

ROTEL *hi fi*

STEREO CASSETTE TAPE DECK

RD-945AX

owner's 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.

SAFETY INSTRUCTION

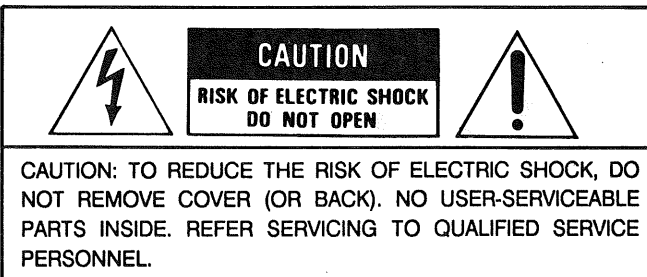
1. **Read Instructions**— All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions**— The safety and operating instructions should be retained for future reference.
3. **Heed Warnings**— All warnings on the appliance and in the operating instructions 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, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. **Carts and Stands**— the appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 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 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 at 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 openings.
16. **Damage Requiring Service**— The appliance should be serviced by qualified factory authorized service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.

PORTABLE CART WARNING



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.

WARNING: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture



● 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 (servicing) instructions in the literature accompanying the appliance.



EXCLUSIVE NOTE FOR U.K.

If your unit comes with a 2-core mains lead without a plug, neither core is to be connected to the earth terminal of a three pin plug, make certain that they are connected, according to the following instruction, to the proper terminals. Check that the terminals are screwed down firmly and no loose strands of wire are present.

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLUE or BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured BROWN or RED.

ENGLISH

STEREO CASSETTE TAPE DECK RD-945AX

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 of your equipment, please read this owner's manual carefully before you attempt any connections.

BEFORE CONNECTION

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.

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

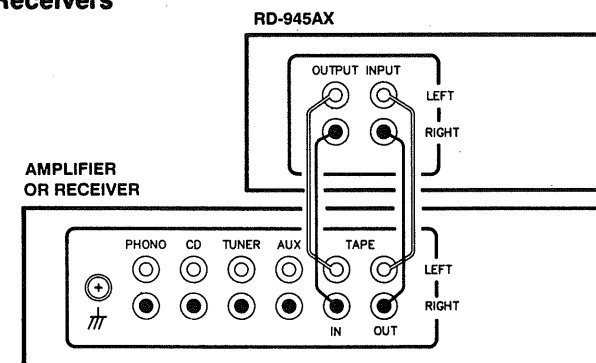
There are no user-serviceable parts inside the cabinet of the unit. Do not attempt to open the cabinet or tamper with the internal components. If water or foreign object falls inside the unit by accidents, disconnect the power cord immediately and consult a qualified electrician of your dealer.

5. Cleaning Your Unit

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

CONNECTIONS

Connecting to Integrated Amplifiers, Preamplifiers or Receivers



The illustration shows how the input and output terminals should be properly hooked up via the interconnect cords supplied with the unit to the Tape input and output terminals of your amplifier (integrated amplifier, preamplifier or receiver).

Ensure that the Right (red) and the Left (white) channels are correctly matched.

SPECIAL FACILITIES

1. Automatic Shutoff System

When either end of tape is reached in play, record, fast forward, or rewind mode, the motor and transport mechanism will automatically shut off, disengaging the present mode.

NOTE: it is still necessary to turn off the unit electrically by pressing the Power button to off.

2. Automatic Tape Selection System

The unit is equipped with the automatic tape selection facility which eliminates the need of manual tape selectors. When a tape is inserted, the setting for correct equalization and biasing in accordance to the type of the tape will be automatically done and indicators show what type of tape is inserted.

CASSETTE TAPES

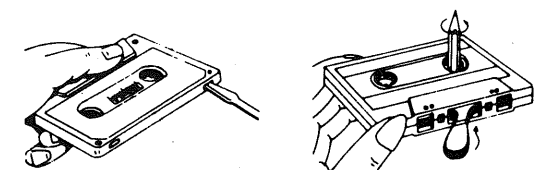
1. Use only high quality tapes for best possible result in sound recording. The good or better quality TDK, MAXELL, etc. well known tapes are recommended.

