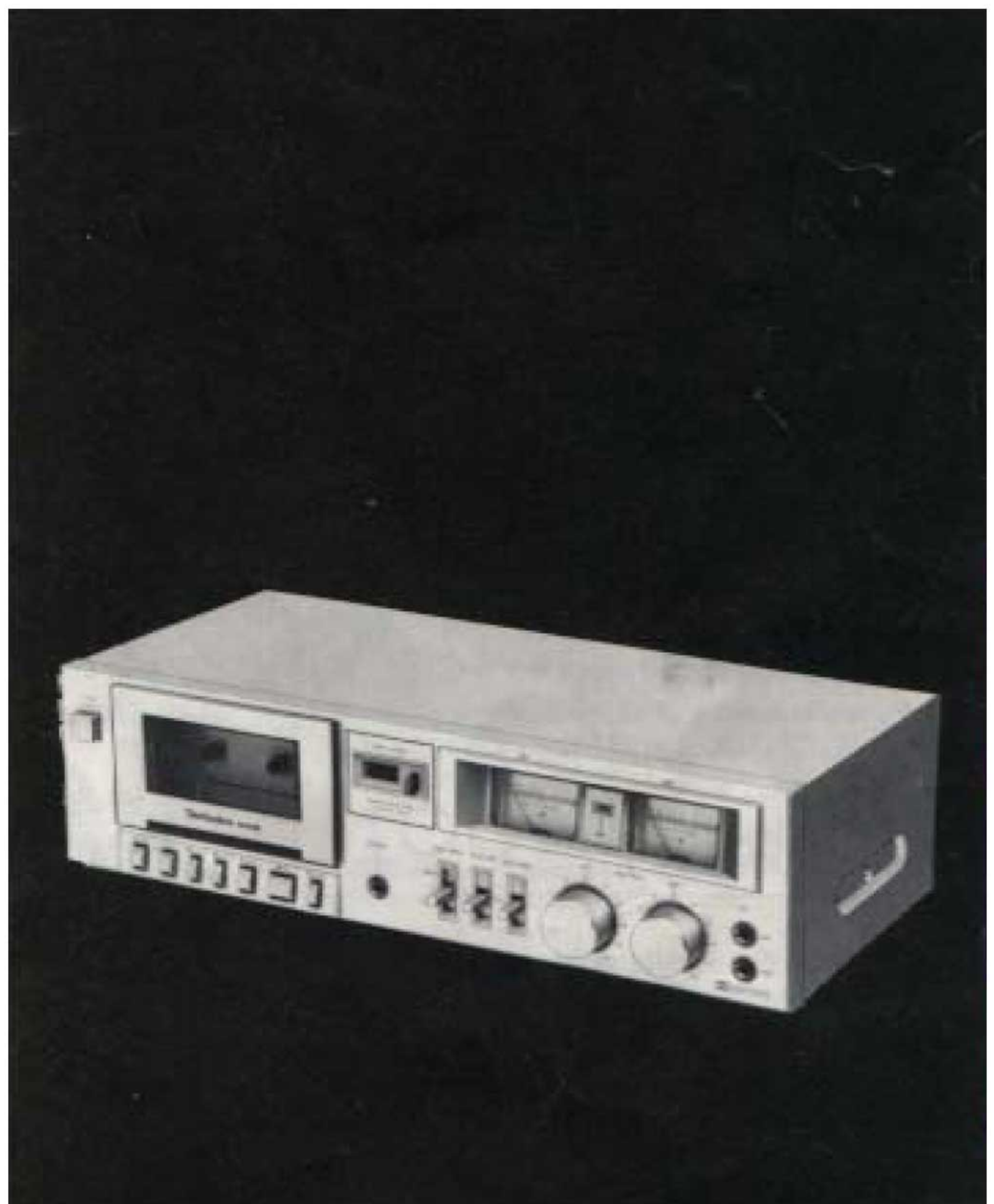


Technics

TAPE DECK

RS-M205

OPERATING INSTRUCTIONS



Before operating this set, please read these instructions completely.

We thank you for selecting the Model RS-M205 Technics Cassette Tape Deck for your recording and playback enjoyment.

To obtain the maximum benefit of the many features of this deck, please read these operation instructions completely.

WARNING:

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

The serial number of this product may be found on the back cover of the unit.

You should note the serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model no. _____

Serial no. _____

FEATURES

- Soft-Touch Controls
- "Metal Tape" Compatibility
- Rewind Auto-Play and Cue and Review Controls
- Dolby NR* System

- MX Permalloy Head
- Timer Record/Playback System
- Precision VU Meters

OPERATION NOTES

1. Horizontal Placement

For best performance, place this unit in a horizontal position.

2. Location

Performance may be adversely affected by extremely hot [above 35°C (100°F.)] or extremely cold [below 5°C (40°F.)] locations, direct sunshine, or excessive vibration.

3. A "click" noise may be heard when the power switch is turned on or off. To avoid this, be sure to set the volume control of the amplifier to the minimum position.

4. Power Source

This unit features a DC operated motor which makes it possible to operate on 50 Hz or 60 Hz AC power frequency without any conversion. The voltage source should be within ±5% of the unit's rated voltage. Variations in excess of ±10% of rated voltage may cause uneven performance, or possible damage to the unit.

5. Clean The Head Assembly

One of the most important factors in the determination of good tape deck performance is regular cleaning of the Head Assembly. Refer to "MAINTENANCE" on back cover and be sure to always keep the heads surfaces clean.

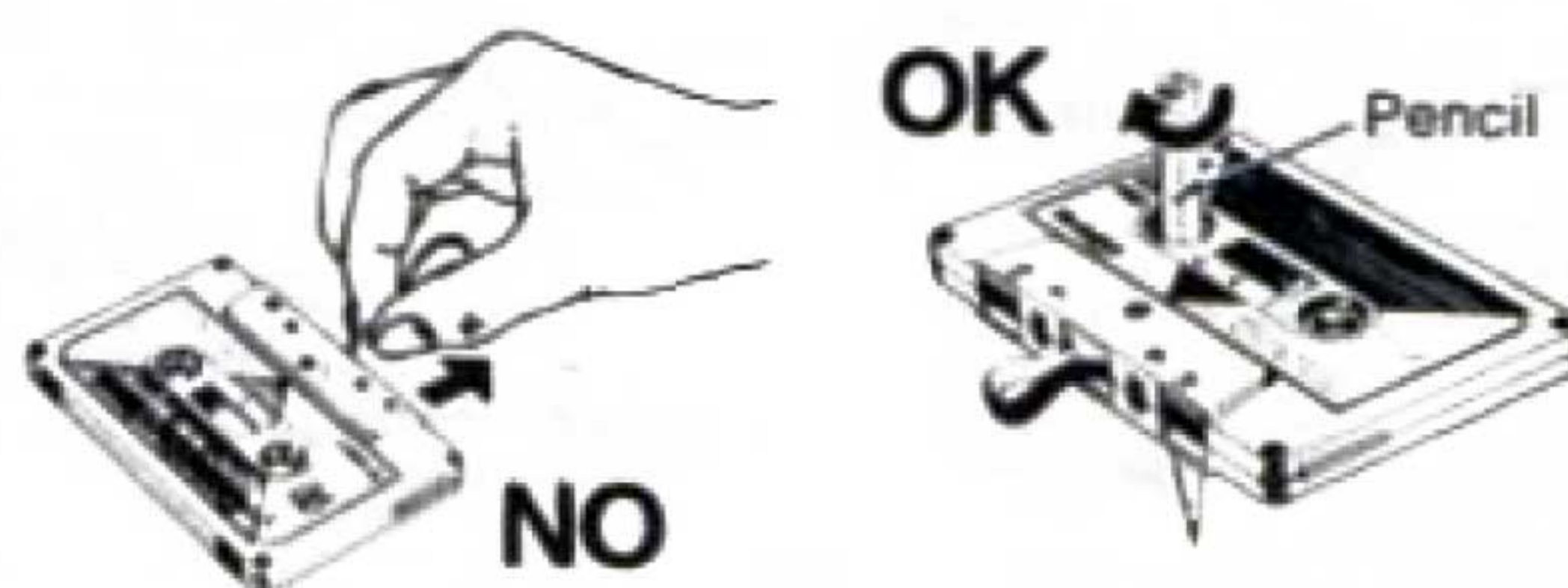
CASSETTE TAPE

About Cassette Tape

The cassette tape used in this unit is the universal type used throughout the world.

Notes:

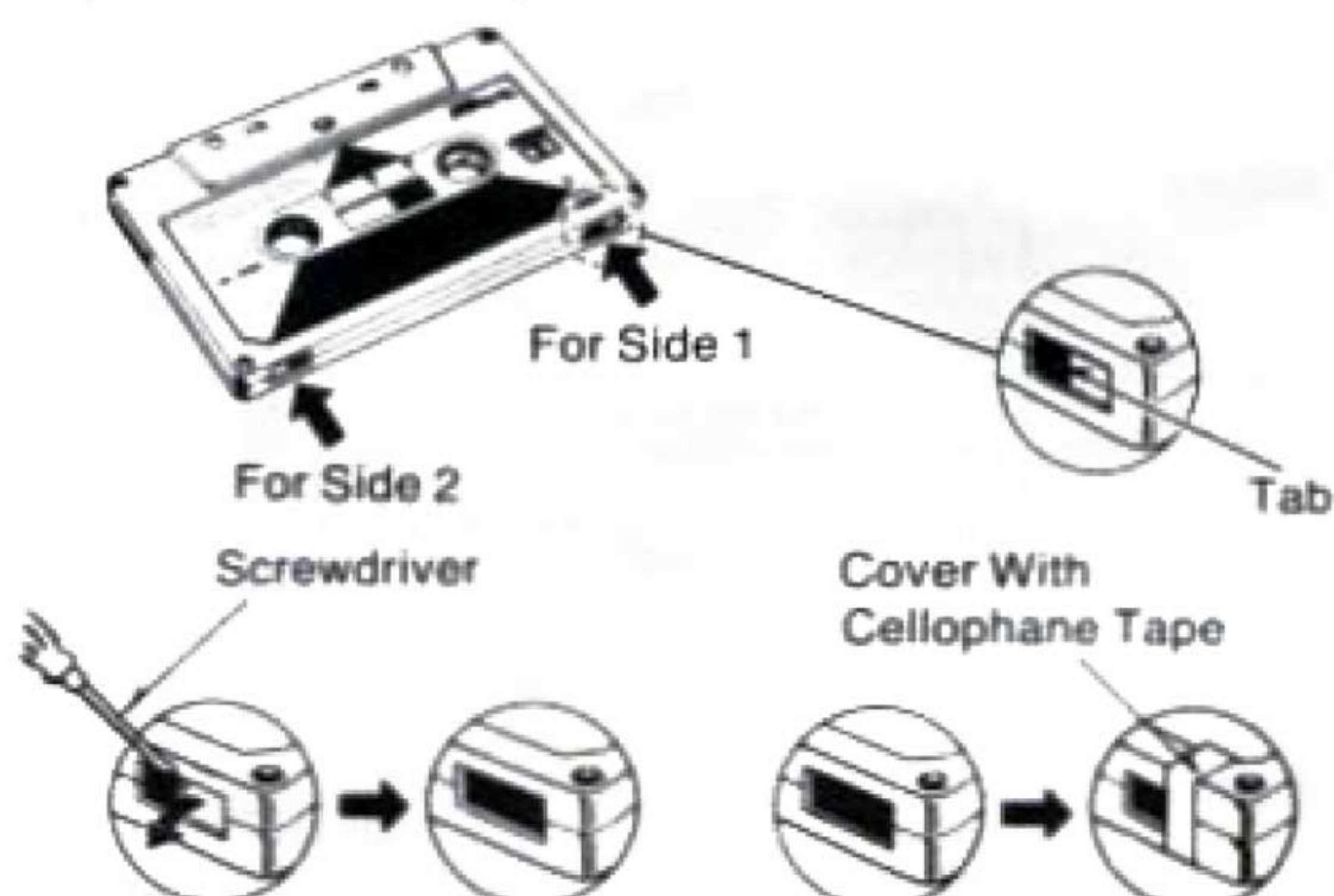
1. Do not pull the tape out of the cassette openings.
2. If the tape is loose in the cassette, the tape may become wound onto the Pinch Roller and result in breakage or damage. If the tape is loose, use a pencil as a drive shaft to rotate the reel in the proper direction.



