

Dictator/Transcriber

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# BM-87DST

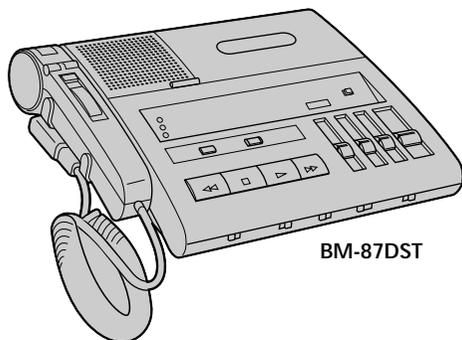
## Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

## Owner's Record

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

Model No. BM-87DST      Serial No. \_\_\_\_\_



HU-80 (not supplied)

# 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.

For the customers in the United States

## 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

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

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# Features

The Sony BM-87DST dictator/transcriber is designed to be used for both dictating and transcribing.

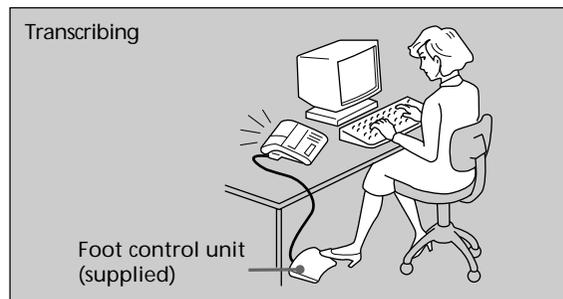
## As a dictator

- The Sony HU-80 hand control unit (not supplied) remotely controls the BM-87DST dictator/transcriber.
- Electronic index signal — “LTR” (letter=end of document) signal — can be recorded on a tape while the unit is set in the recording (dictating), telephone recording, stop or playback mode.
- Alarm sound informs a recording error.
- Recording of telephone calls can be performed with the use of the optional telephone recording adaptor.
- With the use of the supplied headphones, you can monitor the sound with the desired sound level during recording.



## As a transcriber

- Auto stop function quickly accesses the dictated material.
- Auto backspace function with the REVERSE TIME control makes transcribing easy by enabling the reviewing of the last recorded words each time the playback is resumed.
- Rapid erasing function with the ● ERASE button and the << REW button.



# Precautions

- Operate the unit only on 9 V DC.  
For the AC operation, use the AC power adaptor supplied with the unit. Do not use any other AC power adaptor as it may cause a malfunction of the unit.
- Unplug the AC power adaptor from the wall outlet when it will not be used for an extended period of time. To disconnect the adaptor, pull it out by grasping the adaptor itself. Never pull it by the cord.
- Do not place the unit in a location near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Allow adequate air circulation to prevent an internal heat build-up. Do not place the unit near materials (curtains, draperies, etc.) that may block the ventilation holes.
- Should any solid object or liquid fall into the unit, unplug the unit and have it checked by qualified personnel before operating it any further.
- The supplied AC power adaptor becomes hot if it is connected to a wall outlet for a long period of time. However, this will not cause any mechanical problems.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult the Sony dealer from whom you purchased the unit.



## Transcribing 17



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Disconnect the HU-80 hand control unit (if it is connected).

↓

Connect the supplied foot control unit. 10

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Set the POWER switch to ON.

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Insert the dictated cassette. 11

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Set the TAPE SPEED selector to 2.4 or 4.8. 15

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Set the SPEAKER selector to BUILT-IN 20 or connect headphones. 20

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Set the AUTO STOP selector to OFF. 13

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Press the << REW button.  
When the beginning of the dictated cassette is reached, a beep tone is heard and the unit automatically shuts off.

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Keep the right side of the pedal depressed. 20  
(When the supplied foot control unit is connected).  
or  
Press the ▷ LISTEN button. 20  
(When the BM-87DST is used for operation.)

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Adjust the VOLUME control and the TONE control.

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Adjust the starting point for playback with the use of the REVERSE TIME control. (When the supplied foot control unit is used.) Set the SPEED CONTROL selector to ON and adjust the tape speed with the SPEED control. 16

