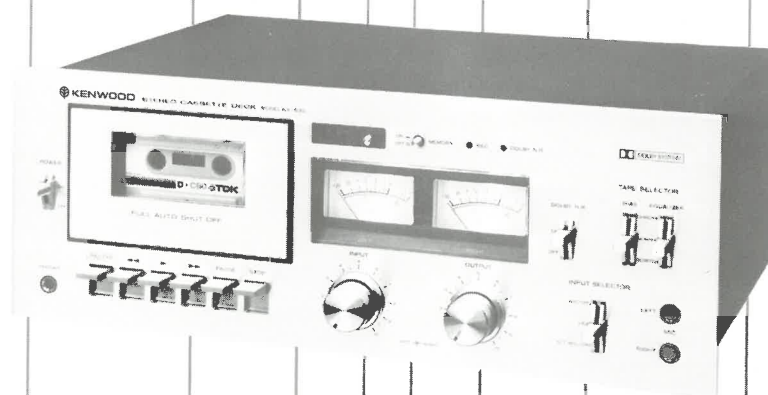


STEREO CASSETTE TAPE DECK

KX-830

INSTRUCTION MANUAL



the sound approach to quality

KENWOOD

11

INTRODUCTION

Thank you for purchasing our cassette deck. Because we take great pride in the long tradition of quality components the name KENWOOD represents, your choice of our product places you in a distinguished family of connoisseurs of superb high-fidelity sound reproduction.

The purpose of this manual is to acquaint you with the operating features of your new cassette deck. You will notice that in every detail of planning, engineering, styling, operating convenience, and adaptability, we have sought to anticipate your needs and desires.

We suggest that you read this manual carefully. Knowing how to set up your cassette deck, to the best advantage, will enhance your listening pleasure right from the start. You will also become aware of the ease with which you can adjust your cassette deck to meet your special requirements.

Turn the pages and become acquainted with the exciting features of your new cassette deck, features that will remain new for endless hours of listening pleasure.

SERIAL NUMBER

Record your SERIAL NUMBER on the spaces designated on the warranty card. You will find the serial number on the back of the unit.

AFTER UNPACKING

After unpacking, we recommend you inspect and examine the unit for any possible shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend you retain the original carton and packing materials to prevent any damage should you transport or ship your unit in the future.

WARNING:
TO PREVENT FIRE OR
SHOCK HAZARD, DO NOT
EXPOSE THIS APPLIANCE
TO RAIN OR MOISTURE.

FEATURES

1. Dolby Noise Reduction System with Indicator
2. Front Loading System
3. Three Position Tape Selector
4. Input Selector with MIC/DIN attenuator
5. Memory Rewind Mechanism
6. LED Peak and Recording Indicator
7. Full Auto Shut-Off Mechanism in all Modes
8. Three Digit Tape Counter
9. Two Large Size Illuminated VU Meters
10. Mono MIC Operation

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DOLBY is a Trade Mark of Dolby Laboratories, Inc.
Noise reduction circuit made under license from DOLBY Laboratories Inc.

NOTES

CONCERNING LINE VOLTAGE

- Units shipped to the countries listed in the table below are designed to be operated with the AC line voltage that is shown, which is standard in those countries.

Destination	AC Voltage
U.S.A.	120V 60 Hz
CANADA	120V 60 Hz
U.K.	240V 50Hz
AUSTRALIA	220V 50Hz

- These units are therefore not equipped with an AC voltage selector.**

The owners of such units should disregard all reference to these items in this Instruction Manual.

AC VOLTAGE SELECTOR

- Units shipped to countries not listed in the above table are equipped with an AC voltage selector on the rear panel that is preset at the factory to the voltage generally available in the destination area. Before operating this tape deck, make sure that the position of the AC voltage selector matches your line voltage.

If not, it must be changed to the proper setting.

- To reset the selector, remove the set screw and stopper plate. Switch the lever to opposite side. Lock the lever by attaching stopper plate with the set screw. (Fig. 1)
- Be sure to remove the AC plug when setting the AC voltage selector.
- Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector.

INSTALLATION

- Install the unit on a flat, vibration-free, rigid table or stand.
- Do not place the unit near a heat producing equipment such as a radiator. Avoid direct sunlight.

- The unit may not function properly when used in atmosphere of extremely low temperature or freezing temperature. The ideal ambient temperature is over $+5^{\circ}\text{C}$.
- Do not store or use the unit in a dusty location or in a moist atmosphere. Select a location where air is well ventilated.
- Keep the unit away from a source of magnetic field such as TV set, speaker system, radio or magnetized objects.
- Operate the unit on rated power supply voltage ($\pm 5\%$). Irregular power voltage will result in incorrect operation.

TAPE HEADS

- Keep the tape heads free from magnetism. Do not bring a screwdriver or any other metallic tool close to the tape heads. The head surfaces must be kept clean at all times. Failure to observe these precautions will result in deterioration of sound quality.