3. Avoid storing cassette tape in places where the temperature and/or the humidity is high.
4. If the tape is very tightly wound/or unevenly wound, wind and rewind it in the fast forward and rewind modes before use.
5. Use only high quality tapes up to the length of C-90. Do not use C-120 or C-180 tapes with this unit because this tape can easily become broken or stretched if not used with extreme care and may get tangled with the Capstan and Pinch Roller.
6. Since dirt on the Heads, Capstan or Pinch Roller can cause tape malfunctions, these parts must be kept clean, as instructed in the "MAINTENANCE" on back cover.

ACCIDENTAL-ERASE PREVENTION

Tape cassettes have special plastic tabs, one for side one and one for side two, which, if removed, prevent accidental erasure of recorded material. These tabs can be pushed out with a screwdriver or similar tool. If they are not in the cassette, the recording cannot be made. If, for any reason, it is later desired to make a recording on a cassette from which the tabs have been removed, it is possible to do so by simply covering the holes where the tabs were with cellophane tape, and then record in the usual way.

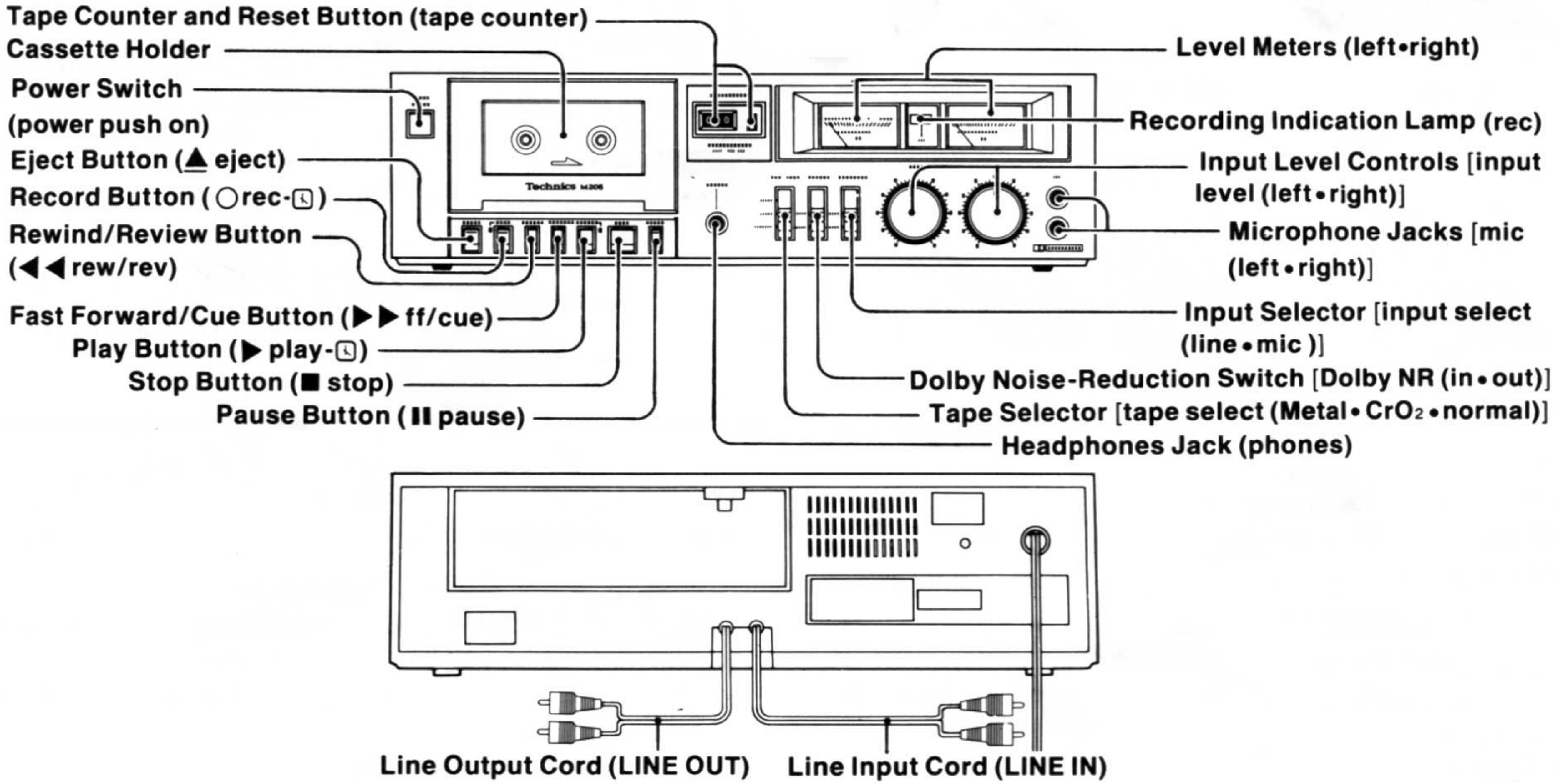


Product Service

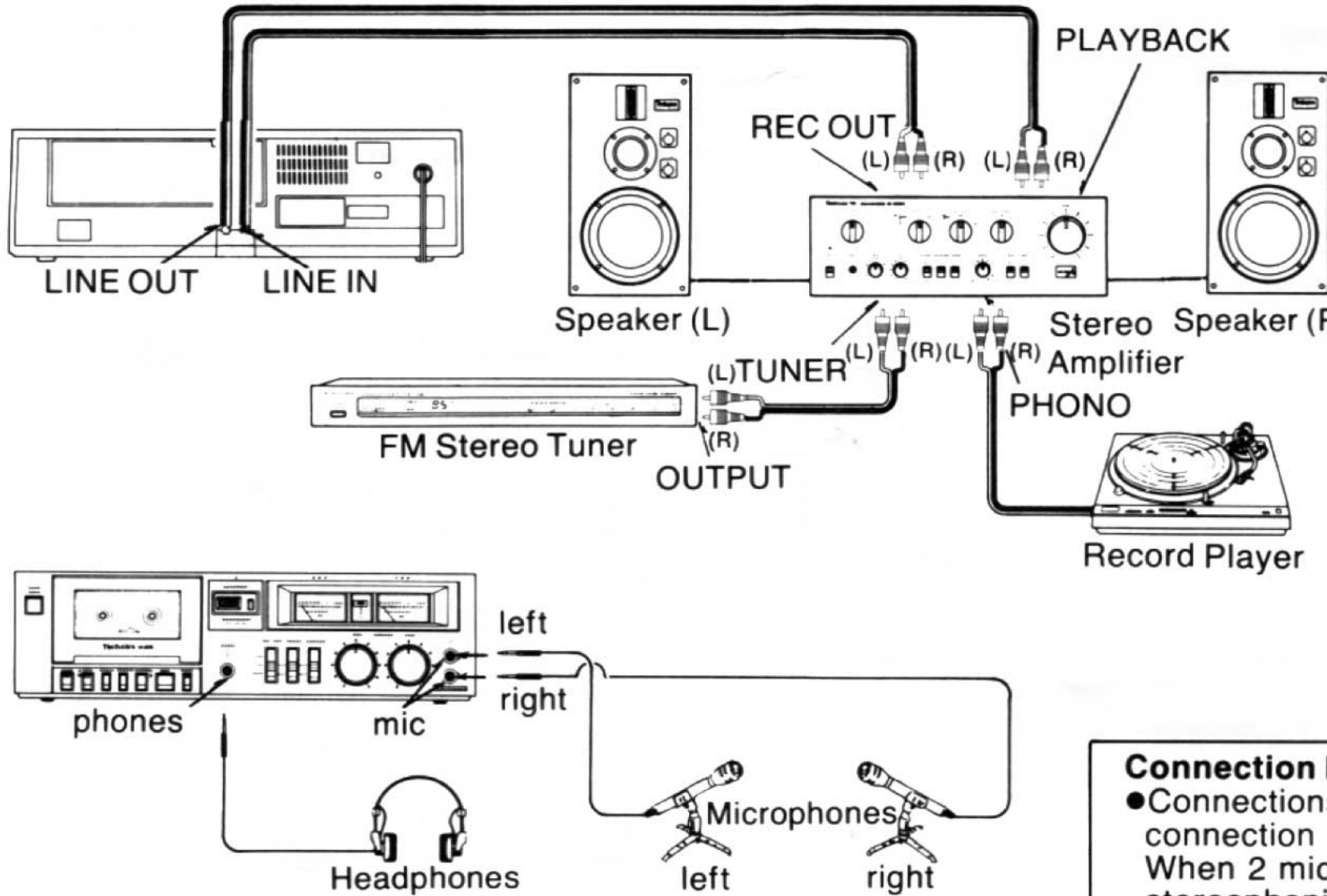
Should your Technics product require service, refer to the Directory of Authorized Servicenters, or to your franchised Panasonic dealer, for assistance. Do not send the product to the executive, or regional sales offices. They are not equipped to make repairs.

*Dolby and the double-D symbol are trademarks of Dolby Laboratories.

CONTROLS



CONNECTIONS



Location of this unit and stereo amplifier

If this unit is placed on top of the stereo amplifier or next to it, a "hum" noise may be heard during tape playback. Refer to the following information below in order to avoid this.

- If the stereo amplifier and this unit are placed one above the other, leave as much space as possible between them, and place them where there is the least amount of hum.
- If the stereo amplifier and this unit are placed one beside the other, try reversing their positions, and place them where there is the least amount of hum.

Connection Note:

- Connections should be made in accordance with the connection diagram and the following instructions. When 2 microphones are used in order to record in stereophonic sound, be sure both of them have the same specification standards.

TAPE SELECTOR

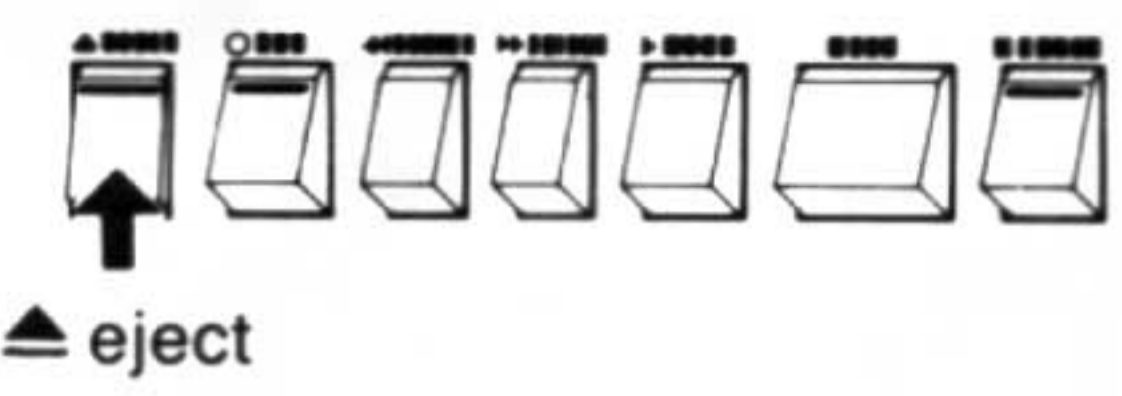
In order to get the best performance from tape, and to record and playback with minimum distortion, the Tape Selector should be set as follows:

Tape Selector Setting	Brand	Tape Type
Normal	AMPEX GRAND MASTER I	C-60, C-90
	BASF PROFESSIONAL I	C-60, C-90
	FUJI FX I	C-60, C-90
	MAXELL UD	C-60, C-90
	MAXELL UDXL I	C-60, C-90
	SCOTCH MASTER I	C-60, C-90
	SONY UHF	C-60, C-90
	TDK AD	C-60, C-90
CrO ₂	AMPEX GRAND MASTER II	C-60
	BASF PROFESSIONAL II	C-60
	FUJI FX II	C-60
	MAXELL UDXL II	C-60
	SCOTCH MASTER II	C-60
	TDK SA	C-46, C-60
Metal	FUJI SR	C-46, C-60, C-90
	MAXELL MX	C-46, C-60, C-90
	SCOTCH METAFINE	C-46, C-60, C-90
	SONY METALLIC	C-46, C-60, C-90
	TDK MA	C-46, C-60, C-90

Note that there may be a difference in sensitivity of 2 or 3 dB, depending on the type of tape.


CASSETTE INSERTION AND REMOVAL • Follow the numbered order.

