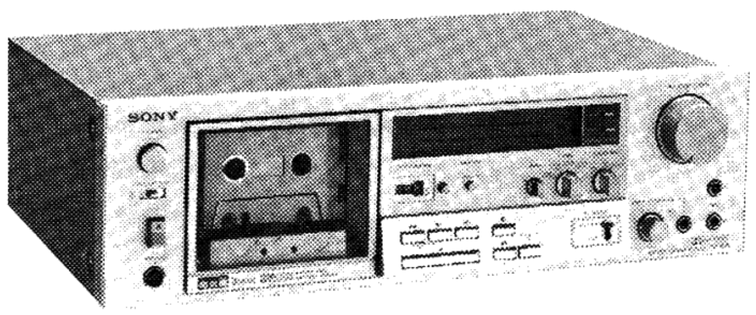
SONY®

STEREO CASSETTE DECK

TC-K71



OPERATING INSTRUCTIONS

Before operating the unit, please read this manual thoroughly.
This manual should be retained for future reference.

1980 by Sony Corporation

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OWNER'S RECORD

The model and serial numbers are located at the rear. Record these numbers in the space provided below. Refer to them whenever you call your Sony dealer regarding this product.

Model No.TC-K71 Serial No. _____

WARNING

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

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

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FEATURES

Three-head system with S & F (Sendust and Ferrite) heads
Separate record and playback heads allow optimum gap and impedance settings for distortion-free recording and greatly extended frequency response. Sendust and Ferrite heads take full advantage of metal tapes to provide a wider dynamic range than is possible with conventional tapes. For good tape-to-head contact the heads are mounted in one block, and each head is separately adjusted for precise azimuth alignment. The three-head system also enables you to monitor the recorded tape while actually recording.

Closed-loop dual-capstan tape drive system
Two pairs of capstans and pinch rollers ensure uniform tape tension and stable tape-to-head contact. As a result, wow and flutter and modulation noise are greatly reduced.

Stable flywheel rotation
Deadening material composed of viscous tar and synthetic resin is applied to the under surface of the capstans' flywheels to reduce vibration.

LED peak program meters
The peak program meters employ 32 separate LED elements that respond instantly to transient signal peaks over the wide dynamic range of from −40 dB to + 8 dB, and can handle even the extended dynamic range of metal tapes. Peaks can be held in two different ways for accurate meter reading.

Two motors
Two-motor drive system provides accurate and stable tape transport. The motor driving the capstan is a linear BSL (brushless and slotless) motor having extremely smooth torque.

"Feather-touch" function buttons
The function buttons activate a microprocessor to allow switching directly from any one mode to another. The record muting button enables you to automatically make a four second blank space between selections.

Remote control operation
Recording, playback and record muting can be remotely controlled using an optional RM-50 Remote Control Unit.

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PRECAUTIONS

On safety

- Operate the unit only on 120 V ac.
- 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 is not to be used for an extended period of time. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- Canadian model only: Removal of the wooden side panels presents a safety hazard. If it becomes necessary to remove them, consult your nearest Sony service facility.

On installation

- Good air circulation is essential to prevent internal heat build-up in the unit. Place the unit in a location with sufficient air circulation.
- Do not install the unit near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or mechanical vibration.
- Install the unit with the front panel facing toward you. Do not install the unit in an inclined position.

On head cleaning

The performance of your unit is dependent on the periodic cleaning of the heads and all surfaces over which the tape travels.
Dirty heads and a dirty tape path cause :

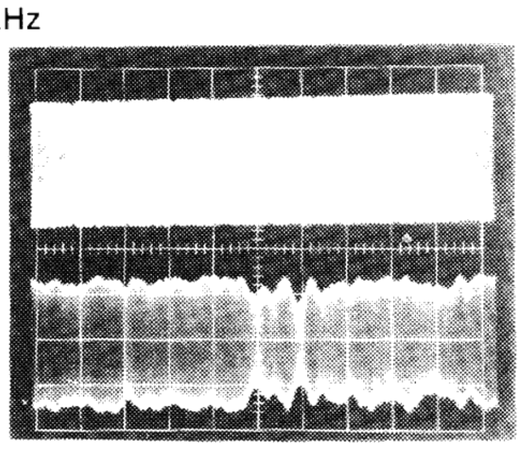
Loss of high frequency response
Loss of sound volume
Sound drop-outs

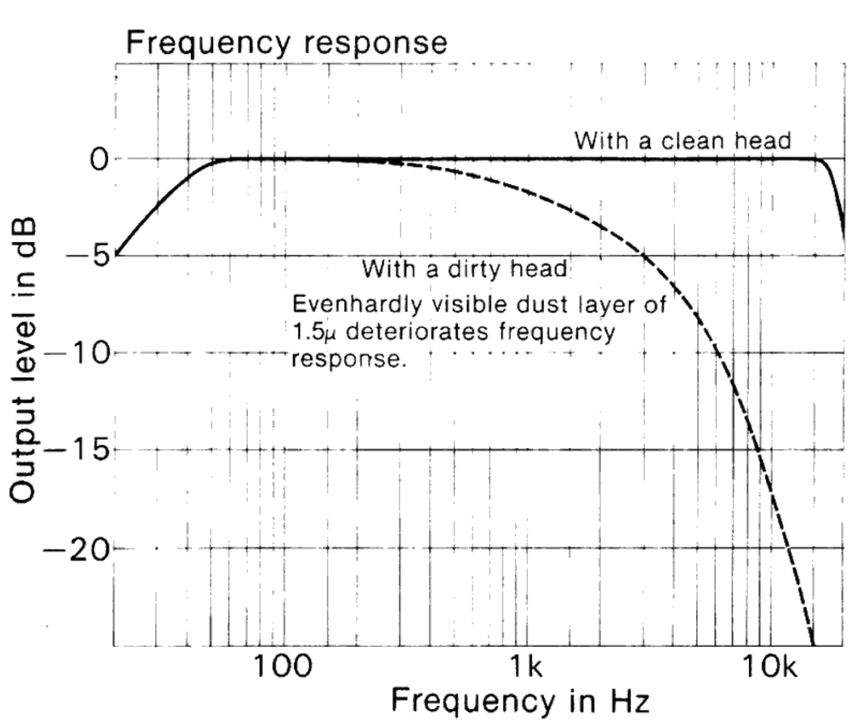
The heads and tape path should be cleaned after 10 hours of operation. For details, see "Maintenance" on page 13.

Playback waveform at 10 kHz

With a clean head

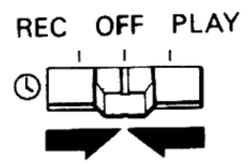
With a dirty head (The output level fluctuates.)





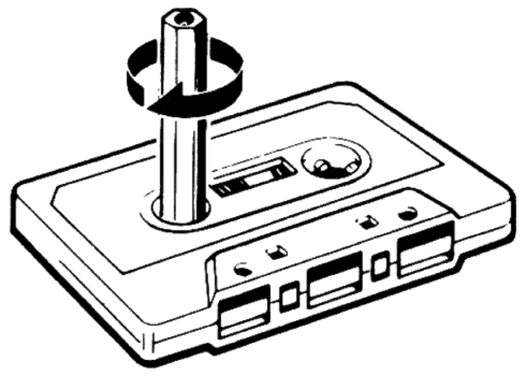
On operation

- If the cassette holder is not closed completely, the function buttons will not operate.
- Before turning on the POWER switch, check to see that the timer switch is set at OFF. If the power is turned on with this switch set to the REC position, previously recorded material may be erased. The REC and PLAY positions should be used only for timer-activated operation.