POWER SUPPLY FREQUENCY

- The tape mechanism is driven by DC motor, so the unit accepts both 50 Hz and 60 Hz power without making any modification.

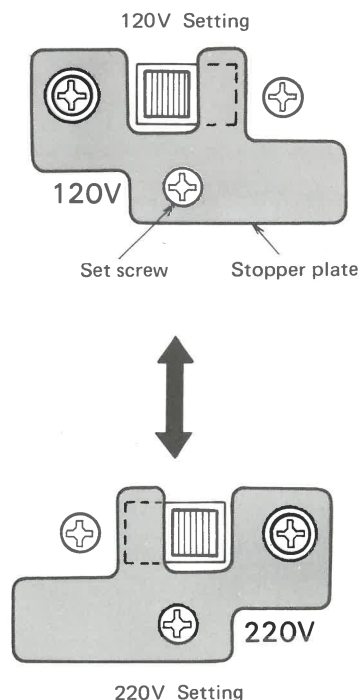


Fig. 1

CONTROLS AND THEIR FUNCTIONS

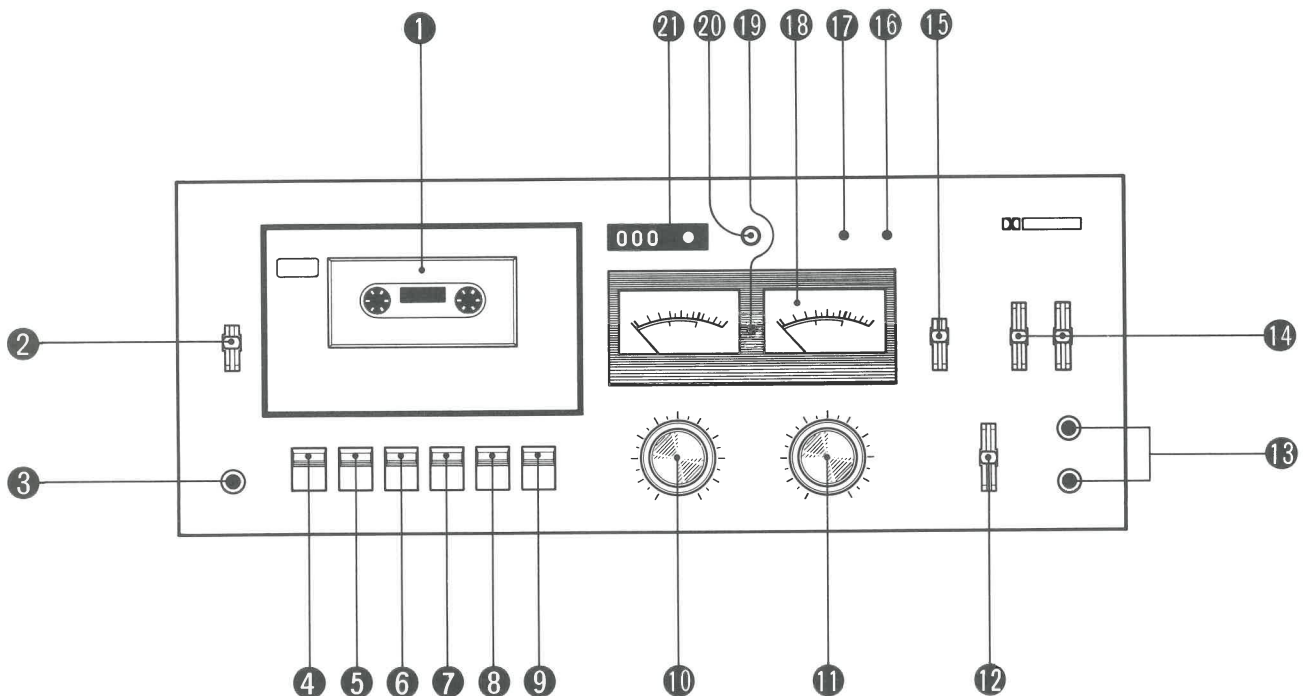


Fig. 2

1 Cassette Lid

Press the cassette lid lightly at the window and the lid will spring open. To close the lid, press it once again. To remove the lid from the recorder, first open the lid and pull it upward.

2 Power Switch (POWER)

Use this switch to turn on and off the power.

3 Headphone Jack (PHONES)

Connect your headphone for monitoring during recording or playback.

4 Record Button (RECORD)

Press this button to start recording. It cannot be pressed if cassette is not properly loaded or the erase-proof tabs at the rear side of cassette are removed. When the button is pressed, the record lamp will light.

5 Rewind Button (◀◀)

By pressing this button, the tape will rewind from the right to the left reel at a high speed. The button is released automatically when the tape reaches its end.