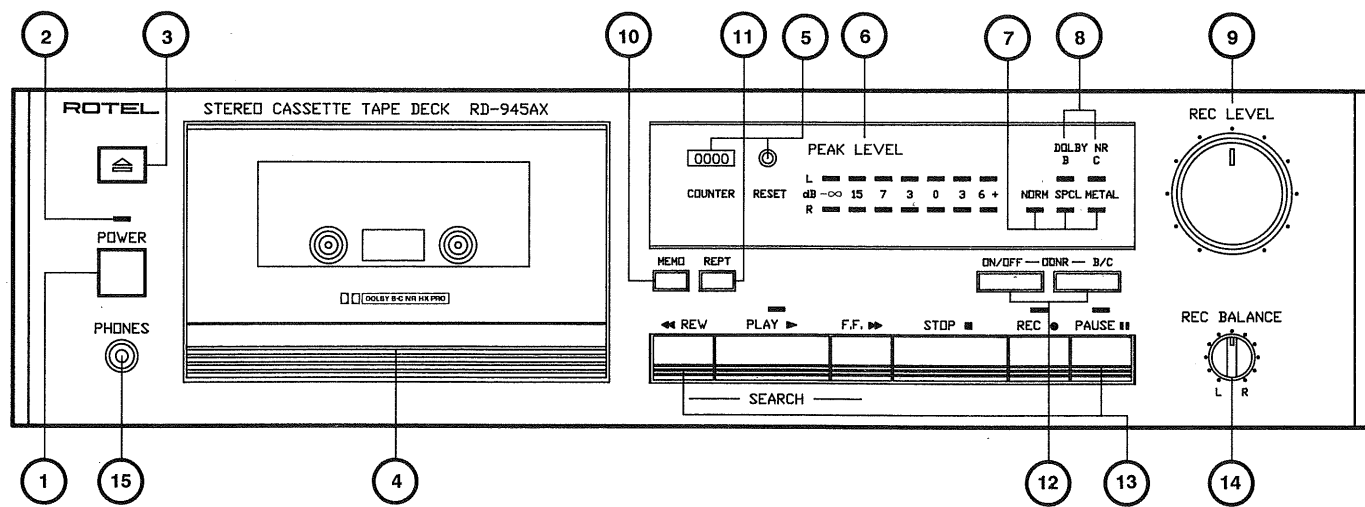
2. To prevent possible trouble with the transport mechanism, the use of C-120 or longer hour tapes is not recommended.

3. Handle tapes with care. Keep them away from heat, dust, or magnetic field (TV set etc.).

4. Each tape has safety tabs on its back edge prevent accidental recording. Each tab is provided for one side (2 tracks) of the tape. Once the tab is removed, recording cannot be done on the side the tab has been taken out. The tab can be removed with a screwdriver, etc. If you wish, however, to record on the side with no tab, place a piece of adhesive tape, etc. over the opening where the tab has been.

5. A loosened tape may cause trouble in playback or recording. Check the tape before loading it into the deck. If it is slack, insert a pencil or the into either of cassette's hubs, and rotate it carefully until the slack is taken up.





SWITCHES AND CONTROLS

(1) Power Button

Press this button to turn on and off the unit.

(2) Power Indicators

Glow when power is turned on with the POWER button.

(3) Eject Button

Press this button to open the cassette door when loading or unloading the cassette tape.

(4) Cassette Door

Cassette tape is loaded into the cassette holder. Press the EJECT button to open the door. To close the cassette door, push it gently backward.

(5) Tape Counter & Reset

The 3 digit tape counter indicates the amount of tape travel. Push the reset button to set the counter to "000".

(6) Peak Level Indicator

Two row of 7 LED's show the recording or playback level for both left and right channels.

(7) Tape Selection Indicators

When a tape is inserted and the cassette door closed, an indicators will light up automatically to indicate the type of tape used. NORM for normal tape; SPCL for Chrome tape; METAL for metal tape.

(8) Dolby NR B/C Indicator

Either of these indicators will light up when Dolby NR switch is activated ON and in accordance with whether Dolby type switch is set at Dolby B or Dolby C.

(9) Recording Level Control

Used to adjust the recording level of incoming signals from line source.

(10) Counter Memory

Depress it and the unit memorizes "0000" position on the tape counter, in this state, if you press the REW button after playback of the specific section is finished the tape will rewind to the "0000" position on the counter.

(11) Repeat

Depress this button to repeat playback of the selected tape automatically. Please ensure to activate the button before pushing the PLAY button. When used with the MEMORY button only "0000" position to tape end will be repeated.

(12) Dolby NR Buttons

Depress the Dolby NR button when you wish to record or playback through the built in Dolby noise reduction circuit. Next to this button is a switch for selecting Dolby B type or C-type noise reduction. Select B-type by setting button in released position, and C-type by setting button in depressed position.

NOTE: DOLBY HX PRO circuit is always effected during recording.

(13) Cassette Controls

REW Button ◀◀

For rapid tape rewind, depress this button.

PLAY Button ▶

Depress this button to start the cassette for playback of recorded tape. The LED above the button glows when PLAY activates.

SEARCH

Press the Fast Forward button after the PLAY button activated, the beginning of the program next to the present program being played will be sought forward automatically. In reverse, press the REW button, then the beginning of the present program being played will be sought backward automatically. The LED indicator above PAUSE button blinks quickly when SEARCH activates.

F.F Button ▶▶

Depress this button to advance the tape rapidly forward.

STOP Button ■

Depress this button to stop the tape in any mode: record, playback, rewind or fast-forward. This button will release any transport button current engaged.