On cassettes

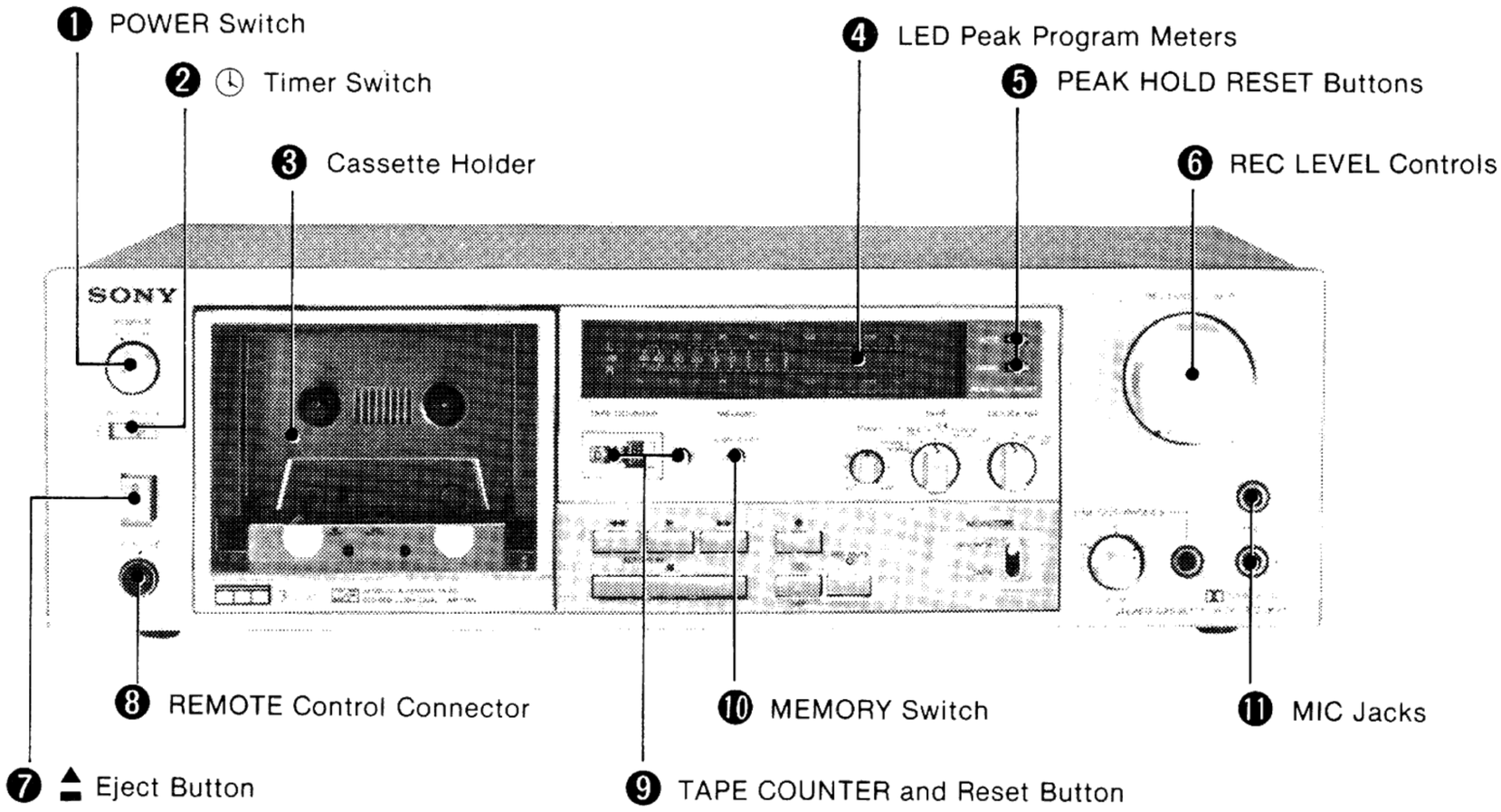
Before inserting a cassette, take up any slack in the tape to prevent it from becoming tangled around the capstan.



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FUNCTION OF CONTROLS

The numbers in the photo are keyed to the following explanations.



❶ POWER Switch
This turns the power on or off. The lamp in the cassette holder and the peak program meters will light up when the unit is turned on.

❷ Timer Switch [ ]
You can set the unit to record or play back at a predetermined time by connecting any commercially available timer. To record, set this timer switch to REC. To playback, set it to PLAY. See "Timer-activated recording and playback" on page 11.

❸ Cassette Holder

❹ LED Peak Program Meters
With the MONITOR selector set at SOURCE, the meters show the peak input level of each channel, and at TAPE, the meters show recorded levels. They follow the transient peaks of high-level inputs that are too brief to be followed by conventional VU meters so that the optimum recording level can be accurately set. The highest input of each channel is held on the scale so that they can be easily read.

❺ PEAK HOLD RESET Buttons
You can choose either of two ways to have the peak level indicated :

- When the **AUTO** button is pressed down, successive peaks are held for about 2.5 seconds, except when a higher peak occurs before 2.5 seconds have passed, in which case that peak is immediately indicated.
- When the non-locking **MANUAL** button is pressed, the peak level will be held on the scale until a higher peak occurs, when that peak will be held. To reset the peak held on the meter, just press this button. You will find this method of indicating the peak input useful when you want to know the highest peak of a tape or disc, or when you want to know both the highest peak as well as the intermittent input levels during live recording.

❻ Recording Level Controls [REC LEVEL]
These controls adjust the recording level. The knob nearest the panel is for the left channel and the other for the right channel. To adjust the level of the right or left channel only, turn the appropriate knob while holding the other knob.

❼ Eject Button [ ]
Press this button to open the cassette holder.

❽ REMOTE Control Connector
Connect the optional RM-50 remote control unit to operate the tape transport functions from a distance. The tape deck function buttons are still operative when the remote control unit is connected. Read the RM-50 instruction manual before operating the remote control unit.

❾ TAPE COUNTER and Reset Button
The tape counter provides a numerical reference point while recording which can be used to index a recorded cassette. To reset to zero, press the reset button.

❿ MEMORY Switch
Use the MEMORY switch to locate a particular point on the tape easily and quickly. At the ON position, the tape deck can be set to stop when the cassette is rewound to "999" on the tape counter, and, if the forward and rewind buttons have also been pressed, set to begin playback automatically from that point. See "Memory stop/play" on page 11.

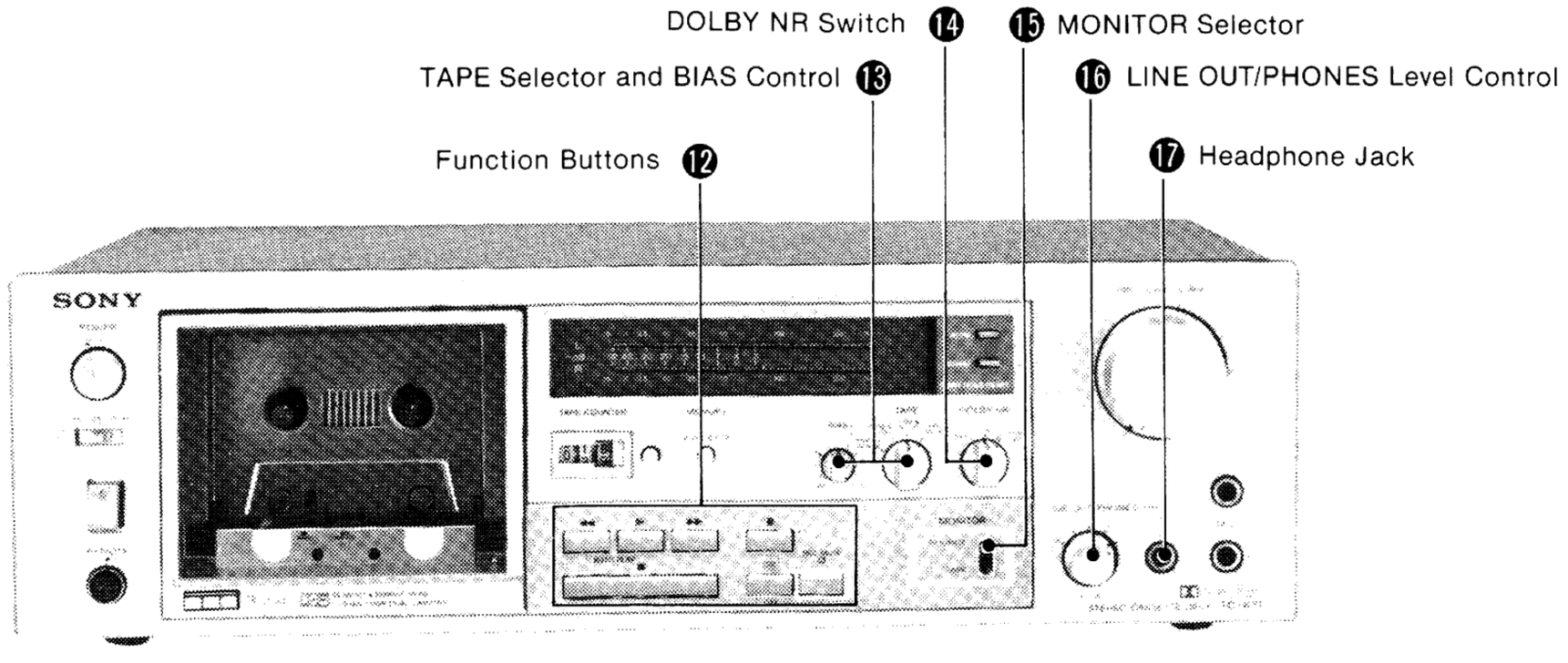
⓫ MIC Jacks
Any low-impedance microphone equipped with a phone plug may be used. If your microphone is equipped with a mini plug, you will need a plug adaptor.

⓬ Function Buttons
It is possible to switch directly from one mode to another. The indicator lamps light when the tape deck is in the forward, record or pause mode.

Rewind Button [◀◀]: Press this button to rewind the tape. The rewind button is also used, with the forward button, to initiate memory stop/play or auto play. See "Memory stop/play", "Auto play" on page 11.

Forward Button [▶]: Press this button to play the tape back. To record, press this button while holding the record button down.

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Fast-forward Button [▶▶]: Press this button to advance the tape rapidly.

Record Button [●]: Press this button together with the forward button to start recording. Also press this button before adjusting the recording level.

Stop Button [■]: To stop the tape, press this button. The tape will stop automatically when it is completely wound up in either direction.

