3-864-773-11(1)

SONY

Stereo Cassette Deck

Operating Instructions

TC-SD1

©1998 by Sony Corporation

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.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

IMPORTANT: Never connect two mains leads into a single mains plug.

- For TC-SD1 -

The mains lead plug of TC-SD1 is a 2-pin type designed to be connected only to CMT-SD1, CMT-SD3 or MDS-SD1.

Do not connect this plug to any other system or mains supply.

This system is equipped with the Dolby* B-type and C-type noise reduction system.

 * Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
 "DOLBY" and the double-D symbol D are trademarks of Dolby Laboratories Licensing Corporation.



АЯ46

The TC-SD1 tape deck is designed only for the CMT-SD1/SD3 and MDS-SD1 component system

Here are some of the features you can use with this tape deck when connected with the CMT-SD1/SD3 compact Hi-Fi component system (see page 4).

The MDS-SD1 is also available (see page 4). Refer to "Recording manually" (page 9) to record from an MD to a tape, and refer to "Recording on an MD manually" (in the MDS-SD1 Operating Instructions) to record from a tape to an MD.

Auto Power On/Off

The tape deck power is tied with the CMT-SD1/SD3 component system (see page 6).

CD Synchro Recording

You can easily record a CD onto a tape (see page 8).

Automatic Source Selection

You can switch from another source to the tape deck and start playing a tape just by pressing \triangleright or \triangleleft on the tape deck (see page 7).

Timer

You can wake up to music or record a radio programme at a preset time. For details, refer to "Falling asleep to music" and "Waking up to music" in the CMT-SD1/SD3 component system Operating Instructions, and "Timer recording radio programmes" on page 11.

Remote Control

You can operate the tape deck using the remote supplied with the CMT-SD1/SD3.

Table of Contents

Getting Started

Hooking up the system 4

Operations

Playing a tape	6
Recording a CD	8
Recording manually	9
Timer recording radio programmes 1	1

Additional Information

Precautions	13
Troubleshooting	15
Specifications Back cov	/er

Hooking up the system

Complete steps 1 through 3 (1 through 4 for CMT-SD3) to hook up your system using the supplied cords.

The front panel is made of tempered glass. Please remember to handle this unit carefully.



For the customers using the MDS-SD1 already

Hook up your system as follows. To hook up the MDS-SD1 with CMT-SD1/SD3, refer to the MDS-SD1 Operating Instructions.

TC-SD1



Firmly connect the system cable to the SYSTEM CONTROL jack on the CMT-SD1/SD3.

When using the MDS-SD1, connect to the SYSTEM CONTROL jack on the MDS-SD1.



Note

The system cable is used for exchanging signals between the tape deck and the CMT-SD1/SD3 (or MDS-SD1). If you do not connect the cord firmly, the tape deck may not operate correctly.

2 Connect **C** to **C**, and **D** to **D** using the audio connecting cords. Insert the plugs into jacks of the same colour.



- C The sound signals of the CD, MD and TUNER flow through the CMT-SD1/SD3 (and MDS-SD1) to the tape deck when you record onto a tape.
- (D) The sound signal of the tape deck flows to the CMT-SD1/SD3 when you play a tape.

How to insert the plugs

Insert the plugs firmly into the jacks.



- **3** For CMT-SD3, reconnect the Mains lead of the super woofer to the unswitched AC OUTLET on the TC-SD1.
- 4 Connect the Mains lead of the TC- SD1 to the AC OUTLET on the CMT-SD1/SD3.

When using the MDS-SD1, connect to the AC OUTLET on the MDS-SD1.

5 Connect the Mains lead of the CMT-SD1/SD3 to a mains after you complete all the connections.

If there is no sound or the tape does not record at the first operation

Make sure the plugs are inserted into the jacks firmly.

- If the plugs are not inserted into the **C** jacks firmly, you may not be able to record the sound of the CD, MD and TUNER onto a tape.
- If the plugs are not inserted into the D jacks firmly, you may not be able to listen to the sound of the tape deck.

The plugs of the audio connecting cords may be tight. Insert the plugs at the point shown in "How to insert the plugs" in step 2.

