

TCS-2000

Operating Instructions

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

Owner's Record

The model number is located at the bottom, and the serial number is located inside the battery compartment. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. TCS-2000 Serial No. _____

Features

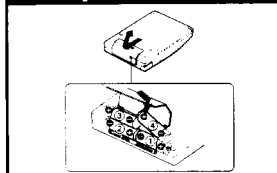
- **Sound scan function** plays back recorded material at approximately 1/4th the time spent for recording, by skipping parts of the contents at certain intervals. This function allows you to quickly check what is recorded on the tape.
- **Cue marker** marks an inaudible cue marker signal at a desired position of the tape during recording. **Auto stop function** quickly locates the cue marker position while playing back.
- **Stereo recording.** Stereo playback is possible with optional stereo headphones.
- **NOISE REDUCTION switch** decreases tape hiss.

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Precautions

- Do not open the casing. Refer servicing to qualified personnel only.
 - Operate the unit only on 6 V DC.
For AC operation, use the AC power adaptor recommended for this unit.
For car battery operation, use the car battery cord recommended for this unit.
 - Disconnect the AC power adaptor from the wall outlet when the unit is not to be used for an extended period of time.
 - Do not place the unit in a location near heat sources such as radiators or airducts, or in a place subject to direct sunlight, excessive dust, moisture, rain, mechanical vibration or shock. Do not leave it in a car with its windows closed.
 - Should any solid object or liquid fall into the unit, remove the batteries and disconnect the AC power adaptor, and have the unit checked by qualified personnel before operating it any further.
 - When the internal batteries are not to be used, remove them to avoid damage caused by battery leakage and corrosion.
 - Since a strong magnet is used for the speaker, metallic objects such as pins, etc. may cling to the unit. Keep personal credit cards using magnetic coding away from the unit to prevent possible damage caused by the magnet.
 - If the unit has not been used for a long time, set it in playback mode for a few minutes before inserting cassette.
- Do not leave the unit in the PAUSE mode or leave the PLAY or REC button depressed with exhausted batteries for a long period of time. Otherwise the unit may be damaged.
- Note on cassettes longer than 90 minutes**
The use of cassettes longer than 90 minutes is not recommended except for long continuous recording or playback.
- If you have any question or problem concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

Battery Installation



Insert four size AA (R6) batteries with correct polarity in the order ①, ②, ③, ④.
Concerning battery life, see "Specifications". To remove batteries, remove them in the order ④, ③, ②, ①.

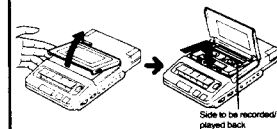
Note: The unit cannot be operated on the internal batteries when an AC power adaptor or a car battery cord is connected.

When the batteries become weak, the REC/BATT indicator will glow faintly. Replace all the batteries.

If the battery compartment lid is removed, replace it as illustrated.

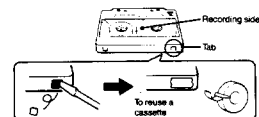
Cassette Insertion

Take up any slack in the tape before inserting a cassette.



To remove the cassette
Stop the tape, open the cassette compartment lid, and press the STOP/EJECT button.

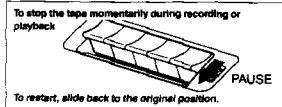
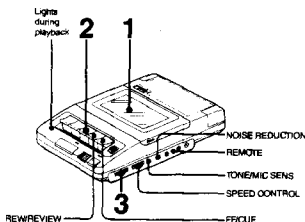
To Prevent Accidental Erasure



Break out the tab corresponding to the side to be recorded on. Recording on that side will be protected.

Playback

The sound heard from the speaker is monaural. Use the optional stereo headphones to listen to the stereo playback sound.



Automatic shut-off mechanism

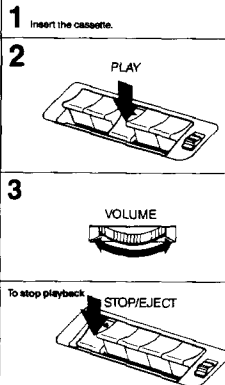
In playback or recording mode, tape stops at the end of the tape and the locked buttons will be released automatically. In fast forward or rewind mode, however, the locked buttons will not be released automatically. Be sure to press STOP/EJECT to release the button.

To locate a desired position

Keep pressing FFCUE or REW/REVIEW during playback. Release the button at the desired position.

To rapidly advance or rewind the tape

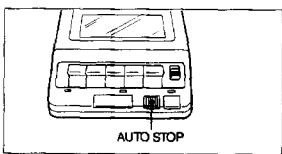
Stop the tape and depress FFCUE or REW/REVIEW. Press STOP/EJECT at the tape end.



To adjust the playback speed
Turn SPEED CONTROL toward FAST to speed up or SLC speed down. (SPEED CONTROL does not function during recording or sound scanning.) Normally set SPEED CONTROL to the center position.