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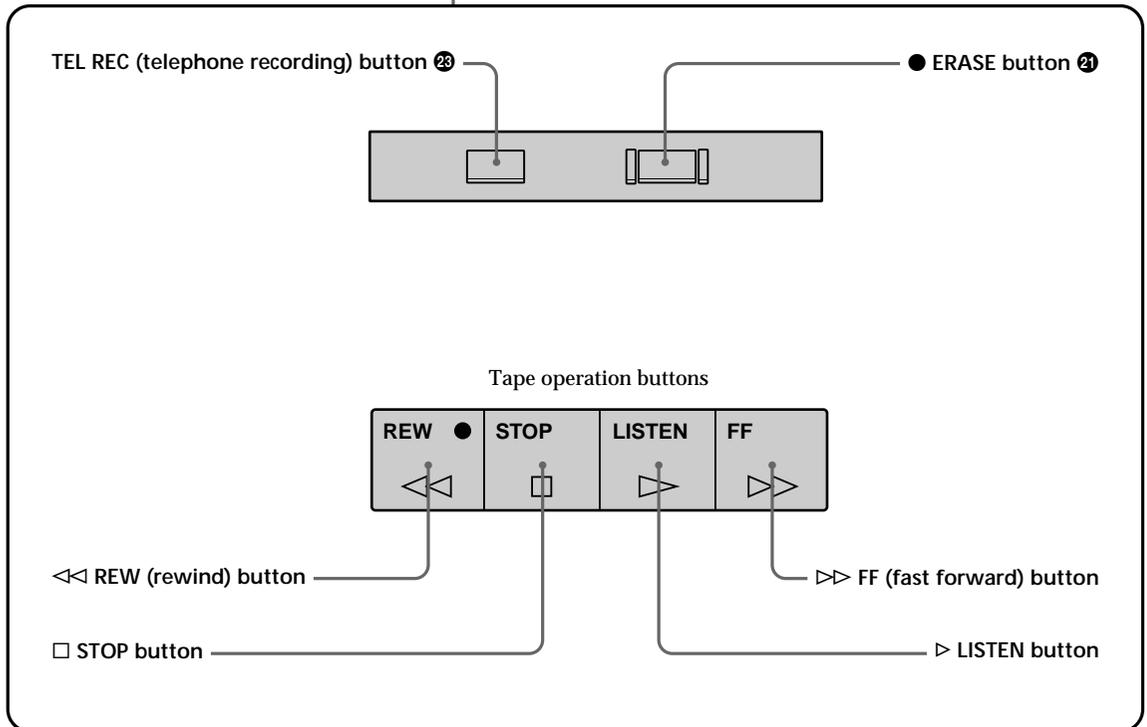
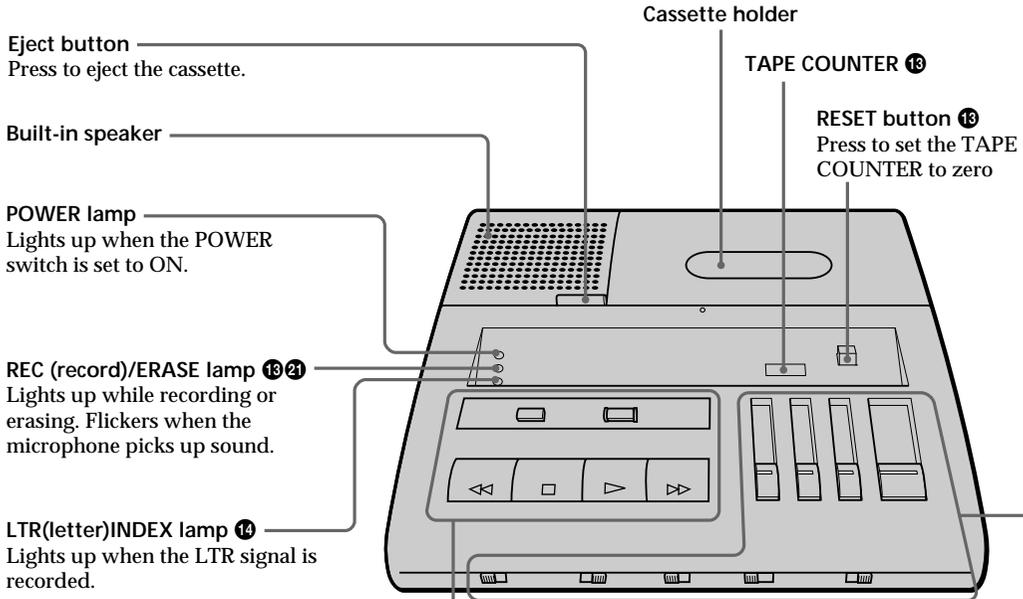
After transcribing, stop the tape.  
Release the pedal. (When the supplied foot control unit is used.) 20  
or  
Press the □ STOP button. (When the ▷ LISTEN button on the BM-87DST is pressed to play back the tape.) 20

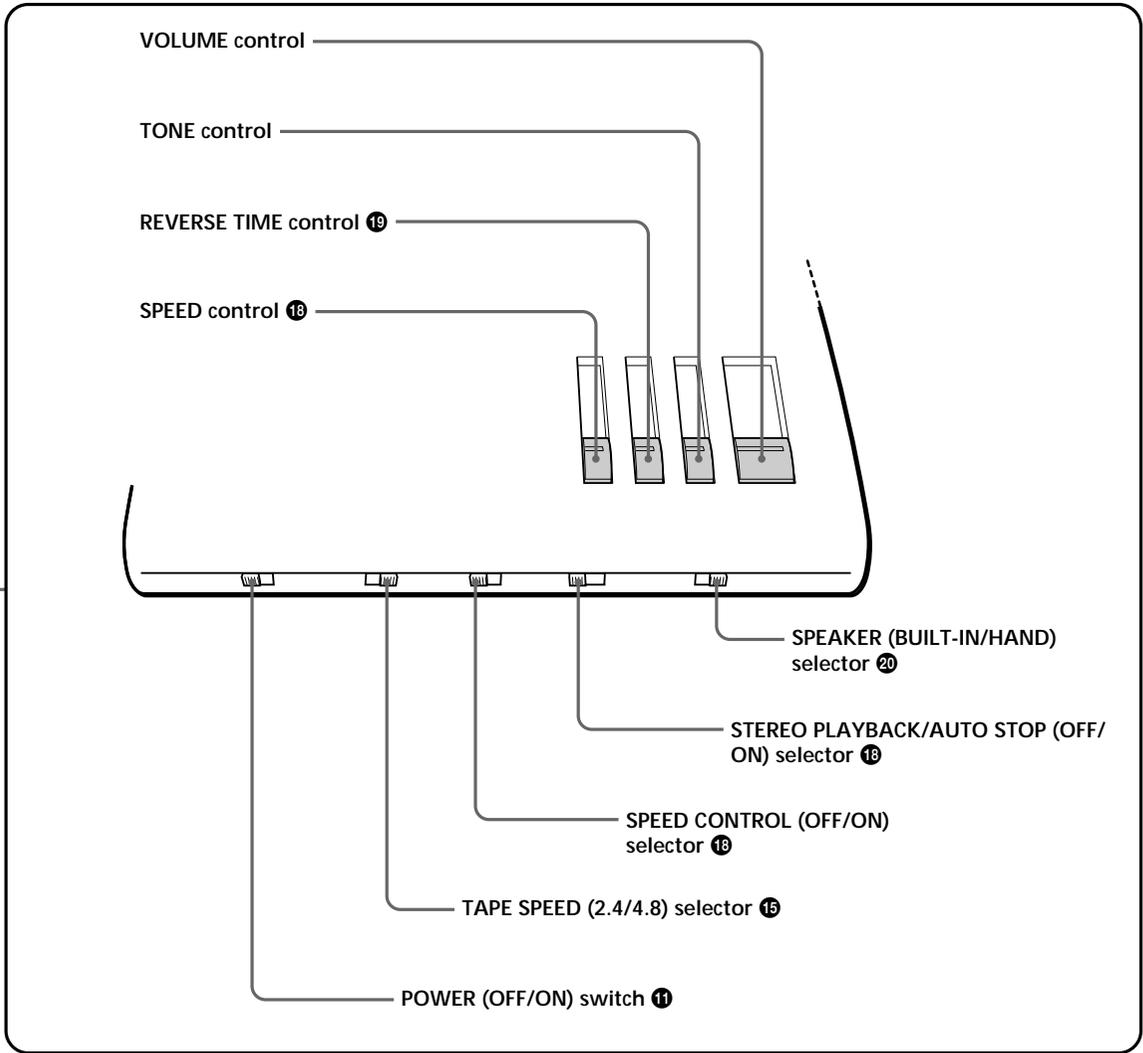
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Erase the tape.