: signal flow

Playing a tape

You can use any type of tape, TYPE I (normal), TYPE II (CrO₂) or TYPE IV (metal), since the tape deck automatically detects the tape type (ATS^{1}).

¹⁾ ATS: Automatic Tape Selection.



The remote supplied with the CMT-SD1/SD3



²⁾ This tape deck is able to switch between Dolby Btype and C-type noise reduction systems.

- Press I/⁽¹⁾ on the CMT-SD1/SD3 to turn on the CMT-SD1/SD3 component system. The tape deck turns on automatically.
- 2 Press ≙ on the tape deck to open the cassette tray and insert a recorded tape.

Press \triangleq again to close the cassette tray.



3 Set DIRECTION to
 to play one side, → to play both sides once, and →³ to play both sides continuously.

4 Press \triangleright .

Press ⊲ to play the bottom side. The function switches to "TAPE" automatically, then the tape starts playing.

³⁾ The tape deck stops automatically after repeating the sequence five times.

To play a tape using the CMT-SD1/SD3 component system

Do the following operations in step 4;

- **1** Press FUNCTION until "TAPE" appears in the display.
- 2 Press TAPE → on the remote. To play the bottom side, press TAPE → again on the remote.

Other operations

То	Press
Stop playing	□ (or ■ *).
Pause	□□ (or ■■*). Press again to resume playing.
Fast-forward	□, then \blacktriangleright (or \blacktriangleright) for the top side. □, then \blacktriangleleft (or \blacktriangleleft) for the bottom side.
Rewind	□, then ◀◀ (or ◀◀*) for the top side. □, then ►► (or ►►*) for the bottom side.
Find the succeeding track (AMS**)	 ♦ (or ▶▶*) for the top side. ◄ (or ◄◄*) for the bottom side.
Find the preceding track (AMS**)	 (or ◄◄*) for the top side. (or ►►*) for the bottom side.
Remove the cassette	rightarrow on the tape deck.
Adjust the volume	Turn VOLUME on the CMT-SD1/SD3 (or VOL \oplus / \bigcirc^*).

* Use the remote supplied with the CMT-SD1/SD3.

**The Automatic Music Sensor (AMS) feature detects a blank space of more than four seconds between tracks to locate tracks quickly.

Tips

- When you press I/⁽¹/₂) on the tape deck while the CMT-SD1/SD3 is power on, only the tape deck turns on/off. Press I/⁽¹/₂) on the CMT-SD1/SD3 to turn on the CMT-SD1/SD3 component system.
- The TAPE indicator lights up in red when a cassette is inserted and goes off when no cassette is inserted.
- You can switch from another source to the tape deck just by pressing ▷ or << (Automatic Source Selection).
- To start playing automatically from the beginning of the tape after fast winding (Auto Play), press
 ▷ while holding down ◄◄ (for the top side) or press <
 > while holding down ►> (for the bottom side).
- When listening to tapes recorded in Dolby NR, set DOLBY NR to "B" or "C".
- Using the timer function on the CMT-SD1/SD3, you can wake up to music at a preset time. For details, refer to "Wake up to music" in the CMT-SD1/SD3 component system Operating Instructions. When you set the Wake-up timer, DOLBY NR must be set on the tape deck.

Note

The AMS feature may not work in the following cases:

- the blank space between tracks is four seconds or less.
- the sound source recorded on the right channel is different from that on the left channel as with a KARAOKE tape.
- low volume or low sound continues for a long time.
- the TV is too close to the tape deck.

Recording a CD

— CD Synchro Recording

The CD SYNC button lets you record from a CD to a tape easily. You can use TYPE I (normal), TYPE II (CrO₂), or TYPE IV (metal) tape, since the tape deck automatically detects the tape type.



The remote supplied with the CMT-SD1/SD3



* This tape deck is able to switch between Dolby Btype and C-type noise reduction systems.

 Press I/⁽¹⁾ on the CMT-SD1/SD3 to turn on the CMT-SD1/SD3 component system. The tape deck turns on automatically. 2 Press ≙ on the tape deck to open the cassette tray and insert a blank tape. Press ≙ again to close the cassette tray.



