

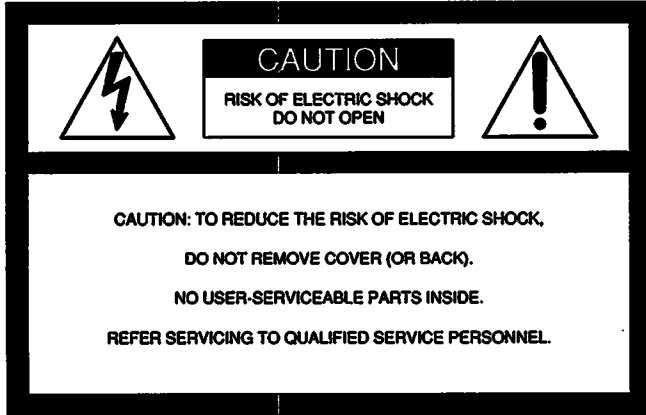
Stereo Cassette Deck

Operating Instructions

TC-K909ES

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol 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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Owner's Record

The model and serial numbers are located on the rear of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. TC-K909ES Serial No. _____

INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

Table of Contents

Chapter 1 Getting Started	
Features	3
Precautions	4
Unpacking	4
Checking the supplied accessories	4
Notes on installation	4
Checking the operating voltage	4
Detaching the side panels	4
Hooking up the system	5
Before you begin	5
Hook-up example	5
Hook-up for tape dubbing	5
Identifying the parts	6
Front panel	6
Chapter 2 Playback	
Playing back	7
Locating a selection	
— Automatic Music Sensor (AMS)	8
Starting playing back after rewinding — Auto Play	8
Locating a desired playback position — Memory Play	9
How to memorize and locate a desired playback position	9
The accuracy of the linear counter	9
Chapter 3 Recording	
Recording	10
How to record to a cassette	10
To protect a recording	11
Adjusting the recording level	12
Recording FM broadcasts with the Dolby NR system ...	12
Monitoring the recorded sound	12
What is the Dolby HX PRO system?	13
Making an optimum recording	14
Bias and recording level calibration	14
Recording equalization calibration	15
Inserting a blank space during recording	
— Record Muting	16
Chapter 4 Other Operation	
Timer-activated playback and recording	16
Chapter 5 Additional Information	
Maintenance	17
Cleaning the heads and tape path	17
Demagnetizing the heads	17
Cleaning the cabinet	17
Specifications	18
Troubleshooting guide	19

Chapter 1 Getting Started

Features

For higher quality recording/playback


- **The Dolby HX PRO*** system which improves the linearity of the tape's high-range response during recording.
- **B, C and S type Dolby NR*** systems which reduce tape noise.
- **Bias and recording level calibration** which ensures optimum recording conditions to bring out the best in every tape.
- **Three-head system (separate recording, playback and erase heads)** which allows you to instantly check the recorded sound while recording is in progress.
- **Laseramorphous heads** providing superior magnetic induction for minimal sound deterioration.
- **Quartz Locked Direct Drive** that reduces vibration from external sources.
- **Sapphire bearing** to enhance stability in motor rotation for clear sound reproduction.
- **Closed Loop Dual Capstan** for improved stability of tape running at tape heads.
- **Ceramic cassette holder** for improved stability of tape running during playback and recording.

For your convenience

- **The AMS and Memory Play functions** which provide easy access to a desired selection.
- **Timer-activated playback and recording** through the use of an optional timer.

For easier operation

- **Easy-to-read linear counter** which shows the elapsed recording or playing time.

* Dolby noise reduction and HX Pro headroom extension manufactured under license from Dolby Laboratories Licensing Corporation. HX Pro originated by Bang & Olufsen. "DOLBY", the double-D symbol  and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

Precautions

On safety

- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it will not be used for a long time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.

On operation

- When the unit is not used, turn the power off to conserve energy and to extend the useful life of your unit.
- Because of a safety mechanism, the function buttons will not operate if the cassette holder is not completely closed, if there is no cassette in the cassette holder, or if a cassette has been incorrectly inserted into the cassette holder.