6 Play Button (▶)

Press this button to play tape. For recording, press both the record button and play button simultaneously. In either case, the button will be released automatically when the tape reaches its end.

7 Fast Forward Button (▶▶)

By pressing this button, the tape advances rapidly from the left to the right reel. The button is released automatically when the tape reaches its end.

8 Pause Button (PAUSE)

To stop the tape for a brief period of time during recording or playback, press this button until it locks. To resume recording or playback, press the button once again.

NOTE:

If the Pause Button is left depressed during fast forward or rewind operation, the auto-stop mechanism will not function at the end of tape.

9 Stop Button (STOP)

Press this button to stop tape movement. The function button being pressed will be released from its locked position.

10 Input Volume Control (INPUT)

Use this control to adjust the input level.

11 Output Volume Control (OUTPUT)

This control adjusts line-out level. This feature is very useful for you to check the level against the input level of the externally connected tuner or phono player.

12 Input Selector

Use this selector knob to select recording source.

13 MIC Jack (MIC)

For connection of microphone. Use the Input volume control for adjustment of input level.

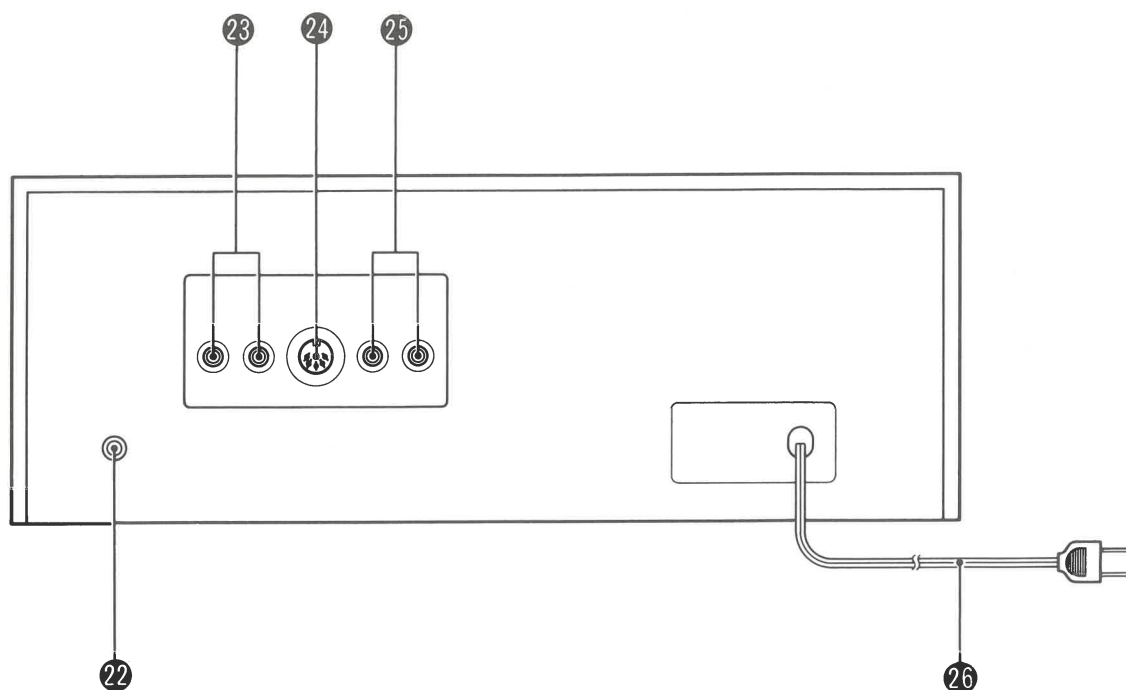


Fig. 3

14 Tape Selector (TAPE SELECTOR)

Used to select the type of tape to be played. For details, refer to page 9.

15 Dolby Switch (DOLBY N.R.)

When playing tape recorded using Dolby system or recording with Dolby system, set this switch to ON.

16 Dolby Indicator (DOLBY N.R.)

This lamp will light at the ON position of the Dolby switch.

17 Recording Indicator (REC)

This lamp will light during recording.

18 VU Meter (VU)

The VU meter indicates recording or output level.

19 Peak Level Indicator (PEAK)

This lamp will light when the input level exceeds +6VU. Adjust the recording level so that the lamp just flickers.

20 Memory Rewind Switch (MEMORY)

Press this switch to ON and the tape in rewind mode will stop automatically when the tape counter indicates "999".

21 Tape Counter and Reset Button

The tape counter indexes positions of programs recorded on tape while the tape is running. This helps you in locating programs during playback. When recording from the beginning of tape, set the tape counter to "000" by pressing the reset button.

22 Earth Terminal (GND)

If noise (hum) is generated from external sound source connected to the recorder, connect a lead-wire between the source and the GND terminal.

23 Line Out Jack (LINE OUT)

Connect the Audio Cord supplied to the line out jack and the TAPE PLAY jack of your amplifier.