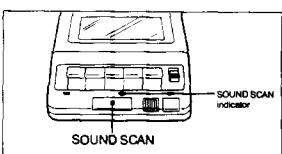
For clearer playback sound
Set TONE/MIC SENS to HI to enhance high frequencies. Set it to LOW to attenuate them.

For remote stop/start operation during recording or playback
Connect an optional remote control unit to REMOTE.

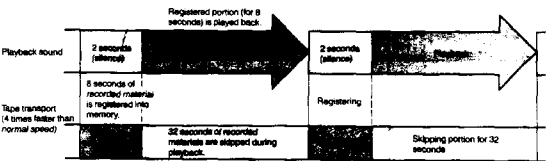


- 1 Playback the tape with the cue markers.
- 2 Set AUTO STOP to ON.
- 3 Keep pressing FFCUE or REW/REVIEW. At the cue position, a beep tone is heard and the tape stops automatically. (The beep tone may not be heard if the cue is very low.)
- 4 Release FFCUE or REW/REVIEW to start playback.

Notes
• The beep tone (cue marker signal) is not heard during normal playback.
• With a tape on which very low frequency sounds are recorded, tape may stop at an unexpected position.



Press SOUND SCAN during playback. The SOUND SCAN indicator lights, and the tape is transported 4 times faster than the normal speed.



When SOUND SCAN is pressed
In about 2 seconds, 8 seconds of recorded material will be registered in the built-in memory. (Nothing is heard during this period.) Then the registered sound will be played back for 8 seconds. During these 8 seconds, 32 seconds of recording will be skipped. These steps will be repeated, allowing you to check roughly the contents of the tape in about 1/4th of the time spent for recording.

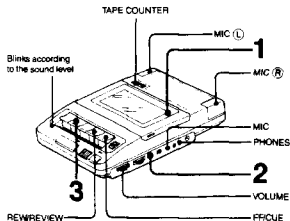
To stop scanning, press SOUND SCAN, FFCUE, or REW/REVIEW. The unit returns to a normal playback.

Note: The sound is monaural during sound scanning, and the quality may differ from the normal playback sound.

Recording

Use only normal (TYPE I) tapes for recording. No recording level adjustment is necessary. The VOLUME control does not affect the recording level.

* The built-in microphones are automatically disconnected when the plug of a connecting cord or an external microphone is connected to MIC.



Monitoring the recording

Connect the optional stereo headphones to PHONES. You can adjust the sound volume to be monitored, but this does not affect the recording level.

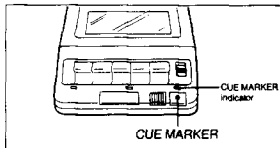
Note: Be sure not to set VOLUME too high when monitoring through the headphones, otherwise a howling effect (acoustic feedback) may occur. Turn down VOLUME when disconnecting headphones.

Recording with an external microphone

Connect an external microphone to MIC. When a microphone when PLUG IN POWER system is connected, power is supplied to the microphone from this recorder. TONE/MIC SENS is not effective for an external microphone.

To review the recorded material quickly (one-touch review)

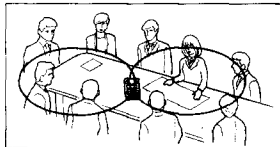
During recording, press REWREVIEW. The REC button is released and tape will be rewound as long as REWREVIEW is pressed. Release REWREVIEW and tape will be played back from this point.



During recording, press CUE MARKER at the position you to listen to later. The CUE MARKER indicator lights up, a cue marker is recorded.

Notes on the cue marker

- You can record as many cue markers as you want.
- If you press STOP immediately after pressing CUE MARKER, marker is not recorded.
- After pressing CUE MARKER, wait until the indicator goes out continuing to record.



The built-in microphones pick up sounds from the disc approximately indicated in the illustration. For the best recording, place the unit at the center of the table.

The sound picked up from the L microphone is recorded left channel, and the sound picked up from the R microphone on the right channel.

INFORMATION

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception.

It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause 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

- 1 Insert a cassette.
- 2 To record sound away from the microphone: Set to HI. To record relatively loud sounds close to the microphone: Set to LOW.
- 3 The PLAY button is depressed automatically. To stop recording: STOP/EJECT.

To edit the recording instantly (instant edit)

During playback simply press REC and the unit changes recording mode.

For clearer playback sound

Set NOISE REDUCT ON to ON when recording. Tape is reduced. Set NOISE REDUCT to ON when playing a tape recorded with this switch set to ON.

