



**STEREO
DUAL CASSETTE DECK**

DX - 320

**OPERATING
INSTRUCTIONS**

	CAUTION RISK OF ELECTRIC SHOCK. DO NOT OPEN.	
<p>CAUTION: TO REDUCE RISK OF ELECTRIC SHOCK. DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p> <p>WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.</p>		

 The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user of the presence of an insulated "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 of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

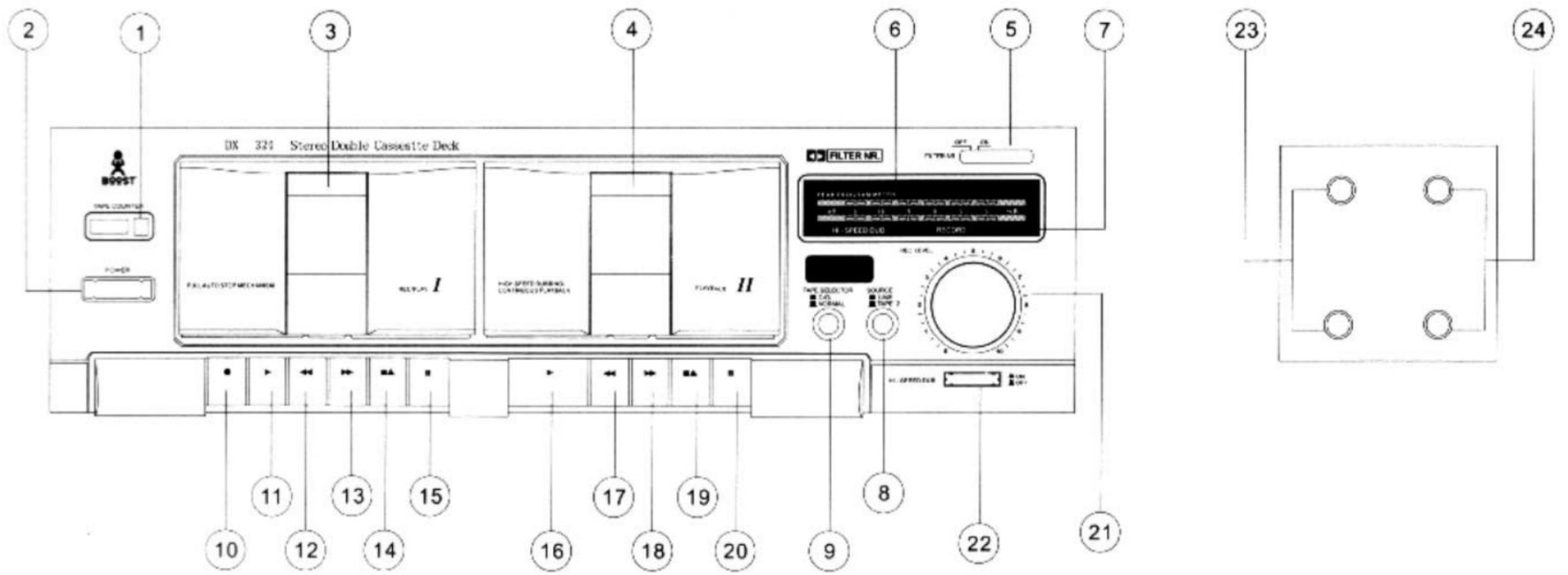
A Consumer Guide to Product Safety

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. All warnings on the appliance and in the operating instructions should be abhered to.
4. **Follow Instructions** - All operating and use instructions should be followed.
5. **Water and Moisture** - The appliance should not be used neat water. For example, near a bathtub, washbowl, 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, An appliance and cart combination should moved with care. Quick stops, excessive force and uneven surfaces may cause the appliance and cart combination to overturn.

PORTABLE CART WARNING
(Symbol provided by RETAC)



S3125A
7. **Ventilation** - The appliance should be situated so that it's location or position does not interfere with it's 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 bookcase or cabinet that may impede the flow of air through the ventilation openings.
8. **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.
9. **Grounding or Polarization** - This product is equipped with a polarized alternatingcurrent line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to Insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
10. **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 points where they exit from the appliance.
11. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.
12. **Power Lines** - An outdoor antenna should be located away from power lines.
13. **Nonuse Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
14. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
15. **Damage Requiring Service** - The appliance should be serviced by qualified 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.
16. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves or other appliances (including amplifiers) that produce heat.
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 service personnel.