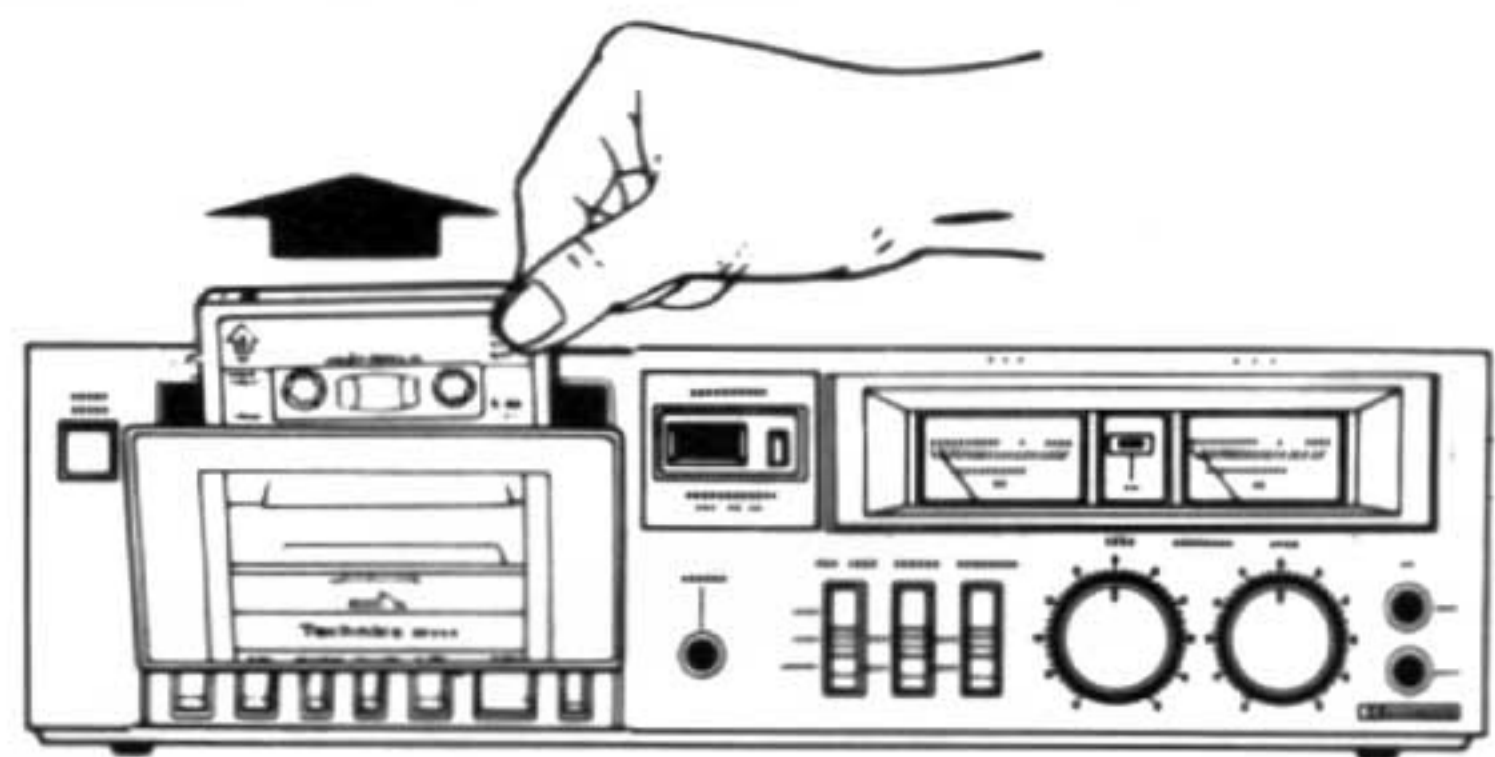
1 Depress to open the cassette lid.



▲ eject

2





Notes:

- Be sure the open part of the cassette faces downward. If it is upside down, the Cassette Holder can't be closed.
- Be sure to close the Cassette Holder gently.
- Be careful not to press the Eject Button while the tape is moving, because tape movement will stop and the Cassette Holder will open.

OPERATION NOTE

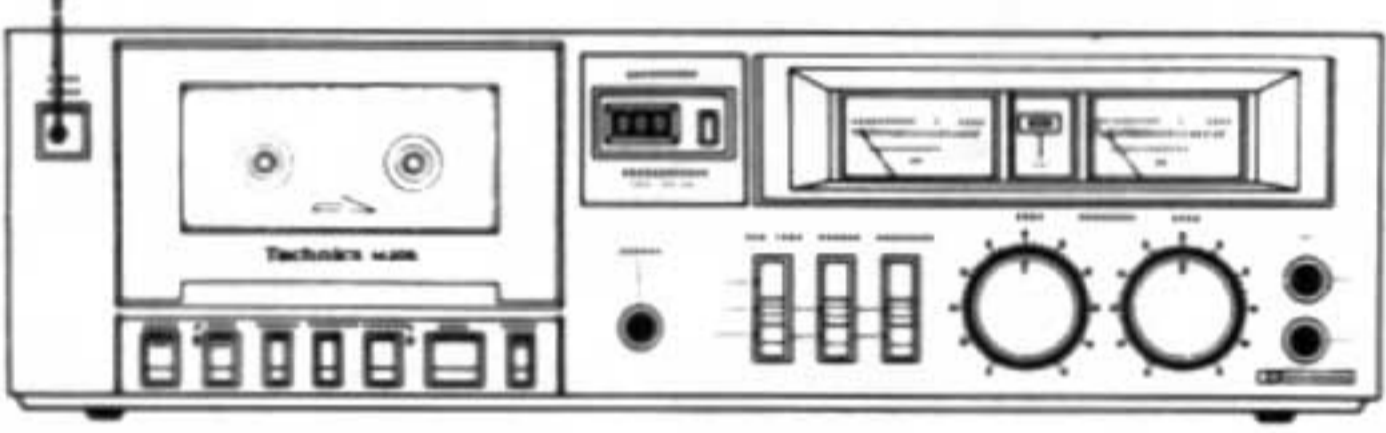
Do not depress the Record or Play Button when no power is supplied to the unit. To do so, even if the Stop Button is depressed afterward, will momentarily cause the tape head assembly to operate when power to the deck is turned on. Do not depress the Record or Play Button immediately after turning off the power of the tape deck. To do so, will keep the

tape head assembly in its normal play position making tape ejection impossible. Switch the power "on" again to eject the tape. This is normal operation for our decks employing the new soft-touch tape transport controls and in no way is detrimental to the tape deck or tape.

PLAYBACK • Follow the numbered order.

1

power push on



2

Refer to "CASSETTE INSERTION AND REMOVAL" above.


3

tape select

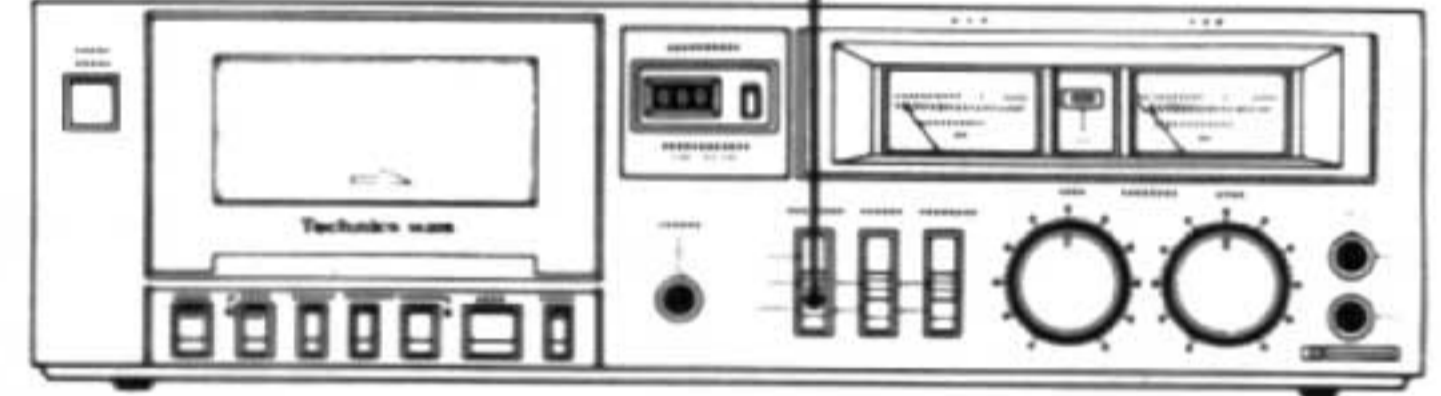
Metal

CrO₂

Normal

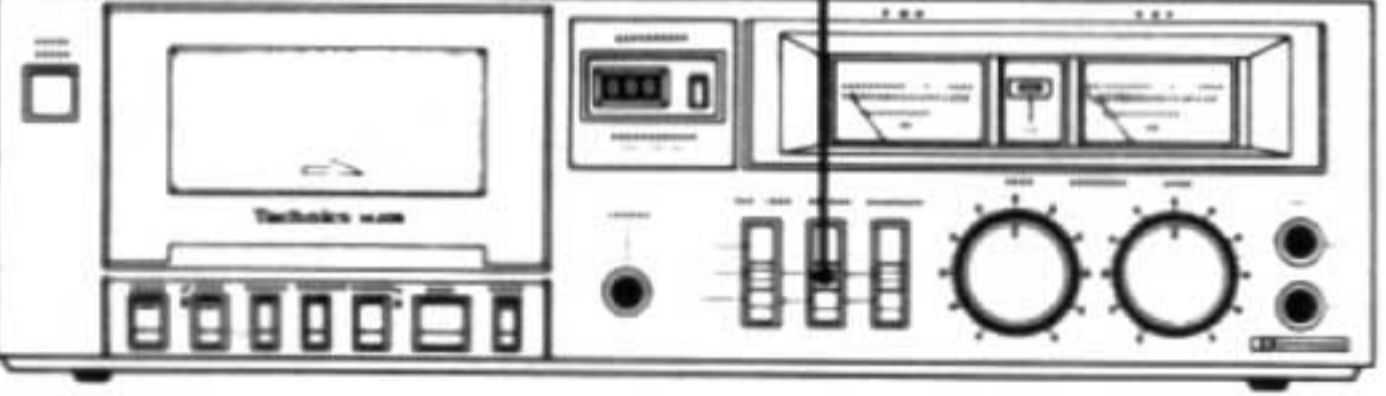


Refer to "TAPE SELECTOR" on page 2.



