

# ***Stereo Cassette Deck***

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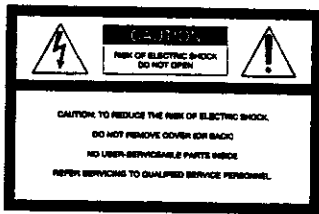
Operating Instructions

***TC-WE305***

## WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

For the customers in the United States



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### Owner's Record

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

Model No. TC-WE305

Serial No. \_\_\_\_\_

### CAUTION

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

For the customers in Canada

### CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

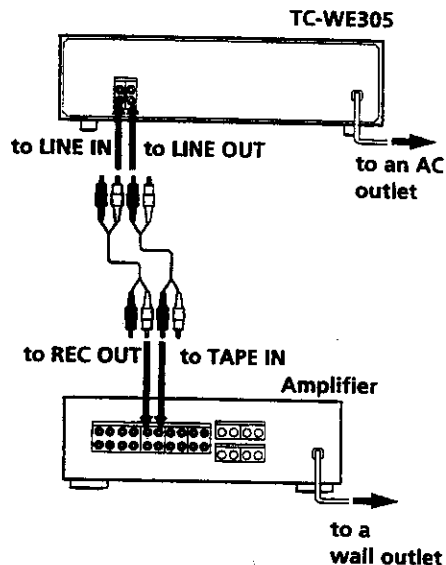
## Unpacking

Check that you received the following items:

- Audio connecting cords (2)

## Hooking Up the System

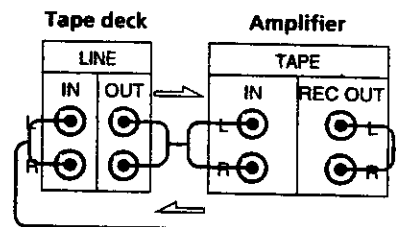
This section describes how to hook up the tape deck to an amplifier. Be sure to turn off the power of each component before making the connections.



### Hookups

When connecting an audio connecting cord, be sure to match the color-coded cord to the appropriate jacks on the components: Red (right) to Red and White (left) to White. Be sure to make connections firmly to avoid hum and noise.

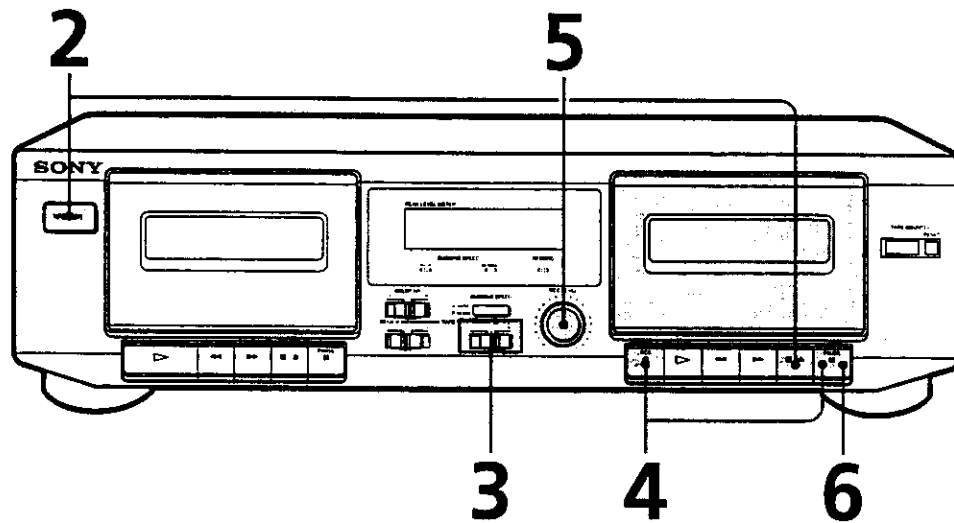
Connect the tape deck to the amplifier as shown below.



### Connecting the AC power cord


Connect the AC power cord to an AC outlet.