24 DIN Jack (REC/PLAY)

Connect a single DIN cord between the DIN jack and your amplifier.

25 Line In Jack (LINE IN)

Connect the Audio Cord supplied between the line-in jack and the recording terminal of your amplifier.

26 Power Cord

Connect the power cord to your convenient AC outlet.

CASSETTE TAPE

TYPE OF CASSETTE TAPE

Application

Cassette tape comes in various types, each having its own characteristic as indicated below.

1. Standard tape For recording speech and other general materials.
2. Low noise, high output tape..... For recording music
3. Chrome tape..... For recording music
4. Ferro-chrome tape..... For recording music

Recording Time

All cassette tapes are internationally standardized in design; particularly they are designed to record and play at the fixed speed of 4.76 cm/sec. Recording time of each tape is identified by the "C number" such as C-30, C-60, C-90 and C-120. C-30 plays and records for a maximum of 30 minutes on both sides of tape. C-60, C-90 and C-120 are used for recording or playback up to 30, 60 and 120 minutes, respectively.

Insert pencil into reel hub and turn until slack is taken up.

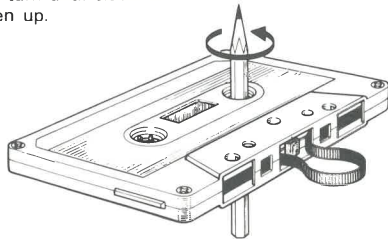


Fig. 4

To protect precious recording, break off claw using screwdriver or similar tool.

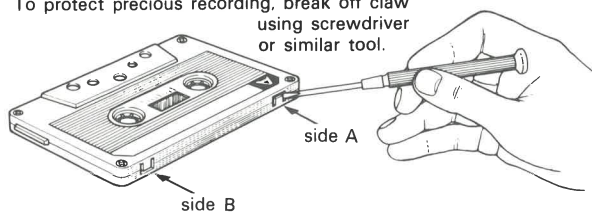


Fig. 5

SUGGESTIONS ON USE OF CASSETTE TAPE

Protection against Accidental Erasure (Fig. 5)

For protection of your important recordings against accidental erasure, your cassettes are equipped with erase-proof tabs on the edge opposite the exposed tape. If you wish to protect the tape against accidental erasure, simply break off these tabs.

C-120 Cassette Tape

If a C-120 type cassette is used, particular care should be exercised because the tape is very thin and, therefore, it tends to stretch or to be caught on the pinchroller or capstan. It is advisable not to use C-120 cassette when recording important programs.

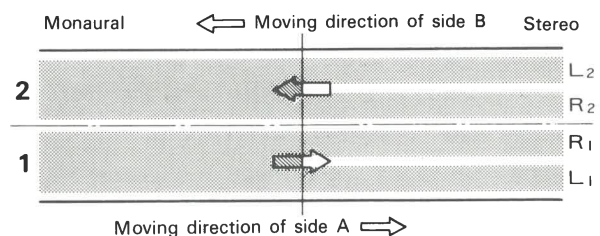
Loose Tape (Fig. 4)

If tape has a slack in cassette, wind up the loose tape with a pencil inserted through the reel hub. Turn the pencil until the slack is removed before using.

INTERCHANGEABILITY OF TAPE

Recording Track of Cassette Tape (Fig. 6)

Your stereo tape deck also plays tapes recorded by monaural type tape recorders. Similarly, tapes recorded in stereo mode can be played on monaural type tape recorders. In either case, the sound is heard in monaural mode.



(Viewed from head side)

Track of Cassette Tape

Fig. 6

CONNECTING INSTRUCTIONS

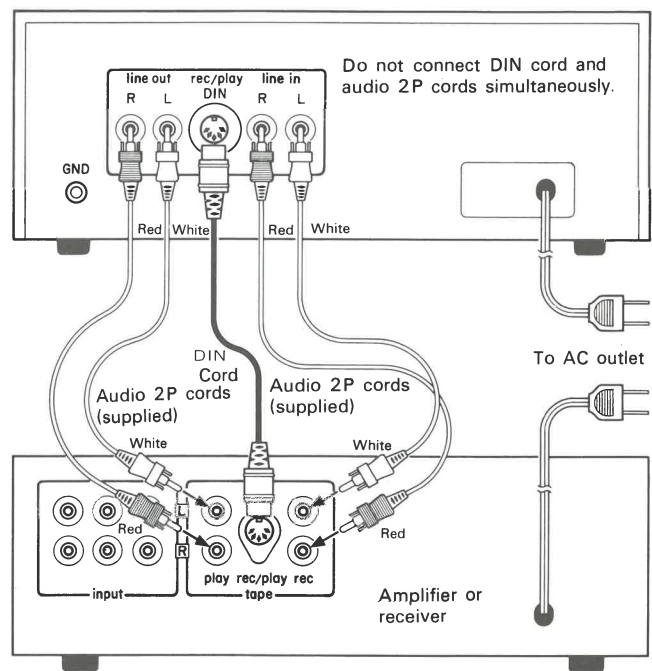
CONNECTION TO STEREO SYSTEM

Connection with Supplied Audio Cord (pin-cord)

- Use the supplied Audio Cord for connection to your stereo amplifier or receiver as shown in the illustration.
- For high quality recording and playback, the use of the Audio Cord is recommended. Note that DIN cord connection will normally result in deterioration of high frequency sound and loss of S/N ratio.