On head cleaning

The head and tape path should be cleaned after every ten hours of operation. Dirty heads and a dirty tape path may cause:

- loss of high-frequency response
- loss of sound volume
- sound drop-out

If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

Unpacking

Checking the Supplied Accessories

Make sure that the following accessories are included with your unit.

- Audio connecting cords (2)
- M3×8 screws (4)

Notes on Installation

- Place the unit with the front panel facing you in a location with adequate air circulation to prevent overheating of the unit.
- Do not place the unit:
 - near heat sources such as radiators or air ducts.
 - in places subject to direct sunlight, excessive dust, mechanical vibration or shock.
 - in an inclined position.
 - on a rug or other soft surfaces that would block the ventilation holes on the bottom of the unit.

Do not throw away the carton and the packing material They will come in handy when transporting the unit or shipping it for servicing.

Checking the Operating Voltage

- Operate the unit only on 120 V AC, 60Hz.
- Before operating the unit, be sure that the operating voltage of your unit is identical with that of your local power supply.

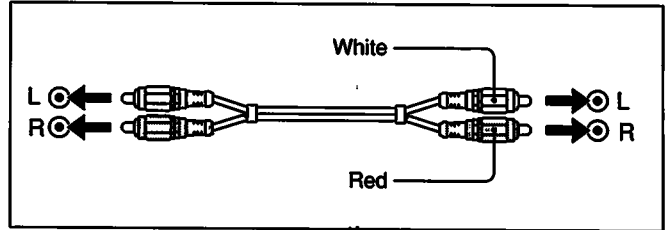
Detaching the Side Panels

If you choose to remove the side panels from the unit, do not reinsert the side panel screws into the cabinet holes. Use the shorter M3×8 screws (supplied) instead. For safety's sake, disconnect the AC power cord from the AC outlet before inserting the M3×8 screws into the cabinet holes.