Pause Button [▮▮]: To pause for a moment during recording or playback, press this button. This button is also used to control more precisely the start of recording and to release the record muting mode.

Record Muting Button [REC MUTE ❒]: Press this button to eliminate unwanted material and to insert a blank space during recording. The tape will automatically stop after four seconds. To insert a blank less than four seconds long, press this button, then press the pause button to release the record muting mode when you want to resume recording. To insert a blank more than four seconds long, hold this button down for as long as you want the blank to be. Press the pause button to resume recording. See "Record muting" on page 10.

⓭ TAPE Selector and BIAS Control

Set the TAPE selector according to the type of tape to be used. When this switch is set to the appropriate position, the optimum equalization and bias current settings are obtained for recording, and the optimum equalization setting is obtained for playback. When recording using a TYPE I (NORM) tape, select the appropriate position of the BIAS control. For the recommended settings of the TAPE selector and the BIAS control for typical commercially available cassettes, see "Recommended settings for TAPE selector" on page 8.

⓮ DOLBY NR Switch

When recording FM stereo broadcasts with the Dolby NR* (Noise Reduction) process, set this switch to the center (ON) position.
When recording programs other than FM stereo broadcasts, set this switch to the right (ON-FILTER OFF)** position. For recording without the Dolby NR process, set this switch to the left (OFF) position.
When playing back, set this switch to the same position used in recording. For playback of the Dolby NR processed tape, either of the ON positions (FILTER OFF or ON) can be used.

* The Dolby NR system reduces tape hiss and improves the signal-to-noise ratio. During recording, low-level high-frequency signals, which tend to be obscured by tape hiss, are boosted so that they are audible above any tape noise. When these signals are played back, the level is lowered to the original input level so that the level of any tape noise is reduced to the same extent.

** The 19 kHz pilot signal and the 38 kHz subcarrier are carried on FM broadcasts. With the DOLBY NR switch in the center ON position, the multiplex filter eliminates these signals, which otherwise might reduce the effectiveness of the Dolby system. To record programs other than FM broadcasts, disconnect the multiplex filter circuit by setting the DOLBY NR switch to the FILTER OFF position.

"Dolby" and the double-D symbol are trade marks of the Dolby Laboratories. Noise reduction system manufactured under license from Dolby Laboratories.

⓯ MONITOR Selector

To adjust the recording level, set this selector to SOURCE. For playback, set it to TAPE. While a recording is being made, the TAPE position allows monitoring of the recording and the SOURCE position allows monitoring of the source itself.

⓰ LINE OUT/PHONES Level Control

This control governs the output level of the LINE OUT jacks as well as the headphone level. At the "0" position, the output level of the LINE OUT jacks is rated at 0.435 V and the headphone level is rated 77.5 mV (at a load impedance of 8 ohms).
When this control is set to the "3" position, the level is reduced by 3 dB, and by setting it to "6," "12," or "24," the level is reduced by that amount, i.e., by 6 dB, 12 dB, or 24 dB, from the rated output obtained at the "0" position.
These settings do not affect the peak program meters.

⓱ Headphone Jack

Headphones may be inserted either to monitor the input signals to be recorded or to listen to a recordng in the playback mode.

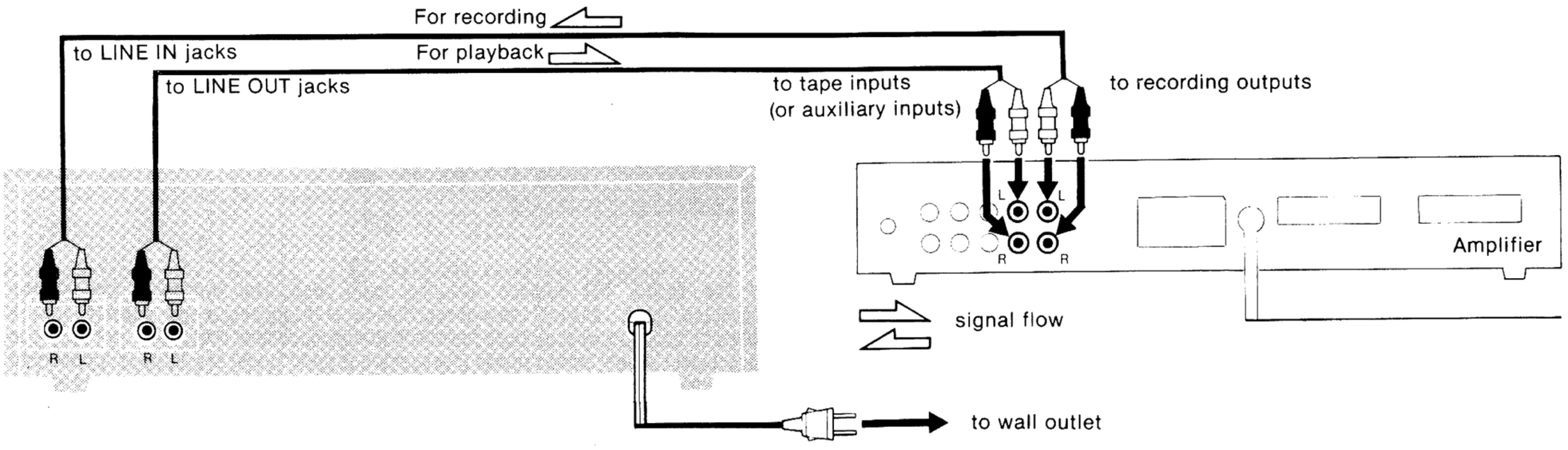
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CONNECTIONS

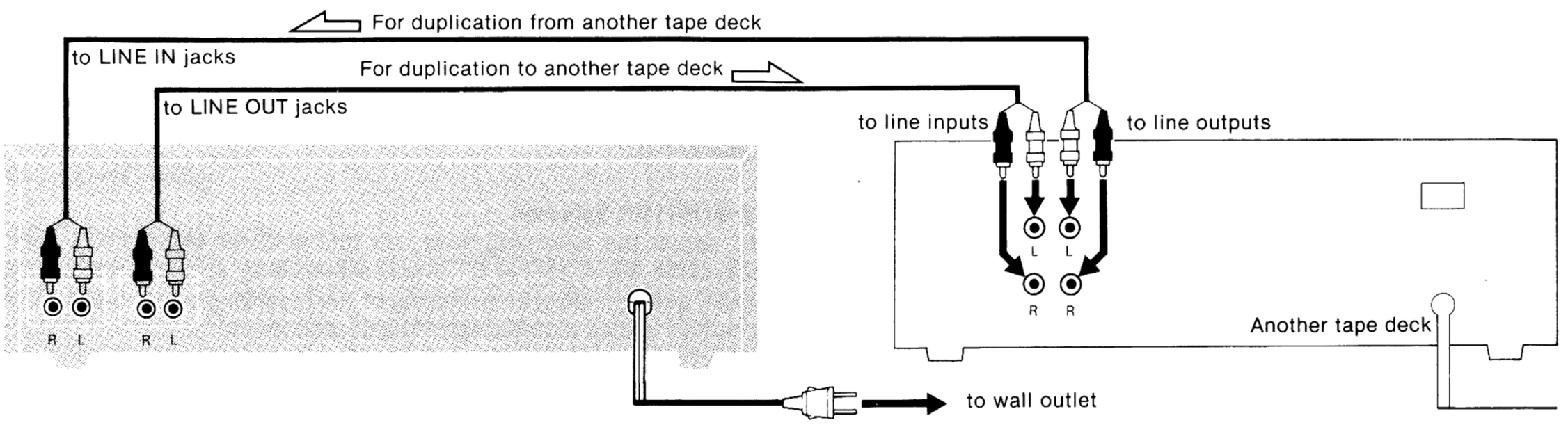
Notes

- Turn the amplifier off before making any connection.
- Be sure to insert the plugs firmly into the jacks. Loose connections may cause hum and noise.
- The red plug of the supplied connecting cord should be connected to the red jack (R : right channel) and the other plug to the white jack (L : left channel).
- When recording through the LINE IN jacks, be sure to disconnect any connector to the MIC jacks. If both the LINE IN and MIC jacks are engaged, only input to the MIC jack will be recorded.