CONNECTION WITH DIN CORD

If your stereo system has a DIN connection feature, a DIN cord (option) can be connected as shown in the illustration. In this case, the microphone should be disconnected from the MIC jack.



RECORDING WITH MICROPHONE

1. Your microphones should be of low impedance (600-ohm) type. If only one microphone is to be used, connect it to the LEFT MIC jack. The sound is recorded on both the left and right channels.
2. If a microphone mixer or telephone pickup coil is available, you can connect it to the MIC jack also. To record TV or radio programs, use the line-in jack or MIC jack depending on the level of the output signal.

LISTENING THROUGH HEADPHONE

Connect your stereo headphone to the PHONE jack. The loudness can be adjusted by the output volume control.

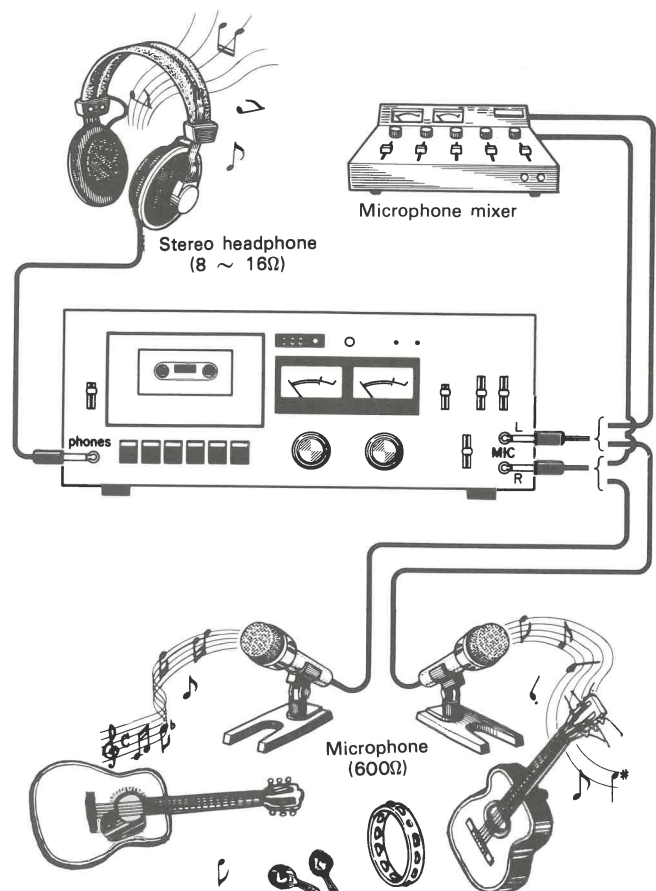
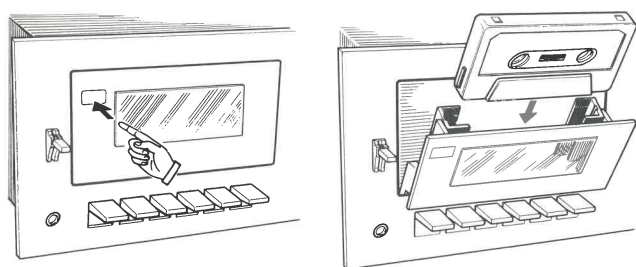


Fig. 7

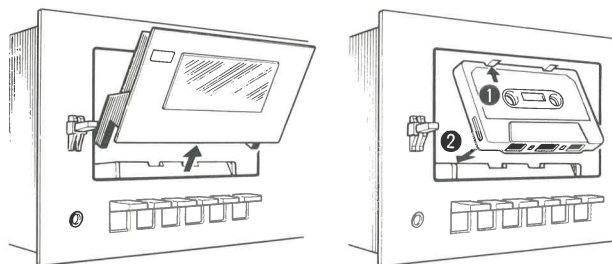
LOADING OF CASSETTE TAPE

LOADING THE CASSETTE

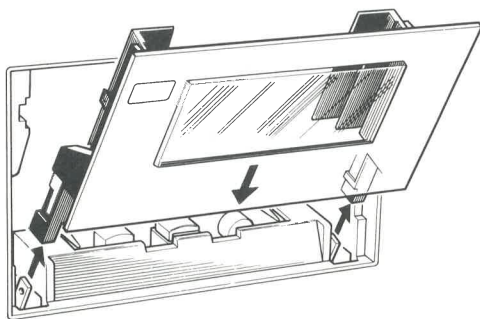
1. Press the cassette lid and the lid will spring open.
Insert a cassette with the exposed tape side facing down.
2. Press the cassette lid once again. The cassette will now be loaded in place.
3. Cassette lid can be removed from the recorder to simplify the loading and unloading of cassette. When unloading, hold the lower side of the cassette (refer to the illustration).