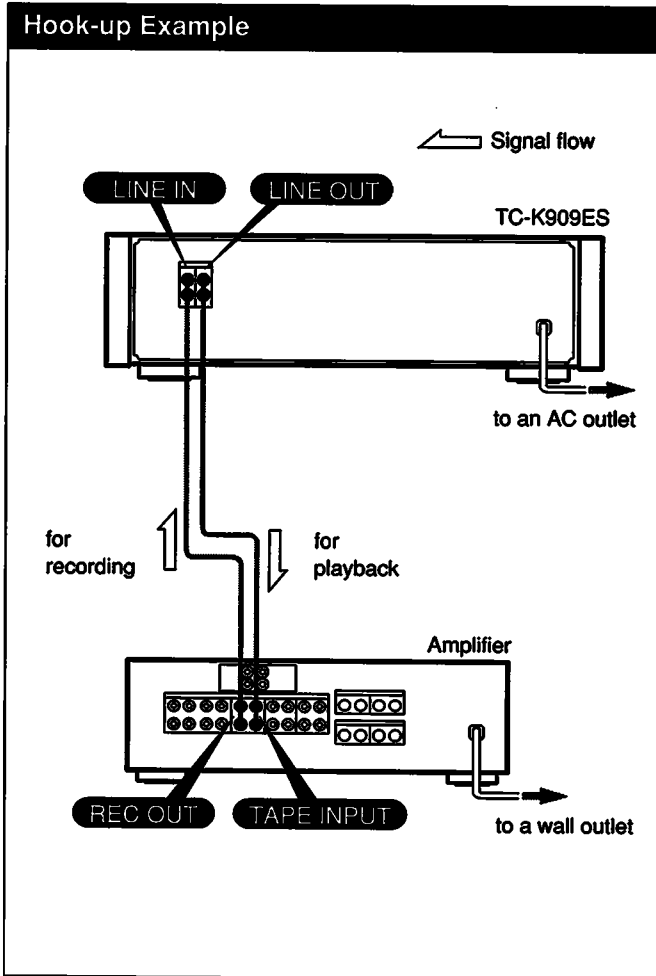
Hooking Up the System

Before You Begin

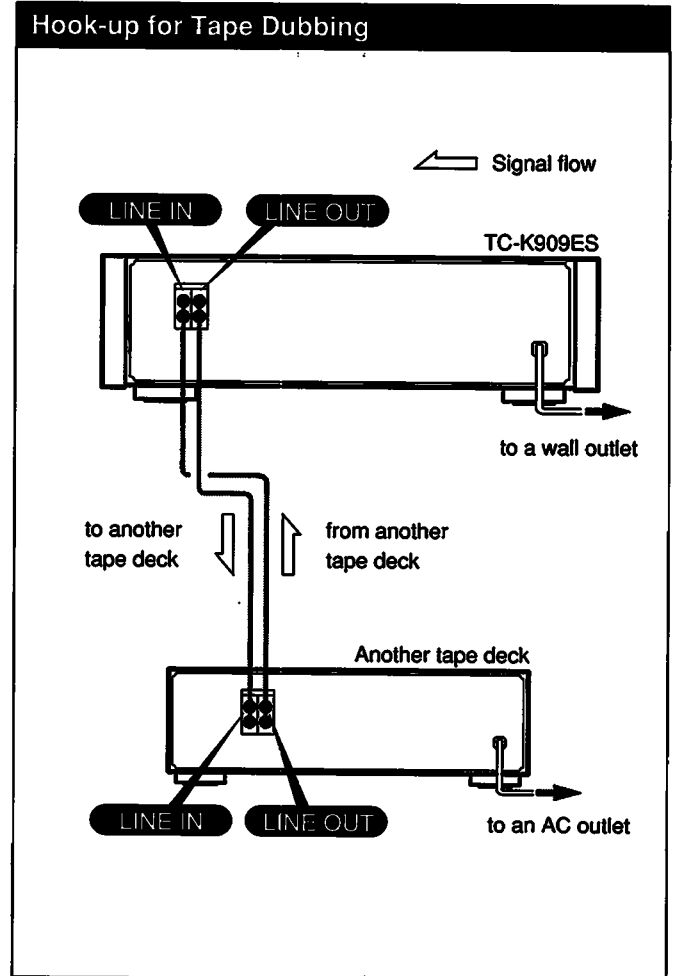
- Turn off the power to all equipment to be connected before making any connection.
- Note that the red plug of the supplied connecting cord is for right-channel (R) connection and the white plug for left-channel (L) connection.
- The connecting cords should be fully inserted into the jacks. A loose connection may cause hum pickup.



