

# CD Radio Cassette-Corder

# CFD-100/W100

## 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 rear and serial number is located in 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. CFD-100/W100

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


## WARNING

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



**CAUTION**

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,  
DO NOT REMOVE COVER (OR BACK).  
NO USER-SERVICEABLE PARTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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.

## CAUTION

The use of optical instruments with this product will increase eye hazard.

## 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 by one or more of the following measures:

Reorient the receiving antenna

Relocate the equipment with respect to the receiver

Move the equipment away from the receiver

Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet 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 20402, Stock No. 004-000-00345-4.

### For the customers in Canada

This apparatus complies with the Class B limits for radio noise emissions set out in Radio Interference Regulations.

## Features

### CD player

- Intro scan function for playing the first ten seconds of all the selections.
- Repeat function for playing the entire disc or a desired selection.
- Repeat shuffle function for playing selections repeatedly in random order.
- Program play function for playing the selections in the desired order (up to 16 selections).

### Cassette deck

- Synchronized starting system for both CD recording and tape dubbing.
- High speed dubbing function for faster tape dubbing.

### General

- The TONE control and the BASS BOOST button for adjusting the tone quality to your preference.

## Precautions

### Notes on power sources

- For battery operation, use six size D (R20) batteries. For AC operation (240 V AC for Australian model, 120 V AC for other countries), use the supplied AC power cord; do not use any other type.
- When the internal batteries will not be used, remove them to avoid damage caused by battery leakage and corrosion.
- Unplug the unit from the wall outlet when it is not to be used for an extended period of time.

### Notes on handling the unit

- As the laser beam used in the CD player section is harmful to the eyes, do not attempt to disassemble the casing. Refer servicing to qualified personnel only.
- If the unit is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the CD player section. Should this occur, the player will not operate properly. In this case, remove the disc and wait about an hour for the moisture to evaporate.
- Avoid exposure to temperature extremes, direct sunlight, dust, or mechanical shock.
- If the unit is left in a car parked in the sun, be sure to choose a location in the car where the unit will not be subject to the direct rays of the sun.
- Should any solid object or liquid fall into the unit, unplug the unit, remove the batteries, and have the unit checked by qualified personnel before operating it any further.
- Be careful not to lift the handle while the telescopic antenna is in a raised position.
- After long storage, set the unit in playback mode and warm it up for a few minutes before inserting a cassette.
- Do not place anything within 10 mm of the side of the cabinet. The ventilation holes must be unobstructed for the proper operation of the unit and to prolong the life of its components.
- Since a strong magnet is used for the speakers, keep personal credit card using magnetic coding or spring-wound watches away from the unit to prevent possible damage from the magnet.

### Note on cassettes longer than 90 minutes

The use of those cassettes is not recommended except for long continuous recording or playback.

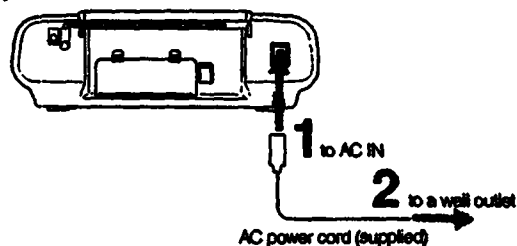
If you have any question or problem concerning your unit that is not covered in this manual, please consult your nearest Sony dealer.

## Power Sources

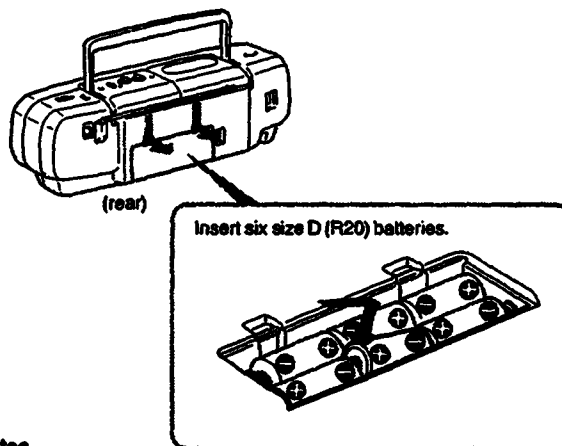
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The OPR/BATT indicator lights up during operation.

### House Current



### Batteries



### Notes

- The unit cannot be operated on the internal batteries when the AC power cord is connected to the unit.
- For critical recordings or disc playing, operating the unit on house current is recommended.