For indexing the tape contents

Use the TAPE COUNTER. Press the reset button to set counter to "000". The figure on the counter increases during playback, recording and fast-forwarding, and decreases rewinding.

by one or more of the following measures:

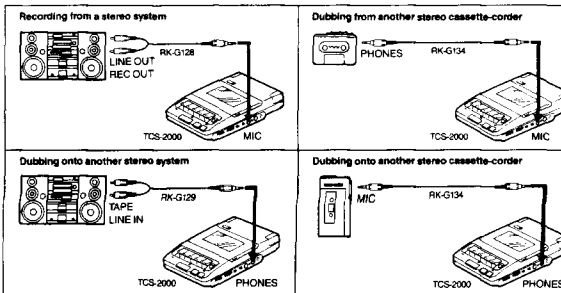
- Reorient the receiving antenna.
- Relocate the equipment with respect to the race.
- Move the equipment away from the receiver.
- Plug the equipment into a different outlet so that equipment and receiver are on different branch.

If necessary, the user should consult the dealer or experienced radio/television technician for additional suggestions. The user may find the following book prepared by the Federal Communications Commission helpful:

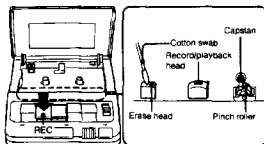
"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20540. Stock No. 004-000-00346-4.

Recording from Various Sound Sources

If your stereo system, etc., is not a Sony product, refer to the instruction manual of that equipment.



Maintenance



Cleaning the Heads and the Tape Path
Prolonged use may contaminate the tape heads and the tape path. Contamination causes insufficient recording or sound drop-outs playback. Clean the tape heads and the tape path after every 10 hours of use to enjoy optimum sound. Most cotton swab or a soft cloth with alcohol, and gently wipe the parts shown in the illustration.

After cleaning, press STOP/EJECT to release REC and PL

Cleaning the Case

Clean the case with a soft cloth slightly moistened with water. Do not use alcohol, benzine or thinner as they may mar the finish.

Cleaning the Headphone Plug

Keep the plug of your headphone clean to obtain the optimum sound. Wipe it with a dry, soft cloth.

Troubleshooting Guide

Troubles	Causes
Cassette cannot be inserted.	<ul style="list-style-type: none"> Cassette is being inserted improperly. PLAY is depressed.
Tape does not move.	<ul style="list-style-type: none"> Incorrect polarity of batteries or weak batteries. The unit is in the Pause mode. Battery operation is attempted while the AC power adaptor or the car battery cord is connected to the recorder not to the wall outlet or the car battery.
PLAY cannot be depressed.	<ul style="list-style-type: none"> Tape is completely wound.
REC cannot be depressed.	<ul style="list-style-type: none"> No cassette in the cassette compartment. The cassette inserted has the tape removed.
No sound from the speaker.	<ul style="list-style-type: none"> The headphones are plugged in. The volume control is turned down completely.
Playback speed too fast or too slow.	<ul style="list-style-type: none"> SPEED CONTROL is turned to FAST or SLOW.
Weak or distorted sound, sound drop-outs, or excessive noise.	<ul style="list-style-type: none"> Weak batteries. Dirty heads, capstan, or pinch roller.

Specifications

Recording system	4-track 2-channel stereo	Dimensions	Approx. 131 × 42.2 × 202.8mm (width) (5 1/8 × 1 1/4 × 8 inches)
Speaker	Approx. 6.6cm (2 1/8 inches) × 3.8cm (1 1/2 inches)	Weight	incl. projecting parts and controls Approx. 700g (1 lb 9 oz) incl. batteries not incl. other accessories
Frequency response	100-12,000 Hz	Supplied accessory	Carrying case (N)
Input	Microphone input jack (PLUG IN POWER) (stereo microphone) sensitivity 0.3mV (-88dB) for 3 kilohms or lower impedance microphone Headphones output jack (stereo, mono jack) load impedance 8 to 300 ohms	Optional accessories	AC power adaptor AC-DAM Car battery cord DCC-127A Electric condenser stereo microphone ECM-200 Stereo headphones MDR-A1DL Head demagnetizer HE-SC Head cleaner HCS-31 Foot switch FSS-10A
Output	Headphones: 6mW ± 5mW (16 ohms, at 10% harmonic distortion) Speaker: 230mW (at 10% harmonic distortion) by DC, four size AA (R6) batteries DC IN (6V) jack accepts optional Sony AC-DAM AC power adaptor for use on 100V AC, 60Hz optional Sony DCC-127A car battery cord for use on 12V car battery	<p>Your dealer may not handle some of the above listed optional accessories. Please ask the dealer for detailed information about the optional accessories available in your country.</p> <p>Design and specifications subject to change without notice.</p>	
Power output		Note:	Use only the recommended AC power adaptor or car battery manufactured by Sony. Polarity of the plugs of other manufacturer may be different.
Power requirements			
Battery life (hours)			
Batteries	Recording	Playback (speaker)	Playback (headphones)
Sony alkaline battery AM3(N)	Approx. 5	Approx. 5	Approx. 5.5

For maximum performance, we recommend the use of alkaline batteries.