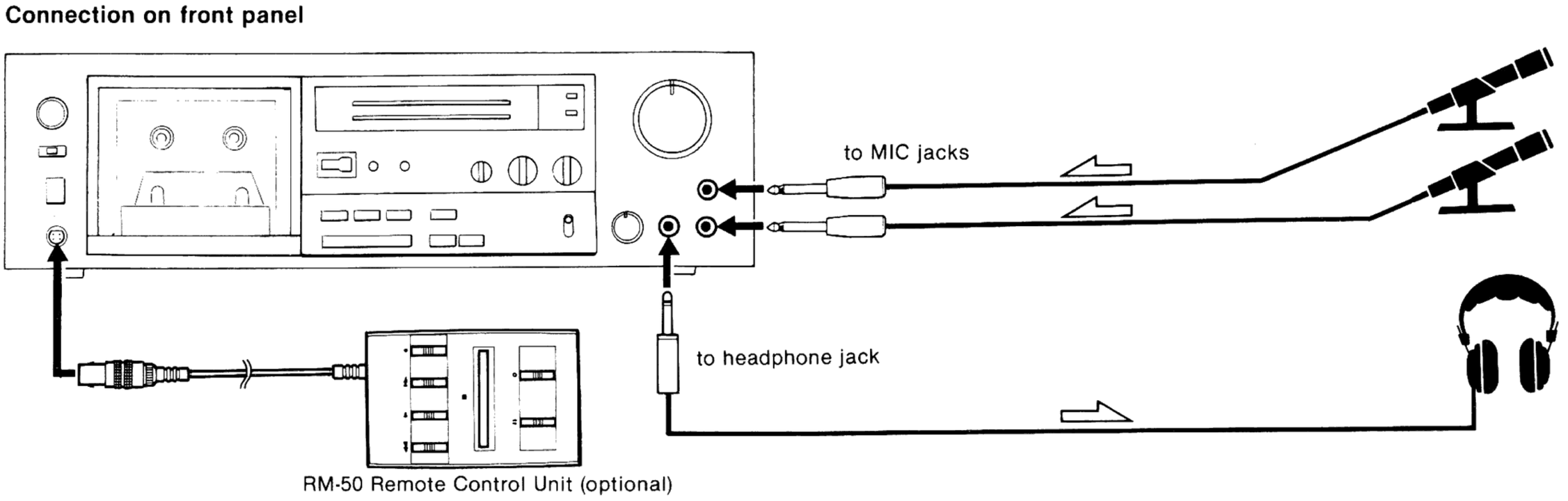
Amplifier connection



Connection for tape duplication



Connection on front panel

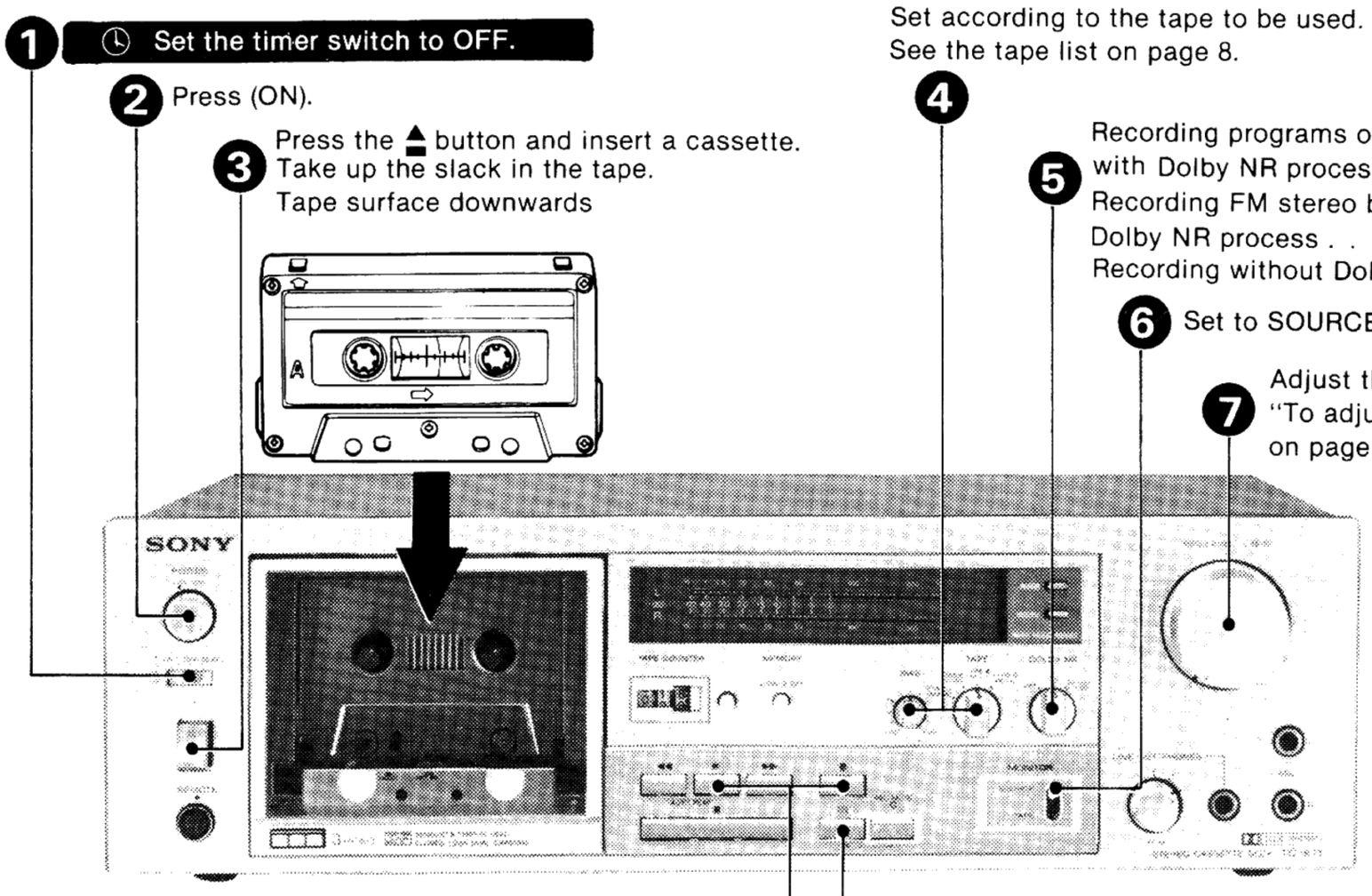


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RECORDING

TO RECORD

The numbers in this diagram indicate the sequence to be followed.

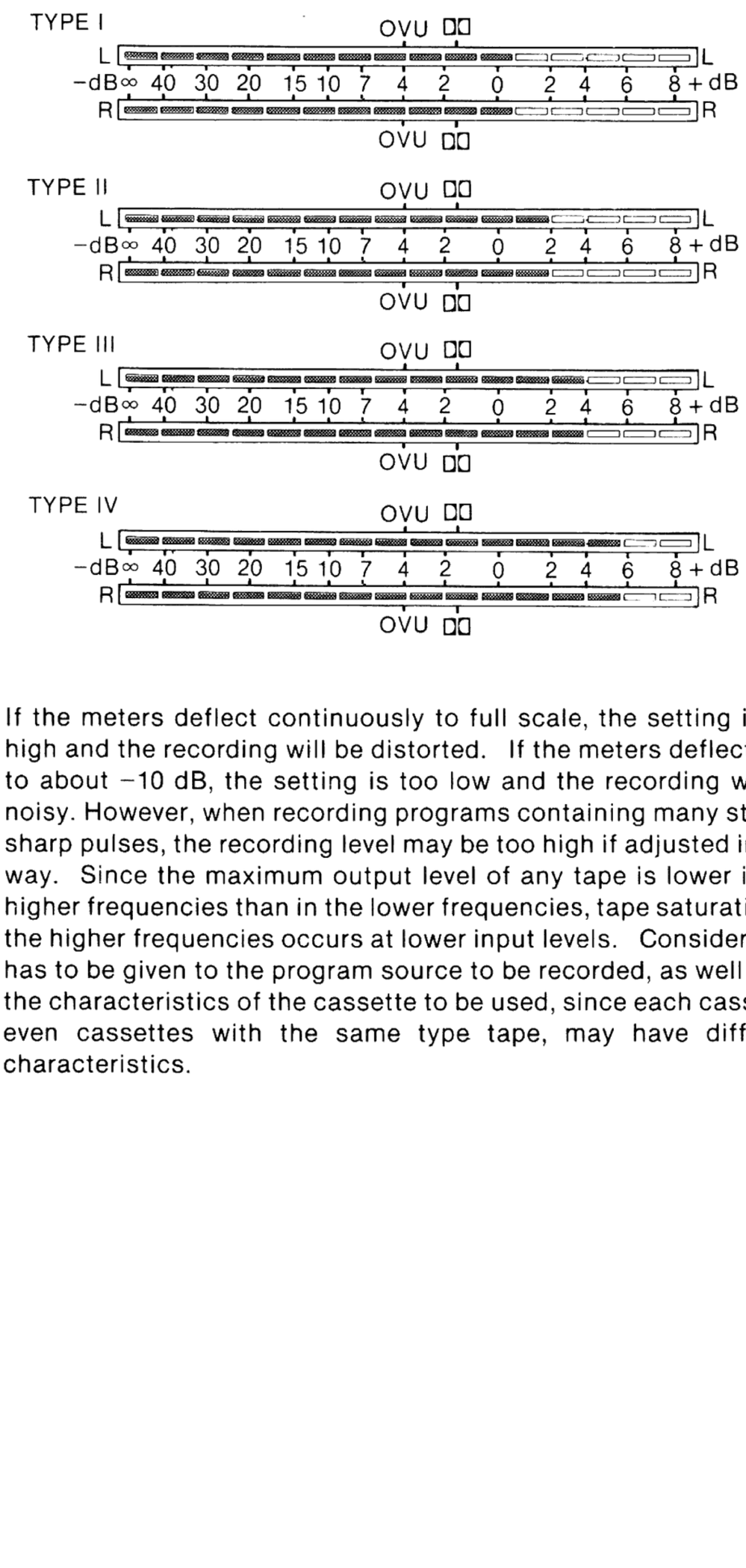


You can use the pause button [▮▮] for more accurate recording start.
After the recording level is adjusted, press the pause button, and then press the record button [●] and forward button [▶] simultaneously. At the moment you wish to start recoriding, you need only press the pause button again.