- **3** Place a CD on the disc tray of the CMT-SD1/SD3.
- 4 Set DIRECTION to
 to record on one side, → to record on both sides once.
- 5 Press REC LEVEL lightly to release, and turn to set the recording level. REC LEVEL position around 4 sets the general recording level for most CDs. To set a specific recording level for the CD you are recording, see "Recording Manually" on page 9.
- 6 Press CD SYNC on the tape deck. The tape deck stands by for recording and the CMT-SD1/SD3 stands by for playback. The indicators on the CD SYNC, ●REC, ▷ (for the top side) and II buttons light up.

If you want to record starting from the bottom side, press \triangleleft (for the bottom side) so the indicator on the \triangleleft button lights up.

7 Press II on the tape deck. Recording starts.

To stop recording

Press \Box on the tape deck or \blacksquare on the remote.

Tips

- When you press I/\bigcirc on the tape deck while the CMT-SD1/SD3 is power on, only the tape deck turns on/off. Press I/\bigcirc on the CMT-SD1/SD3 to turn on the CMT-SD1/SD3 component system.
- The TAPE indicator lights up in red when a cassette is inserted and goes off when no cassette is inserted.
- When you want to reduce the hiss noise in low-level high-frequency signals, set DOLBY NR to "B" or "C" before step 5. Switching DOLBY NR while recording will cause the newly recorded sound to differ in quality from the previously recorded sound.
- If the tape reaches the end of the top side during both sides recording, the fadeout feature prevents the track from ending abruptly at the end of the tape (Fade Synchro). The track is recorded again from the beginning of the bottom side.
- The fadeout feature also works when you record on one side only.
- When you want to record onto both tape and MD at one time, use CD synchro recording on the tape deck, and manual recording on the MD. You cannot use CD synchro recording on both units simultaneously. This tape deck's fadeout feature (Fade Synchro) will cause a track to be recorded twice on the MD. After recording is completed, use the MD's editing functions to erase this extra track.

Notes

- · You cannot listen to other sources while recording.
- When you record on both sides, be sure to start from the top side. If you start from the bottom side, recording stops at the end of the bottom side.

Recording manually

With manual recording, you can record just the songs you like from a CD, or start recording from the middle of the tape. You can also record a radio programme or MD.



The remote supplied with the CMT-SD1/SD3



- * This tape deck is able to switch between Dolby Btype and C-type noise reduction systems.
- Press I/^{(⊥}) on the CMT-SD1/SD3 to turn on the CMT-SD1/SD3 component system.

The tape deck turns on automatically.

continued

2 Press ≙ on the tape deck to open the cassette tray and insert a blank tape. Press ≙ again to close the cassette tray.



3 Press FUNCTION on the CMT-SD1/SD3 until the source you want to record (such as "TUNER" or "AUX*") appears in the display.

> When recording from CD or MD, select the track you wish to record and pause playback.

When recording off the radio, tune in the preset station.

* Select to record the audio output of the component connected to the CMT-SD1/SD3 AUX jacks.

For details, refer to "Optional A/V components" in the CMT-SD1/SD3 component system Operating Instructions.

4 Set DIRECTION to to record on one side, → to record on both sides once.

5 Press ●REC on the tape deck. The tape deck stands by for recording. The indicators on the ●REC and ▷ (for the top side) buttons light up. If you want to record starting from the bottom side, press ⊲ (for the bottom side) so the indicator on the ⊲ button lights up.

- **6** Start playback on the component you want to record.
- 7 Press REC LEVEL lightly to release, and turn to set the recording level. The level indicator reads the current recording level.

Adjust as the 0 (zero) indicator lights up



- **8** Once you have set the recording level, stop playback on the source component.
- **9** Press II on the tape deck. Recording starts.

10Start playing on the source component.