Depress the portion marked with "PUSH".



Pull up the door.



Insert the door securely into the metal holder.

Fig. 8

PLAYBACK

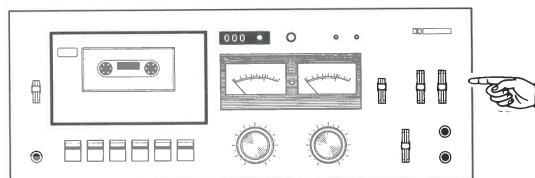
PLAYBACK PROCEDURES

For playback, refer to Fig. 9.

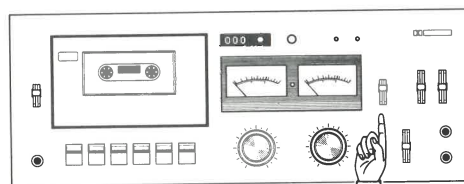
ADJUSTMENT OF PLAYBACK VOLUME

Use the output volume control (OUTPUT) for adjustment of playback volume. For convenience of playback, adjust the volume to the level of output signal from your turntable or tuner.

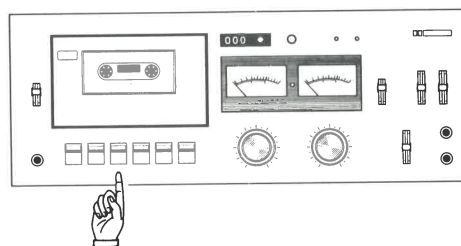
1. Turn on the power.
2. Load a cassette.
3. Select the position of the Tape Selector. (See page 9.)



4. Dolby switch on? off?



5. Depress the Play Button.



6. Adjust the output volume.

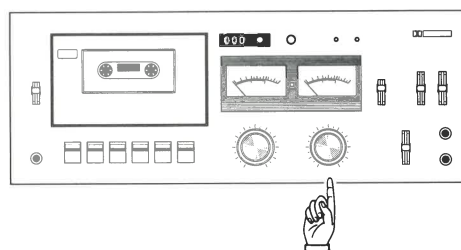


Fig. 9

RECORDING

RECORDING PROCEDURES

For recording, refer to Fig. 10.

TAPE SELECTOR

To ensure maximum performance of tape and optimum recording or playback, select the type of tape to be used by setting the tape selector to appropriate position. The selector positions and the corresponding types of tape are as follows:

CHROME..... TDK-SA C-90
 NORMAL TDK-SD C-60
 RESERVE SONY-DUAD C-60

RECORDING LEVEL

The tonal quality, distortion, S/N ratio, frequency response, etc., are largely affected depending on whether the recording level is properly adjusted.

If recording level is too high, S/N ratio can be improved, but this has an adverse effect on the frequency response and causes distortion in sound.

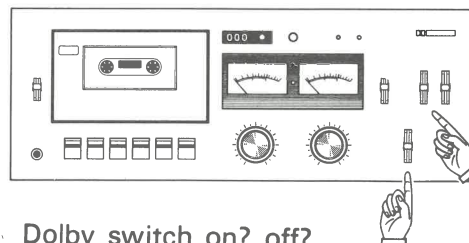
Optimum recording level is obtained when the average level of signal is within the range of -6 to -3 VU and the peak indicator just flickers at the peak signal.

Your trial and error will determine the optimum recording level.

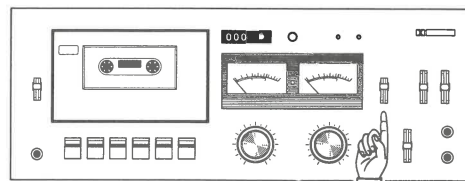
Types of Tapes and Positions of Tape Selector (example)