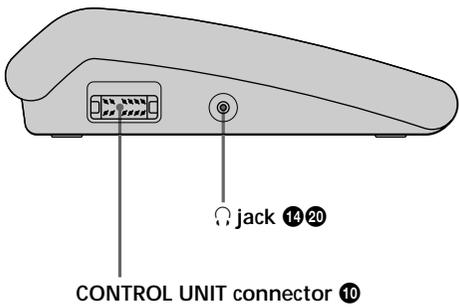
# Location and Function of Controls

For details, refer to the pages indicated in ●.

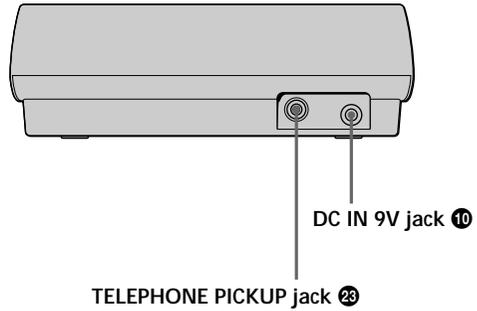




Left side

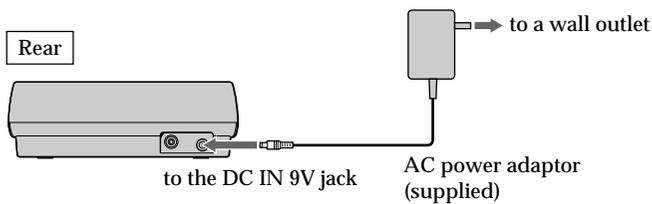


Rear



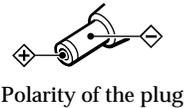
# Preparation

## Connecting the Power Source



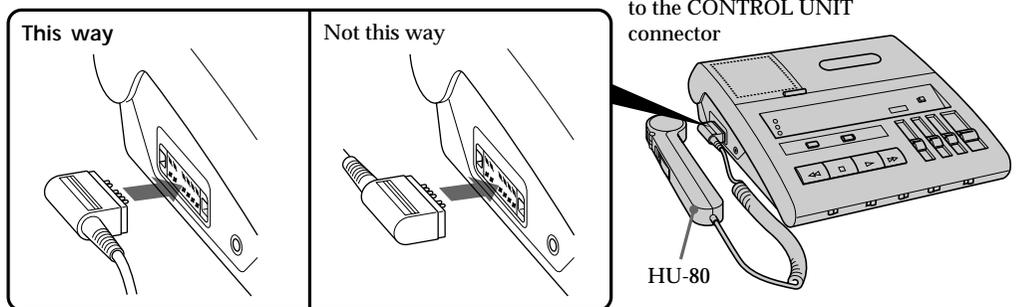
### Note on the AC power adaptor

Use only the AC power adaptor (supplied). Do not use any other AC power adaptor.



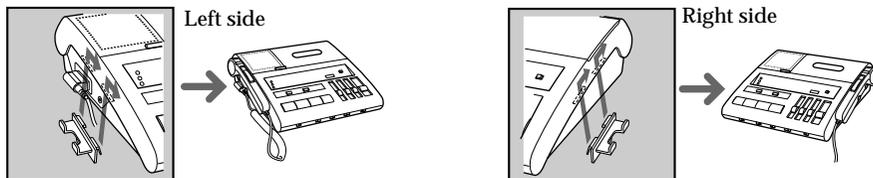
## Connecting the HU-80 Hand Control Unit (not supplied)

For operation, refer to "Dictating" on page 13.



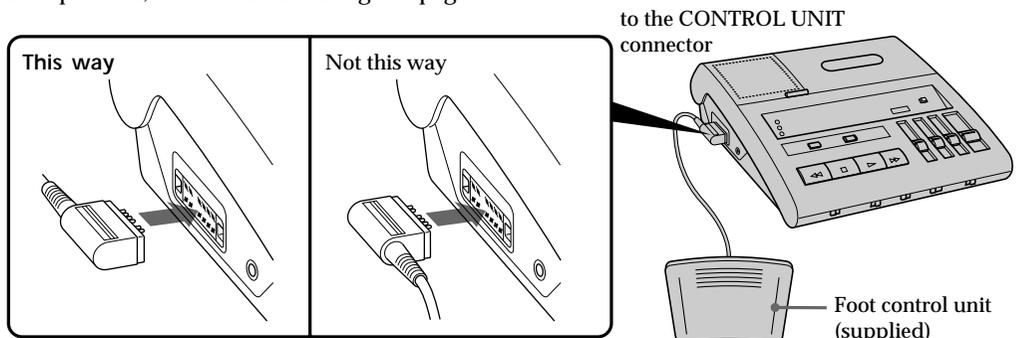
### Attaching the cradle

Attach the cradle which is supplied to the HU-80 to the left or right side of the unit. Place the HU-80 hand control unit on the cradle while not in use. Insert the cradle into the slots and slide to secure it.

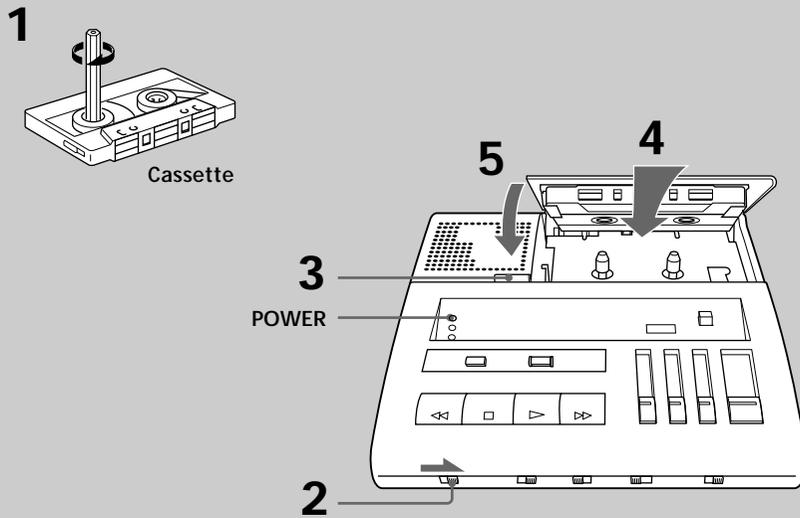


## Connecting the Supplied Foot Control Unit.

For operation, refer to "Transcribing" on page 17.



