

# Cassette-Corder

Operating Instructions  
<CS>

TCM-23DV/22DV/21DV/20DV

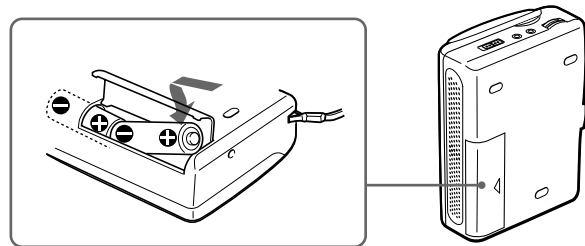
Sony Corporation © 2000 Printed in China



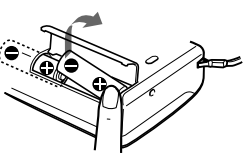
Sony online <http://www.world.sony.com/>

## A

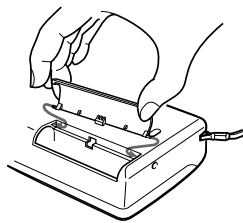
a



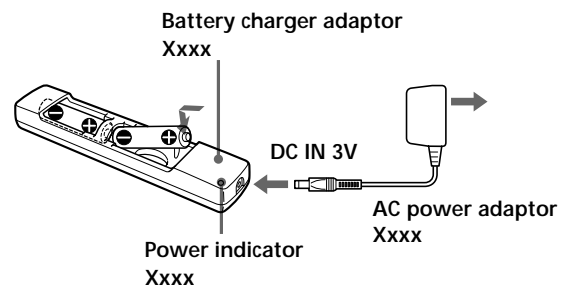
b



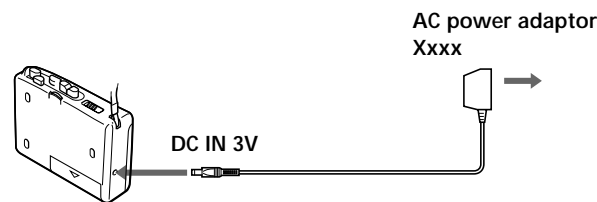
c



d

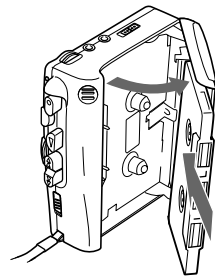


e

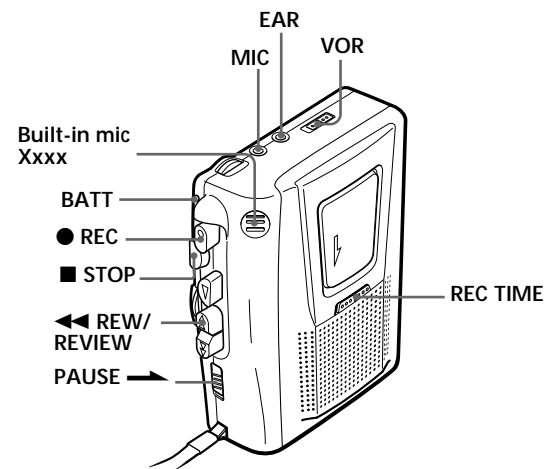


## B

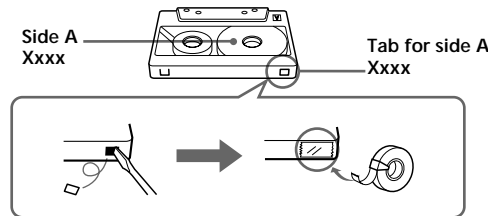
a



b



c



### Welcome !

Thank you for purchasing the Sony Cassette-Corder. This Cassette-Corder is equipped with a REC TIME switch that lets you record double the normal length on any cassette.

#### Note

Tapes recorded with the REC TIME (2.4 cm/s) switch in the DOUBLE position cannot be played properly by a tape recorder without the REC TIME switch function.

### Supplied accessories

The instructions in this manual are for 4 models. The TCM-20DV is the model used for illustration purposes.