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TO ADJUST THE RECORDING LEVEL

Adjust the recording level while reading the input level of the program source to be recorded on the peak program meters.
The peak program meters instantaneously register the input signal level while conventional VU meters have a lag so that they many times do not accurately reflect a strong input of short duration.
This difference in response time is reflected in the different scales of the VU meters and the peak program meters. The −4 dB point on the peak program meter scale corresponds to the 0 VU point on a VU meter scale.
The recording level should be set as high as possible while still avoiding distortion, and this will depend on the type of tape being used. Generally, the recording level is properly set for TYPE I cassettes when the peak program meters deflect to about **0 dB** at the highest signal level ; for TYPE II cassettes to about **+2 dB** ; for TYPE III cassettes to about **+4 dB** and for TYPE IV cassettes to about **+6 dB.**



If the meters deflect continuously to full scale, the setting is too high and the recording will be distorted. If the meters deflect only to about −10 dB, the setting is too low and the recording will be noisy. However, when recording programs containing many strong, sharp pulses, the recording level may be too high if adjusted in this way. Since the maximum output level of any tape is lower in the higher frequencies than in the lower frequencies, tape saturation at the higher frequencies occurs at lower input levels. Consideration has to be given to the program source to be recorded, as well as to the characteristics of the cassette to be used, since each cassette, even cassettes with the same type tape, may have different characteristics.

The following table will give you a starting point in setting the recording level of various kinds of programs using Sony cassettes.

Type of tape	Sony cassettes	Low and mid freq. range programs (vocal, etc.)	Mid and high freq. range programs (piano, guitar, etc.)
I	LNX	0 dB	− 2 dB
	HFX	+ 2 dB	0 dB
	SHF	+ 3 dB	+ 1 dB
II	EHF	+ 2 dB	+ 2 dB
III	FeCr	+ 5 dB	+ 1 dB
IV	METALLIC	+ 6 dB	+ 6 dB

Note
The peak program meters show the input level during recording and the recorded level during playback. If the recording is distorted at high input levels, when the recording is played back the meters will indicate these distorted passages as levels lower than the actual input levels.

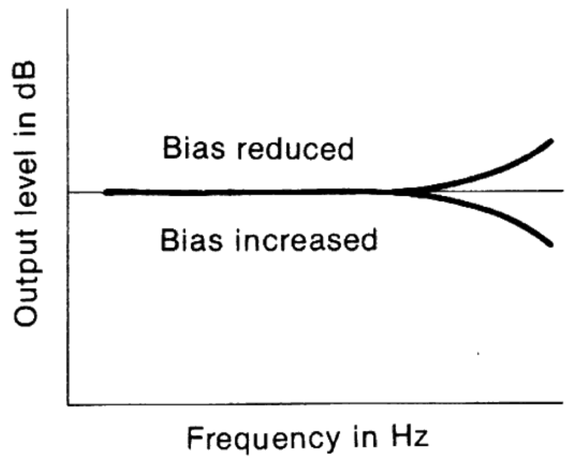
RECOMMENDED SETTINGS FOR THE TAPE SELECTOR

Set the TAPE selector referring to the recommended settings listed below. When recording using a TYPE I (NORM) tape, adjust the BIAS control also.
While these settings are optimum for Sony cassettes, you may want to change them when using cassettes produced by other manufacturers. The three-head system permits you to monitor the recorded sound while in the record mode, so that you can easily check the effects of various settings of the TAPE selector and the BIAS control.

Tapes (C-60 and C-90)		TAPE	
AMPEX : 371 PLUS FUJI : FL TDK : D	BASF : PERFORMANCE SCOTCH : DYNARANGE	BIAS	TYPE I (NORM)
SONY : SHF, HFX, LNX BASF : PROFESSIONAL I MAXELL : LN, UD, UD-XL I SCOTCH : MASTER I	AMPEX : GRAND MASTER I FUJI : FX-I MEMOREX : MRX_2 TDK : AD	BIAS	
SONY : EHF BASF : PROFESSIONAL II MAXELL : UD-XL II SCOTCH : MASTER II	AMPEX : GRAND MASTER II FUJI : FX-II MEMOREX : CrO_2 TDK : SA		TYPE II (CrO_2)
SONY : FeCr SCOTCH : MASTER III	BASF : PROFESSIONAL III PHILIPS : FERRO CHROMIUM		TYPE III (Fe-Cr)
SONY : METALLIC	Other metal tapes		TYPE IV (METAL)

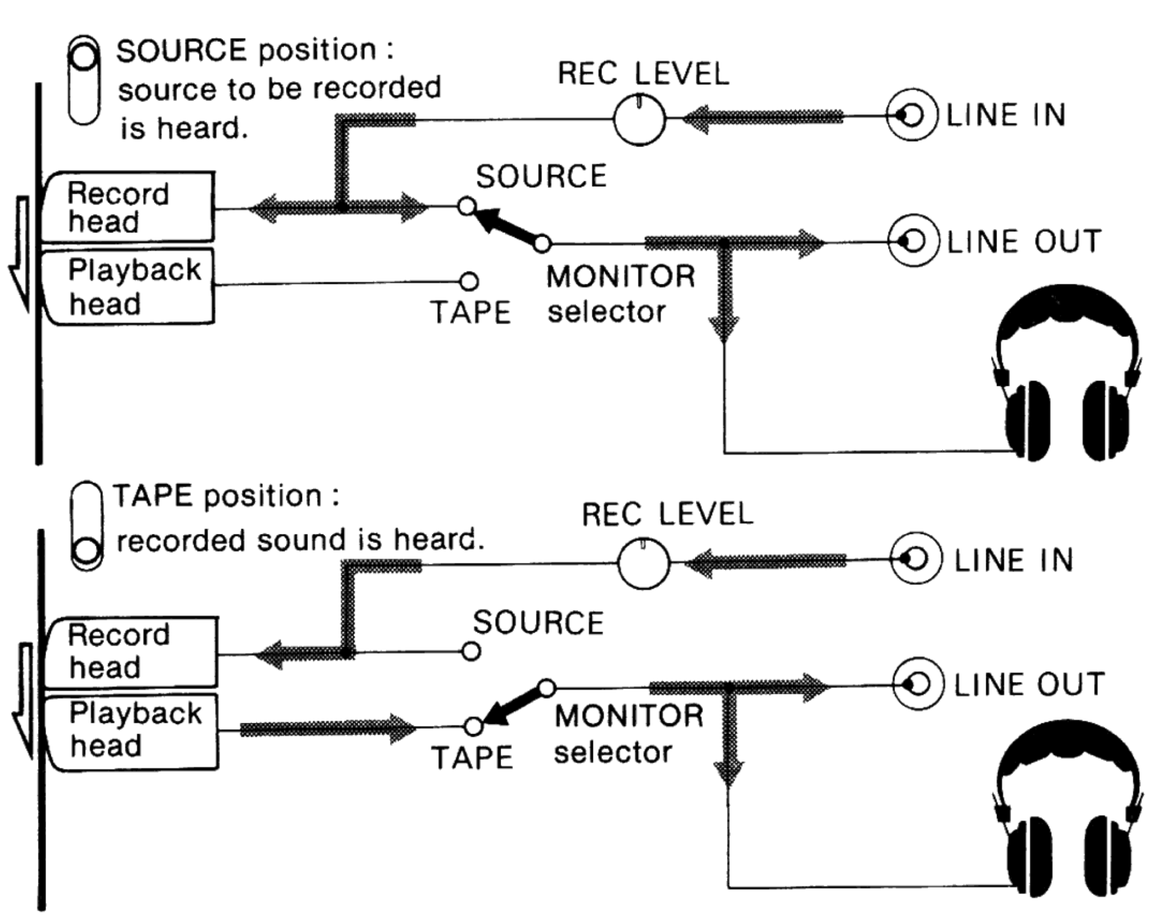
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BIAS control
This control regulates bias current for TYPE I (NORM) cassettes. The full counterclockwise position decreases bias by 20% from the center position and the full clockwise position increases it by 20%. Generally, as bias is increased, extreme high frequencies will be suppressed. As bias is reduced, extreme high frequencies will be boosted. You can then find the appropriate bias setting for each brand of TYPE I cassettes.



RECORD MONITORING
As this tape deck has separate record and playback heads, you can easily compare the source and the recorded sounds in the recording mode by using the MONITOR selector. You can check the recording level and whether there is any contamination on the heads affecting the recording.

If the connected amplifier has a tape monitor selector, source/tape comparison is possible with the amplifier monitor selector.
In this case, set the tape deck MONITOR selector to TAPE.

