ROTEL hifi

STEREO INTEGRATED AMPLIFIER

RA-935BX

owners 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 near the name plate on the rear panel.

⑤ Volume Control

Used to regulate the volume level. Turn clockwise to increase the level and counterclockwise to reduce it. The control permits either the combined or the separate adjustment of the left and the right channels. Normally turn the dual concentric knob as one for the combined adjustment. When it is necessary for the separate adjustment of each channel due to unbalanced sound levels between both channels, hold the front part of the knob with one hand and turn the rear part of the knob independently. Due to the high quality material and construction used on the volume control for sound quality, the sound level will not rise sharply at low settings. Normally, the control is recommended to be set between 11:30 to 2:00 o'clock position with other Rotel's equipments connected, but a finite adjustment will depend on the sensitivity of your speakers.

⑥ Recording Selector

Permits choose any input connected to the unit and feed it directly to the TAPE 1 and TAPE 2 outputs on the back of the unit for recording the selected input. However, note the TAPE 1 input can be recorded by the TAPE 2 output, but the TAPE 2 input cannot be recorded by the TAPE 1 output. It is possible to record one source, e.g., CD or TUNER, while listening to a different source such as AUX. When not recording, ensure to set the selector at the center OFF position to cut off the circuit completely from the signal path.

⑦ Listening Selector

Allows choose any input connected to the unit. The selector operates independently from the Recording selector above, so you can listen to one source while recording another different source.

WORDS ON OPERATIONS

Precautions

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

2. Always ensure to set the Volume control to the minimum position before turning on the Power switch.

3. Make sure the Recording selector is at the OFF position when listening to any source and not recording.

Tuner Reception

1. Set to the TUNER position on the Listening selector.

2. If possible, turn your tuner's power off when not operating it. Although crosstalks are held to minimum by the circuit design, this is the perfect way to cut off the signal from the radio reception bleeding through to the other inputs connected to the main unit.

Operating CD Player

1. Set to the CD position on the Listening selector.

2. Read the instruction manual of your player carefully to maximize the full potential.

3. Using higher quality interconnecting cords between your CD player and the amplifier may often improve sound quality.

Tape Deck Playback

1. Set to the TAPE 1 or TAPE 2 position on the Listening selector depending on which input your tape deck is connected.

2. Use only a good quality cassette tape deck (in terms of sound quality) or a DAT deck, etc. for maximizing the full potential of the amplifier.

3. Using higher quality interconnecting cords between your tape deck and the amplifier may often improve sound

Recording with Tape Deck

1. Set the Recording selector to any input you wish to record, and proceed the recording with your tape deck connected to the TAPE 1 or the TAPE 2 outputs. If you have two tape decks, you can only record the TAPE 1 inputs with the TAPE 2 outputs. The TAPE 2 inputs cannot be recorded by the TAPE 1 outputs.

2. During recording, operation of the Volume control have no effect on the recorded signal being fed to the TAPE 1 or TAPE 2 outputs.

3. You may monitor recording signals by setting the Listening selector to the same input as the Recording selector. For example if you are recording CD, set the Listening selector to CD.

Dubbing

When two tape decks are connected, you can dub (tape-to-tape copy) one tape deck to the other tape deck. Note the dubbing can only be done from the deck connected to the TAPE 1 input to the other deck connected to the TAPE 2 output.