TCM-	23DV	22DV	21DV	20DV
AC power adaptor (1)	—	○	—	—
Battery charger adaptor (1)	—	○	—	—
Rechargeable batteries (2) (NC-AA, 1.2V, 700mAh, Ni-Cd)	—	○	—	—
Cassette tape C-90 (1)	—	—	○	—
Battery LR6 (2)	—	—	○	—
Monaural microphone (1)	—	—	○	—
Super-directional microphone (1)	○	—	—	—
Carrying pouch (1)	—	—	○	—
Hand strap (1) (attached to the unit)	○	○	○	○

### Getting Started

#### Preparing a Power Source

Choose one of the following power sources.

#### Dry Batteries (see Fig. A-①)

Make sure that nothing is connected to the DC IN 3V jack.

- 1 Open the battery compartment lid.
- 2 Insert two size R6 (AA) batteries (TCM-21DV: supplied) with correct polarity and close the lid.

#### Notes

- Do not charge a dry battery.
- Do not use a new battery with an old one.
- Do not use different types of batteries.
- When you do not use the unit for a long time, remove the batteries to avoid any damage caused by battery leakage and subsequent corrosion.
- Dry batteries will not be expended when another power source is connected.

#### To take out the batteries (see Fig. A-②)

To attach the battery compartment lid if it is accidentally detached (see Fig. A-③)

#### Rechargeable Batteries (see Fig. A-④) (supplied to TCM-22DV only)

Before using the rechargeable batteries, charge them with the supplied battery charger adaptor and AC power adaptor.

- 1 Insert the rechargeable batteries (NC-AA) into the battery charger adaptor with correct polarity.
- 2 Connect the AC power adaptor (supplied to TCM-22DV) to the DC IN 3V jack of the battery charger adaptor and to the wall outlet. The power indicator lights up.

- 3 Unplug the AC power adaptor from the wall outlet and from the battery charger adaptor after about 8 hours.

#### Notes

- The power indicator lights in green as long as the AC power adaptor is plugged to the wall outlet and the DC IN 3V jack, even when the charging has not been done.
- Use only the supplied or recommended AC power adaptor, battery charger adaptor and rechargeable batteries.
- The rechargeable batteries can be charged approximately 500 times.
- Do not leave the battery charger adaptor plugged in for more than 20 hours. Overcharging may damage the rechargeable batteries.

#### When to replace the batteries (see Fig. B-⑤)

Replace the batteries with new ones or charge the batteries (supplied to TCM-22DV only) when the BATT lamp dims.

#### Notes

- After the batteries have been used for a while, the BATT lamp may flicker with the playback sound when you turn up the volume; however, this does not mean that you need to replace the batteries.
- The unit will play back normally for a while even after the BATT lamp dims. However, replace the batteries as soon as you can. If you do not, subsequent recording will not be done correctly.

#### Battery life (Approx. hours) (EIAJ\*)

	Playback	Recording
Sony alkaline LR6 (SG)	11	11
Sony R6P (SR)	3	3
Sony rechargeable battery (NC-AA) fully charged (TCM-22DV only)	3	3

\* Measured value by the standard of EIAJ (Electronic Industries Association of Japan). (Using a Sony HF series cassette tape and playing back with speakers)

#### Note

The battery life may shorten depending on the operation of the unit.

For maximum performance we recommend that you use alkaline batteries.

#### House Current (see Fig. A-④)

Connect the AC power adaptor to DC IN 3V and to a wall outlet. The AC power adaptor is supplied only with the TCM-22DV. For other models, use the AC-E30HG AC power adaptor (not supplied). Do not use any other AC power adaptor.



#### Note

Specifications for AC-E30HG vary for each area. Check your local voltage and the shape of the plug before purchasing.

### Operating the Unit

#### Recording (see Fig. B-①, ②)

You can record right away with the built-in microphone. Make sure that nothing is connected to the MIC jack.

- 1 Insert a normal (TYPE I) tape with the side to start facing the cassette holder.