## Inserting a Cassette



- 1** Take up any slack in the tape.
- 2** Set the POWER switch to ON.  
The POWER lamp lights up.
- 3** Press the eject button to open the cassette holder.
- 4** Insert a cassette into the cassette holder with the side to be recorded or played back facing upward.
- 5** Close the cassette holder.

## ■Notes on cassettes

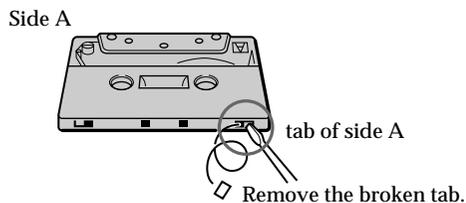
- Any standard cassette can be used, but the optional Sony leaderless cassette DC-60 or DC-90 is recommended. The use of a TYPE II (High position) or TYPE IV (metal) cassette is not advisable.
- Choose a cassette of suitable length. The recording time on each side of these cassettes is as follows:  
Sony DC-60 approx. 30 minutes (4.8 cm/s)  
Sony DC-90 approx. 45 minutes (4.8 cm/s)
- The use of cassettes whose running time is longer than 90 minutes (total time) are not advisable.
- The letter A on the Sony cassette is embossed to help you distinguish that side of the cassette in a dimly lit area.

### To prevent accidental erasure

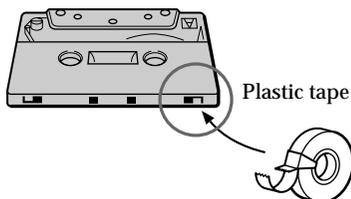
When the unit is operated in the recording mode, any previous recordings will be automatically erased. For this reason, cassettes incorporate a safety device to prevent any accidental erasure. When the small tabs at the rear of a cassette are broken off, an interlock on the unit will be activated, preventing recording.\*

To protect the recording on side A, break off the tab of that side.

To protect the recording on side B, break off the tab of that side.



To reuse a cassette for recording after the tabs have been removed, simply cover each slot with a small piece of plastic tape. Do not stick any material on any other part of the cassette except the circled part, as illustrated below.

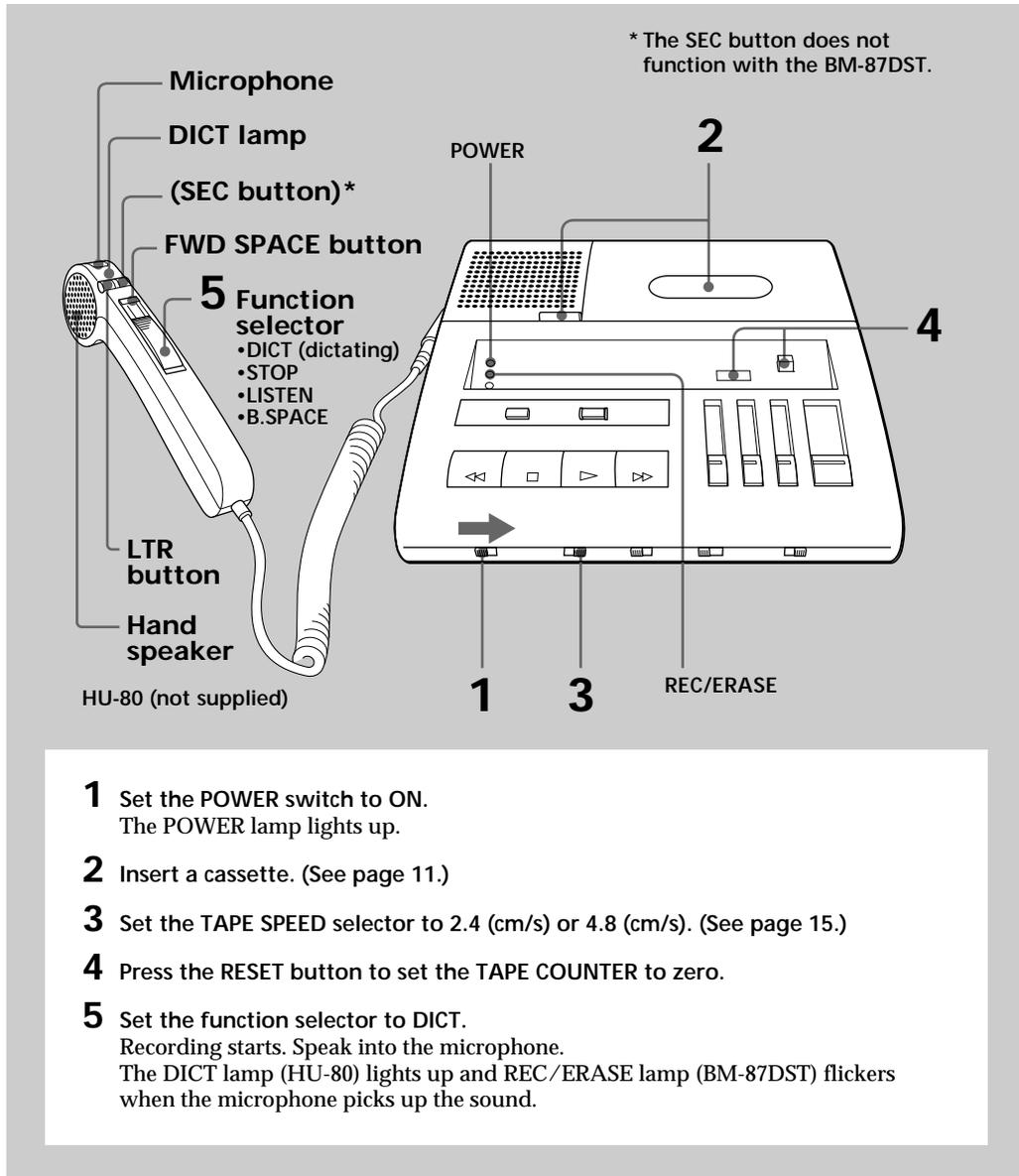


- \* When the cassette is loaded for telephone recording with the tabs broken off and the TEL REC button is pressed, the beep tone is heard and the TEL REC button does not operate. When the cassette is loaded for dictating with the tabs broken off and the function selector is set to DICT, recording cannot be made and the beep tone is heard.

