or TAPE 1) deck in record mode, then dubbing starts. During this operation, you can listen to the signal with Volume control or Mode selector set as desired; they have no effect on the signal to be recorded.

## HUM AND NOISE

In any high fidelity installation, hum may be caused by the interconnection of a turntable, tuner and amplifier, and speakers as the result of wiring, different grounding or location of components.

Before commencing operation, be absolutely sure that connection between each component is properly made, and each RCA pin jack is securely inserted.

Since noise from fluorescent lamps or thermostats may be picked up, the location of the audio system should be carefully selected. In case you cannot locate the cause of noise, consult your dealer.

## PROTECTION CIRCUIT

The unit incorporates a protection relay circuit to prevent a popping noise from being generated upon turning on the power. Upon turn-on, no sound is produced for several seconds. This is for the stabilization of the unit and is not an abnormal operation.

## SPECIFICATIONS

Total Harmonic Distortion . . . . . No more than 0.004%  
(20 to 20,000 Hz) CD/TUNER (Rated output)

Intermodulation Distortion . . . . . No more than 0.004%  
(60 Hz : 7 kHz = 4 : 1) CD/ (Rated output)

### TUNER

Output (Headphone) . . . . . 4 to 16 ohms

### Input Sensitivity/Impedance:

PHONO (MM) . . . . . 2.5 mV/47 kohms  
PHONO (MC) . . . . . 350  $\mu$ V/150 ohms  
CD . . . . . 450 mV/15 kohms  
TUNER, TAPE MONITOR . . . 150 mV/33 kohms

Output Sensitivity/Impedance. . . 1.0 V/1.2 kohms

### Overload Level (T.H.D. 0.5%, 1 kHz):

PHONO (MM) . . . . . 150 mV  
PHONO (MC) . . . . . 20 mV  
CD, TUNER, TAPE. . . . . 5V

### Frequency Response:

PHONO . . . . . 40 to 100,000 Hz,  $\pm 0.2$  dB (RIAA STD)  
CD, TUNER, TAPE. . . . . 4 to 100,000 Hz, +0dB, -3dB

### Signal-to-Noise Ratio (IHF, A network):

PHONO (MM) . . . . . 78 dB  
PHONO (MC) . . . . . 64 dB  
CD, TUNER, TAPE. . . . . 95 dB

Power Consumption . . . . . 20 watts

Dimensions (overall) . . . . . 430 (W) x 66 (H) x 317 (D) mm  
16-5/16" x 2-19/32" x 12-15/32"

Weight (net) . . . . . 5.2 kg/11.44lbs.

- Specifications and design subject to possible modification without notice.