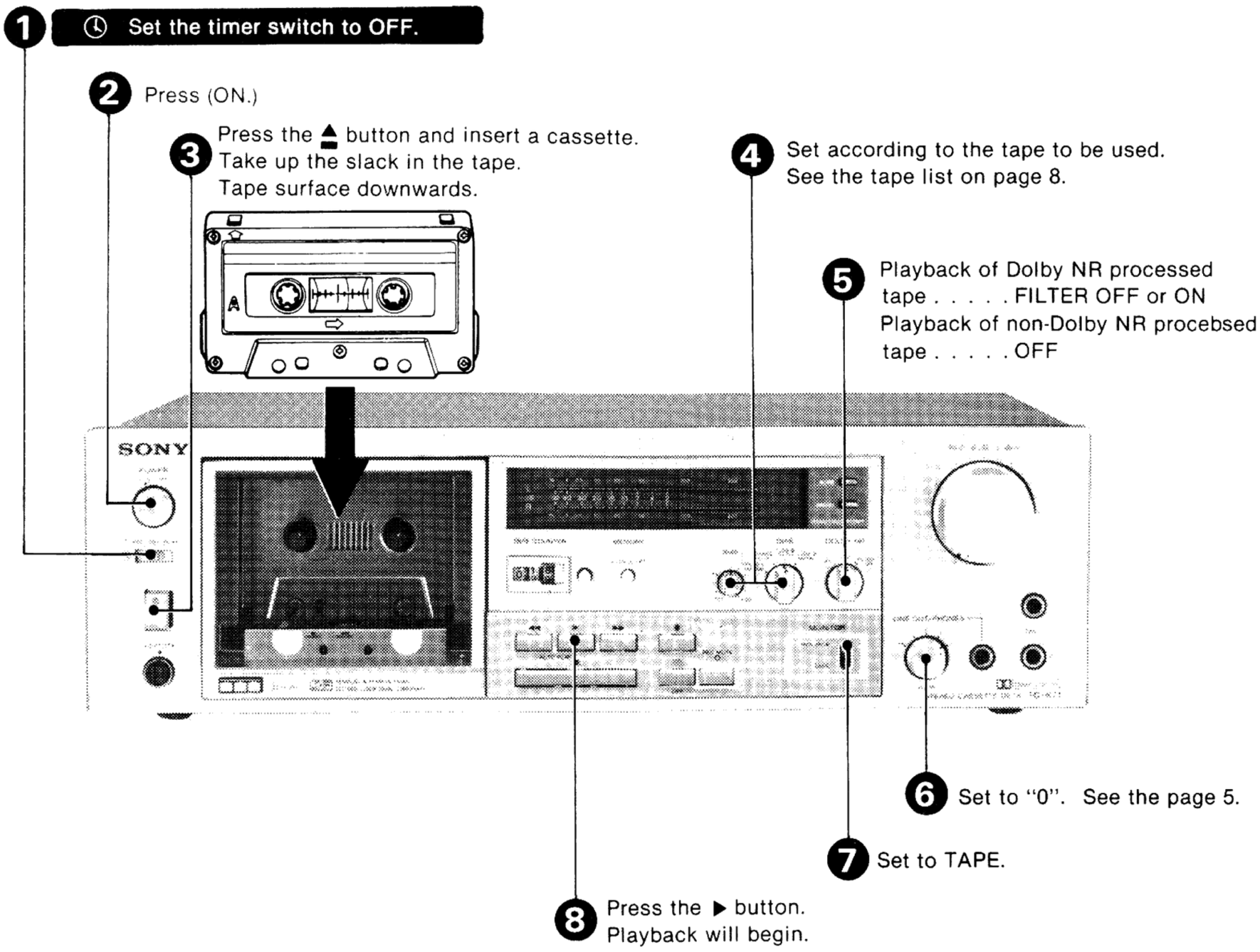


TO RECORD MATERIAL ONTO A SPECIFIC PORTION OF TAPE
When you want to re-record a specific portion of tape or to insert new material between two points on a tape you will find it handy to be able to change directly from the playback to the record mode by pressing the record button while holding the forward button down.

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PLAYBACK

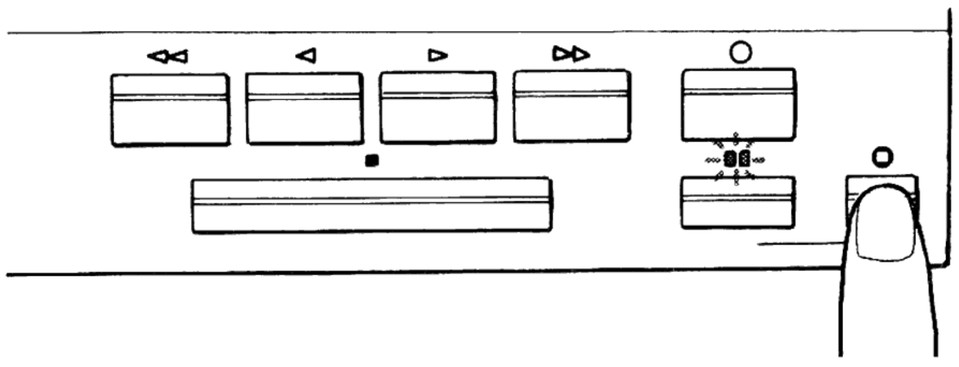
The numbers in this diagram indicate the sequence to be followed.



RECORD MUTING

By pressing the REC MUTE button during recording, four seconds interspacing is provided automatically, eliminating unwanted program material such as broadcasting commercials. While the record muting is operating, the incoming signal is not recorded on the tape but it continues to register on the meters and feed to the monitor so that you know exactly what is going on.

❶ Press the REC MUTE button when the segment you do not want to record begins. The indicator of the pause button [▮▮] will blink, and the tape path will pause automatically after four seconds.
❷ When you want to resume recording, press the pause button.



To insert a blank less than four seconds long
Press the REC MUTE button to mute recording. Press the pause button when you want to resume recording.

To insert a blank over four seconds long
Hold down the REC MUTE button for as long as you want the blank segment on the tape to be. After four seconds, the indicator of the pause button will blink more rapidly. When you release the REC MUTE button, the tape deck will be in the pause mode. When you want to resume recording, press the pause button to release the pause mode.

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MEMORY STOP/PLAY

Use the MEMORY switch to quickly locate a particular point on the tape.

❶ At the desired point on the tape, press the reset button to turn the tape counter to "000."

❷ Set the MEMORY switch to ON.

❸ Play back or record on the tape.

❹ Rewind the tape in either of the following ways :

For memory stop : Press the rewind button [◀◀]. The tape stops automatically when it is rewound to the "999," just before the desired point.

For memory play : Press the rewind button [◀◀] and the forward button [▶] simultaneously. The tape will replay automatically after rewinding to the "999" point.

● If you want to rewind further than the "000" point, press the rewind button again.

● If you hold the rewind button down while the tape rewinds past "000," the tape will not stop (or will not replay) at the desired point.

AUTO PLAY

When the MEMORY switch is set at the OFF position, the tape deck can automatically replay a tape immediately after rewinding.

To start rewinding the tape, press both the rewind button [◀◀] and the forward button [▶] together.

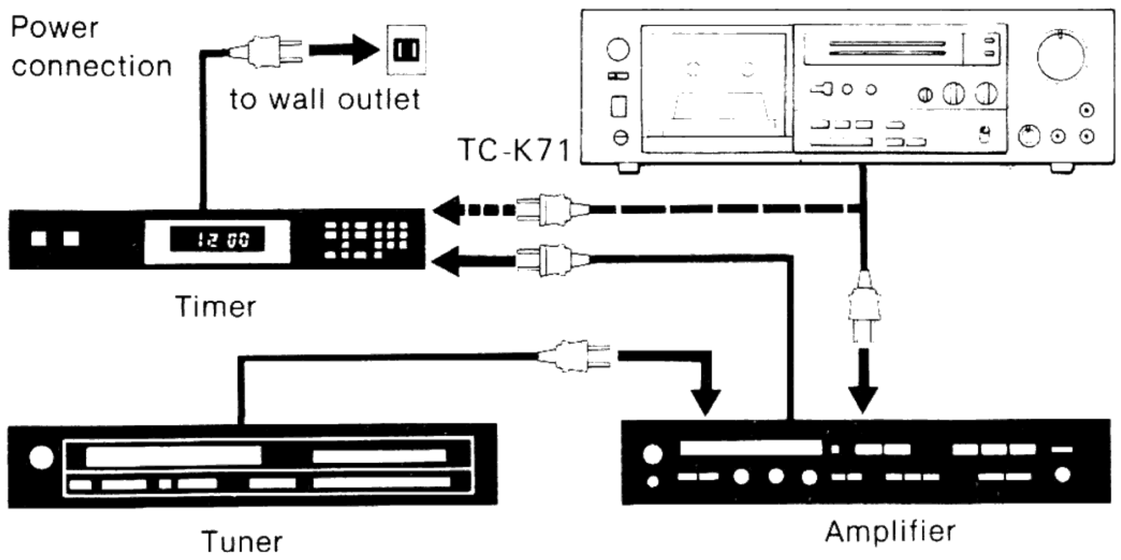
After the tape is completely rewound, the rewind mode will be disengaged and the tape will automatically replay.