# Dictating

To use the unit as a dictating machine, connect the HU-80 hand control unit (not supplied). For the connection instructions, see page 10.

## Operation



**To stop the tape**  
Set the function selector to STOP.

### Note

Keep the HU-80 away from the BM-87DST during recording.  
If not, noise may be recorded.

## Useful Functions

### ■LTR (letter) signal

You can record electronic index signals on the tape with the HU-80 while the unit is set in the recording (dictating), telephone recording, stop or playback mode.

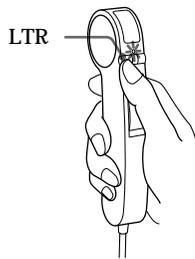
LTR (letter=end of document) signal: Record at the end of each dictated material.

When the Auto stop function (page 18) is activated (AUTO STOP:ON), the tape automatically stops at each index signal when it is rewound or fast forwarded. Dictated material can be located without the user's having to listen to the entire tape.

#### To record the LTR signal

Press the LTR button on the HU-80.

Each time the button is pressed, the LTR INDEX lamp (BM-87DST) lights up for about 3 seconds.

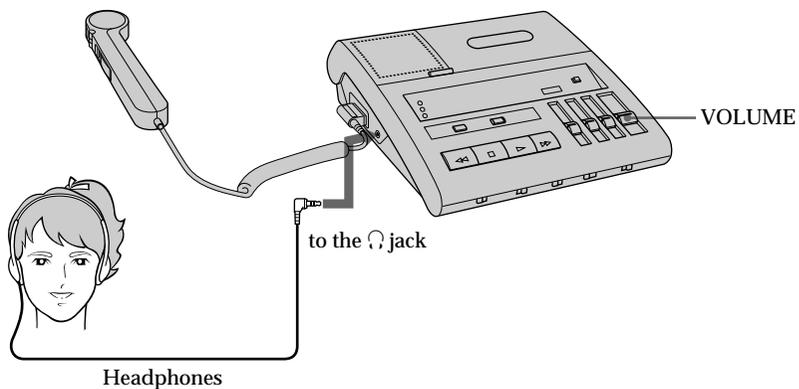


### Notes

- The LTR signal should be recorded with the intervals of more than 6 seconds.
- Playback sound is muted while the LTR signal is recorded. However, the recorded material will be protected.
- While the LTR signal is being recorded with the SPEED CONTROL selector set to ON, the tape will run at the normal tape speed.

### ■Monitoring while dictating

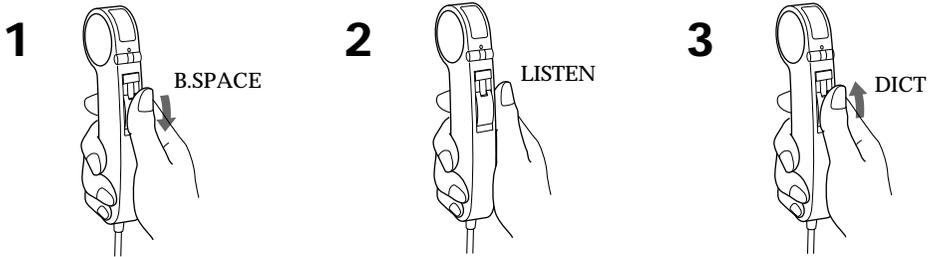
The recording can be monitored through the headphones. Connect the supplied stereo headphones to the  jack located on the left side of the unit. You can hear the sound in stereo through the stereo headphones. The sound is monaural through the built-in speaker. Adjust the VOLUME monitor if necessary.



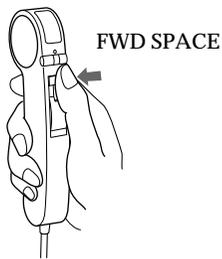
## ■Quick reviewing (playback) and correcting the dictated material

You can easily play back the dictated material and correct it if necessary.

- 1 Keep the function selector of the HU-80 pressed down toward B.SPACE to rewind the tape.
- 2 Release the selector. Playback of the dictating begins.
- 3 When the reviewing is completed, set the function selector to DICT to proceed with the dictating.



To fast forward the tape, keep the FWD SPACE button of the HU-80 pressed until the desired section is located.



## ■Tape speed selector

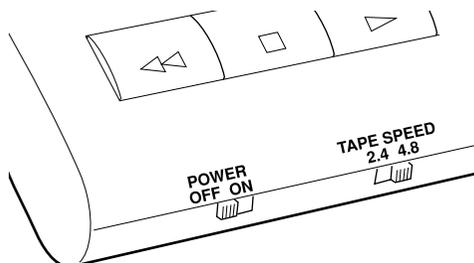
With the TAPE SPEED selector, you can change the length of recording time on a cassette.

When the TAPE SPEED selector is set to 4.8 (centimeters/second), you can record the normal length on a cassette. (i.e. 60 minutes using both sides of a 60-minute cassette.)

When the TAPE SPEED selector is set to 2.4 (centimeters/second), you can record double the normal length on a cassette. (i.e. 120 minutes using both sides of a 60-minute cassette.)

### Note

Tapes recorded in the TAPE SPEED 2.4 position cannot be played properly by a tape recorder without the TAPE SPEED selector function.



## Tips for a More Efficient Dictating

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### Before you start dictating

- Organize your thoughts.
- Make notes or an outline of what you want to dictate.
- Check that the cassette is erased. (See page 21.)

### When you start dictating

- Identify yourself. (Name, department, phone number, etc.)
- Indicate the type of dictating. (Memo, letter, etc.)
- Give transcribing instructions. (Type of stationery, number of copies, envelopes, etc.)
- Specify distribution. (Name, addresses, etc.)