То	Press
Stop recording	\Box (or \blacksquare on the remote)
Pause recording	□□ (or ■ on the remote)

Tips

- The TAPE indicator lights up in red when a cassette is inserted and goes off when no cassette is inserted.
- When you want to reduce the hiss noise in low-level high-frequency signals, set DOLBY NR to "B" or "C" before step 5. Switching DOLBY NR while recording will cause the newly recorded sound to differ in quality from the previously recorded sound.
- Using the timer function on the CMT-SD1/SD3, you can record radio programmes at a preset time.
 For details, refer to "Timer recording radio programmes" on this page. When you set the timer recording, DOLBY NR, REC LEVEL and DIRECTION mode must be set on the tape deck.

Timer recording radio programmes

To timer record, you must first preset the radio station and set the clock on the CMT-SD1/SD3 (refer to the CMT-SD1/SD3 component system Operating Instructions).

The remote supplied with the CMT-SD1/SD3



- **1** Tune in the preset radio station (refer to the CMT-SD1/SD3 component system Operating Instructions).
- **2** Press TIMER SET.
- **3** Press +/- repeatedly until "REC TIMER?" appears, then press ENTER.

The hour indication flashes.

continued

Timer recording radio programmes (continued)

4 Set the time to start recording. Press +/- to set the hour, then press ENTER.

The minute indication flashes.



Press +/- to set the minute, then press ENTER.

The hour indication flashes again.

- 5 Set the time to stop recording following the procedure in step 4. If the stop time is same as the start time, "OFF TIME NG!" appears and the display returns to set the stop time. Set the time to stop recording again.
- 6 Press +/- repeatedly until "TUNER to TAPE" appears, then press ENTER.

The start time appears, followed by the stop time, preset number and "TAPE", then the original display appears. "REC" in the display and the timer indicator light up.

When "CONNECTION" appears

The system cable is not connected correctly. Turn off the power, connect the components correctly, and turn on the power again. Then start over from step 1. 7 Press ≙ on the tape deck to open the cassette tray and insert a blank tape. Press ≙ again to close the cassette tray.



8 Press I/() on the CMT-SD1/SD3 to turn off the system.

The tape deck is now ready for the timer recording. The power turns on automatically at the start time, the recorging starts, then the power turns off at the stop time.

To cancel timer recording

Press TIMER SET.

To change the setting

Start again from step 1.

To check the setting / To use the timer

Press TIMER SELECT repeatedly until "REC" appears. The start time appears, followed by the stop time, the preset number, and "TAPE", then the original display appears. Press I/\odot on the CMT-SD1/SD3 to turn off the system. The tape deck stands by for the timer recording.

To cancel the timer

Press TIMER SELECT repeatedly until "TIMER OFF" appears.

Tips

- This tape deck is able to switch between Dolby Btype and C-type noise reduction systems.
- The last settings are memorized. To activate recording timer with the same settings, display "REC" and turn off the power. It is not necessary to set every time.

Notes

- You cannot activate wake up timer and recording timer at the same time.
- Do not operate the system from the time the power turns on until the playback starts (about 20 seconds).
- If the power is on about 20 seconds before the preset time, the recording will not be made.
- The volume is reduced to minimum during recording.

Precautions

About tempered glass

The front panel of this tape deck is made of tempered glass, which has been known to break in extreme circumstances.

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the tape deck from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the component, unplug the tape deck and have it checked by qualified personnel before operating it any further.
- The AC power cord (mains lead) must be changed only at a qualified service shop.

On placement

- Place the tape deck in a location with adequate ventilation to prevent heat build-up in the tape deck.
- Do not place the unit in an inclined position.
- Do not place the unit in locations where it is:
 - Extremely hot or cold
 - Dusty or dirty
 - Very humid
 - Subject to vibration
 - Subject to direct sunlight.

Before placing a cassette in the tape deck

Take up any slack in the tape. Otherwise, the tape may get entangled in the parts of the tape deck and become damaged.

When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding frequently. The tape may get entangled in the tape deck.

continued

To save a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated.



If you later want to reuse the tape for recording, cover the broken tab with adhesive tape. However, be careful not to cover the detector slots which allow the tape player to automatically detect the type of tape.



Detector slots

Cleaning the tape heads

Clean the tape heads after every 10 hours of use. When the tape heads become dirty

- the sound is distorted
- there is a decrease in sound level
- the sound drops out
- the tape does not erase completely
- the tape does not record.