### When to replace the batteries

If the batteries become weak while the unit is in operation, the OPR/BATT indicator will glow faintly. In this case, replace all the batteries with new ones.

The diagram shows a control panel with three buttons. The top button is labeled 'PAUSE STOP' and has a square icon. A hand is shown pressing this button. The middle button has a '00' icon. The bottom button has a play icon.

### CD operating buttons

	If you want to	Press
	play	<b>▶</b>
	stop play	<b>■</b>
	pause for a moment	<b>⏸</b>
	resume play after pausing	<b>⏪</b>
	remove a disc	<b>■ → OPEN</b>

**SET FUNCTION TO TAPE/RADIO OFF.**

**Do not press OPEN during playing.**  
Otherwise, the disc will be damaged. Be sure to stop the disc first.





## Selecting Versus Paying Models

Each time **PLAY MODE** is pressed, play mode changes as follows. To stop the disc, press **■**. Operate while listening to the disc. However, select **INTRO** scan play when disc is not being played.

<b>play mode</b>		<b>Button to be pressed</b>		<b>Front display window</b>	
Scanning all the selections — INTRO — scan play*		Press PLAY MODE once when disc is not being played.			
Repeating one selection — REPEAT 1		Press PLAY MODE once more while listening to the desired selection.  Press  or  for another selection.			
Repeating all the selections — REPEAT ALL		Press PLAY MODE once more. When play reaches the end of the disc, it restarts from the first selection.			
Playing repeatedly in random order — REPEAT SHUFFLE		Press PLAY MODE once more.			

- Even if REMAIN/ENTER button is pressed, remaining time of the disc being played cannot be displayed when it has more than 100 selections or its remaining time is more than 100 minutes.
- During shuffle or program play, remaining time of the disc cannot be displayed even if REMAIN/ENTER is pressed.

## Locating a Particular Portion

<p><b>Locating a particular selection (AMS*)</b></p>	<p>To locate the beginning of the current selection:</p>  <p>Press once</p> <p>To locate the next selection:</p>  <p>Press once</p>
<p><b>Locating a particular point in a selection (SEARCH)</b></p> <p>Release the button at the desired point, located by either monitoring the high-speed sound (during play) or observing the line counter.</p>	<p>To go back at high speed:</p>  <p>Press once</p> <p>To go ahead at high speed:</p>  <p>Press once</p>

► **AMS** is the abbreviation of **Automatic Music Sensor**.

**Notes on the ARES function**  
The player pauses at the beginning of the located selection when you press **←** or **→**. In the pause mode:  
If you press **←** repeatedly, the player locates the previous selections.  
If you press **→** repeatedly, the player locates the selections ahead and stops at the last selection.

<p><b>This way</b></p>  <p><b>Hold the disc by its edge.</b></p>	<p><b>Not this way</b></p>  <p><b>Do not touch the surface.</b></p>	<p><b>Not this way</b></p>  <p><b>Do not stick paper or tape nor write anything on the surface.</b></p>
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Notes on compact discs

**This way**

**Not this way**

**Not this way**

**Not this way**


**This way**

### During REPEAT SHUFFLE play

Press **F4**.  
To locate the next selection  
Press **F4**.  
You cannot locate the previous selection even if you keep pressing **F4**.

**If another selection is stored after 16 selections have been stored**

The first selection will be cleared and the new one will be stored in its place. The program will be cleared when you press **00**.

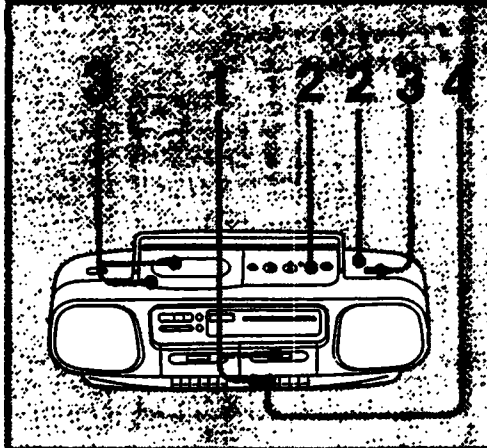
**When you open the disc holder or you press  All programmed selections are cleared**

**Important**  
Since the CD system offers a wide dynamic

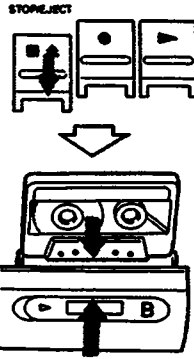
range, the peaks of high level inputs are recorded with high fidelity, and the noise level is very low. Do not turn up the volume while listening to a peak level signal, or you will lose the detail of the signal with no audio signals or very low level inputs. If you do, the speakers may be damaged when peak level position is played.