MAKER	TYPE OF TAPE		POSITIONS		
			NORMAL	RESERVE	CHROME
TDK	D	C-30, C-60, C-90	•		
	SD	C-45, C-60, C-90	•		
	M	C-45, C-60, C-90	•		
MAXELL	LN	C-30, C-60, C-90	•		
	UD	C-46, C-60, C-90	•		
	UD-XL I	C-46, C-60, C-90	•		
SONY	HF	C-30, C-60, C-90	•		
	HF	C-46, C-60, C-90	•		
FUJI	FL	C-30, C-60, C-90	•		
	FX	C-46, C-60, C-90, C-90	•		
SCOTCH	LD	C-60, C-90	•		
	LH	C-45, C-60, C-90	•		
BASF	LH	C-60, C-90	•		
	LHS	C-60, C-90	•		
AGFA	LH	C-60, C-90	•		
	SHD	C-60, C-90	•		
SONY	DUAD	C-46, C-60, C-90		•	
SCOTCH	CLASSIC	C-45, C-60, C-90		•	
BASF	FCR	C-60, C-90		•	
All makers	CrO ₂				•
TDK	SA	C-46, C-60, C-90			•
MAXELL	UD-XL II	C-46, C-60, C-90			•

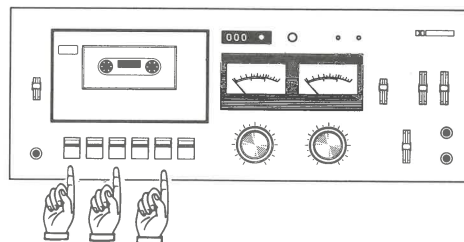
1. Turn on the power.
2. Load a blank tape.
3. Select the positions of the Tape Selector and Input Selector.



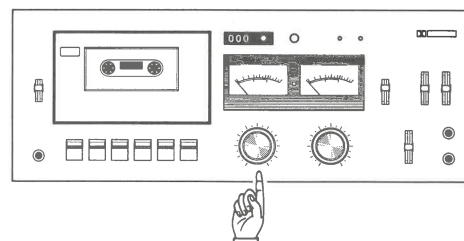
4. Dolby switch on? off?



5. Depress the Pause Button until it locks, then depress the Record Button and Play Button.



6. Adjust the Record Volume Control while observing the VU meter.



7. Set the tape counter to "000" by pressing the reset button, then release the Pause Button.

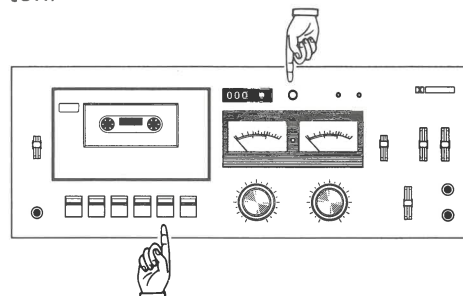


Fig. 10

MAINTENANCE

● Periodical Inspection

To ensure everlasting performance of the recorder, it is recommended that the recorder be inspected at least once every two years by KENWOOD's service engineer.

● Cleaning of Tape Heads

Before cleaning the tape heads, remove the cassette and press the play button to gain easy access to the tape heads. Clean the tape heads and other parts indicated by arrow marks in the illustration.

NOTE:

The tape heads, tape guides, etc., are precisely adjusted. Keep these parts free from strong shocks while cleaning.

● Cleaning of Cabinet

To clean the cabinet, use a soft, dry cloth or silicon cloth. To remove obstinate dirt, turn off the power and wipe off using a cloth moistened with soap and water.

Do not use any chemical solvent such as thinner, alcohol, benzine, etc.