Be sure to clean the tape heads before you start an important recording or after playing an old tape. Use a separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

Demagnetising the tape heads

Demagnetise the tape heads and the metal parts that has contact with the tape after every 20 to 30 hours of use with a separately sold demagnetising cassette. For details, refer to the instructions of the demagnetising cassette.

Cleaning the cabinet

Use a soft cloth slightly moistened with mild detergent solution.

Never use strong solvents, such as thinner or benzene, since they may damage the finish.

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

Troubleshooting

If you run into any problem using this tape deck, use the following checklist.

First, check that the mains lead is connected firmly and the speakers are connected correctly and firmly.

Should any problem persist, consult your nearest Sony dealer.

The cassette tray does not close.

• Turn on the power again, and close the cassette tray.

The operation buttons on the tape deck do not work.

- Press any of the operation buttons after II stops flashing. (The buttons on the tape deck do not work for about two seconds after the tape deck turns on.)
- No cassette is inserted. Insert a cassette.

The tape does not play or record.

- There is slack in the tape. Take up any slack in the tape.
- The heads are dirty. Clean them.
- Make sure the audio connecting cords are connected correctly (see page 5). Make sure the plugs have been inserted firmly.

The tape does not record.

- No cassette is inserted.
- The tab has been removed from the cassette. Cover the broken tab with adhesive tape (see page 14).
- The tape has wound to the end.

The tape does not record or play, or there is a decrease in sound level.

- The heads are dirty. Clean them.
- The record/playback heads are magnetised. Demagnetise them.

The tape does not erase completely.

• The record/playback heads are magnetised. Demagnetise them.

There is excessive wow or flutter, or the sound drops out.

• The capstans in the tape deck are dirty. Clean them using a cleaning cassette. Noise increases or the high frequencies are erased.

- The record/playback heads are magnetised. Demagnetise them (see page 14).
- Move the tape deck away from the TV or VCR.

The sound is distorted.

- Set DOLBY NR to the same setting in which the tape was recorded.
- Move the tape deck away from the TV or VCR.

There is no sound.

- The mains lead is disconnected from the mains.
- Make sure the audio connecting cords are connected correctly (see page 5). Make sure the plugs have been inserted firmly.

The remote supplied with the CMT-SD1/ SD3 does not function.

- Press FUNCTION on the CMT-SD1/SD3 repeatedly to switch the FUNCTION to "TAPE".
- Make sure the system cable is connected correctly (see page 5).
- The operation buttons being used are located on the cover of the remote control and the cover is not completely closed. Make sure that the cover of the remote control is completely closed.

Automatic Source Selection does not work.

• Make sure the system cable is connected correctly (see page 5).

The functions tied with the CMT-SD1/SD3, such as CD Synchro Recording, do not work.

• Make sure the system cable is connected correctly (see page 5).

The inserted tape will not eject.

• I/\bigcirc of the tape deck is OFF. Press I/\bigcirc to turn on the tape deck, then press \triangleq .

Specifications

Recording system Frequency response	4-track 2-channel stereo (DOLBY NR OFF) 30 – 14,000 Hz (±3 dB), using Sony TYPE I cassettes 30 – 15,000 Hz (±3 dB), using Sony TYPE II cassettes
	30 – 15,000 Hz (±3 dB), using Sony TYPE IV
	cassettes
Wow and flutter	±0.13% W. Peak (IEC)
	0.07% W. RMS (NAB)
	±0.2% W. Peak (DIN)
Input	TAPE IN (phono jacks):
	impedance 47 kilohms
Output	TAPE OUT (phono jacks):
-	voltage 500 mV
	impedance 47 kilohms
	•

General

Power requirements European countries model:

	220 – 230 V AC, 50/60 Hz
Other models:	220 - 240 V AC, 50/60 Hz
Power consumption	12 W
Dimensions	Approx. $190 \times 91 \times 315$
	mm (w/h/d)
	incl. projecting parts and
	controls
Mass	Approx. 3.2 kg
Supplied accessories:	Audio connecting cords
	(2)
	System cable (1)

Design and specifications are subject to change without notice.