# Recording (deck B only) — Use only a TYPE I (normal) cassette for recording

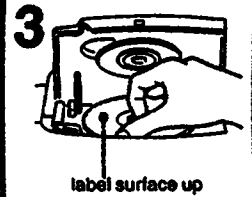
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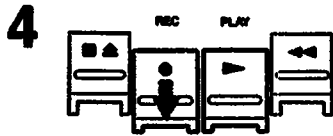
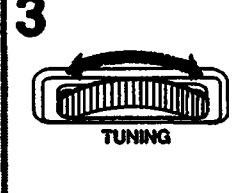
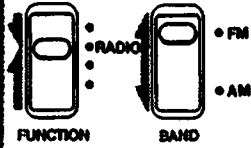
## 1 Insert a blank cassette into deck B.



## 2 From a disc



## 2 From the radio



▶ is depressed automatically.

When you record from a disc, press ● REC after the number of the selections in the disc and the total playing time are displayed. Disc playing will automatically start from the first selection after approx. 8 seconds.

## To stop recording

Press ■ of the CD player and ■ of the cassette deck.

Set FUNCTION to TAPE/RADIO OFF.

## On recording level

Recording level is automatically set. Volume and tone adjustments will not affect recording level.

## Note

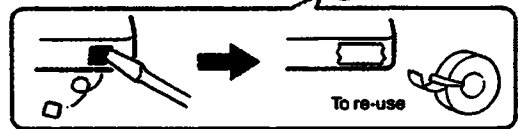
During recording, avoid pressing the ▶▶/◀◀ buttons of deck A to assure stable recording.

## To record in PGM (program) mode

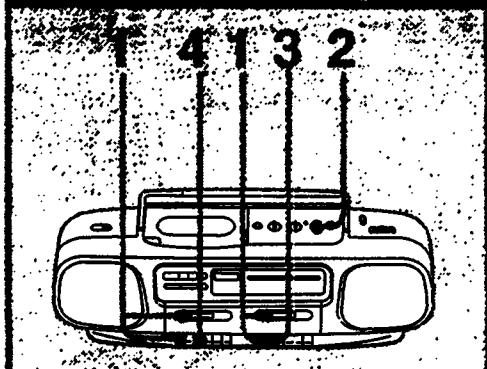
- 1 Set FUNCTION to CD.
  - 2 Select PGM play. (See "Selecting Various Playing Modes".)
  - 3 Press the ● REC button.
- Disc playing and recording will automatically start after approx. 8 seconds.

## To prevent accidental erasure

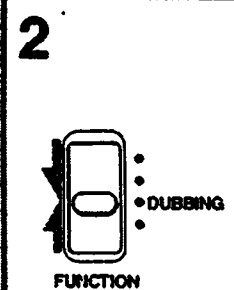
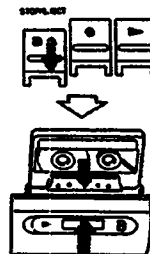
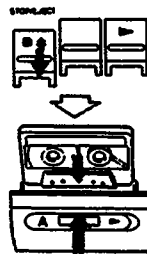
Break off the tab corresponding to the side which has been recorded on. Recording on that side will be protected.



# Tape Dubbing (deck A to deck B)



## 1 Insert a recorded tape into deck A, a blank tape into deck B. Use only TYPE I (normal) tapes.

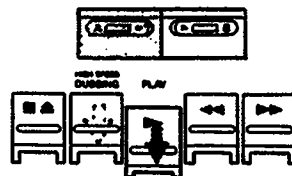


## 3 on deck B



▶ is pressed automatically. The unit will stand by.

## 4 on deck A



For normal dubbing, press ▶ PLAY.  
For faster dubbing, press HIGH SPEED DUBBING.  
Dubbing will start.

## To stop dubbing



on deck A and deck B



Both decks will stop.

## After dubbing

Set FUNCTION to TAPE/RADIO OFF.

## Notes on dubbing

- If deck A's tape finishes first, deck B will also stop. (Manually press ■ STOP/EJECT to release locked buttons.)
- If deck B's tape finishes first, deck A will continue to play.