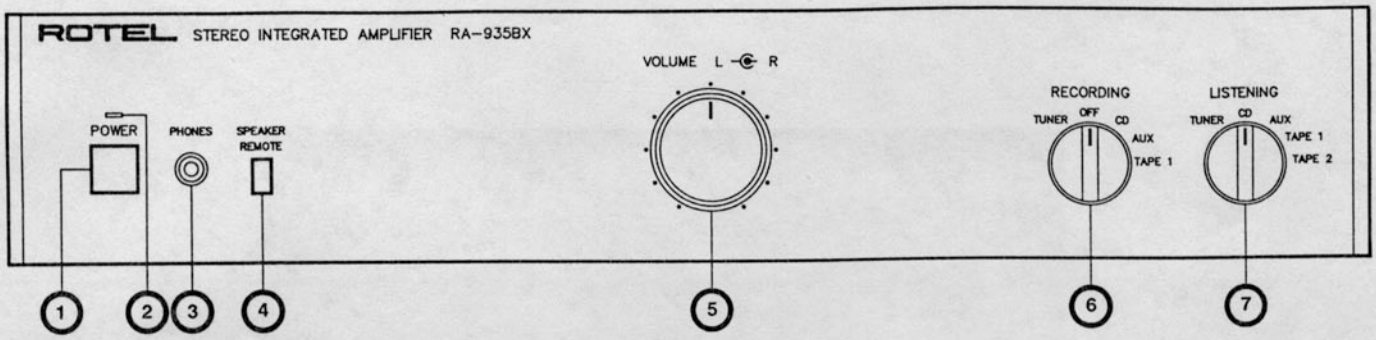
HUM AND NOISE

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

If hum is experienced with your unit, disconnect everything but the speakers from the unit. Plug in the turntable and if hum or howling appears, move it away from the speakers as much as possible.

Note hum may also be induced by defective cable connections or by running the cables too close to strong AC field. When your unit picks up noise during the reception of broadcasts, causes are mostly due to external objects such as fluorescent lamps and house appliances using motor or thermostat, or others than may induce noise.

Either relocating the unit away from the noise sources or using an improved outdoor antenna may readily resolve the problem. In the event you cannot find the cause, consult your dealer or a qualified electrician.



SWITCHES AND CONTROLS

① Power Button

Press this button to turn on and off the unit.

② Power Indicator

Glows when power is turned on with the power button.