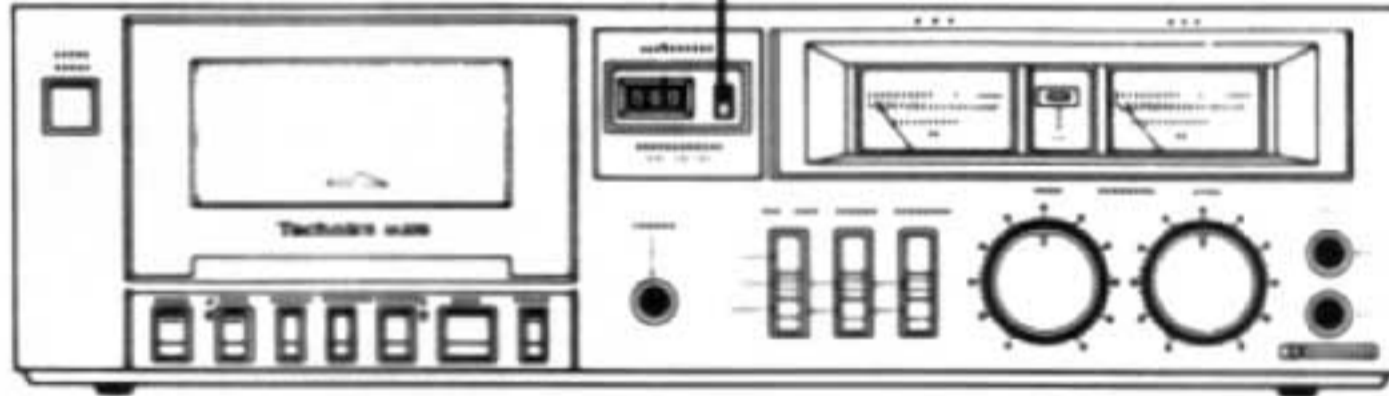
4

Dolby NR in out

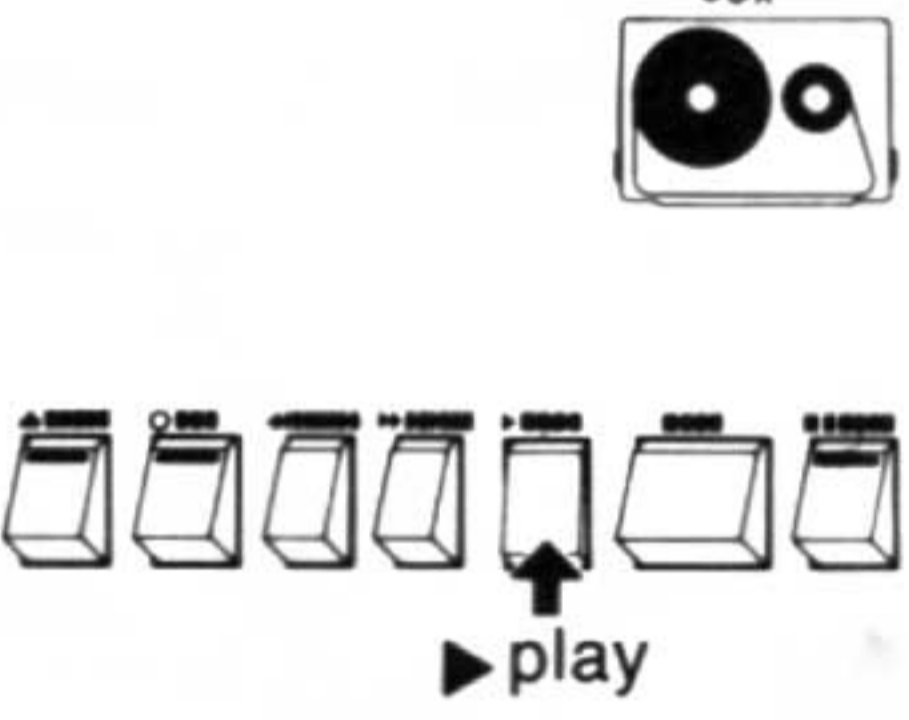


5

tape counter



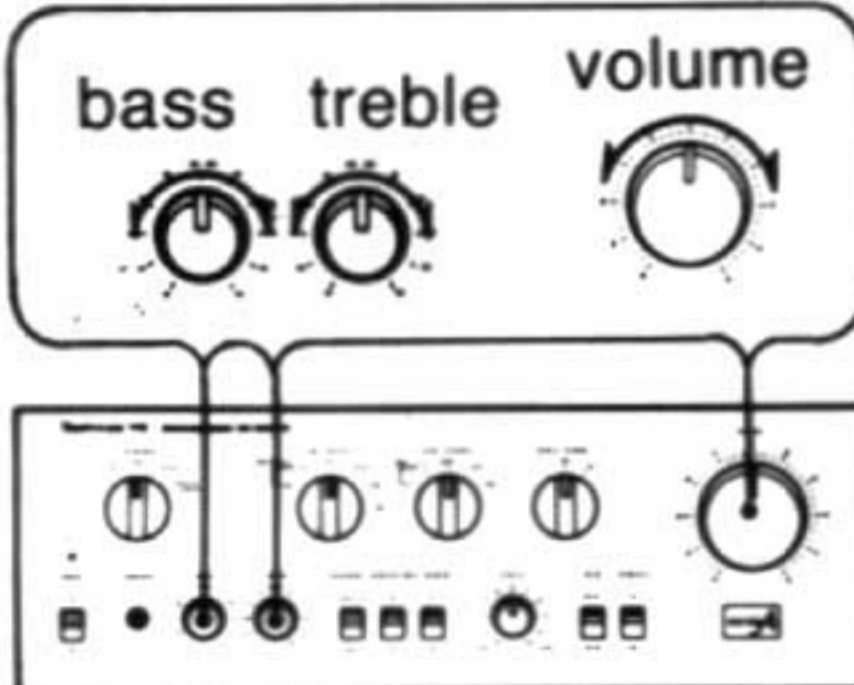
6



▶ play

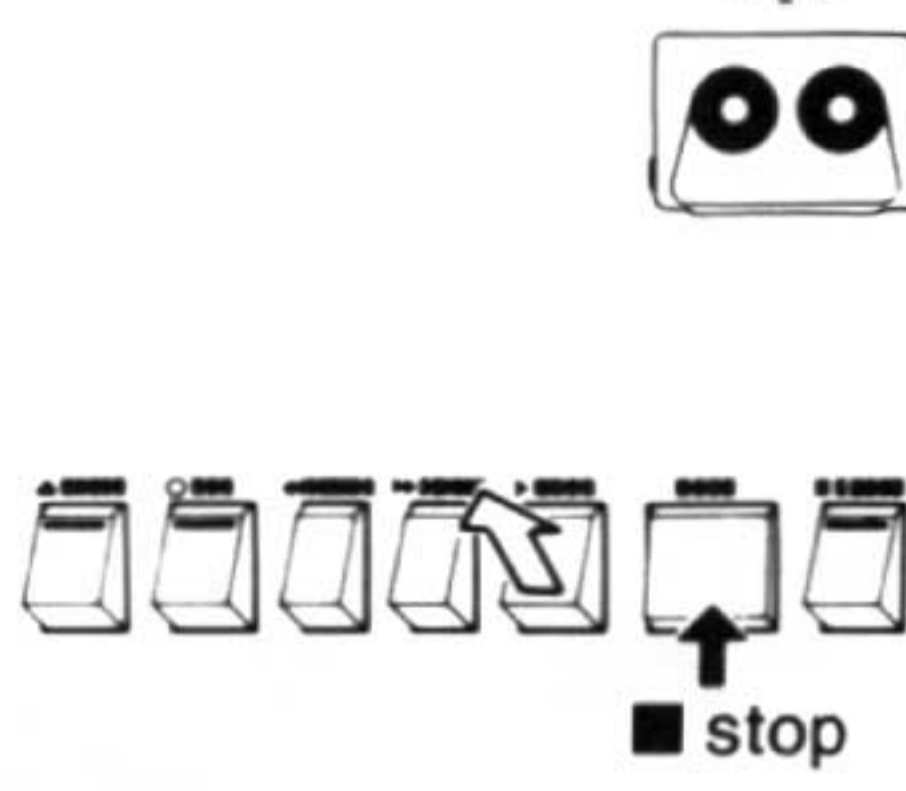
7 Set to desired listening level.

bass treble volume



Stereo amplifier

8



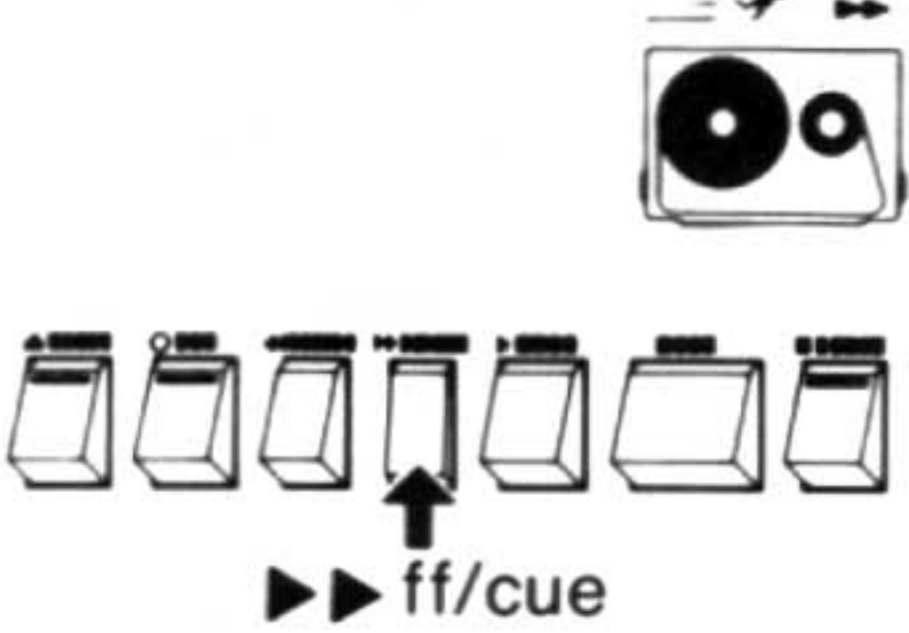
■ stop

- Notes:**

 - Note that the operation buttons will not function until about 5 seconds have passed after the power is turned on.
 - Set the Dolby Noise Reduction Switch to the "in" position when recording or playing back with the Dolby system.

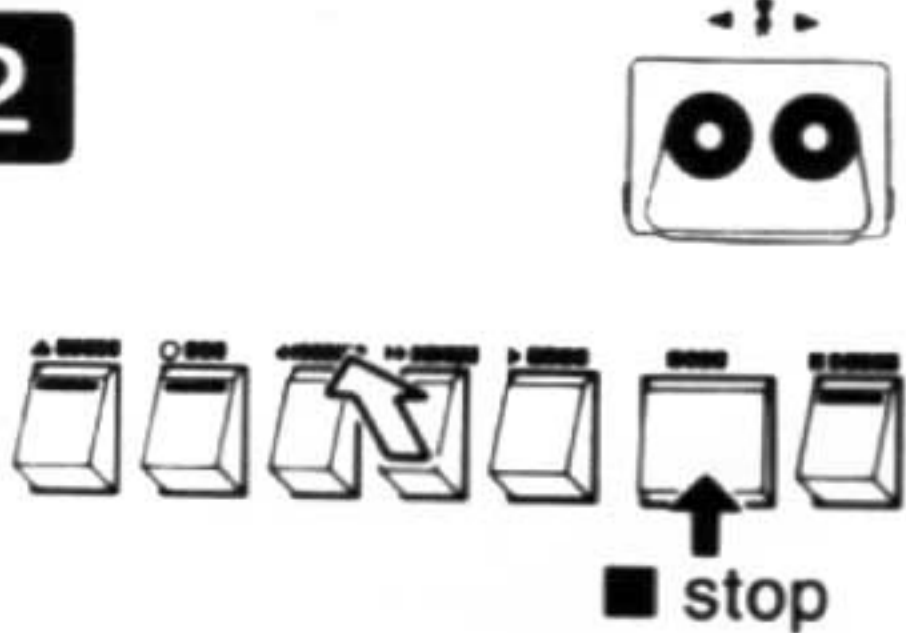
FAST FORWARD AND REWIND • Follow the numbered order.