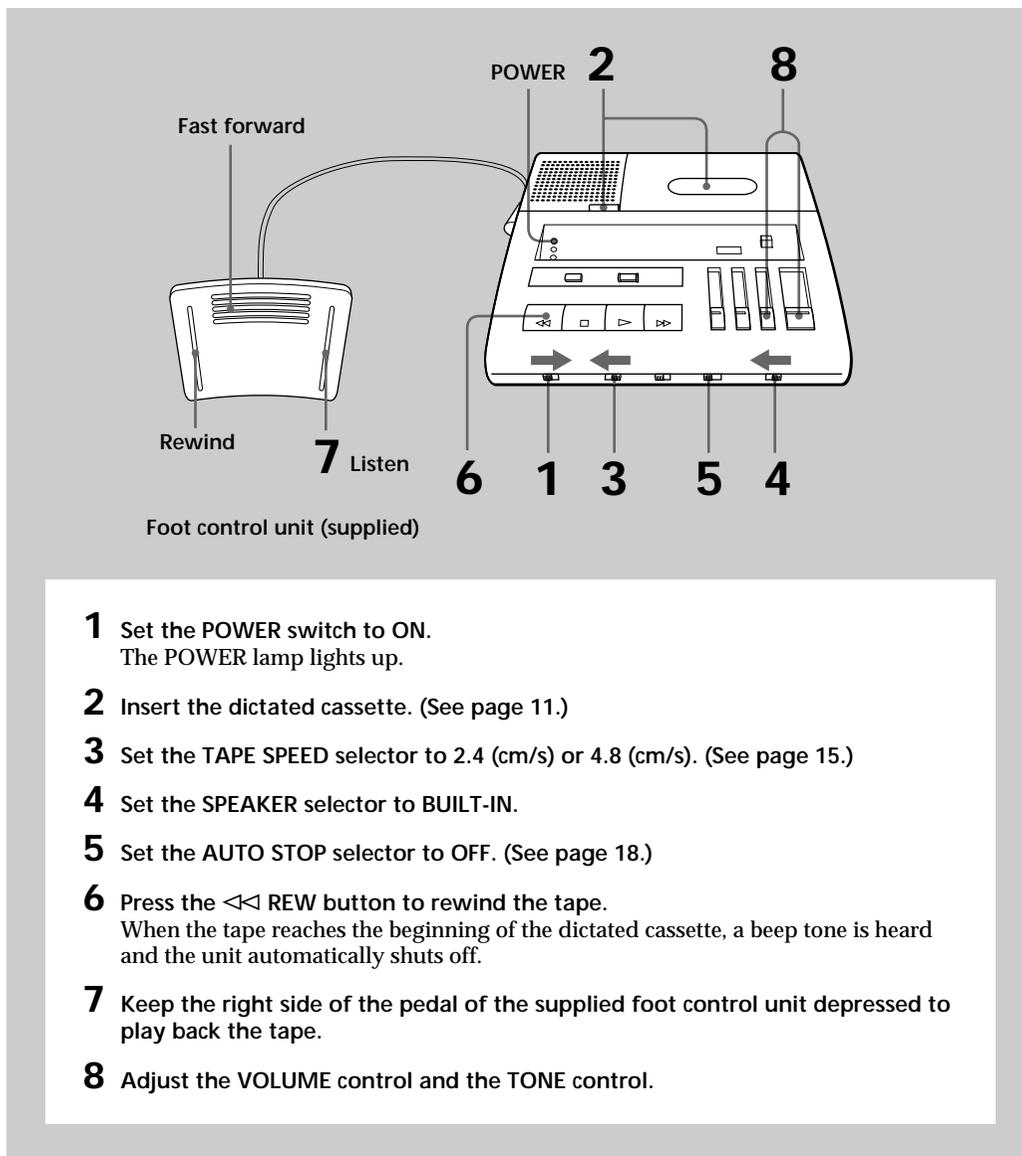
### During dictating

- Relax and speak clearly, at normal speed.
- Short sentences are best.
- Include punctuation.
- Spell difficult or unusual words.
- Correct your mistakes. (Review and redictate.) (See page 15.)
- At the end of each dictated material, record an LTR signal.

# Transcribing

To use the unit as a transcribing machine, connect the supplied foot control unit. For the connection instructions, see page 10.

## Operation



### To stop the tape

Release the pedal of the supplied foot control unit.

### To rewind the tape

Keep the left side of the pedal of the supplied foot control unit depressed.

### To fast forward the tape

Keep the center top of the pedal of the supplied foot control unit depressed.

## Useful Functions

### ■ Auto stop function

With the Auto stop function, recorded documents can be located without the user's having to listen to the entire tape. This function activates only in the rewind or fast forward mode.

When the **AUTO STOP** selector is set to **ON**, the tape automatically stops at each **LTR** signal previously recorded on the tape. (See "LTR signal" on page 14.)

#### Notes

- The tape does not stop at the **LTR** signal even if the **AUTO STOP** selector is set to **ON** while the **FF** button or the **REW** button is continuously depressed.
- When the **AUTO STOP** selector is set to **ON**, the tape automatically stops at each **SEC** signal previously recorded on the tape with the Sony Professional Dictation Machine.

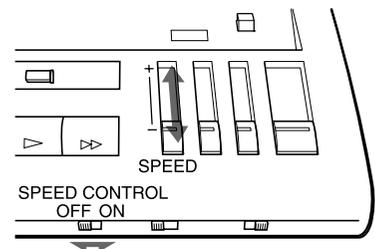
When the **AUTO STOP** selector is set to **OFF**, the tape does not stop even if the electronic index signals have been previously recorded.

#### Notes

- **E-INDEX** signal of the Sony conventional models corresponds to the **LTR** signal of **BM-87DST**.
- **LTR** signal and **E-INDEX** signal do not correspond to the cue signals used for the consumer type tape recorder.
- Set the **AUTO STOP** selector to **OFF** to transcribe either a music cassette or a cassette which has not been recorded with the Sony Professional Dictation Machine, otherwise the tape may automatically stop in the rewind or fast forward mode.