# Recording on a Tape

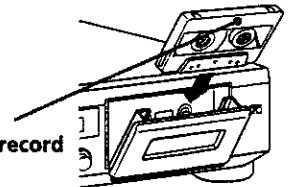


- See "Hooking Up the System" for hookup information.
- Use deck B (on your right hand side) for recording.
- Refer to "Dubbing a Tape" to make a copy of the tape.




**1** Turn on the amplifier and play the program source you want to record.


**2** Press POWER, and then press  and insert a cassette into deck B.

With the side you want to record facing you



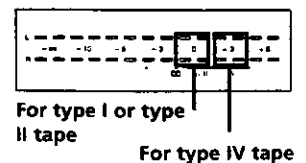
**3** Set TAPE TYPE on deck B.

**4** Press PAUSE , and then press REC .  
 depresses automatically.


**Do not press POWER or  while the tape deck is operating. If you do so, the tape may be damaged.**

**5** Turn REC LEVEL to adjust the recording level.

Turn REC LEVEL so that the peak level meters reach the recommended level for the corresponding tape type. After you've done the adjustments, stop playing the program source.



**6** Press PAUSE .  
Recording starts.

 **To protect recordings against accidental erasure**  
Break out the record-protect tab(s) (see "Notes on Cassette Tapes").

**7** Start playing the program source.

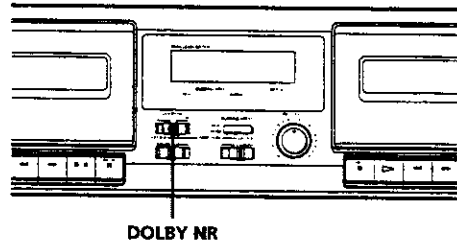
To	Press
Stop recording	■△
Pause	PAUSE II. Press the button again to resume recording.
Take out the cassette	■△ after stopping recording

**What is the Dolby NR system?**  
 The Dolby NR (noise reduction) system eliminates tape hiss noise by boosting low-level signals in the high-frequency range during recording, then lowering them during playback.

**The MPX filter automatically works during recording**

**To record with the Dolby NR\* system**

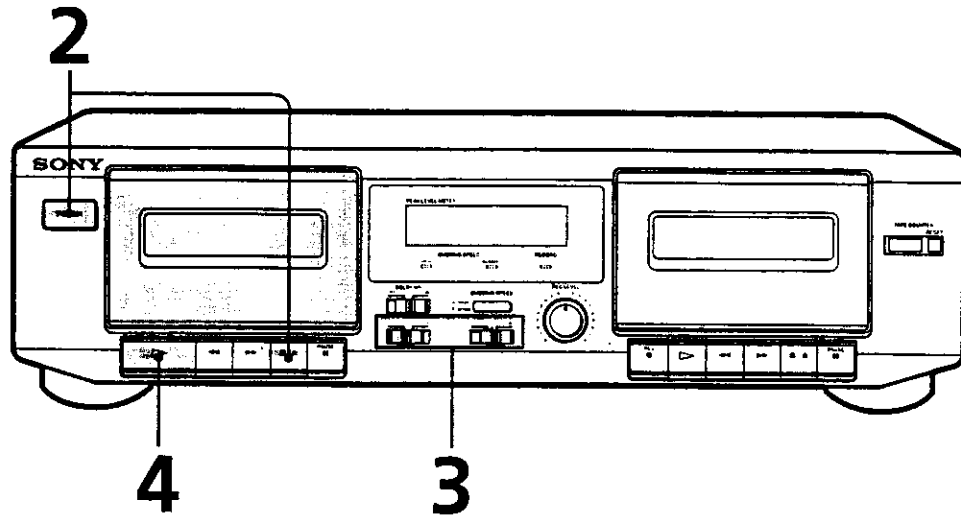
Set DOLBY NR to ON before you start recording.



\* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

# Playing a Tape

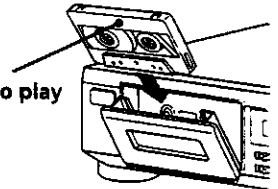


- See "Hooking Up the System" for hookup information.
- You can use either deck for playback.

**1** Turn on the amplifier and select the tape deck position.

**2** Press POWER, and then press and insert a cassette.

With the side you want to play facing you



**3** Set TAPE TYPE on the deck you use.

When the tape type you use is	Set TAPE TYPE on	
	DECK A to	DECK B to
TYPE I	TYPE I	TYPE I
TYPE II	TYPE II/IV	TYPE II
TYPE IV	TYPE II/IV	TYPE IV

**4** Press .

The deck starts playing. Adjust the volume on the amplifier.

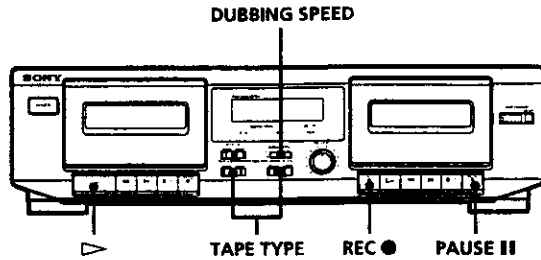
**Do not press POWER or while the tape deck is operating. If you do so, the tape may be damaged.**

To	Press
Stop playing	
Pause	PAUSE . Press the button again to resume play.
Fast-forward or rewind	or  when the deck is stopped
Take out the cassette	after stopping playing

To play a tape recorded with the Dolby NR system Set DOLBY NR to ON.

## Dubbing a Tape

You can copy a tape in deck A to a tape in deck B at normal or high speed.



- 1 Insert the recorded cassette into deck A and a blank cassette into deck B. Make sure the record-protect tabs on the cassette in deck B have not been removed.
- 2 Set TAPE TYPE on both decks.
- 3 Press DUBBING SPEED to set to HIGH or NORMAL.
- 4 Press REC ● on deck B and ▷ on deck A.

### To stop dubbing

Press ■⏏ on both decks.

**⚡ During high-speed dubbing**  
Only ■⏏ is operative.

**⚡ You don't have to adjust the recording level or set Dolby NR during dubbing**  
Dubbing is automatically performed with the same recording level and Dolby NR setting as the original in deck A. If, however, you want to monitor the sound during normal-speed dubbing, set DOLBY NR to match the tape in deck A.

### Note

If a TV set is placed near the tape deck, noise may occur during high-speed dubbing. In that case, turn the television set off or move it away from the tape deck.

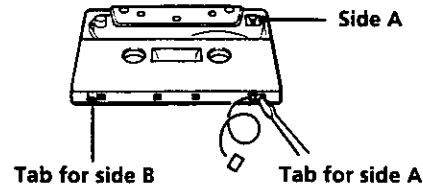
## Dubbing only specific portions

You can do this only during the normal-speed dubbing.

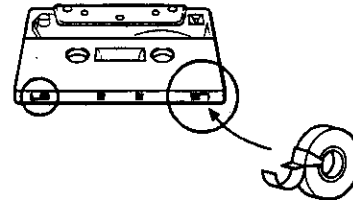
- 1 Press PAUSE ■■ on deck B at the portion you want to skip. Deck B changes to recording pause.
- 2 Locate the point you want to resume recording on deck A, then stop the tape.
- 3 Press ▷ on deck A. Press PAUSE ■■ on deck B to resume dubbing.

## Notes on Cassette Tapes

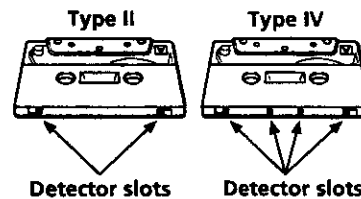
To protect a recording on side A or B  
Break out the respective tab.