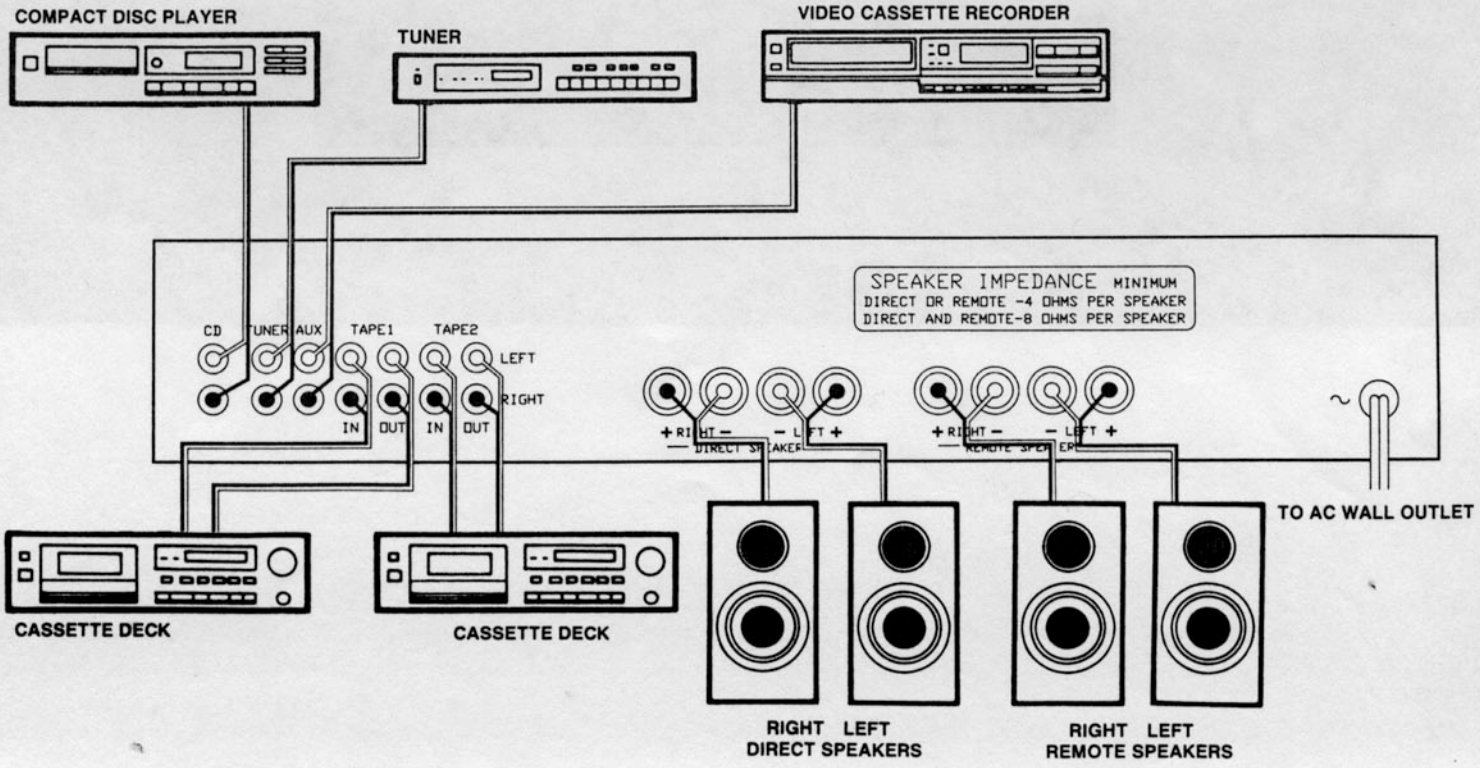
③ Phones Jack

Plug your headphones to this jack, making sure it has the correct type connector. For private listening, if your speakers are connected to the DIRECT speaker terminal posts on the back panel, you have to disconnect the speakers off the terminal posts to cut off sound from the speakers; however, if your speakers are connected to the REMOTE speaker terminal posts, deactivate the Speaker Remote button to cut off sound from the speakers. Hence, if you are frequent user of the headphones, you may wish to connect the speakers to the REMOTE terminal posts all the time.

④ Speaker Remote Button

Press the button to activate the speakers connected to the REMOTE speaker terminal posts on the back panel. Release the button to cut off the sound from the remote speakers.

CONNECTING COMPONENTS



A WORD FROM ROTEL

Rotel take this opportunity to thank you for choosing our equipment for your home entertainment.

Rotel equipment represents a very high state of the art in sound reproduction, as the result of our everlasting determination to achieve the truly hi-fi performance. Please enjoy the sound Rotel have created for many years to come.

To make sure you get the most out of your equipment, please read this owner's manual carefully before your attempt any connections.

BEFORE CONNECTIONS

1. Place for Installation

Ensure to place the unit in a flat surface where it is free from humidity, vibration, high temperature and not exposed to direct sunlight. Also, be careful not to place the unit in a highly enclosed area without adequate ventilation around the unit. Do not block the ventilation openings at the top and the bottom of the unit to prevent excessive heat built up.

2. Electrical Requirements

Your equipment has been designed to be powered by the local AC voltage. Check the setting of your unit by looking at the rear panel name plate. Never try to plug the unit into an outlet of higher voltage, as this causes a serious fire hazard. Consult your dealer if in doubt.

3. Connecting the Power Cord

Always handle the power cord with care. Ensure to connect the cord to the household wall outlet. When plugging and unplugging make sure the power switch on the unit is turned off.

4. Do not Open the Cabinet

There are no user-serviceable parts inside the cabinet of the unit. Do not attempt to open the cabinet or tamper with the internal components. If water or foreign object falls inside the unit by accident, disconnect the power cord immediately and consult a qualified electrician or your dealer.

5. Cleaning Your Unit

If your unit becomes dirty, wipe it gently with a soft, dry cloth. Never use solvents of any kind.

CONNECTIONS

1. Connecting Components

The illustration shows what audio components you can connect to the rear panel of the unit and how they should be properly hooked up via RCA type pin cords. Ensure that the left and the right channels are correctly matched between the RCA type sockets of the unit and those on the components.

2. Connecting Speakers

a) Use speakers with impedance ratings of 4 to 8 ohms. However, if you wish to hook up 2 sets (pairs) of speaker systems and drive both sets simultaneously, ensure each speaker is rated 8 ohms minimum. Never connect speakers with lower impedance than 8 ohms in this case. The speaker impedance is indicated on the back or in the instruction manual of the speaker.

b) Do not use speakers that have very high capacitive load, say, over 0.1 microfarads, as it may cause a damage to the power amplifier section. Normally, most speakers are low capacitance type, but there are a few which do have excessively high capacitance.

c) Use proper speaker cords normally your dealer will recommend, with as low capacitance content as possible. The speaker terminal posts provided on the back of the unit can also take banana plugs.