### ■ Controlling the speed

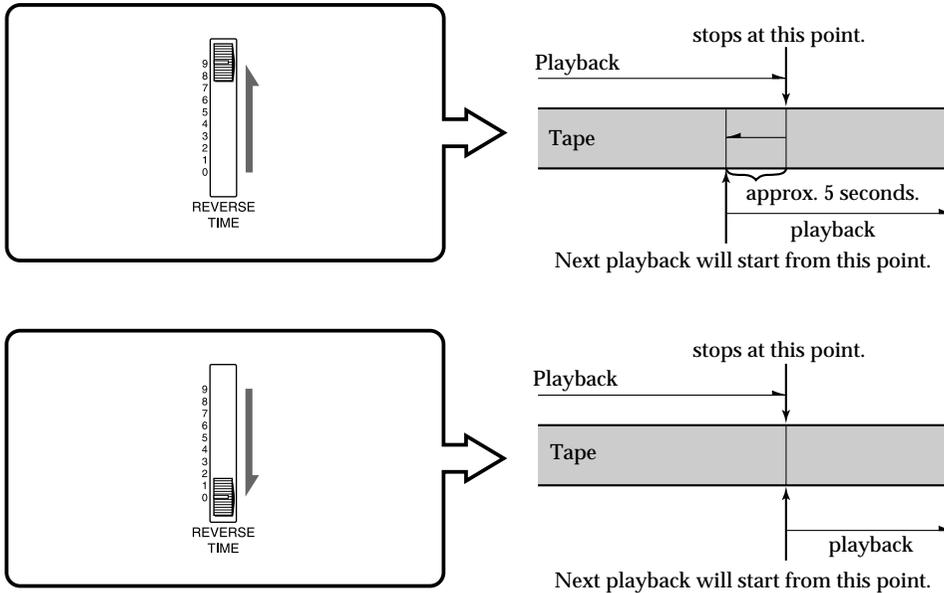
Set the **SPEED CONTROL** selector to **ON** to adjust the tape speed with the **SPEED** control. The tape can be played back at a speed faster or slower than normal. Set the **SPEED CONTROL** selector to **OFF** to transcribe the dictated material at the normal speed.



## ■ Auto backspace function

This function operates only when the supplied foot control unit is connected. With the use of the REVERSE TIME control, the tape is rewound a little each time it is stopped. Then, the last few recorded words can be reviewed when you resume playback. Adjust the REVERSE TIME control to determine the length of the tape to be rewound. At “9” position, the tape is rewound so that the dictated material can be reviewed for approximately 5 seconds\*. At “0” position, the tape stops without being rewound at all.

\* Measured at some point near the middle of the tape. The reverse time will vary in accordance with the remaining length of the tape.



Set the REVERSE TIME control to the desired position and keep the right side of the pedal of the supplied foot control unit depressed to play back the tape.

### Note

The reverse time will be different by a few seconds according to the remaining length or the total time of the tape.

## ■ Tape transport operation

	BM-87DST	HU-80	Supplied foot control unit
Rewind	Press the << REW button.	Keep the function selector pressed down toward B. SPACE.	Keep the left side of the pedal depressed.
Stop	Press the □ STOP button.	Set the function selector to STOP.	Release the pedal.
Listen	Press the ▷ LISTEN button.	Set the function selector to LISTEN.	Keep the right side of the pedal depressed.
Fast forward	Press the ▷▷ FF button.	Keep the FWD SPACE button pressed.	Keep the top center of the pedal depressed.

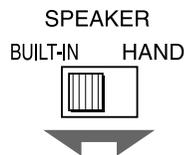
## ■ Private listening

Connect the supplied stereo headphones to the  jack.

The sound will be heard through the stereo headphones and the speaker will be disconnected.

## ■ Selecting the speaker

You can play back the dictated material through the built-in speaker or the speaker on the HU-80 by setting the SPEAKER selector to BUILT-IN or HAND.

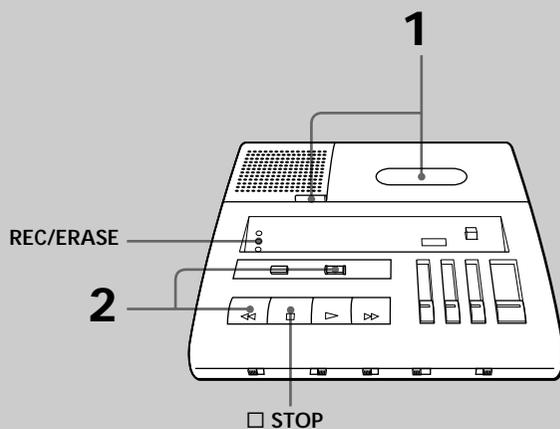


### Tips on Transcribing

- Before typing, check the number of the dictated material and review the contents using the auto stop function.
- Erase the tape when transcribing is finished.

# Erasing

The recording can be erased rapidly.



- 1** Insert the cassette with the side to be erased facing upward.  
Be sure not to rewind the tape after transcribing. The end section of the dictated material to be erased should be positioned at the recording head.
- 2** Keep the ● ERASE button pressed and then press the << REW button.  
The REC/ERASE lamp lights up. The section of the tape being rewound is erased.

To stop the tape  
Press the □ STOP button.

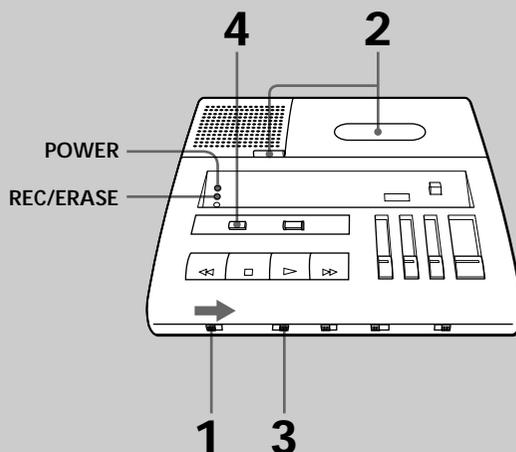
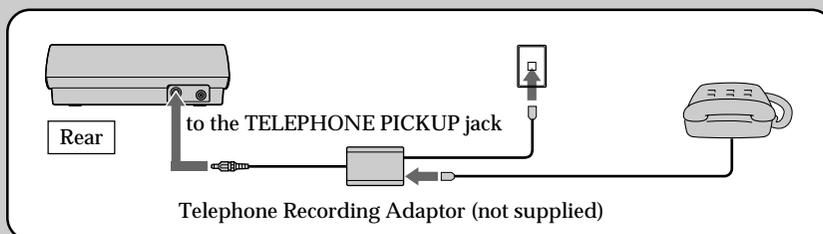
# Alarm System

The alarm system is activated in the following situations.

Alarm system	Situation	To release alarm system
When you press a button, 	<ul style="list-style-type: none"> <li>• No cassette is inserted.</li> <li>• The cassette's safety tabs have been removed.</li> </ul>	First, release the button, then <ul style="list-style-type: none"> <li>• Insert a cassette.</li> <li>• Insert a new cassette or cover the slot.</li> </ul>
When the unit shuts off,  (about 2 seconds)	<ul style="list-style-type: none"> <li>• The end of the tape has been reached.</li> <li>• The tape is torn.</li> </ul>	Rewind the tape.  Insert a new cassette.
When the unit shuts off,  (about 0.5 second)	The LTR signal is detected while the tape is wound rapidly (in the fast forward or rewind mode) when the AUTO STOP selector is set to ON.	The beep tone stops after about 0.5 second.