1



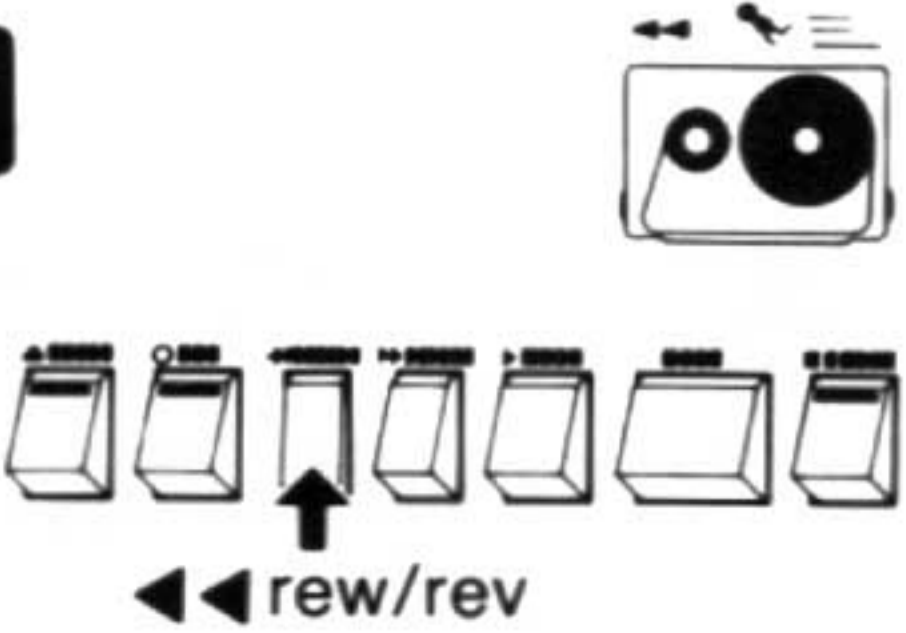
▶▶ ff/cue

2



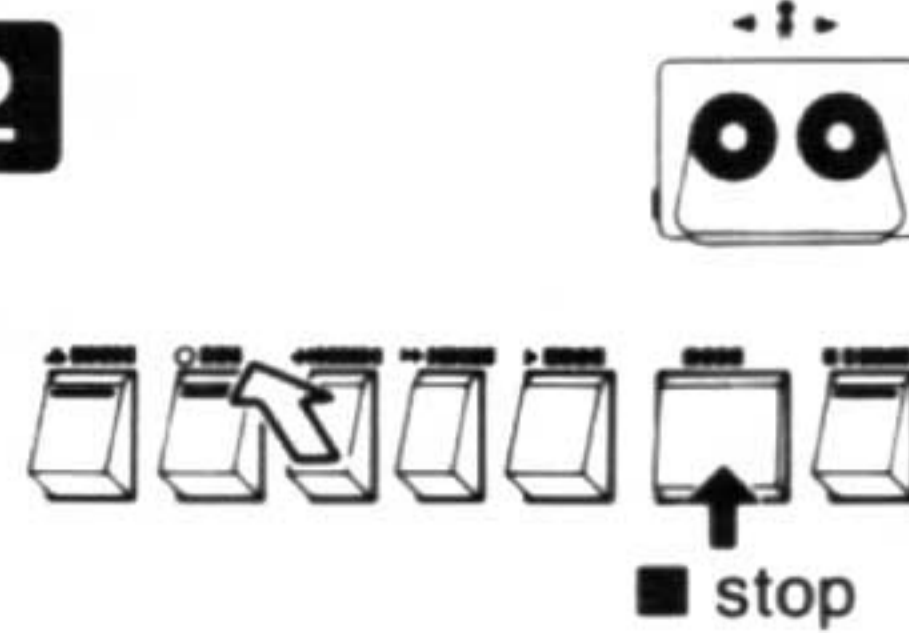
■ stop

1



◀◀ rew/rev

2

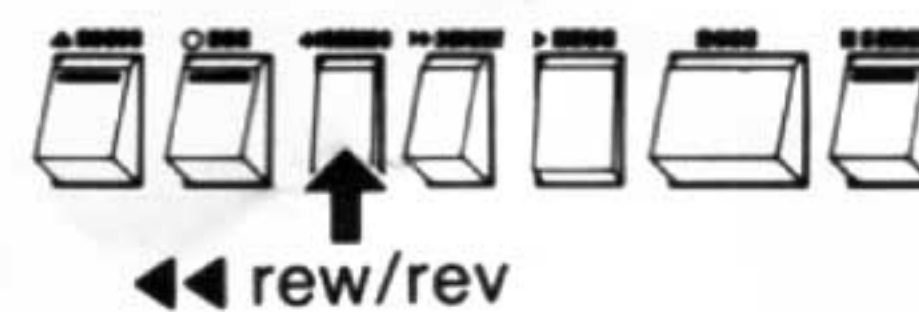
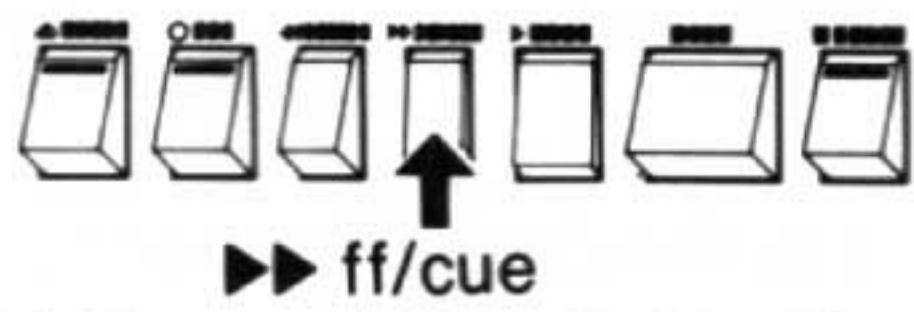


■ stop

Caution:

Do not push the Eject Button during the fast forward or the rewind operation. Before pushing the Eject Button, be sure to first stop the tape by pushing the Stop Button.

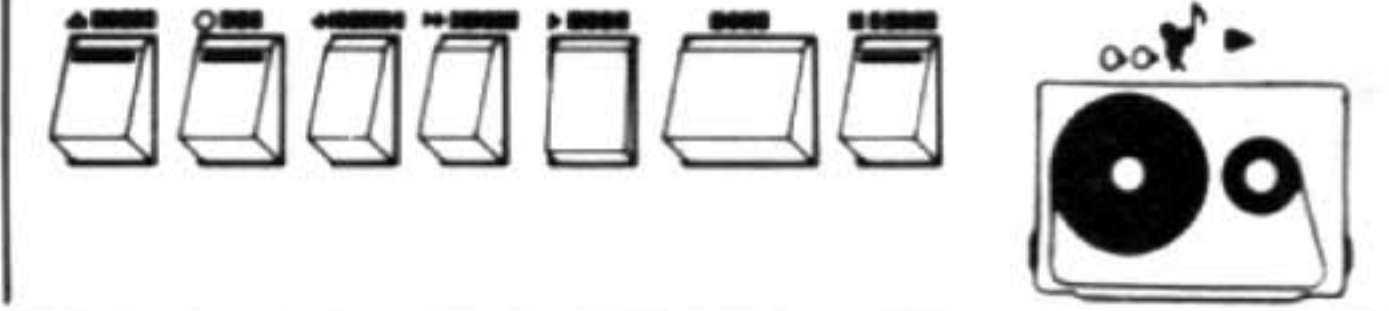
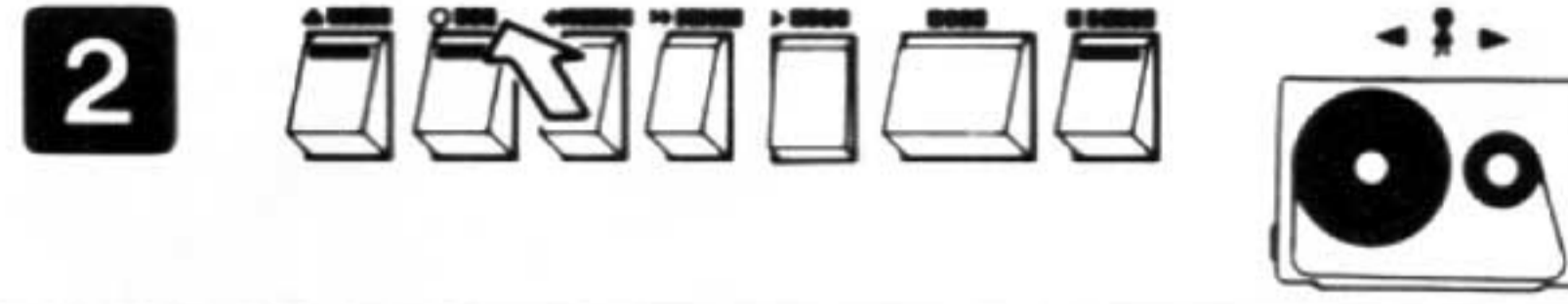
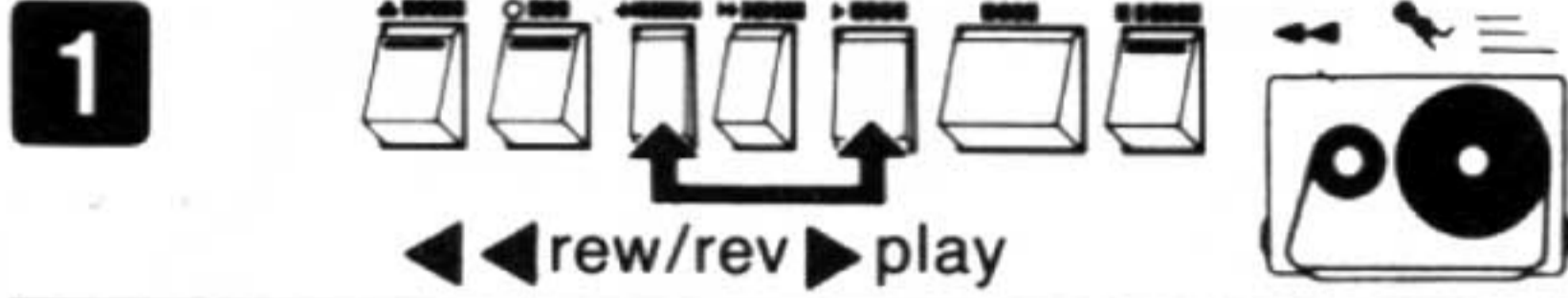
CUE AND REVIEW



When the Fast Forward/Cue Button (or Rewind/Review Button) is pushed during playback, the playback sound can be monitored (although garbled) through the speaker as the tape is either rewound or fast forwarded.

Note: Reduce the volume level of the stereo amplifier before performing the "cue" or "review" operation. If the volume is too high, the tweeters in the speaker systems may be damaged.