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| <ul style="list-style-type: none"> 1. COUNTER RESET BUTTON (DECK A). 2. MAIN POWER ON/OFF SWITCH. 3. DECK A COMPARTMENT DOOR. 4. DECK B COMPARTMENT DOOR. 5. FILTER OFF/ON BUTTON. 6. HI-SPEED DUBBING INDICATORS. 7. DECK A RECORD INDICATOR. 8. RECORD SIGNAL SOURCE SWITCH. 9. NORMAL/CRO2 SELECTOR SWITCH. 10. RECORD BUTTON (DECK A). 11. PLAY BUTTON (DECK A). 12. REWIND BUTTON (DECK A). | <ul style="list-style-type: none"> 13. FAST-FORWARD BUTTON (DECK A). 14. STOP/EJECT BUTTON (DECK A). 15. PAUSE BUTTON (DECK A). 16. PLAY BUTTON (DECK B). 17. REWIND BUTTON (DECK B). 18. FAST-FORWARD BUTTON (DECK B). 19. STOP/EJECT BUTTON (DECK B). 20. PAUSE BUTTON (DECK B). 21. RECORD LEVEL ADJUSTMENT. 22. DUBBING SPEED SELECT BUTTON. 23. RECORD SIGNAL INPUT JACK. 24. PLAY BACK SIGNAL OUTPUT JACK. |
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CASSETTE DECK OPERATION

TAPE RECAUTIONS

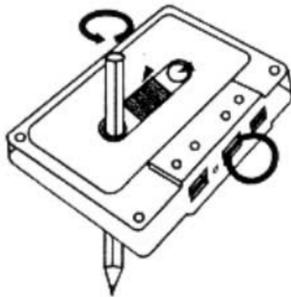
Recommended Cassette Tapes

In order to obtain optimum performance with the built-in cassette tape deck, it is essential to use only high quality cassette tapes. The bias and equalization of this tape deck is adjusted yield excellent results if used with brand name tapes.

Use C-30, C-60 and C-90 cassette tapes only. We do not recommend the C-120 cassettes because they can be subject to mechanical instability and proper, constant tape tension cannot be controlled.

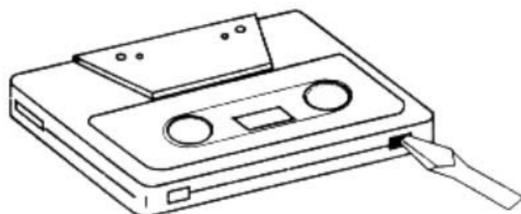
Checking the Cassette (Slack Tape)

Make sure that the cassette tape has no slack prior to inserting it into the cassette compartment. Unless the tape is taut, it may wind around the head mechanism and trouble may result. Use a pencil as shown to take up slack on one of the reels.



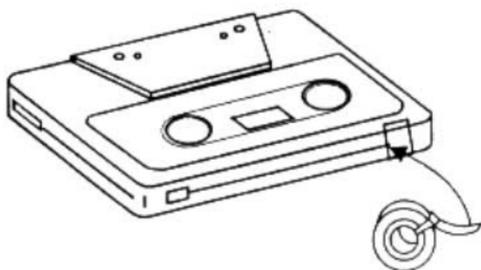
Record Button Interlock-Accidental Erasure Protection

Remove the tab as illustrated so that the record mode does not function when the record button is pressed.



Tab of side A

To record on a cassette once tabs have been removed, simply cover the slot with plastic tape.



CONTROLS AND FUNCTIONS

Cassette Deck A (RECORD/PLAYBACK)

For recording and playback.

Cassette Deck B (PLAYBACK)

For playback only.

PLAY button

Press the PLAY button to start playback.

RECORD (Deck A) button

Press the RECORD button to start recording.

FAST-FORWARD (▶▶) button

For fast winding the tape, press the ▶▶ button. Press the STOP/EJECT button when the desired location has been reached. **When the end of the tape has been reached. The tape will stop automatically.**

REWIND (◀◀) button

For rewinding the tape, press the ◀◀ button. Press the STOP/EJECT button when the desired location has been reached. **When the beginning of the tape has been reached, the tape will stop automatically.**

STOP/EJECT button

Press the STOP/EJECT button to open the cassette compartment door or stop playback or recording.