# Telephone Recording

To record a telephone conversation, connect the telephone recording adaptor (not supplied)\* to the TELEPHONE PICKUP jack. For further details, refer to the instruction manual of the telephone recording adaptor.



- 1** Set the POWER switch to ON.  
The POWER lamp lights up.
- 2** Insert a cassette. (See page 11.)
- 3** Set the TAPE SPEED selector to 2.4 (cm/s) or 4.8 (cm/s). (See page 15.)
- 4** Keep the TEL REC button pressed for more than a second.  
Telephone recording begins. The REC/ERASE lamp flickers when the telephone recording adaptor picks up the sound.

## To stop the tape

Press the  STOP button.

## At the beginning of telephone recording

The LTR signal is automatically recorded.

While the LTR signal is being recorded (for about 3 seconds), the unit cannot be stopped even though the  STOP button is pressed.

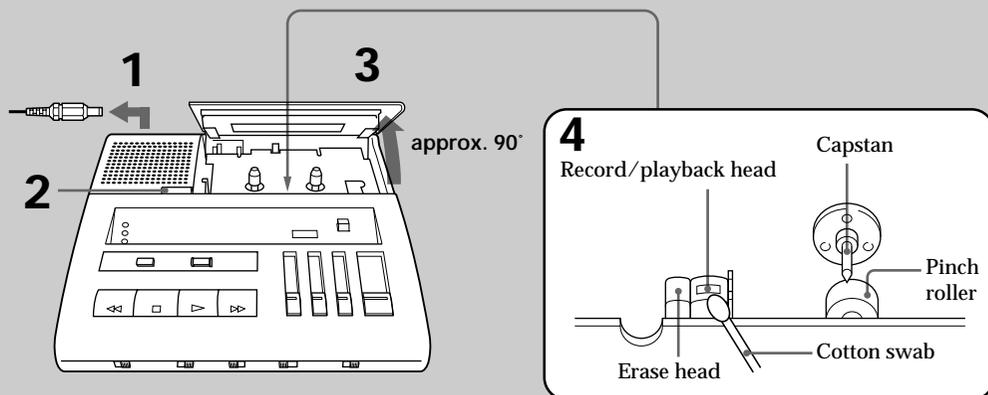
## During telephone recording

Only the LTR button (HU-80) and the  STOP button (BM-87DST) are operative.

# Maintenance

## Cleaning the Heads

To produce optimum sound, clean the tape heads after every 10 hours of use.



- 1** Disconnect the AC power adaptor.
- 2** Press the eject button to open the cassette holder.
- 3** Pull up the lid further to the direction of the arrow.
- 4** Moisten a cotton swab or a soft cloth with alcohol and wipe the parts as shown above.

### ■ Cleaning the cabinet

Clean the cabinet with a soft cloth slightly moistened with a mild detergent solution. Never use strong solvents, such as thinner or benzine, since they may damage the finish.

# Specifications

Recording system	4-track 2-channel monaural (L channel for electronic index signals, R channel for sound signals)
Tapespeed	4.8 cm/s or 2.4 cm/s
Fast winding time	Approx. 2 min. 20 sec. with Sony Cassette DC-90
Frequency response	200 – 8,000 Hz (4.8 cm/s) 200 – 5,000 Hz (2.4 cm/s)
Speaker	Approx. 5.7 cm (2 ¼ in.) dia.
Power output	350 mW (at 10% distortion)
Input	TELEPHONE PICKUP (minijack) Sensitivity 0.2 mV Input impedance 10 kilohms
Output	(headphones) jack (stereo minijack) for 8-300 ohms headphones Approx. 47-ohm
CONTROL UNIT connector	For HAND control unit or FOOT control unit Variable range of the tapespeed From approx. -20% to +50%
Power requirements	9 V DC AC power adaptor 120 V AC, 60 Hz
Power consumption	14 W (with the supplied AC power adaptor)
Dimensions	Approx. 200 × 70 × 245 mm (w × h × d) (7 7/8 × 2 7/8 × 9 3/4 in.) including projecting parts and controls
Mass	Approx. 1.2 kg (2 lb. 11 oz.)
Supplied accessory	AC power adaptor (1) Foot control unit (1) Stereo Headphones (1)

Design and specifications are subject to change without notice.

The BM-87DST cannot be used with the Microcassette adaptor MA-50.

Your dealer may not handle some of the above listed optional accessories. Please ask the dealer for detailed information.

# Troubleshooting Guide

Should any problem occur, conduct the following simple tests to determine whether or not servicing is required. If the problem persists after you have conducted these tests, consult the nearest Sony Dictation Systems dealer.

## The unit does not operate.

- The AC power adaptor is not plugged into a wall outlet.
- The POWER switch is set to OFF.
- Disconnect the AC power adaptor on the dictator and connect it again.

## No sound from the built-in speaker

- The SPEAKER selector is set to HAND.
- The VOLUME control is set in the MIN position.
- (the headphone jack) is plugged in.

## The tape speed is too fast or too slow.

- The SPEED control is set incorrectly.
- The SPEED CONTROL selector is set to ON.
- The TAPE SPEED selector is set to 4.8 (normal recording time) or 2.4 (double recording time).

## The tape stops in the rewind or fast forward mode and the beep tone is heard.

- When the AUTO STOP selector is set to ON,
  - a cassette with electronic index signal recorded is used.
  - either a music cassette or a cassette which was not recorded with the Sony Professional Dictation Machine is used. → Set the AUTO STOP selector to OFF.
- The entire tape has been wound.

## Recording functions (Dict, Erase, Telephone recording, LTR) do not activate.

- The tape is completely rewound.
- The cassette tabs have been removed.

## HU-80 or the supplied foot control unit does not operate.

- The plug is not connected to the CONTROL UNIT connector firmly.
- The BM-87DST is operated with the tape operation button on the BM-87DST. → Press the  STOP button and proceed with the operation on the HU-80 or the supplied foot control unit.

## Sound drop-outs, loss of high frequency sounds, or excessive noise

The heads are dirty. See "Maintenance."

## Erasing is unsatisfactory.

The erase head is dirty. See "Maintenance."