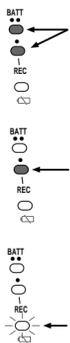


Cassette-Corder

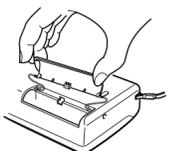
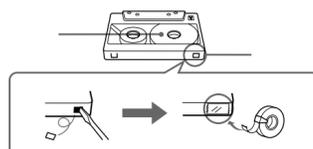
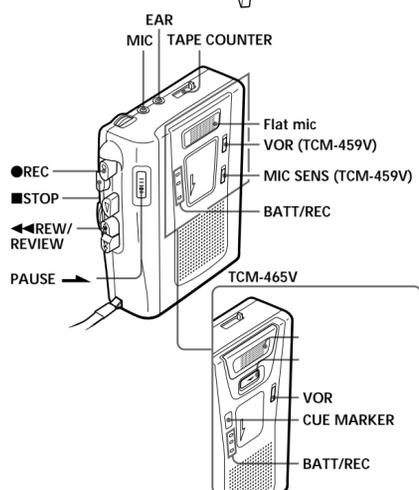
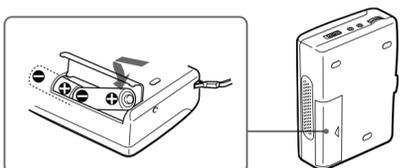
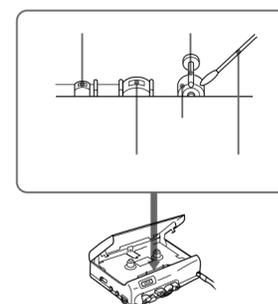
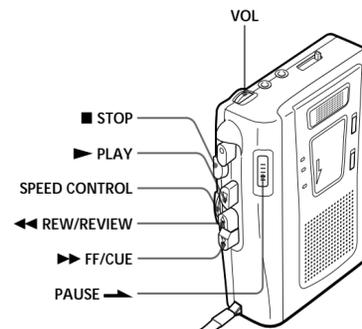
Operating Instructions (reverse side)

TCM-465V/459V/36

Sony Corporation © 1998 Printed in China



MIC (PLUG IN POWER)



Welcome!

Thank you for purchasing the Sony Cassette-Corder. Some features are:

- VOR (Voice Operated Recording) system that starts and stops recording automatically in response to the sound, to save tapes and batteries (TCM-465V/459V only).
- SPEED CONTROL function that lets you increase or decrease the tape playback speed.
- High sensitive flat mic picks up a wide range of sound clearly (TCM-459V/36 only).
- Pop-up microphone system allows you to use the microphone properly by adjusting it to the situation (TCM-465V only).
- When the microphone is in the standing position, it works as an unidirectional microphone and picks up sound coming from the front side clearly.
- When the microphone is at the flat position, it picks up a wide range of sound clearly.
- Cue marker function to mark a desired portion during recording (TCM-465V only)
- Three BATT/REC lamps indicate the remaining battery power in two steps and the  lamp indicates when to replace the batteries.

About This Manual

The instructions in this manual are for TCM-459V, TCM-465V and TCM-36. Before you start reading, check your model number. TCM-459V is the model used for illustration purposes. Any differences in operation are clearly indicated in the text, for example, "TCM-459V only".

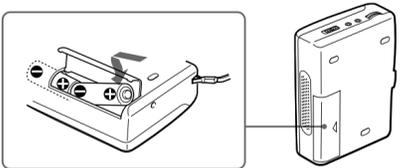
▶ Getting Started

Preparing a Power Source

Choose one of the following power sources.

Dry Batteries

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

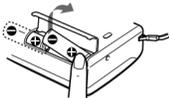


- 1 Open the battery compartment lid.
- 2 Insert two size R6 (AA) batteries (supplied to TCM-36 only) with correct polarity and close the lid.