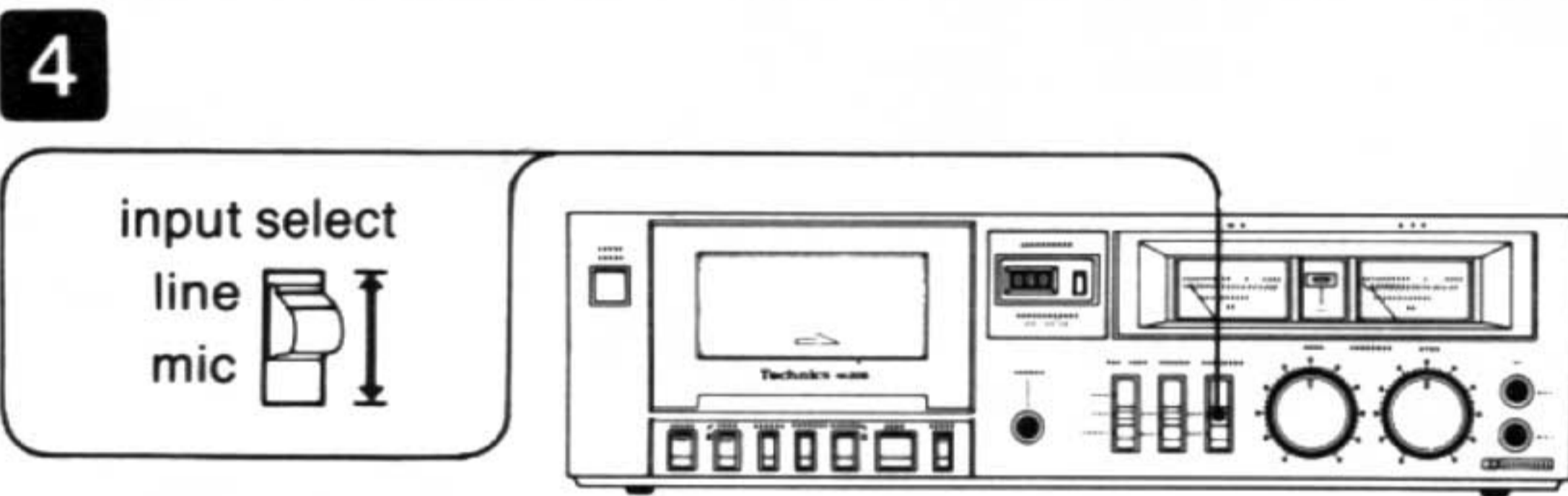
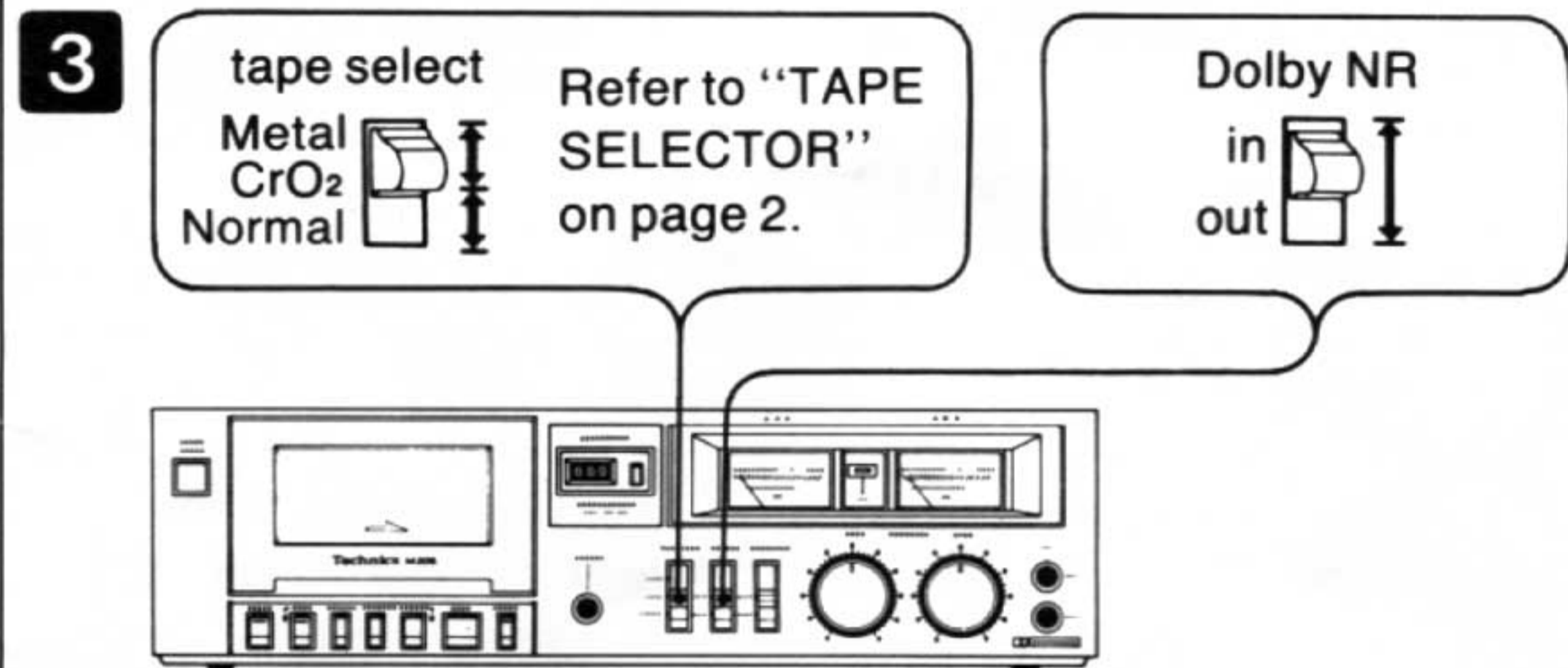
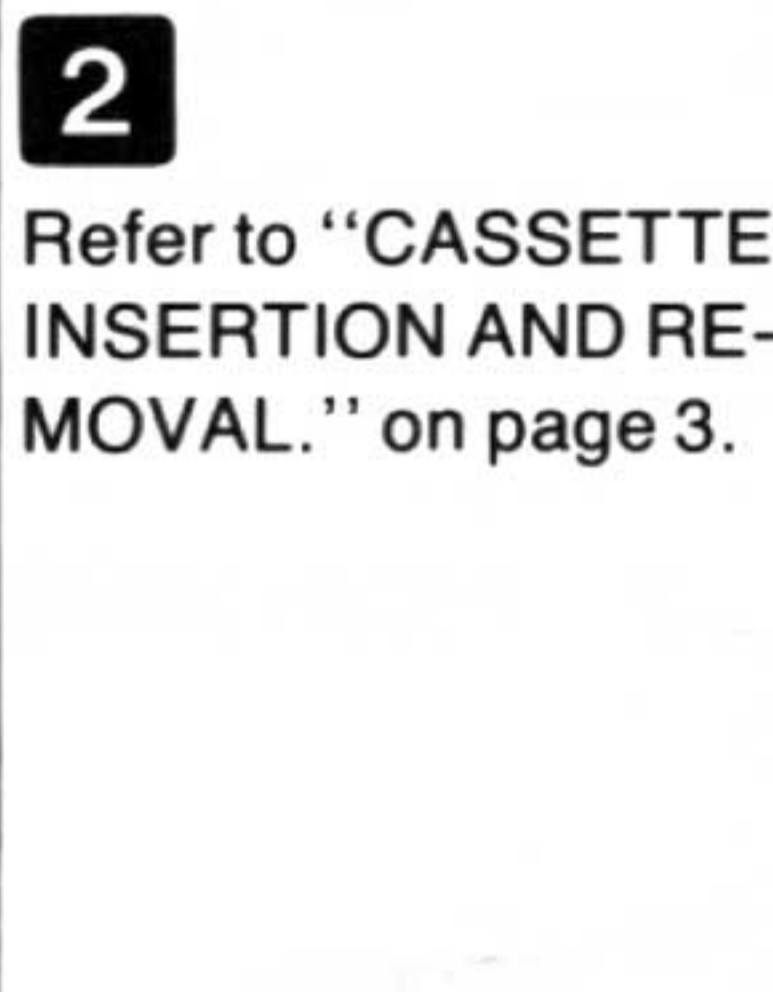
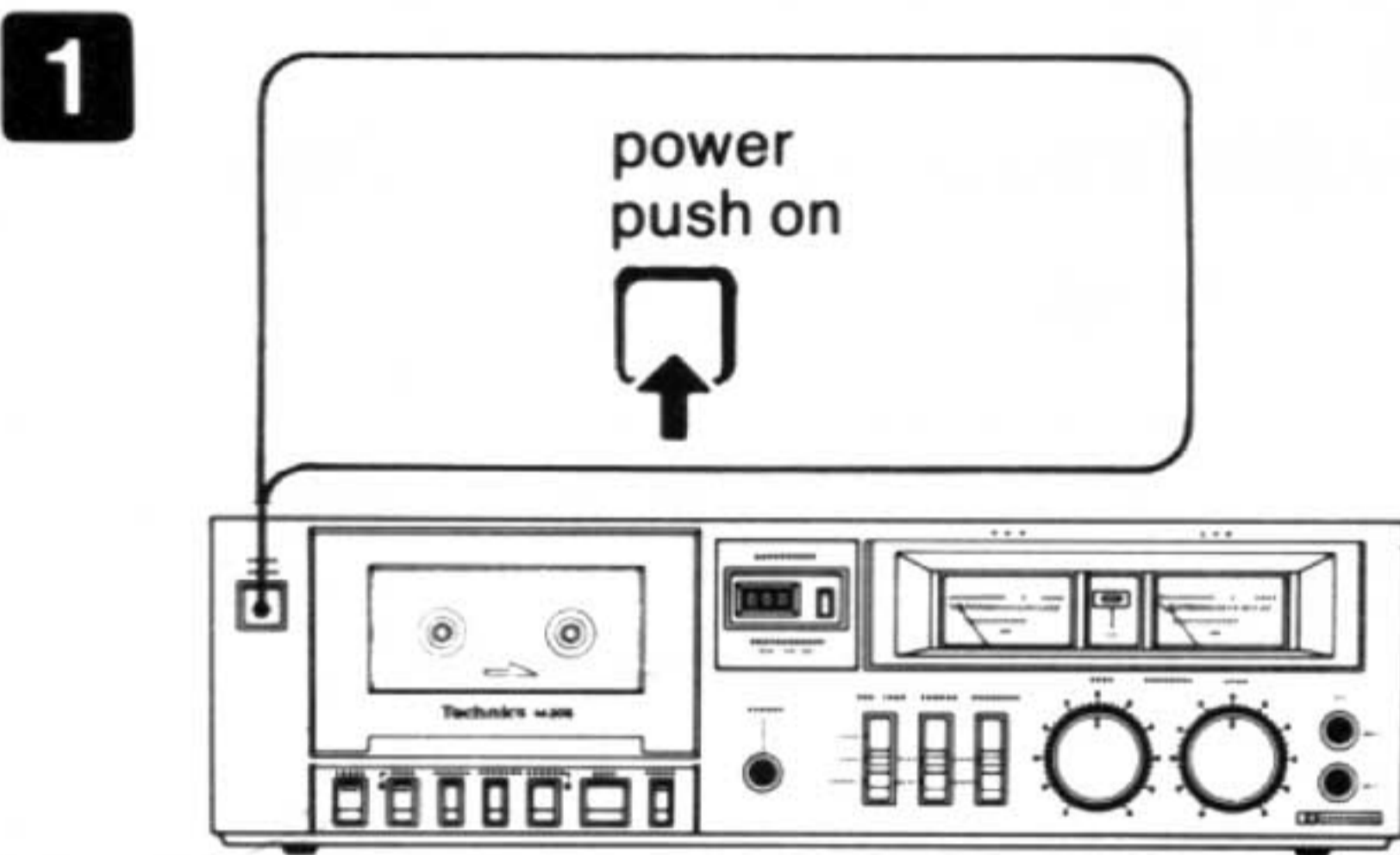
REWIND AUTO PLAYBACK • Follow the numbered order.



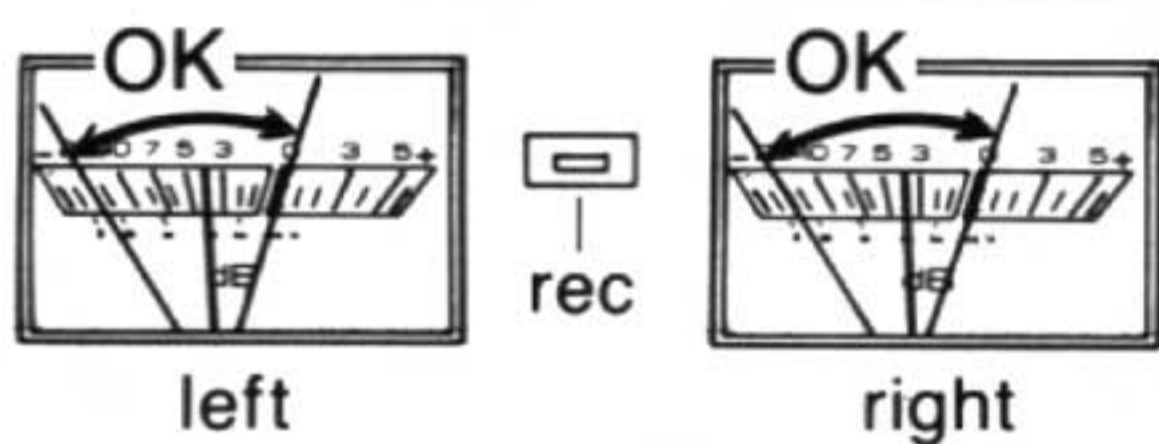
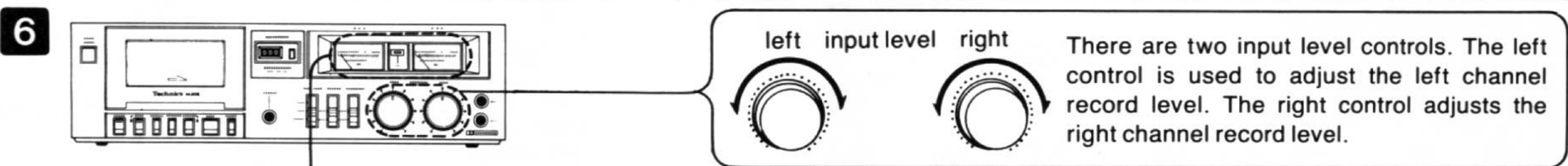
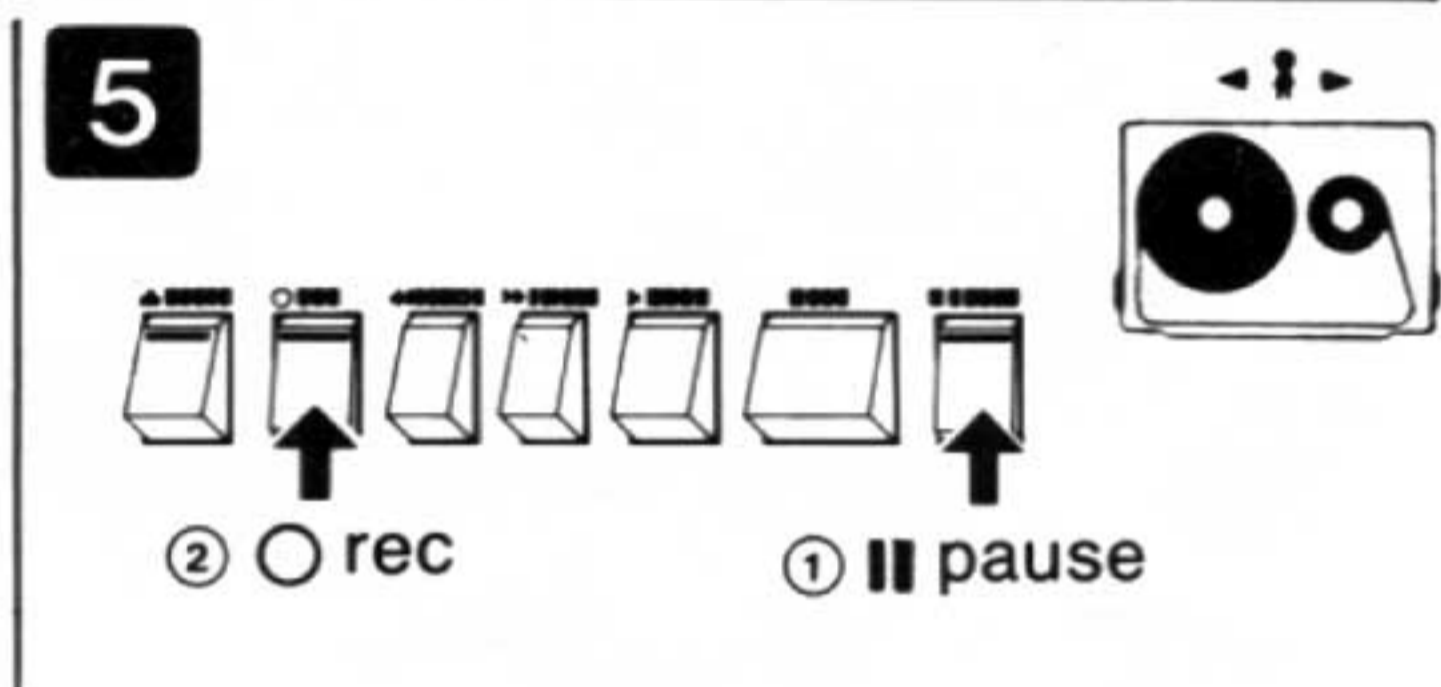
To playback the tape again after recording or playback is completed, push the Play Button and the Rewind/Review Button at the same time.