- 2 Set REC TIME to the desired mode.  
NORMAL (4.8cm/s): for optimum sound. Recommended for normal recordings.  
DOUBLE (2.4cm/s): for double recording time (for example, 120 minutes using both sides of a 60-minute cassette). Suitable for recording conferences, dictations, etc. Not recommended to record music.

- 3 Set VOR to: H or L to start and pause recording automatically to the sound.  
H (high) to record at meetings or in a quiet and/or spacious place.  
L (low) to record for dictation or in a noisy place.

Set VOR to OFF to start and stop recording manually.

**Note**  
When the sound to be recorded is not loud enough, set the VOR switch to OFF, or the unit may not start recording.

- 4 Press ● REC.  
▶ PLAY is pressed simultaneously and recording starts.

At the end of the tape, recording stops and the unit turns off automatically.

To	Press or slide
Stop recording	■ STOP
Pause recording	PAUSE → in the direction of the arrow To release pause recording, release PAUSE ←*.
Review the portion just recorded	Press and hold ◀◀ REW/REVIEW during recording. Release the button at the point to start.
Take out a cassette	Press ■ STOP and open the cassette compartment lid by hand.

\* PAUSE → will also be automatically released when ■ STOP is pressed (stop-pause-release function).

#### To monitor the sound

Connect an earphone (not supplied) firmly to the EAR jack.

#### Notes

- Do not use a High-position (TYPE II) or metal (TYPE IV) tape, otherwise the sound may be distorted when you play back the tape, or the previous recording may not be erased completely.
- The SPEED CONTROL switch works in the playback mode only. Recording will be made independent of this control.

#### Notes on VOR (Voice Operated Recording)

- When you use the VOR system in a noisy place, the unit will stay in the recording mode. If the sound is too soft, on the contrary, the unit will not start recording. Set VOR to H (high) or L (low) depending on the conditions to pick up necessary sound only.
- The VOR system depends on the environmental conditions. If you cannot get the desired results even though you adjust VOR to H or L, set VOR to OFF.

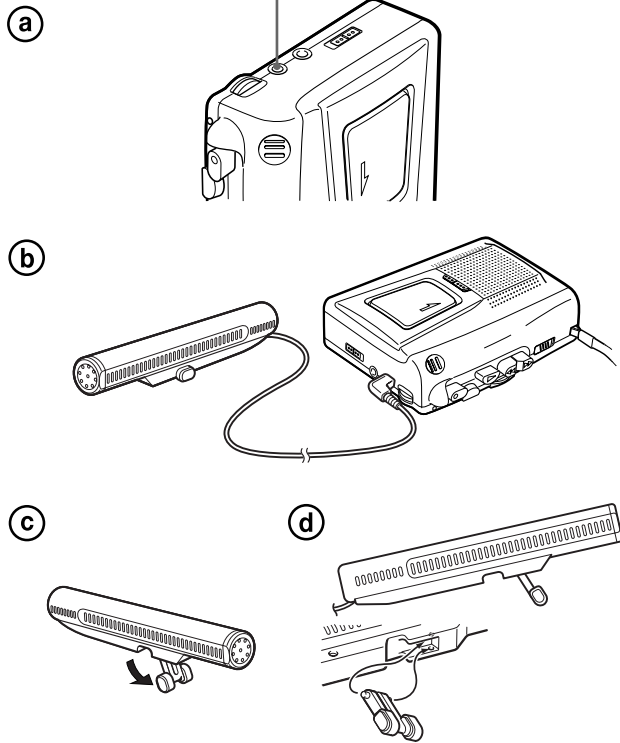
#### To prevent a tape from being accidentally recorded over (see Fig. B-③)

Break off and remove the cassette tabs. To reuse the tape for recording, cover the tab hole with adhesive tape.