To record on a tape with a missing record-protect tab  
Cover the respective tab hole with adhesive tape.



When you are using a type II or type IV tape, be careful not to cover the detector slots that the deck uses to determine the tape type.



### 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 stretch easily.

### On handling cassettes

- To prevent the heads and tape path from getting dirty, avoid touching the tape surface of a cassette.
- Place cassettes away from equipment with magnets, such as speakers and amplifiers, which may cause tape distortion or erase the recordings.
- Do not expose cassettes to direct sunlight, extremely cold temperature, or moisture.

### Troubleshooting

If you've experienced any of the following difficulties while using the tape deck, use this troubleshooting guide to help you remedy the problem. Should the problem persist, consult your nearest Sony dealer.

#### The function buttons do not work.

- ➔ Check that the cassette is inserted correctly and the cassette holder is closed completely.

#### The tape deck does not play or record.

- ➔ There is no cassette in the cassette holder.
- ➔ The tape has come to the end.
- ➔ The tape is slack. Take up the tape slack.
- ➔ The record-protect tab has been removed from the cassette.
- ➔ Make sure the amplifier setting is correct.
- ➔ Check that the tape deck connections are secure.
- ➔ The heads and tape path are dirty. Clean them.
- ➔ The recording/playback head is magnetized. Demagnetize it.

#### There is excessive wow, flutter or sound drop-out.

- ➔ The capstans and pinch rollers are dirty. Clean them.

#### There is a decrease in sound level, sound drop-out, or poor reproduction of high frequencies./The tape does not erase completely./Noise increases.

- ➔ The recording/playback or erasing head and tape path are dirty. Clean them.
- ➔ The recording/playback or erasing head is magnetized. Demagnetize it.

#### There is hum or noise.

- ➔ The tape deck is placed near a TV or VCR. Move the tape deck away from the TV or VCR.
- ➔ The tape deck is placed on or under the amplifier. Move the tape deck away from the amplifier.

#### There is an unbalanced tone.

- ➔ Check that DOLBY NR and TAPE TYPE are set to the same positions as when the tape was recorded.
- ➔ The tape deck is placed near a TV or VCR. Move the tape deck away from the TV or VCR.

#### The tape stops before the tape has been fully rewound.

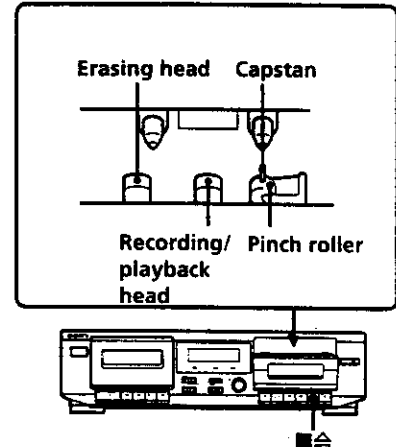
- ➔ The tape is slack. Take up the tape slack.
- ➔ The cassette shell is bent. Use another cassette.

#### There is excessively loud tape transport noise during fast-forwarding or rewinding.

- ➔ This noise is caused by the cassette and is not a mechanical problem.

### Cleaning

Inside the cassette holder of deck B



#### Cleaning the heads and tape path

Clean the heads and tape path of the tape deck after every 10 hours of operation to guard against:

- low-quality sound
- a decrease in sound level
- excessive wow or flutter
- sound dropout
- incomplete erasure
- impairment of recording function

To ensure better recording, we recommend that you clean the heads and tape path before every recording.

- 1 Press to open the cassette holder. Grasp the front cover on both sides and gently lift to remove it.
- 2 With the tape deck turned off, wipe the heads, the pinch rollers and the capstans with a cotton swab slightly moistened with alcohol or a commercially available cleaning fluid for tape decks.
- 3 Replace the front cover.

#### Demagnetizing the heads

After 20 to 30 hours of use, or when you notice a hissing sound or loss of high frequencies, demagnetize the heads with a commercially available demagnetizer for tape decks. Please refer to the instructions of the demagnetizer.