Hook-up Example

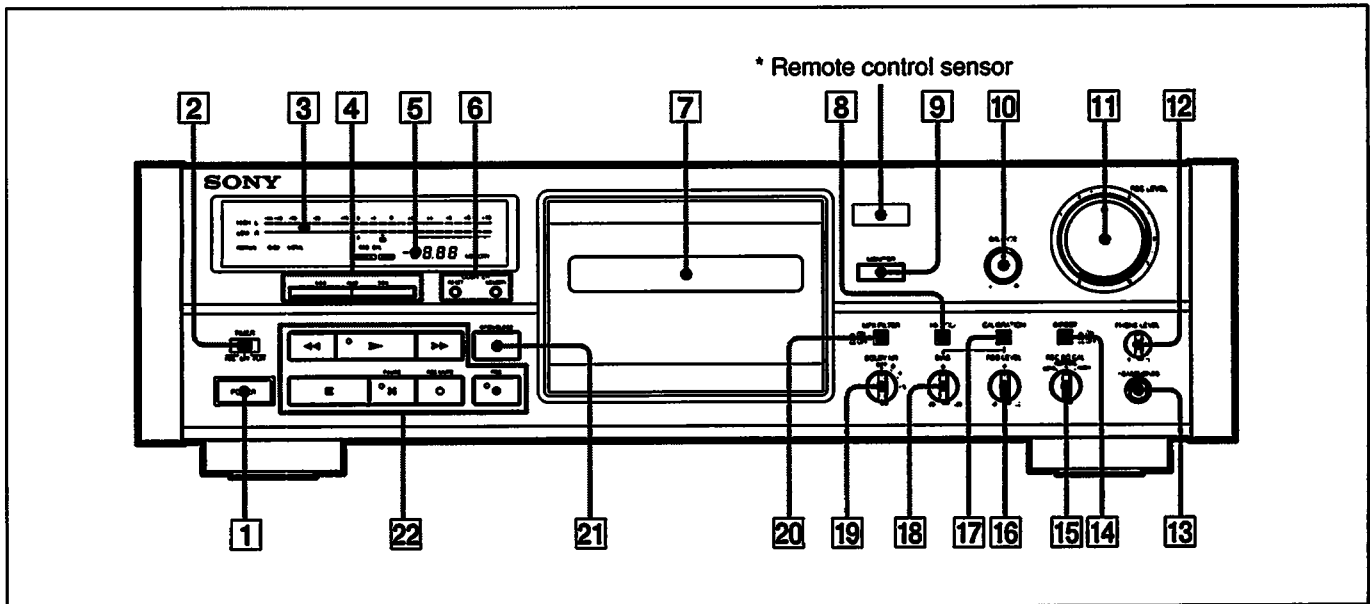


Hook-up for Tape Dubbing



Identifying the Parts

Front Panel





For details, refer to the page number(s) indicated in parentheses.

- 1** POWER switch
- 2** TIMER switch (page 16)
- 3** Peak program meter (page 12)
- 4** AMS (Automatic Music Sensor) buttons (page 8)
- 5** Linear counter (page 9)
- 6** COUNTER buttons
RESET button (page 9)
MEMORY button (pages 8 and 9)
- 7** Cassette holder
- 8** HX PRO button (page 13)
- 9** MONITOR button (page 12)
- 10** BALANCE control (page 10)
- 11** REC (recording) LEVEL control (pages 10 and 12)
- 12** PHONE (headphones) LEVEL control
- 13** HEADPHONES jack (stereo phone jack) (page 7)
- 14** DIRECT button (pages 10 and 11)
- 15** REC EQ CAL (recording equalizing calibration) switch (LOW, NORMAL, HIGH) (page 15)
- 16** REC (recording) LEVEL control for calibration (pages 14 and 15)
- 17** CALIBRATION button (page 14)
- 18** BIAS control (pages 14 and 15)
- 19** DOLBY NR (noise reduction) switch (pages 7 and 10)

- 20** MPX FILTER button (page 12)
- 21** ▲ OPEN/CLOSE button
- 22** Tape operation buttons and indicators
◀◀ (rewind) button
▶ (play) button and indicator
▶▶ (fast-forward) button
■ (stop) button
|| PAUSE button and indicator
○ REC MUTE (record muting) button (page 16)
● REC (recording) button and indicator

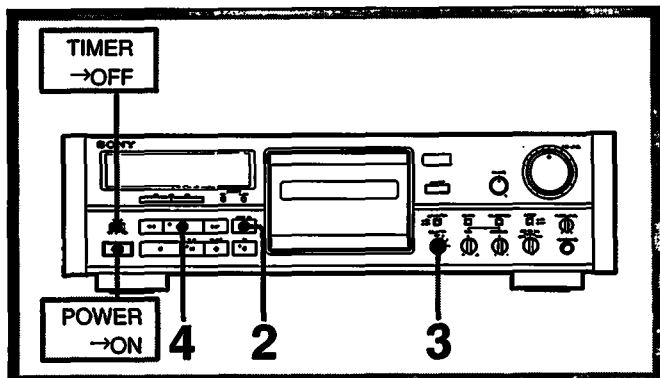
* Remote control sensor

You can remotely control this cassette deck with:

- A remote commander that came with a Sony amplifier or receiver if it has the  mark and cassette deck control capability.
- An optional Sony remote commander with the  mark and cassette deck control capability.

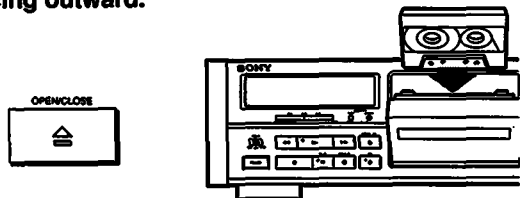
Playing Back

Follow the procedure below to play back a cassette.



- 1 Turn on the amplifier and select the tape function.

- 2 Insert the cassette with the side to be played facing outward.



- 3 Set DOLBY NR to the same position that was used when the cassette was recorded.



- 4 Press PLAY to start playback.



Set the TIMER switch to OFF

Otherwise, playback will start automatically when the power is turned on.

Is it necessary to set the tape type being used?

No. The deck has an automatic tape type detection system.