The tape will be rewound to its beginning and playback will begin automatically.

RECORDING • Follow the numbered order.

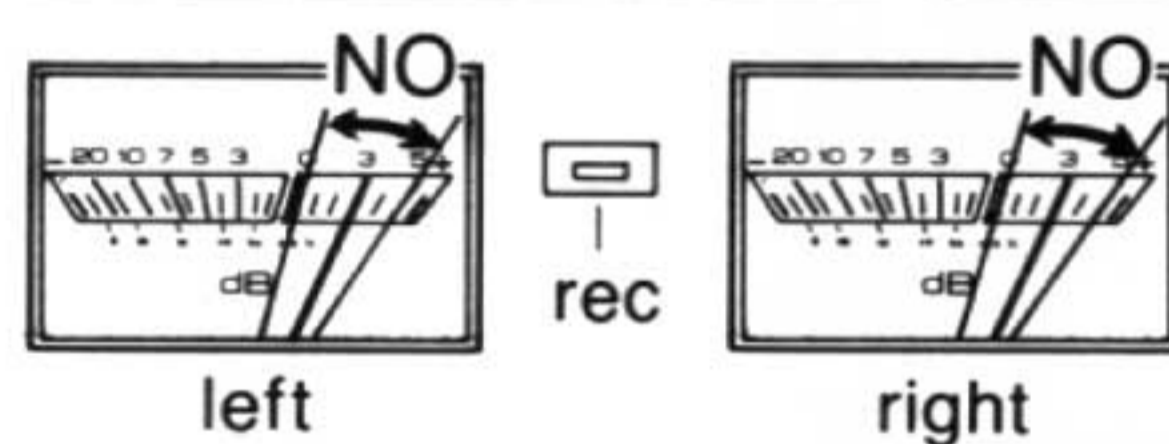


If the recording is to be made by microphone(s), set the Input Selector to the "mic" position. If the recording is to be made from equipment connected to the Line Input cord, set the Input Selector to the "line" position.

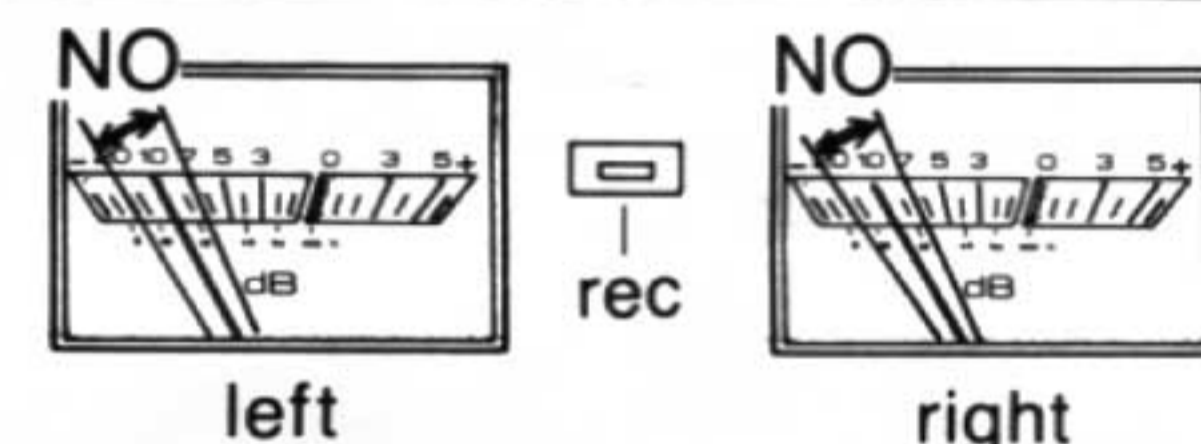


Adjust so that the indication needles do not cross the "0" position even when recording loud sounds, but so that they fluctuate as closely to "0" (without crossing it) as possible.

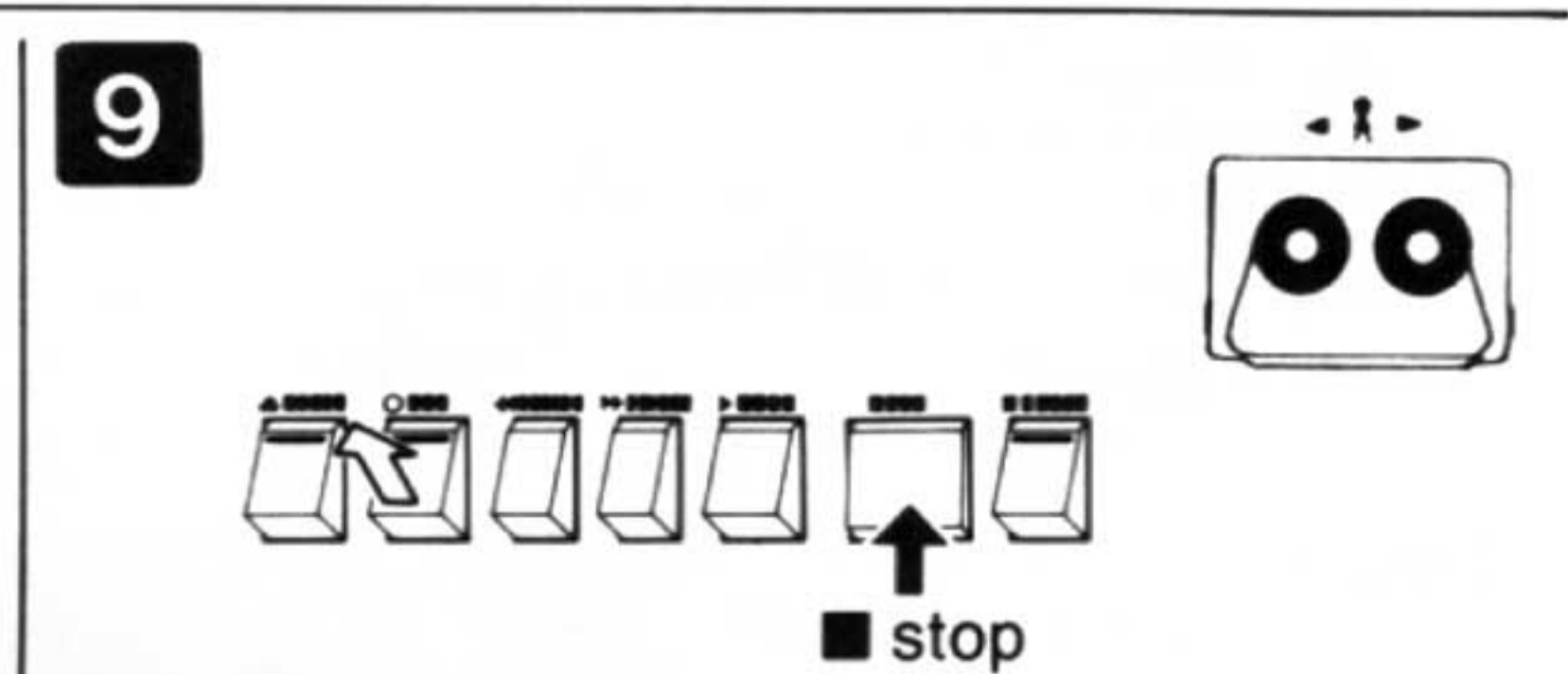
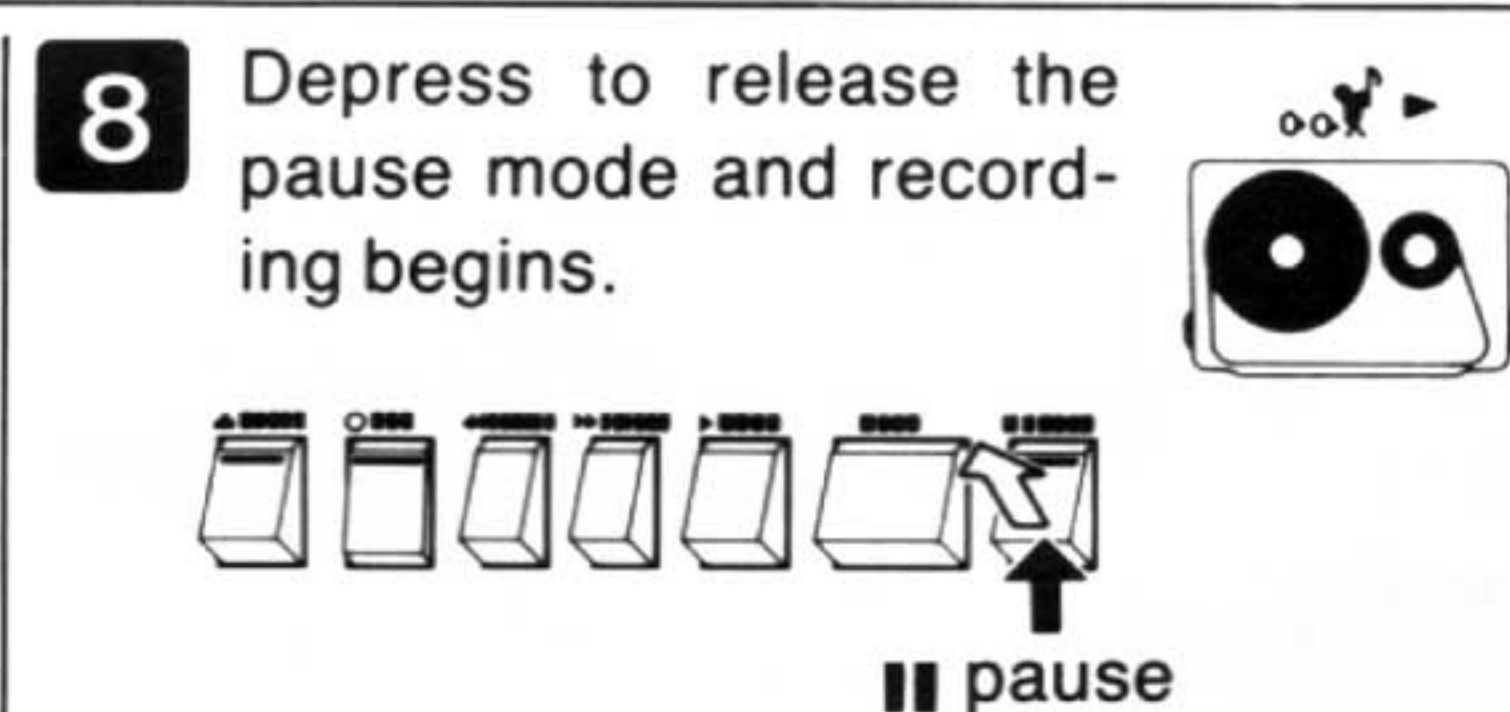
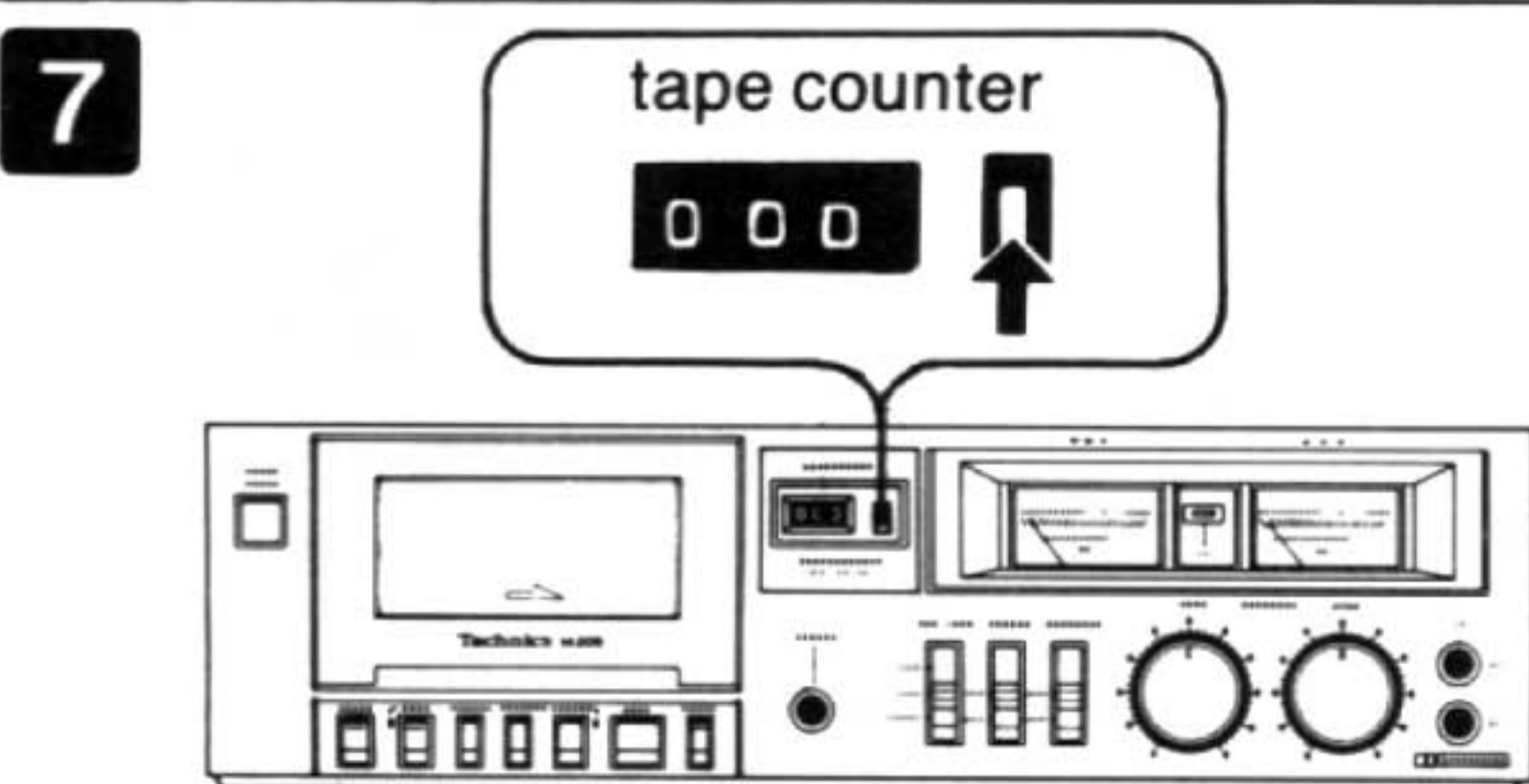
(There will be no problem if they cross over "0" momentarily.)