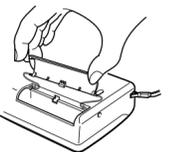
Notes

- 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



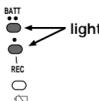
To attach the battery compartment lid if it is accidentally detached



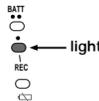
When to replace the batteries

Replace the batteries with new ones when the BATT/REC lamps go off and the  lamp flashes. The BATT/REC lamps change as illustrated:

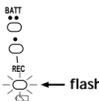
When batteries are new



When batteries become weak



Replace batteries



Notes

- During FF(CUE) or REW(REVIEW), the  lamp may flash. Only when the tape does not run properly, replace the batteries.
- In some cases when the unit is used with rechargeable batteries, only one BATT/REC lamp will light even though the batteries have been fully charged.
- After the batteries have been used for a while, the BATT/REC lamp(s) may flash 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  lamp flashes. However, replace the batteries as soon as you can. If you do not, a loud noise may be emitted by the built-in speaker or subsequent recording will not be done correctly.
- When the tape starts running or at the end of the tape the  lamp may momentarily light. If the lamp goes off, you do not need to replace the batteries.

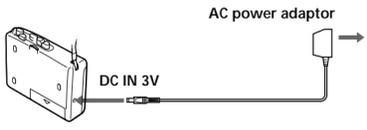
Battery life (Approximate hours)	(EIAJ*)	
	Playback	Recording
Sony alkaline LR6 (SG)	11	11
Sony R6P (SR)	3	3

* Measured value by the standard of EIAJ (Electronic Industries Association of Japan). (Using a Sony HF series cassette tape)

Note

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

House Current



Connect the AC power adaptor to DC IN 3V and to the wall outlet. Use the AC-E30HG AC power adaptor (not supplied). (For TCM-36: For Japan use the AC-E30M, not supplied) Do not use any other AC power adaptor.



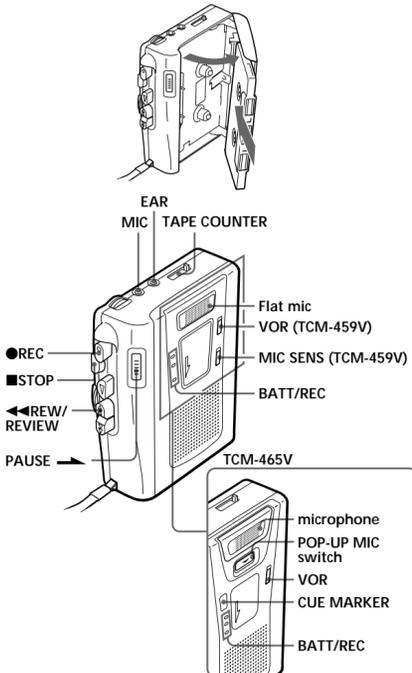
Note

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

▶ Operating the Unit

Recording

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



- 1 Press the counter reset button to reset the tape counter.
- 2 Insert a normal (TYPE I) tape with the side to start recording facing the cassette holder.

3 For TCM-465V/459V:

- 1 Set VOR to:
 - ON to start and pause recording automatically to the sound.
 - OFF to start and stop recording manually.

For TCM-459V:

- 2 Set MIC SENS to select the sensitivity of the microphone to:
 - 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.

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 For TCM-465V:

- To use the microphone in a standing position
 - When you record a lecture or a speech, use the microphone in a standing position.
 - ① Slide the POP-UP MIC switch as illustrated.



- ② Face the microphone toward the sound source.

- To use the microphone without standing it
 - When you want to record a wide range for conversations in a meeting, etc., use the microphone at a flat angle.
 - Place the unit on a hard surface such as a desk with the cassette holder side up so that the flat mic can record effectively.



For TCM-459V/36:

Place the unit on a hard surface such as a desk with the cassette holder side up so that the flat mic can record effectively.

Note

When using the microphone in a standing position, the sensitivity will be higher than the flat mic.

5 Press ● REC.

Recording starts. While the tape runs, the BATT/REC lamp lights and flickers depending on the strength of the sound. 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 playback.

* PAUSE  will be also 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 CrO₂ (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) (TCM-465V/459V only)

- The VOR system depends on the environment conditions. If you cannot get the desired results, set VOR to OFF.
- When using the VOR system, the unit starts recording only when a sound is detected, therefore, the beginning of the word may not be recorded. For an important recording, we recommend setting VOR to OFF.

Locating the Cue Marker Position (TCM-465V only)

Press CUE MARKER during recording. You will hear a buzz at the cue marker position when you press FF/CUE or REW/REVIEW while playing back the tape.