To start operations while the cassette holder is open

Operations may be started while the cassette holder is open. For example, when the ► button is pressed while the cassette holder is open, the cassette holder will close and playback will start. Similarly, pressing the ◀◀, ▶▶, or ■■ buttons while the cassette holder is open will close the cassette holder and start the respective operation.

To change to recording mode during playback

Keeping the ► button pressed, press the ● button. The unit immediately switches from playback to recording without stopping the tape. This is useful when editing previously recorded material.

For headphone listening

Connect the headphone plug to the HEADPHONES jack. The listening level can be controlled with the PHONE LEVEL control.

Is it necessary to set the MONITOR button for playback?

No. The TAPE mode is automatically selected and TAPE is displayed.

What is the Dolby NR system?

The Dolby NR (noise reduction) system reduces tape hiss noise in low-level, high-frequency signals by boosting the signals during recording and lowering them during playback. The Dolby S NR system provides the highest reduction in tape hiss noise in both low and high frequencies.

Note

The Dolby HX PRO system is effective only during recording, not during playback.

To stop playback, press the ■ button.

To stop playback momentarily, press the ■■ button.

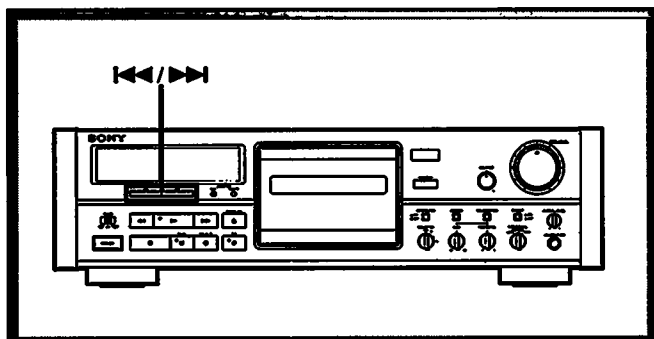
To restart playback, press the ■■ or ► button.

To fastwind a tape rightward, press the ▶▶ button.

To fastwind the tape leftward, press the ◀◀ button.

Locating a Selection — Automatic Music Sensor (AMS)

The AMS function detects the blank space between selections, allowing you to quickly locate the beginning of desired selections.



During playback, press ►► or ◀◀ referring to the following table.

Desired selection	
Next selection	Selection being played
►►	◀◀

The PLAY indicator flashes while the AMS searches for the beginning of the selection. After locating the beginning of the selection, playback will start automatically.

The AMS may skip a selection in the following cases:

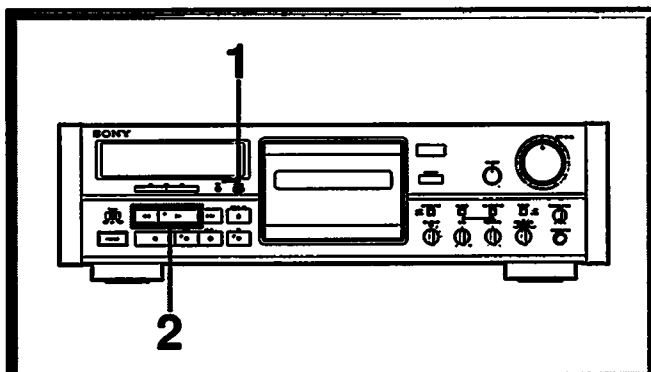
- If the ►► (or ◀◀) button is pressed immediately before the following selection.
- If there is noise in the space between selections.
- If the space is less than four seconds long.

The AMS will treat the following as blanks:

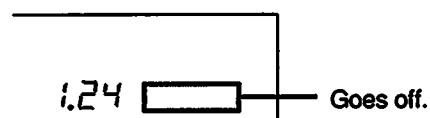
- a long pause in the music
- a passage of low frequencies or very low volume
- a gradual increase or decrease in volume

Starting Playing Back After Rewinding — Auto Play

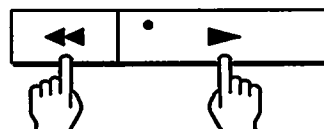
The Auto Play function automatically starts playing back a cassette after fast winding it to the beginning.



- 1 Make sure the MEMORY indicator is off. If it is not, press MEMORY.