d) If connecting the speaker cords directly with the bare wire ends, suggest you strip about 1 cm of the insulation shield cover from the ends of the speaker cords. Twist any exposed strands tightly, and insert the ends properly to the terminal posts.

e) The DIRECT terminal posts are recommended for the best sound quality possible from the unit in the "straightpath" route bypassing the headphone circuit. The sound from the speakers connected to the DIRECT terminal posts will not be affected by the Speaker Remote button on the front panel. However, if you wish to listen to your headphone privately, connect your speakers to the REMOTE terminal posts and use the Speaker Remote button on the front panel to turn the speakers off.

f) The REMOTE terminal posts are for the second pair of speakers if you wish to use it for such as providing sound to another room. The sound from the remote speakers can be turned on and off by the front panel Speaker Remote button.

g) Ensure the Left and the Right Channels are correctly connected between the unit and the speakers, and make sure for each channel the "+" and the "–" are also correctly matched. Check that the speaker cord ends (exposed tips) on the terminal posts are not stray and touching one another, which will cause short circuits and may damage both the unit and the speakers.

3. Connecting Tape Recorder

a) When connecting only one tape recorder (cassette deck, DAT, etc.), use the TAPE 1 inputs and outputs.

b) When connecting two tape recorders, use the TAPE 2 inputs and outputs for the recorder which you wish to use for recording (dubbing) the other recorder, which then is connected to the TAPE 1 inputs and outputs. For example, connect a DAT deck to the TAPE 1 jacks and a cassette deck to the TAPE 2 jacks, as normally you wish to record DAT tapes onto cassette tapes.

Specifications RA-935BX

Continuous Power Output ..... 40 watts* per channel, min. RMS both channels driven into 8 ohms from 20 to 20,000 kHz with no more than 0.05% total harmonic distortion.
DIN Output ..... 60 watts per channel (1 kHz, 4 ohms, 1% THD)
Music Power ..... 110 watts
Total Harmonic Distortion (20 t0 20 kHz from AUX)..... No more than 0.05% (continuous rated power output) No more than 0.03% (continuous 1/2 rated power output) No more than 0.03% (1 watt per channel power output, 8 ohms)
Intermodulation Distortion (60 Hz : 7 kHz = 4:1)..... No more than 0.03% (continuous rated power output) No more than 0.01% (continuous 1/2 rated power output) No more than 0.02% (1 watt per channel power output, 8 ohms)
Output: Speakers..... 4 ohms minimum
Headphone..... 8 - 2,000 ohms
Damping Factor ..... 150 (20 to 20,000 Hz, 8 ohms)

Input Sensitivity/Impedance:
CD, TUNER..... 210 mV/ 15 kohms
AUX, TAPE 1, 2..... 210 mV/ 15 kohms
Overload Level (THD 0.5%, 1 kHz):
CD,TUNER..... 5 V
AUX, TAPE 1, 2..... 5 V
Frequency Response:
CD, TUNER..... 10 to 100 kHz, + 1.0 dB, -3.0 dB
AUX, TAPE 1, 2..... 10 to 100 kHz, + 1.0 dB, -3.0 dB
Signal to Noise Ratio (IHF, A network):
CD, TUNER..... 105 dB
AUX, TAPE 1, 2..... 105 dB

MISCELLANEOUS

Power Requirement ..... 120 V/60 Hz, 230 V/50 Hz, 240 V/50 Hz (depending on destinations)
Power Consumption..... 300 Watts
Dimension (overall) ..... 440 (W) × 92 (H) × 347 (D) mm 17-3/8″ × 3-5/8″ × 13-11/16″
Weight (net) ..... 6.1 kg/ 13.4 lbs

- Specifications and design subject to possible modification without notice.
- *Measured pursuant to the Federal Trade Commission's Trade Regulation Rule or, Power Claims for Amplifiers (applicable to the U.S.A. only).

Power Amplifier Bias Adjustment

Instruments: DC milli-voltmeter
Notes: Prior to Bias Adjustment, run about 5 minutes with rated output (8 ohm) and warm up Power Transistor and Heat Sink.
Set Volume control to minimum.

Step	Coupling		Adjust	Adjust for
	Plus Lead	Minus Lead		
1	TP3	TP1	VR601	DC milli-voltmeter reads 6 mV
2	TP4	TP2	VR602	