TIMER-ACTIVATED RECORDING AND PLAYBACK

By connecting any commercially available timer to the tape deck, the deck can be set to play back or record automatically at any desired time. As timers work in different ways, be sure to read the timer's instruction manual carefully.

To record a broadcast using a timer

❶ Connect the tape deck, receiver and timer. Set the timer so that power is supplied to the connected equipment.



❷ Turn on the amplifier and tuner and tune in the station which will broadcast the program you want to record.

❸ Set the tape deck's timer switch [⏲] to OFF.

❹ Insert a cassette. Make sure that the tab is intact or that plastic tape covers the tab slot.

❺ Turn on the tape deck and adjust the recording level.

❻ Set the timer for the desired time. (At this point power to the connected equipment will be cut off.)

❼ Set the tape deck's timer switch to REC.

The tape deck is now ready to start recording at the time set on the timer.

To play back using a timer

The connections between equipment are the same as for recording using a timer.

❶ Set the tape deck's timer switch [⏲] to OFF.

❷ Turn on the amplifier and tuner and set the appropriate switches for playback.

❸ Turn on the tape deck and insert the recorded cassette.

❹ Set the timer for the desired time. (At this point power to the connected equipment will be cut off.)

❺ Set the tape deck's timer switch to PLAY. The tape deck is now ready to start playback at the time set on the timer.

Note

The tape deck's timer switch will function properly only if the tape deck is turned on **after** the switch is set to REC or PLAY. Do not change the setting of the timer switch during the four second stand-by period immediately after the power is turned on. If you want to change the setting of the switch, turn the power off first.

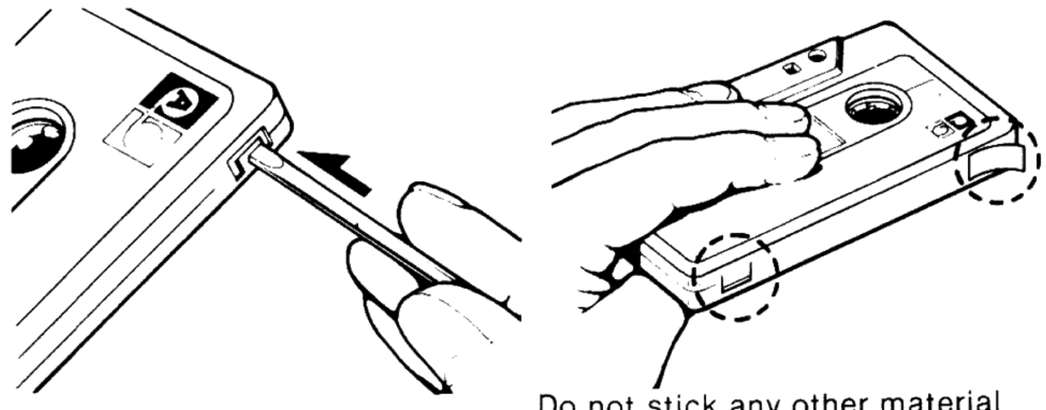
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ERASING

When the tape deck functions in recording mode, the erase head automatically erases any previously recorded material.
To erase without recording :
❶ Make sure that the safety tab of the cassette is in place, or that the tab slot is covered with plastic tape.
❷ Set the REC LEVEL controls fully to "0". (Disconnecting all inputs will result in a more complete erasure.)
❸ Set the TAPE selector according to the type of tape to be erased. (The TYPE IV position assures good erasing for any type of tape.)
❹ While holding the record button [●] down, press the forward button [▶].

NOTES ON CASSETTES

To protect cassettes from accidental erasure
Remove the tab as illustrated so that the record mode does not function when the record button is pressed. To record on a cassette once tabs have been removed, simply cover the slot with plastic tape.



To protect side A recording

Do not stick any other material except on the portion marked.

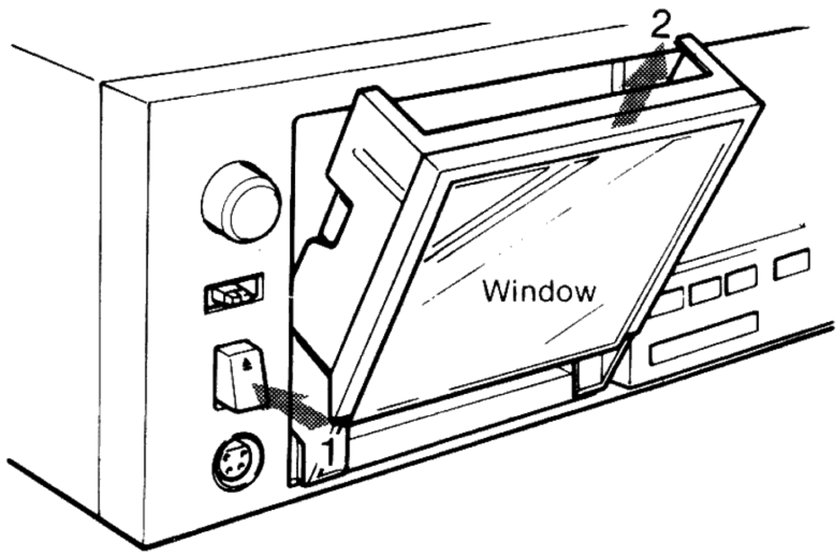
Cassette care
● Avoid touching the tape surface of a cassette, as any dirt or dust will contaminate the heads.
● Do not stick thick labels or tape on the cassette, as this may affect proper cassette alignment and prevent the tape from making proper contact with the heads.
● Keep cassettes away from equipment with magnets, such as speakers and amplifiers, because their magnets could cause erasures or distortions of your recorded tapes.
● Protect cassettes from dust by storing them in their cases. Even minor dirt or dust could contaminate the heads, resulting in noise and sound drop-outs.
● Do not expose cassettes to direct sunlight, extremely cold temperature or moisture.
● Avoid fast-winding just before storing cassettes, as this may stretch the tape edge if the cassettes are left unused over a period of time.

Which cassette to use
This tape deck was adjusted at the factory using the Sony METALLIC cassette, the Sony FeCr cassette, the Sony EHF cassette and the Sony HFX cassette. All commercially available cassettes perform well with this unit. However, for optimum recording and playback, we recommend the Sony cassettes used to adjust the deck.
An embossed letter "A" on one side of all Sony cassetes will help you identify that side in dimly lighted areas.

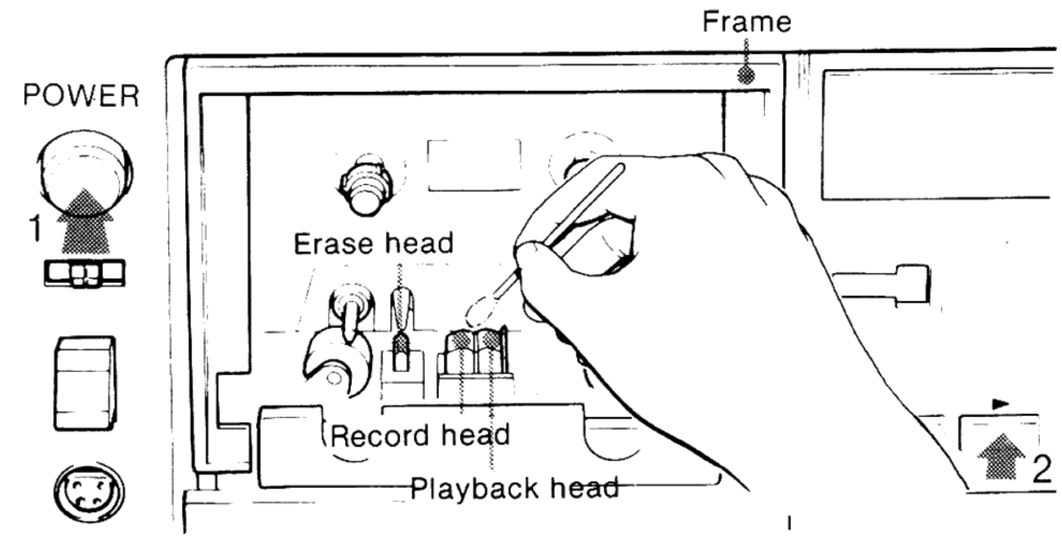
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MAINTENANCE