PAUSE button

Press the PAUSE button to momentarily suspend tape travel during recording or playback. Press the PAUSE button again and recording or playback will resume. The PAUSE control does not function during fast forward or rewind.

DIRECTION (Deck B)

Press the DIRECTION button to change the tape direction and play the other side of the tape.

PLAY button (Deck B)

Press the PLAY button to start playback.

TAPE SELECT (Playback only) Switch

This unit has the TAPE SELECT switch so you may select the proper playback equalization for the type of tape being played.

Before playback set the TAPE SELECT switch according to the type of tape being played to ensure optimum performance.

CrO₂ ■ : For CrO₂ (Chromium Dioxide or equivalent) tapes.

NORM ■ : For NORMAL (low noise or Ferric Oxide) tapes.

HIGH SPEED DUBBING

Set ON  for HIGH SPEED DUBBING.

Set ON  for NORMAL SPEED DUBBING.

RECORD INDICATOR (Deck A)

This indicator lights when the RECORD button is pressed.

OPERATING THE CASSETTE DECK

Inserting a Cassette Tape

To insert a cassette tape into deck A or B,

1. Open the cassette door:

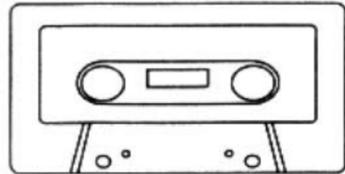
Press the STOP/EJECT button to open the cassette door.

2. Insert the cassette:

Insert the cassette with the tape side facing downwards and the side which you wish to play or record facing you.

3. Close the cassette door:

Press gently of the top centre of the door. Do not use force.



Exposed Section of Tape

To remove a tape, press the STOP/EJECT button and remove the tape.

PLAYBACK

Deck A Playback

Deck A is used for both recording and playback.

1. Switch the unit on:

Press the POWER switch to ON.

2. Insert the cassette:

Open the cassette deck with the STOP/EJECT button. Insert a recorded cassette into the Deck A.

Set the TAPE SELECT switch according to the type of tape being used. (For Deck B only)

3. Rewind or fast forward:

For fast winding or rewinding the tape, press the  or  button. Press the STOP/EJECT button when the desired location has been reached.

4. Start playback:

Press the PLAY button to start playback.

5. Suspend playback:

Press the PAUSE button to momentarily suspend playback, Press again to resume playback.

6. Stop playback:

Press the STOP/EJECT button to stop playback at any time. The tape will automatically stop at the end of the tape.

DECK B PLAYBACK

1. Insert the cassette:

Open the cassette deck with the button. Insert a recorded cassette into the DECK B.

2. Rewind or fast forward:

For fast winding or rewinding the tape, press the  or  button. Press the STOP/EJECT button when the desired location has been reached.

3. Start playback:

Press the play button to start playback.

Continuous Playback (From Deck B to Deck A)

This unit enables you to play continuously from Deck B to Deck A.

1. And 2. :See left in "Deck A Playback".

3. Insert cassettes:

Insert prerecorded tapes into Deck A and Deck B compartments.

4. Start the Deck B.

Press the PLAY button on Deck B to start playback.

5. Set the Deck A.

Press the PAUSE and PLAY button on Deck A. Deck B automatically stops at the end tape and Deck A will start.

RECORDING (DECK A)

Recording from line

1. Switch the unit on:

Press the POWER switch to ON.

2. Select record signal source press the source button to LINE.

3. Insert the cassette:

Open the cassette deck with the STOP/EJECT button. Insert a cassette into the Deck A.

4. Start recording:

Press the RECORD button to start recording. The RECORD indicator lights up.

5. Set the recording level, slide the RECORD LEVEL knob to adjust peak level "0" dB.

6. Suspend or stand by recording:

Press the PAUSE button to momentarily suspend recording.

Press again to resume recording.

Recording signal can be heard when OUTPUT jack is connected to an amplifier with speaker.

7. Stop recording:

Press the STOP/EJECT button to stop recording at any time. The tape will automatically stop at the end of the tape.