REC Button ●

To record, depress this and PLAY button. The deck is now in the recording mode, and the tape should be winding. The LED provided on the button glows during recording.

PAUSE Button ||

Press this button to stop the tape temporarily during recording or playback without disengaging the mode currently employed, and LED indicator above the button blinks. In this state, pressing the PLAY button restarts the tape in the interrupted mode.

(14) Rec Balance Control

Adjusts the relative recording levels between the left and right channels. Rotate the knob to the left so that the left

channels sound is recorded at louder level than the right, and vice versa. Normally set the knob at the mid-position.

(15) PHONES

Used to plug headphones jack for the private listening.

WORDS ON OPERATION

Precautions

1. Before commencing operation, check to see if all connections are properly made.
2. When recording, be sure the safety tabs on the cassette tape edges are not removed.
3. When recording from line sources, choose the desired program (Tuner, Turntable, CD etc.,) on your integrated amplifier, preamplifier, or receivers.

Recording

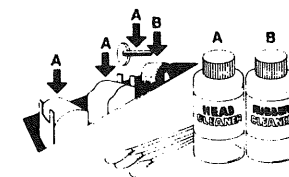
1. Depress the DOLBY NR button ON, and then set the DOLBY B/C button to the desired position when record through DOLBY NR circuit.
2. Depress the deck POWER button ON.
3. Depress PAUSE button, then simultaneously depress REC button and the unit is put into REC PAUSE state.
4. Adjust recording level controls, if necessary, depress the PLAY button to put the unit into recording mode and start the tape movement.
5. Carefully watch the counter indication during recording as well, PAUSE button may be used to temporarily halt recording.
6. Press STOP button when recording is finished.

Playback

1. Depress the DOLBY NR button ON, when playback a tape recorded with DOLBY NR, and then set the DOLBY B/C button according to whether DOLBY B or DOLBY C is used.
2. Turn on the power switch on your amplifier and keeping its volume control to minimum.
3. Depress the deck POWER button ON.
4. Press PLAY button and playback will begin. Raise the volume to the desired level.
5. To momentarily halt playback, press the PAUSE button. When wish to end playback, press the STOP button.

HEAD CLEANING

The most frequent cause of failure to record in one or both channels, or of weak, distorted sound, is dirty tape heads and capstan. So, be sure to clean the heads, capstan, pinch roller and tape guides as often as possible using a "Q" tip dipped in ordinary rubbing alcohol or commercial liquid tape head cleaner. Thoroughly wipe the surface of the heads, capstan, roller and tape guide.



HEAD DEMAGNETIZING

The tape heads, capstan and tape guides gradually become magnetized with use, which will eventually affect the sound quality of your tapes. Demagnetizing should follow cleaning, but need not take place as often as cleaning, once after every 20 to 30 hours of use should suffice.

A demagnetizer may be purchased at a moderate cost from any dealer carrying tape recording accessories. Follow the instruction supplied with the demagnetizer.

Caution: Be sure to turn off the unit before you attempt demagnetizing.

SPECIFICATIONS RD-945AX

Heads: Rec/ Play.....	Permalloy core
Erase.....	Ferrite core
Track.....	4-track / 2-channel
Tape Speed.....	4.8 cm / sec
Motor.....	Electric Governer
Wow and Flutter.....	0.2 % (DIN) 0.06 % (WRMS)
Distortion (REC/PB, 400 Hz).....	2 % (METAL)
Frequency Response (-20 dB):	
Normal, LH.....	30 to 15,000 Hz +/-3 dB
Special.....	30 to 16,000 Hz +/-3 dB
Metal.....	30 to 17,000 Hz +/-3 dB
Signal-to-Noise Ratio (WTD. 0 dB = 710 mV, Chromium):	
Dolby NR in.....	64 dB (B Type)
	73 dB (C Type)
Dolby NR out.....	55 dB
Input Sensitivity/ Impedance:	
LINE.....	60 mV/ 33 kohms
Output Level/ Impedance:	
LINE.....	710 mV/ 1.5 kohms
Fast Wind Time (C-60).....	80 seconds
Tape Selector	BIAS EQUALIZER
Normal, LH.....	100 % 120 uS
Special.....	150 % 70 uS
Metal.....	220 % 70 uS

MISCELLANEOUS

Power Requirement.....	120 V/ 60 Hz, 220 V/ 50 Hz,
	240 V/ 50 Hz (depending on
	destinations)
Power Consumption.....	30 watts
Dimension (overall).....	440 (W) x 121 (H) x 286 (D) mm
	17-3/8" x 4-13/16" x 11-1/4"
Weight (net).....	5.6 Kg / 12.32 lbs

- Specifications and design subject to possible modification without notice.
- Dolby noise reduction and HX PRO headroom extension manufactured under license from Dolby Laboratories Licensing Corporation.
HX PRO originated by Bang and Olufsen. "Dolby", the double-D symbol, and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

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