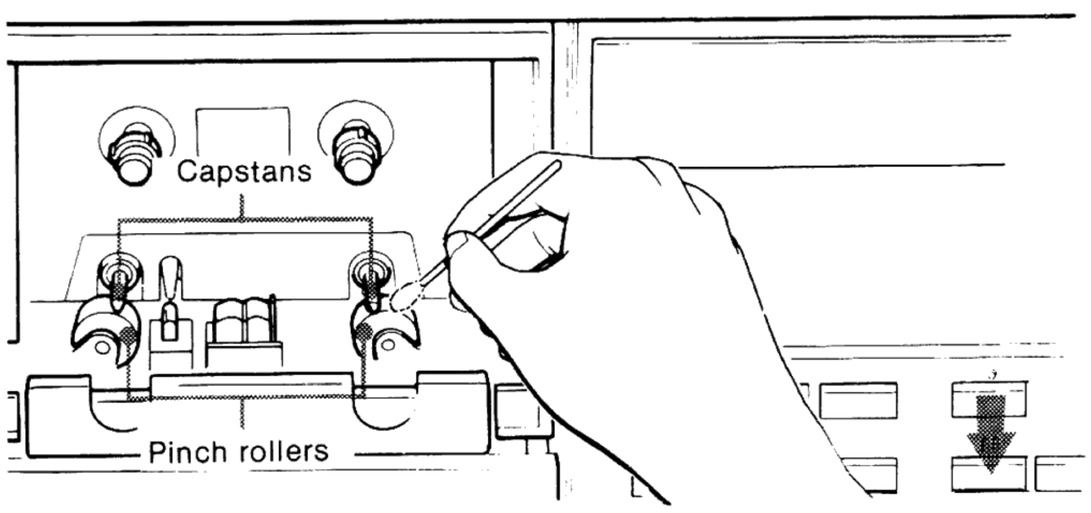
Cleaning of heads and tape path
We recommend cleaning after every 10 hours of operation. To make the best possible recordings, however, you should clean all surfaces over which the tape travels before every recording.
❶ Press the eject button [⏏] to open the cassette holder. Remove the window as illustrated.



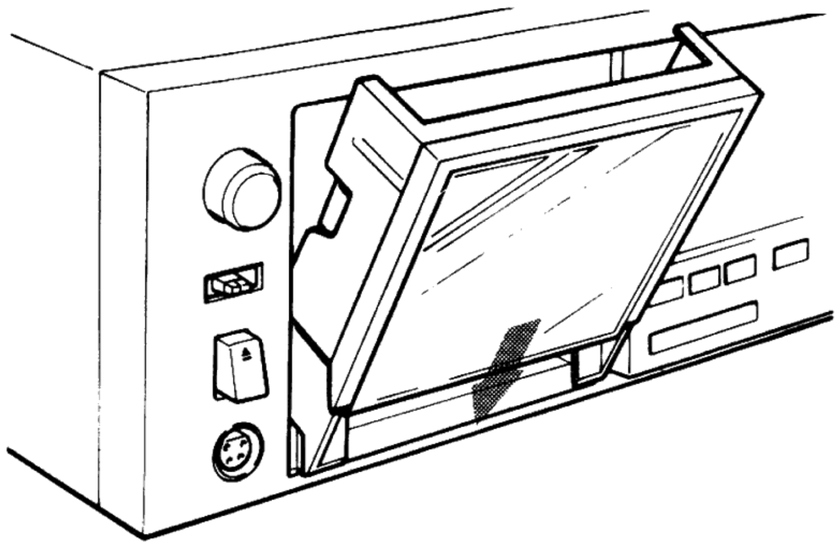
❷ Push the frame in.
❸ Set the POWER switch to ON and press the forward button [▶]. Wipe the heads with a cleaning tip slightly moistened with the cleaning fluid or alcohol.



❹ Wipe the pinch roller as illustrated. Then press the pause button [▮▮] and wipe the capstan.



❺ When finished cleaning, press the pause button to release it, then press the stop button [■].
❻ Press the eject button to open the frame, and replace the window.



● After cleaning the heads and tape path, do not insert a cassette until the areas cleaned are completely dry.

Demagnetizing heads
After 20 to 30 hours of use, enough residual magnetism will have built up on the heads to begin to cause loss of high frequencies and hiss. At this time you should demagnetize the heads and all metal parts in the tape path with a commercially available head demagnetizer. Be sure that the tape deck is turned off while you demagnetize.

Cleaning the cabinet
Clean the cabinet, panel and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or slovent such as alcohol or benzine.

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SPECIFICATIONS

Recording system 4-track 2-channel stereo

Fast-forward and rewind time
Approx. 80 sec. (with C-60 cassette)

Bias frequency 105 kHz

Signal-to-noise ratio DOLBY NR OFF
- With TYPE IV cassette (Sony METALLIC)
  60 dB at peak level
- With TYPE III cassette (Sony FeCr)
  60 dB at peak level
- With TYPE II cassette (Sony EHF)
  58 dB at peak level

DOLBY NR ON
Improved by 5 dB at 1 kHz,
10 dB above 5 kHz

Total harmonic distortion
0.8 % (with Sony METALLIC and FeCr cassettes)

Frequency response DOLBY NR OFF
- With TYPE IV cassette (Sony METALLIC)
  20 - 20,000 Hz
  30 - 18,000 Hz (±3 dB)
  30 - 13,000 Hz (±3 dB, 0 VU recording)
- With TYPE III cassette (Sony FeCr)
  20 - 20,000 Hz
  30 - 18,000 Hz (±3 dB)
- With TYPE II cassete (Sony EHF)
  20 - 19,000 Hz
  30 - 17,000 Hz (±3 dB)
- With TYPE I cassette (Sony HFX)
  20 - 17,000 Hz

Wow and flutter 0.04 % WRMS

Inputs
Microphone inputs (phone jacks)
Sensitivity 0.25 mV (−70 dB)
For a low-impedance microphone
Line inputs (phono jacks)
Sensitivity 77.5 mV (−20 dB)
Input impedance 50 k ohms

Outputs
Line outputs (phono jacks)
Output level 0.435 V (−5 dB) at load impedance 50 k ohms
with LINE OUT level control at "0"
Variable in five steps from −5 dB to −29 dB
Load impedance over 10 k ohms
Headphone output
Output level variable in five steps from −20 dB to −44 dB at a load impedance of 8 ohms

General

Power requirements 120 V ac, 60 Hz

Power consumption 21 watts

Dimensions USA model :
Approx. 430 × 130 × 290 mm (w/h/d)
(17 × 5 1/8 × 11 1/2 inches)
Canadian model :
Approx. 460 × 130 × 290 mm (w/h/d)
(18 × 5 1/8 × 11 1/2 inches)
including projecting parts and controls

Weight USA model :
Approx. 5.6 kg (12 lbs 6 oz)
Canadian model :
Apporx. 6,3 kg (13 lbs 15 oz)

Supplied accessories
Connecting cord..... 2
Head clening tips ..... 1 set

LED peak program meters

Response range −40 dB to +8 dB

Frequency response 20 - 20,000 Hz ±1.5 dB

Response time 1 millisecond

Decay time (from 0 dB to −20 dB)
750 milliseconds

Overshoot none

Indicator elements 16 elements for each channel

Design and specifications subject to change without notice.

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TROUBLE CHECKS

The following trouble checks will help you correct the most common problems encountered with a tape deck. Should any problem persist after you have made these checks, consult your nearest Sony service facility.
Before proceeding with these trouble checks, first check these basic points :

- The power cord must be firmly connected.
- Amplifier connections must be firmly made.
- Heads, capstan and pinch roller should be clean.
- The amplifier controls and switches should be set correctly.

FUNCTION BUTTONS AND TAPE TRANSPORT PROBLEMS

The function buttons do not activate right after the POWER switch is turned on.

- Logic-controlled function buttons operate approximately 6 seconds after the POWER switch is turned on.

Recording or playback begins as soon as the POWER switch is turned on.

- The timer switch is set at either REC or PLAY.

The record button and the forward button do not activate.

- The cassette holder is not fully closed.

The record button does not activate.

- No cassette in the holder.
- The tab has been removed from the cassette.

The automatic shut-off mechanism activates before the end of the tape.

- The tape is slack.
- The MEMORY switch is set to ON.
- This situation may also be caused by a deformed cassette shell.

Tape transport noise seems excessively loud in rewind or fast-forward mode.

- This situation depends upon the cassette used and not a problem.

RECORDING AND PLAYBACK PROBLEMS

Recording or playback cannot be made or there is a decrease in sound level.

- Contamination or magnetic build-up on the record/playbak head.
- Improper connection.
- Improper setting of the amplifier controls.
- The LINE OUT/PHONES level control is set to the low value.
- The tape is played back with the MONITOR selector set at SOURCE.

Excessive wow or flutter or drop out

- Contamination of the capstan or pinch roller.

Incomplete erasure

- Contamination of the erase head.

Increase of noise or erasure of high frequencies

- Magnetic build-up on the head.

Unbalanced tone in higher frequencies

- Improper setting of the DOLBY NR switch. If a cassette is recorded with the switch set to ON, play back with it at ON. If a cassette is recorded with the switch set to OFF, play back at OFF.
- Improper setting of the TAPE selector switch. If recorded with the switch in the wrong position, adjust the tone controls of the amplifier in playback.

HOWLING OR HUM NOISE

Oscillation occurs when trying to record from microphones.

- The microphone is too near the loudspeakers. Move the microphone away from the loudspeakers or reduce the amplifier volume.

Hum noise

- The tape deck is stacked on or under the amplifier. Relocate it.

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