Dubbing (From Deck B to Deck A)

This unit enables you to duplicate a prerecorded tape onto another tape by using the built-in double deck mechanisms. It is performed only one way, from Deck B (playback) to Deck A (recording).

1. Switch the unit on:

Press the POWER switch to ON.

2. Select record signal source:

Press the source button to TAPE 2.

3. Insert the cassette:

Open both cassette decks with the STOP/EJECT buttons.

Insert a recorded cassette into the Deck B and blank cassette into the Deck A.

Set the TAPE SELECT switch according to the type of tape being used on the Deck B.

4. Recording standby:

Press the PAUSE button and then RECORD button on the Deck A. The RECORD indicator lights up.

5. Select dubbing speed:

Normal speed: HI SPEED DUBBING OFF ■

High speed: HI SPEED DUBBING ON ■

6. Start dubbing:

Press the PLAY button on the Deck B.

The PAUSE button on the Deck A is automatically released and dubbing starts.

7. Stop dubbing:

Both decks automatically stop at the end of the tape. If you wish to stop beforehand, press the STOP/ EJECT buttons on both decks at any time.

NOTE: Do not change the DUBBING SPEED during dubbing as this would ruin the recording.

NOTE: Recording on chrome tapes that have been previously recorded on a different tape recorder may result in only partial erasure of the original recordings. It is recommended that blank chrome tapes are always used when making recordings.

CARE AND MAINTENANCE

POWER SWITCH

After using the unit, turn off the power by pressing the POWER switch.

CLEANING THE UNIT

(REMOVE AC PLUG FROM AC OUTLET SOCKET)

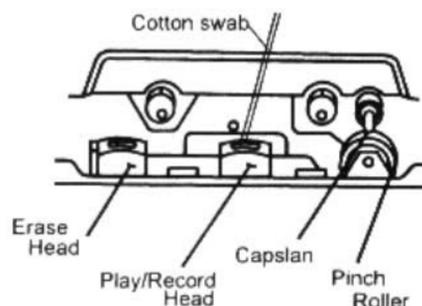
To clean the unit, simply wipe with a soft clean cloth moistened with plain lukewarm water.

CLEANING THE TAPE HEAD

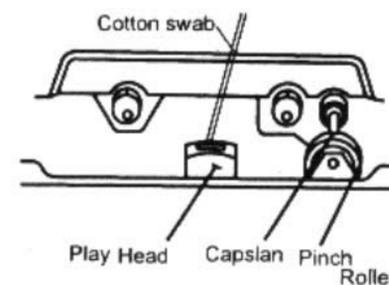
To ensure the continued high performance of your unit, periodically clean the heads and pinch roller to prevent accumulation of dust or tape oxide deposits by using a special tape head cleaning cassette, available at record and tape stores every where. Failure to clean these parts may result in inferior sound quality, distortion of recorded sound, deterioration of reproduction of high frequencies, and inconsistent tape speed.

1. Open both cassette compartment doors by pressing both STOP/EJECT buttons.
2. Moisten a cotton swab with head cleaner or isopropyl alcohol and apply to the faces of heads, rubbing gently until all traces of dirt or oxide are removed. Clean the surfaces of the pinch rollers and capstans also.
3. Dry the heads with another swab.

DECK A



DECK B



CAUTION:

1. Screwdrivers and other metal objects should NEVER be allowed to come in contact with the tape heads. These will scratch the sensitive surface causing damage to your tapes.
2. Magnets or magnetized objects should not be placed near tape heads.

TROUBLESHOOTING GUID

Please check the following items before contacting your dealer or returning the unit for repair.

Problem	Possible Cause	Remedy
	Out put are not connected.	Check out put connections.
No out put	Power is not on.	Push power switch on.
	AC cord is not plugged in.	Plug in AC cord
Unsteady tape sound	Dirty capstan	Clean capstan.
	Irregular cassette tape winding	Replace tape.
Cannot record	Cassette's erasure prevention tabs broken out.	Replace tape or cover tab openings with adhesive tape.
Recorded tape sound is distorted	Dirty head.	Clean head.
	Faulty cassette tape.	Replace tape.
High frequency of tape sound is weak	Dirty head.	Clean head.
	Tape select switch set improperly.	Set for type of tape being used.