If, on the other hand, the indication needles continuously fluctuate as shown in this figure, especially if they move completely to the right, the recorded sound will be distorted.



If the indication needles fluctuate only within the area shown in the figure, the recording will be noisy (the signal-to-noise ratio will be poor).



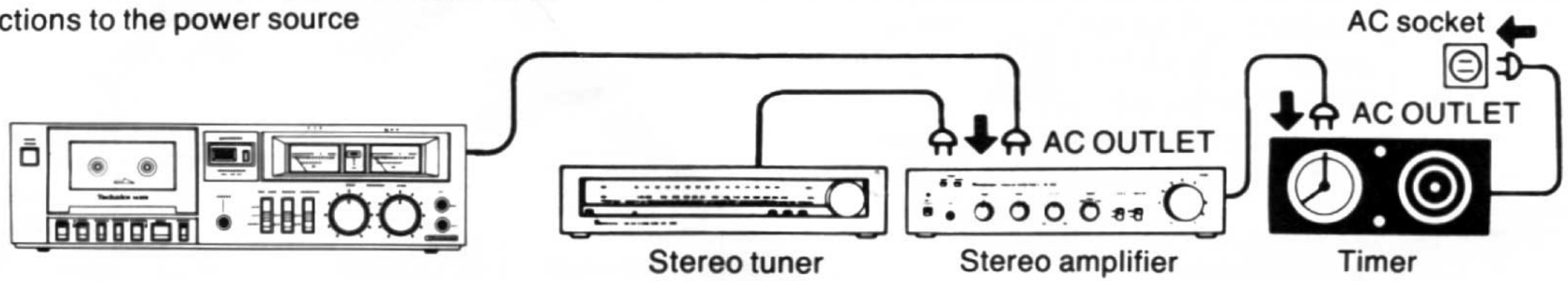
Notes:

- Be sure to use a cassette which has the two plastic tabs intact. If these tabs have been removed, a recording cannot be made. (Refer to "ACCIDENTAL-ERASE PREVENTION," on page 1.)

- Some audio material is copyrighted, and recordings of such material must be limited to personal use and enjoyment.
- Do not depress the Play Button since this unit is set to the recording mode when only the Record Button is depressed.

TIMER RECORDING AND PLAYBACK • Follow the numbered order.

•Connections to the power source



Recording with a Timer (Timer recording of FM broadcasts)

- 1** power push on
- 2** Refer to "CASSETTE INSERTION AND REMOVAL." on page 3.
- 3** Refer to page 1.
- 4** input select line mic
- 5** Select desired radio station.
- 6** pause
- 7** rec
- 8** left input level right
- 9** stop
Depress the Stop Button to release the Play Button.
- 10** pause
Depress to release the pause mode.
- 11** Timer
Set the timer to the desired time. (Depending upon the type of timer, the power to the amplifier, tape deck and tuner will then be turned off.) Refer to the operating instructions of the timer for further information.
- 12** rec
This completes the preparations for timer recording. At the desired time, the power will be turned on and the timer recording will begin.

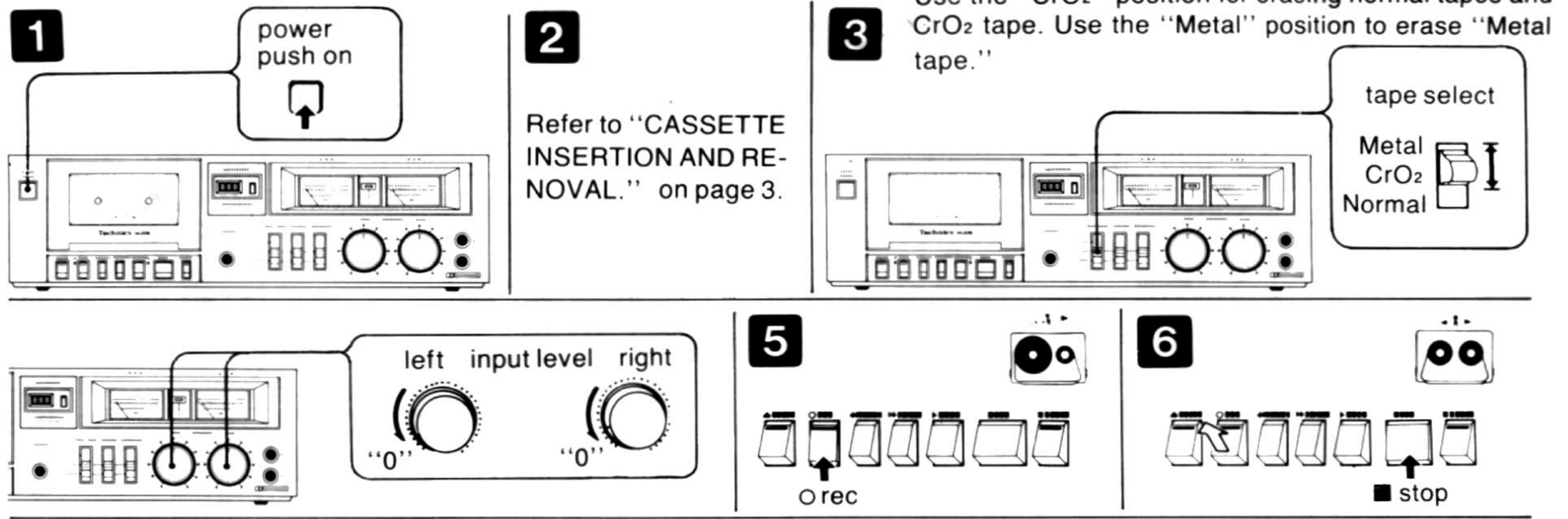
Playback with a Timer

- 1** power push on
- 2** Refer to "CASSETTE INSERTION AND REMOVAL." on page 3.
- 3** play
- 4** bass treble volume Stereo amplifier
- 5** stop
- 6** Rewind the tape of the position from which the timer playback is to begin. rew/rev
- 7** stop
- 8** Timer
Set the timer to the desired time. (Depending upon the type of timer, the power to the amplifier, tape deck and tuner will then be turned off.) Refer to the operating instructions of the timer for further information.
- 9** play
This completes the preparations for timer playback. At the desired time, the power will be turned on and the timer playback will begin.

Notes:

- Mode selection for timer (recording or playback) should be made after the power is completely turned "OFF".
- If a timer mode selection change is desired (from recording to playback or viceversa), please make new selection starting from step No. 1 of the new mode as per our instructions.
- Do not make timer mode selection changes with the power "OFF" otherwise when the timer turns the unit on, there is a possibility that the wrong mode selection will be activated.
- Do not select the mode while turning the power "OFF".

ERASING • Follow the numbered order.



Automatic-Stop System (Full Auto Stop System)

This unit has a Full Automatic-Stop system. When the tape comes to its end during recording, playback, fast forward or rewind, the tape-transport mechanism automatically releases and places the unit into the stop mode.

Because the mechanism automatically stops when the tape comes to its end, both the operating parts and the tape itself are protected. This unit is free from problems such as Pinch Roller deformation resulting from leaving the unit in the stop condition (without pushing the Stop Button) for a long period of time.

Pause

• Depress the Pause Button to temporarily stop tape movement during recording or playback. To start the tape moving once again, depress the Pause Button a second time.

Note:

The pause function does not work when the unit is set to the fast forward or rewind mode.

Recording with Dolby NR

This unit includes the Dolby Noise Reduction System, which reduces tape noise to a remarkable degree.

Briefly, the system works as follows: At low sound levels (where tape noise is most noticeable), the high-frequency portion of the sound is recorded at a higher level. Tape noise is not amplified.

During playback, the level of only that portion of the signal which was increased at the time of the recording, as well as tape noise, is reduced by a like amount. This causes the signal to be heard at a normal level, and the tape noise to be reduced significantly.

Monitoring

To listen to the recording as it is being made, simply plug a set of stereo headphones (8Ω) into the Headphones Jack. You may also listen to the program as it is being recorded if your receiver or amplifier is equipped with a Tape-Monitor Switch.

Note:

In the same way as for playback, an amplifier can also be used for monitoring.

"Metal tape"

Advantages and magnetic characteristics of "Metal tape"

1. Maximum output level (MOL) is greater at all frequencies.
2. Excellent frequency response characteristics at high input level.
3. Wide dynamic range at high frequencies.
4. Excellent signal-to-noise ratio at high frequencies.
5. Low distortion.

Technological developments to accommodate "Metal tape"

"Metal tape" is a totally new kind of high performance tape, and conventional cassette tape decks cannot sufficiently bring out its performance potential.

Our company has succeeded in developing the following technology to exploit the advantages of "Metal tape" to its fullest extent.

1. Development of MX head featuring minimal distortion with high input signal levels.

The MX head employs permalloy and it features a high saturation magnetic flux density and also a superlative wear resistance. It was developed especially for the new breed of "Metal tape".

2. Development of high-efficiency sendust erase head.

Sendust is a material with a high saturation magnetic flux density and it is capable of extremely efficient erasing even with "Metal tape" with a high maximum output level.

3. The power in the bias oscillator circuit has been increased.

A word about "Metal tape"

Conventional cassette tapes can be broadly classified into 2 categories according to the magnetic material coated on the tape surface: the ferric-oxide (γ -Fe₂O₃) type, including ordinary LH tape, etc.; and the chrome-dioxide (CrO₂) type, including XA tape, etc.

Continued technological advances have been made in an attempt to develop these tapes to a high level of performance, but recently there has been a recognized need for the development of a new material to improve performance much further.

In response to this need, "Metal tape" has been developed as a new kind of tape, employing a magnetic alloy of pure iron (Fe) as the main component in the magnetic substance. In comparison with conventional cassette tape, "Metal tape" can record a far greater amount of information at a high density. As a result, the maximum output level (MOL) has been improved throughout the entire range, and, in particular, the frequency response characteristics at high levels and the dynamic range in the high range have been greatly improved. This means, therefore, that a remarkable improvement of sound quality has been made possible. (It should be noted that the tape base and parts of the tape other than the magnetic substance are composed of the same material as previously used.)