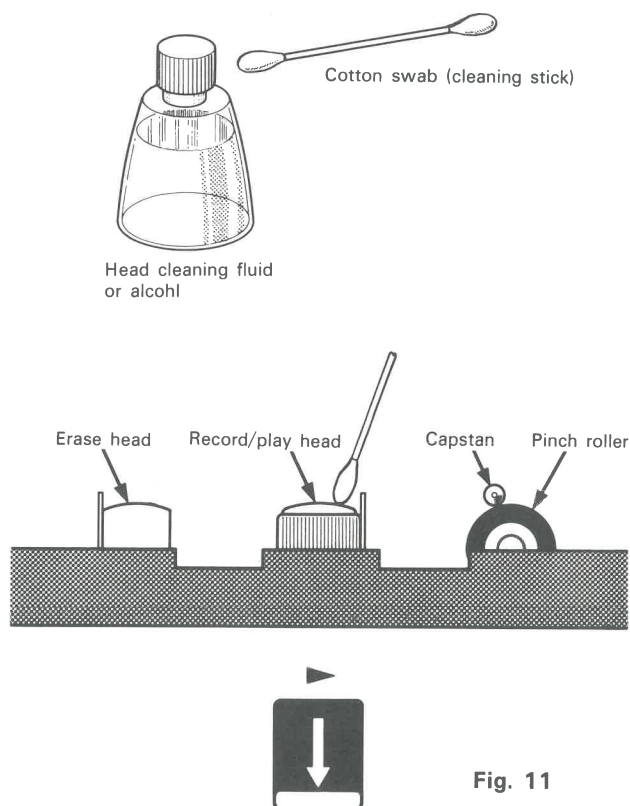


Fig. 11

TROUBLESHOOTING

Trouble	Cause	Remedy
Tape does not move.	<ul style="list-style-type: none"> Tape is fully wound on either reel. Pause button is left depressed. 	<ul style="list-style-type: none"> Rewind the tape or reverse the cassette. Press and release the pause button.
Record button cannot be pressed.	<ul style="list-style-type: none"> Cassette is not loaded properly. Erase-proof tab on cassette is removed. 	<ul style="list-style-type: none"> Load the cassette properly. Use a new cassette, or place a piece of adhesive tape over the opening from which the tab was removed.
Poor sound or no high tone.	<ul style="list-style-type: none"> Head is dirty. 	<ul style="list-style-type: none"> Clean the head with a cleaning stick moistened with alcohol.
Sound is distorted.	<ul style="list-style-type: none"> Recording level is too high. 	<ul style="list-style-type: none"> Reduce the level while observing the VU meter.
Excessive noise.	<ul style="list-style-type: none"> Head is magnetized. Noise induced from external sources. 	<ul style="list-style-type: none"> Demagnetize the head using a head eraser. Place the recorder away from external electrical apparatus such as TV, fluorescent lamp, etc.
No recording with DIN cord.	<ul style="list-style-type: none"> Microphone is left connected. 	<ul style="list-style-type: none"> Disconnect the microphone.
Wow and flutter.	<ul style="list-style-type: none"> Dirty capstan and pinchroller. Tape is not wound uniformly. 	<ul style="list-style-type: none"> Wipe off dirt and dust using a cleaning stick. Correct the tape by using the rewind or fast forward button.
Tape stops in the middle of recording or playback.	<ul style="list-style-type: none"> Tape has a slack in cassette and is not properly set between the capstan and pinchroller. 	<ul style="list-style-type: none"> Rotate the reel hub of cassette with a pencil until the slack is removed.

NOTE: If the tape fails to run when the power cord is properly connected, the power fuse in the recorder may be blown out. Contact your nearest KENWOOD's service station.

SPECIFICATIONS

Type	Front Loading Stereo Cassette Deck with Dolby System
Track System	4-Track, 2-Channel Stereo/Mono Recording/Playback
Recording System	AC Bias System (Bias Frequency: 85 kHz)
Erasing System	AC System
Tape Speeds	4.76 cm/sec (1-7/8 ips)
Heads	Recording and Playback Head × 1 Erasing Head × 1
Motor	Electronically-Controlled DC Motor
Fast Winding Time	Approx. 80 seconds with C-60 tape
Frequency Response	Normal Tape: 25 Hz to 15,000 Hz (30 Hz to 13,000 Hz±3 dB) CrO ₂ Tape: 25 Hz to 17,000 Hz (30 Hz to 16,000 Hz±3 dB) Ferri-CrO ₂ Tape: 25 Hz to 17,000 Hz (30 Hz to 16,000 Hz±3 dB)
Signal to Noise Ratio:	Dolby ON (Over 5 kHz): 62 dB (Normal Tape), 64 dB (CrO ₂) Dolby OFF: 52 dB (Normal Tape), 54 dB (CrO ₂)
Harmonic Distortion	Less than 1.3% (at 1 kHz, OVU with Normal Tape)
Wow and Flutter	0.06% (WRMS)
Input Sensitivity/Impedance	Line × 2: 77.5 mV/100k ohms DIN × 1: 0.1 mV/k ohms: Europe and Scandinavia model 10.9 mV/1.5k ohms: Other Countries model Microphones × 2: 0.19 mV/10k ohms
Output Level/Load Impedance	Line × 2: 775 mV (OVU)/0.5k ohms DIN × 1: 775 mV (OVU)/0.5k ohms Headphones/1: 39 mV/8 ohms to 16 ohms
Build in Features	Dolby Noise Reduction System with Indicator Three Position Bias Selector (Normal-Chrome-Reserve) Three Position Equalization Selector (Normal-Chrome-Reserve) Input Selector Full Auto Shut-Off Mechanism in all Modes Memory Rewind LED Peak and Recording Indicator Three Digit Tape Counter Two Large Size Illuminated VU Meters Two Microphone Jacks, Headphone Jack DIN Rec/P.B. Connector
Power Requirements	AC 120V, 60 Hz: USA and Canada Model AC 220V, 50 Hz: Australia Model AC 240V, 50 Hz: U.K. Model AC 120V/220V (Switchable), 50/60 Hz: Other Countries
Power Consumption	13.0 watts
Dimensions	W: 430 mm/16-15/16" H: 167 mm/6-9/16" D: 332 mm/13-1/16"
Weight	7.5 kg, 16.5 lbs
Supplied Accessories	Stereo Connection Cord × 2 Head Cleaning Kit × 1
Reference Tape	Normal: TDK SD C-90 Chrome: TDK SA C-60 Reserve: SONY DUAD C-60

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

NOTE: Dolby is trademark of Dolby Laboratories, Inc.