## Precautions

### On safety

- Do not disassemble the cabinet — this may result in an electrical shock. Refer servicing to qualified personnel only.
- Should any solid object or liquid fall into the cabinet, unplug the tape deck and have it checked by qualified personnel before operating it any further.

### On power sources

- Before operating the tape deck, check that the operating voltage of the tape deck is identical with your local power supply. The operating voltage is indicated on the nameplate at the rear of the tape deck.
- 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 (not applicable to European models).
- If you are not going to use the tape deck for a long time, be sure to disconnect the tape deck from the wall outlet. To disconnect the AC power cord, grasp the plug itself; never pull the cord.
- AC power cord must be changed only at the qualified service shop.

### On operation

- Because of a safety mechanism, the function buttons will not operate if the cassette holder is not completely closed, if there is no cassette in the cassette holder, or if a cassette has been incorrectly inserted into the cassette holder.
- Be sure to stop the tape before turning off the tape deck. Otherwise, the tape may be damaged.

### 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 tape deck:
  - on a soft surface such as a rug that might block the ventilation holes on the bottom.
  - in a location near heat sources.
  - in a place subject to direct sunlight.
  - in an inclined position.
  - in a place subject to excessive dust or mechanical shock.

### On cleaning the tape deck

Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

### For the customers in the United States

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

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

## Specifications

### System

#### Recording system

4-track 2-channel stereo

#### Fast-winding time (approx.)

120 sec. (with Sony C-60 cassette)

#### Bias

AC bias

#### Signal-to-noise ratio (at peak level and weighted with Dolby NR off)

Type I tape, Sony Type I (NORMAL): 55 dB

Type II tape, Sony Type II (HIGH): 57 dB

Type IV tape, Sony Type IV (METAL): 58 dB

#### S/N ratio improvement (approximate values)

With Dolby NR on: 5 dB at 1 kHz, 10 dB at 5 kHz

#### Harmonic distortion

0.4% (with Type I tape, Sony Type I (NORMAL):

160 nWb/m 315 Hz, 3rd H.D.)

1.8% (with Type IV tape, Sony Type IV (METAL):

250 nWb/m 315 Hz, 3rd H.D.)

#### Frequency response (Dolby NR off)

Type I tape, Sony Type I (NORMAL): 30 - 14,000 Hz ( $\pm 3$  dB, IEC)

20 - 15,000 Hz ( $\pm 6$  dB)

Type II tape, Sony Type II (HIGH):

30 - 15,000 Hz ( $\pm 3$  dB, IEC)

20 - 16,000 Hz ( $\pm 6$  dB)

Type IV tape, Sony Type IV (METAL):

30 - 15,000 Hz ( $\pm 3$  dB, IEC)

20 - 16,000 Hz ( $\pm 6$  dB)

30 - 13,000 Hz ( $\pm 3$  dB, -4 dB recording)

### Wow and flutter

$\pm 0.21$  % W. Peak (IEC)

0.15 % W. RMS (NAB)

$\pm 0.3$  % W. Peak (DIN)

### Inputs

#### Line inputs (phono jacks)

Sensitivity : 0.16 V

Input impedance : 47 kilohms

### Outputs

#### Line outputs (phono jacks)

Rated output level : 0.5 V at a load impedance of 47 kilohms

Load impedance : Over 10 kilohms

### General

#### Power requirements

120 V AC, 60 Hz

#### Power consumption

27 W

#### Dimensions (approx.)

430 × 120 × 305 mm (w/h/d)

(17 × 4<sup>3</sup>/<sub>4</sub> × 12<sup>1</sup>/<sub>8</sub> inches)

including projecting parts and controls

#### Mass (approx.)

3.3 kg (7 lbs 4 oz)

#### Supplied accessories

Audio connecting cords (2 phono plugs - 2 phono plugs) (2)

Design and specifications are subject to change without notice.