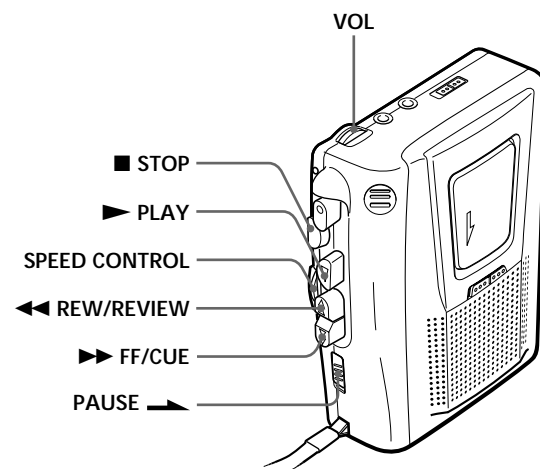
(turn over)

C

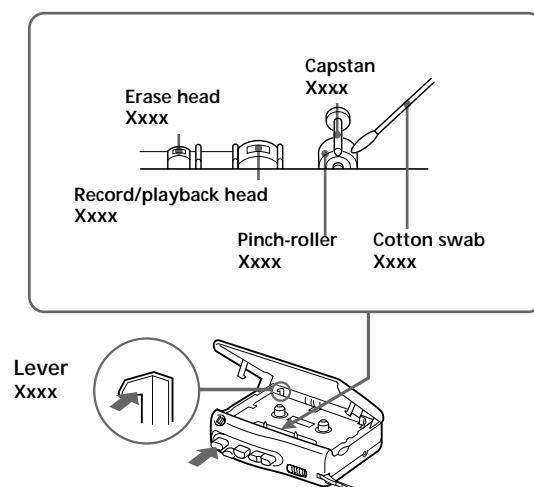
MIC (PLUG IN POWER)



D



E



English

## Recording from Various Sound Sources (see Fig. C)

### Recording with the supplied Microphone (see Fig. C-(a)) (Supplied to TCM-23DV only)

Connect the supplied "Super-directional microphone" (monaural) to the MIC jack and direct the microphone to the sound source.

#### Note

The supplied microphone will pick up noise if it is hand held while recording. Place the microphone on a flat surface.

### To use the stand (see Fig. C-(c))

If the stand gets detached (see Fig. C-(d)) Attach the stand as shown.

### Recording with an External Microphone

Connect a microphone to the MIC jack. The raised bar near the MIC jack identifies as the jack for a microphone not an earphone. For TCM-21DV/23DV: Use the supplied microphone. For other models: Use a microphone of low impedance (less than 3 kilohms) such as ECM-T115 (not supplied). When using a plug-in-power system microphone, the power to the microphone is supplied from this unit.

#### Note

When recording with an external microphone, the VOR system may not work properly due to difference in sensitivity.

### Recording from Another Equipment

Connect another equipment to the MIC jack using the RK-G64HG connecting cord (not supplied).

### Playing a Tape (see Fig. D)

- 1 Insert a cassette with the side to start playing facing the cassette holder.
- 2 Set REC TIME to the same position as that used for recording. To playback commercially sold tapes, select NORMAL.
- 3 Press ► PLAY and then adjust the volume. There is a raised dot beside VOL to show the direction to turn down volume.
- 4 Adjust the tape playback speed. Set SPEED CONTROL to: SLOW (slow) to play back a tape slower. Center position to play back a tape at normal speed. FAST (fast) to play back a tape faster speed.

At the end of the tape, playback stops and the unit turns off automatically.

If you plug in headphones (not supplied) to the EAR jack, you will get monaural output from both left and right channels.

To	Press or slide
Stop playback/stop fast forward or rewind	■ STOP
Pause playback	PAUSE ► in the direction of the arrow To release pause playback, release PAUSE ►*.
Search forward during playback (CUE)	Press and hold ►► FF/CUE and release it at the point you want
Search backward during playback (REVIEW)	Press and hold ◄◄ REW/REVIEW and release it at the point you want
Fast forward**	►► FF/CUE during stop
Rewind**	◄◄ REW/REVIEW during stop
Start recording during playback	● REC
Take out a cassette	Press ■ STOP and open the cassette compartment lid by hand.

\* PAUSE ► will also be automatically released when ■ STOP is pressed (stop-pause-release function).