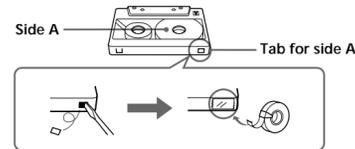
It is convenient to mark at an important part of speech, for example, during an interview to quickly find that portion by pressing FF/CUE or REW/REVIEW while playing back the tape.

Notes

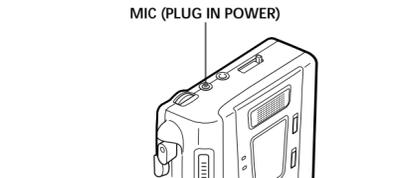
- Cue will not be marked if you press STOP or PAUSE immediately after having pressed CUE MARKER.
- You may hear noise at the cue marker position during playback when you are listening to the recording through a sensitive earphone.

To prevent a tape from being accidentally recorded over

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



Recording from Various Sound Sources



Recording with an External Microphone

Connect a microphone to the MIC jack. The raised dot near the MIC jack identifies as the jack for a microphone, not an earphone. 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.

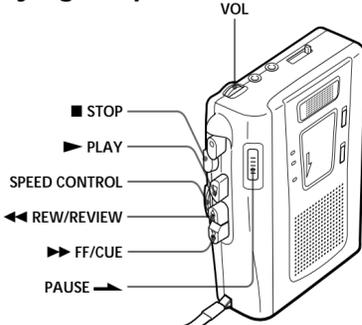
Note

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

Recording from Another Equipment

Connect another equipment to the MIC jack using the RK-G64HG connecting cord (not supplied). (For TCM-36: For Japan use the RK-G64, not supplied)

Playing a Tape



- 1 Insert a cassette with the side to start playing facing the cassette holder.
- 2 Adjust the tape playback speed. Set SPEED CONTROL to: SLOW (slow) to play back a tape slower. Center position to playback a tape at normal speed. FAST (fast) to playback a tape faster.

- 3 Press ► PLAY then adjust the volume. There is a raised dot to show the direction to turn down volume beside VOL.

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

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

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

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

▶ Additional Information

Precautions

On power

- Operate the unit only on 3V 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.

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 and 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.

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

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 or car battery cord is not firmly connected.
 - The batteries have been inserted, but simultaneously the AC power adaptor is connected and not to be done to the wall outlet.

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.

- 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.
 - For TCM-465V: Change the flat mic or pop-up mic.
 - For TCM-459V: MIC SENS has been set to the improper position when VOR function works.

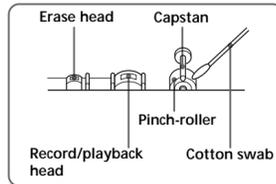
Recording is interrupted.

- For TCM-465V/459V: VOR is set to ON. 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 recorded CrO₂ (TYPE II) or metal (TYPE IV) tape.

Maintenance



To clean the tape heads and path

Wipe the heads, pinch rollers, and the capstans with a cotton swab moistened with alcohol every 10 hours of use.

To clean the exterior

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

Specifications

Recording system
2-track 1 channel monaural
Frequency range
250 - 6,300 Hz
Speaker
Approx. 3.6 cm (1⁷/₁₆ in.) dia.
Power output
300 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 +30% to -15%
Power requirements
• Two size R6 (AA) batteries (supplied to TCM-36 only): 3V DC
DC IN 3 V jack accepts:
• AC-E30M (TCM-36 only) or AC-E30HG AC power adaptor (not supplied) suitable in the country where the unit is to be used.
• Sony DCC-E230 car battery cord (not supplied) for use on 12 V car battery.
Dimensions (w/h/d) (incl. projecting parts and controls)
TCM-465V: Approx. 116 × 91 × 43mm (4⁵/₈ × 3⁵/₈ × 1³/₄ in.)
TCM-459V/36: Approx. 116 × 91 × 38mm (4⁵/₈ × 3⁵/₈ × 1¹/₂ in.)
Mass (not incl. batteries)
TCM-465V: Approx. 200 g (7.1 oz.)
TCM-459V/36: Approx. 195 g (6.9 oz.)
Supplied accessories
R6 (size AA) batteries (2) (TCM-36 only)

Design and specifications are subject to change without notice.