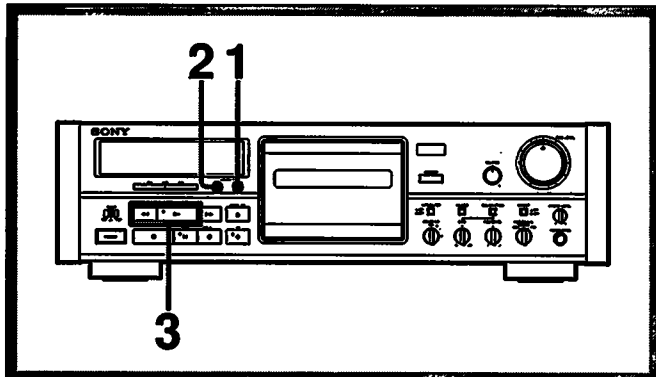
- 2 While pressing ►, press ◀◀.



Locating a Desired Playback Position — Memory Play

How to Memorize and Locate a Desired Playback Position

The Memory Play function allows you to use the counter to record a desired position on a cassette for fast relocation and automatic playback later.



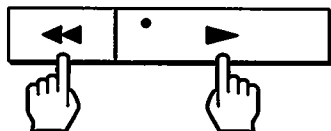
- 1 Press MEMORY to activate the Memory Play function.**



- 2 Press RESET to reset the counter at the desired position.**
The desired position is memorized.



- 3 While pressing ►, press ◀◀ to return to the desired position.**



Returning to the memorized position in stop mode — Memory Stop

If you press only the ◀◀ button when the MEMORY indicator is on in the stop mode, the tape rewinds and the unit stops when the counter reaches 0.00.

To deactivate the Memory Play function

Press the MEMORY button, turning off the MEMORY indicator.

Note on Memory Play/Stop

In actuality, the tape is rewound to slightly short of 0.00.

Do not turn off the power while using the counter

Turning the power off, then on again resets the counter to 0.00.

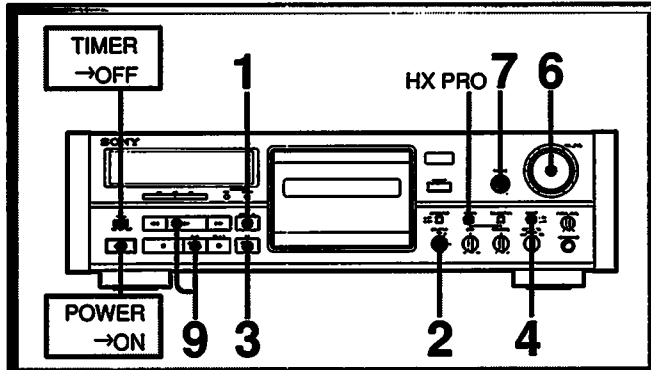
The Accuracy of the Linear Counter

Since the counter is not a digital clock, the number will differ from the actual elapsed playback or recording time by a few minutes, depending on such factors as tape length and hub size.

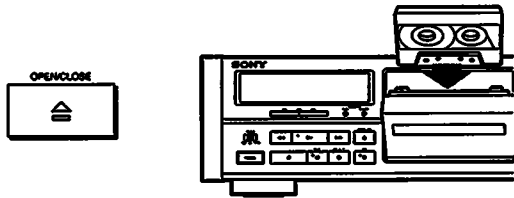
Recording

How to Record to a Cassette

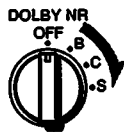
Follow this procedure to record a source on a cassette.



1 Insert a cassette with the side to be recorded facing outward.
(Refer to pages 14 to 15 to calibrate the bias current and recording level if desired.)



2 Set DOLBY NR.



3 Press ● to enter the recording pause mode.



4 Set DIRECT to ON (if recording from a CD player).



5 Play the program source to be recorded.

6 Turn REC LEVEL to adjust the recording level.



See "Adjusting the Recording Level" on page 12.

7 Turn BALANCE to adjust the balance.
(If ON is selected in step 4, the BALANCE control is rendered inoperative.)



8 Restart the program source, if required.

9 Press || or ► to start recording.



To stop recording
Press the ■ button.