\*\* If you leave the unit after the tape has been wound or rewind, the batteries will be consumed rapidly. Be sure to depress ■ STOP.

If the tape runs too fast or too slowly, check SPEED CONTROL.

### ► Additional Information

### Precautions

#### On power

- Operate the unit only on 3 V DC. For AC operation, use the AC power adaptor recommended for the unit. Do not use any other type. For battery operation, use two size R6 (AA) batteries.
- The nameplate indicating operating voltage, etc. is located on the bottom of the unit.

#### On the unit

- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Should any solid object or liquid fall into the unit, remove the batteries or disconnect the AC power adaptor, and have the unit checked by qualified personnel before operating it any further.
- Keep personal credit cards using magnetic coding or spring-wound watches etc. away from the unit to prevent possible damage from the magnet used for the speaker.
- If the unit has not been used for a long time, set it in the playback mode to warm it up for a few minutes before inserting a tape.

### On tapes longer than 90 minutes

We do not recommend the use of tapes longer than 90 minutes except for a long continuous recording or playback. They are very thin and tend to be stretched easily.

### On rechargeable battery

Certain countries may regulate disposal of the battery used to power this product. Please consult with your local authority.

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

### Maintenance (see Fig. E)

#### To clean the tape heads and path

Depress ● REC while pushing the lever.

Wipe the heads, pinch roller, and the capstan with a cotton swab moistened with alcohol after every 10 hours of use.

#### To clean the exterior

Use a soft cloth slightly moistened in water. Do not use alcohol, benzine or thinner.

### Troubleshooting

Should any problem persist after you have made these checks, consult your nearest Sony dealer.

#### You cannot press ● REC.

- The tab on the tape has been removed.

#### You cannot press ► PLAY.

- The tape has reached the end. Rewind the tape.

#### The unit does not operate.

- The batteries have been inserted with incorrect polarity.
- The batteries are weak.
- PAUSE ► is slid in the direction of the arrow.
- The AC power adaptor is not firmly connected.
- When trying to run on dry batteries, the AC power adaptor has been left plugged in to the DC IN 3V jack, but not to the power source.

#### No sound comes from the speaker.

- The earphone is plugged in.
- The volume is turned down completely.

#### Tape speed is too fast or too slow in the playback mode.

- Improper setting of the REC TIME switch. Set it to the same speed as that used for recording.
- SPEED CONTROL is set at a point other than the center.

#### The sound drops out or comes with excessive noise.

- The volume is turned down completely.
- The batteries are weak.
- The heads are contaminated. See "Maintenance."

### Recording cannot be made.

- Connection is made incorrectly.
- The batteries are weak.
- The record/playback head is contaminated.
- VOR has been set to the improper position when VOR function works.

### Recording is interrupted.

- VOR is set to H or L. When you do not use VOR, set it to OFF.

### Recording cannot be erased completely.

- The erase head is contaminated.
- Recording or erasing is being made using a High-position (TYPE II) or metal (TYPE IV) tape.

### Specifications

#### Recording system

2-track 1 channel monaural

#### Tape speed

4.8 cm/s or 2.4 cm/s

#### Frequency range

250 - 6,300 Hz using normal (TYPE I) cassette (with REC TIME switch at "NORMAL")

#### Speaker

Approx. 3.6 cm dia.

#### Power output

250 mW (at 10 % harmonic distortion)

#### Input

Microphone input jack (minijack) sensitivity 0.2 mV for 3 kilohms or lower impedance microphone

#### Output

Earphone jack (minijack) for 8 - 300 ohms earphone

#### Variable range of the tape speed

From approx. +30% to -15% (with REC TIME switch at "NORMAL")

#### Power requirements

3 V DC batteries R6 (AA) x 2/  
External DC 3 V power sources

#### Dimensions (w/h/d) (incl. projecting parts and controls)

Approx. 112 × 36.6 × 90.3 mm

#### Mass

Approx. 175 g

Design and specifications are subject to change without notice.

CS