# Playing Back a Tape (either deck)

**1**

•TAPE/  
RADIO OFF  
FUNCTION

**2** Insert a cassette into deck A or B.

Use only TYPE I (normal) tapes.

Close.

**3**

**4**

ON/OFF VOLUME TONE

**To stop playback.**

## Tape operating buttons

If you want to	Press
play	▶
wind tape rapidly	▶▶
rewind tape	◀◀
stop play	■▲
pause for a moment	
resume play after pause	
remove a cassette	■▲ (twice)

After winding with ◀◀ or ▶▶, press ■▲ to release ◀◀ or ▶▶.

## For private listening

Connect stereo headphones to jack.

When the unit is in use  
OPR/BATT (operation/battery) indicator lights. Intensity of glow shows battery level.

When both decks A and B are in the playback mode, only playback from deck B will be audible.

**Note:**  
During playback, avoid pressing the ▶▶/◀◀ buttons of the other deck since the playback speed may vary.

# Listening to the Radio

**1**

•RADIO  
FUNCTION

**2** Select the desired band, FM or AM.

• FM  
• AM  
BAND

**3** Tune in.

TUNING  
Dial pointer

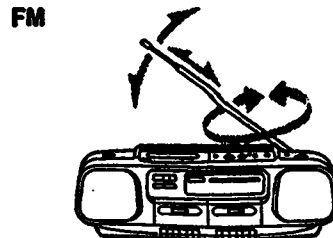
**4**

ON/OFF VOLUME TONE

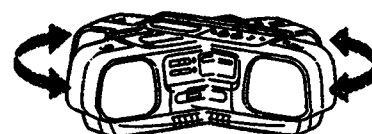
## To turn off the radio

•TAPE/  
RADIO OFF  
FUNCTION

## For improved reception



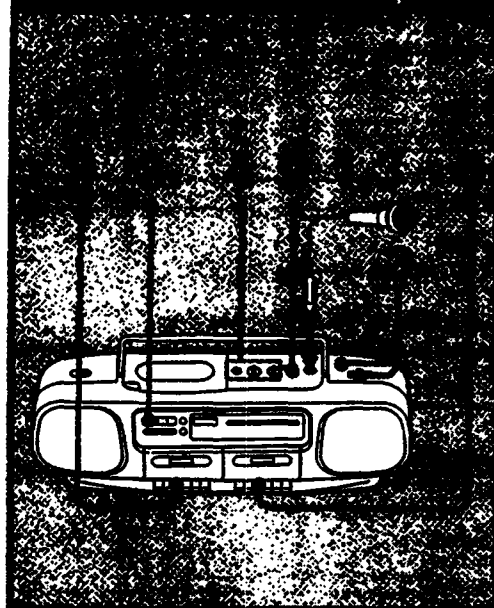
## AM



# Microphone mixing

— Use a monaural microphone equipped with a miniplug (not supplied).

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1



Turn on the power if it has a switch.

2

Choose the desired sound source with the **FUNCTION selector**.

Sound source	FUNCTION selector
CD sound	CD
Radio program	RADIO
Tape sound	TAPE / RADIO OFF

3

Play the sound source and speak or sing into the microphone.

4



## To record the mixed sound

Insert a cassette into deck B and press ● REC.

You can record the sound of the microphone mixed with a CD or radio program.

## While recording the mixed sound

You can monitor the sound through the headphones.

# Adjusting the Sound

While listening to a CD or the radio, or playing back a tape, you can adjust the sound with the **BASS BOOST** button or the **TONE** control.

## To reinforce the bass sound

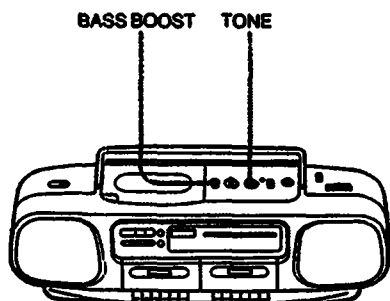
Press **BASS BOOST** (ON).

## Note on BASS BOOST

**BASS BOOST** is most effective around the third mark from **MIN** of the volume range. Even if you raise the volume more, the **BASS BOOST** effect will be negligible.

## To adjust the tone

Turn the **TONE** control.



# Troubleshooting Guide

## General

### No sound from speakers

- Improper polarity of the batteries
- Weak batteries → Replace all the batteries with new ones.
- Improper FUNCTION selector setting
- The headphones are plugged in.

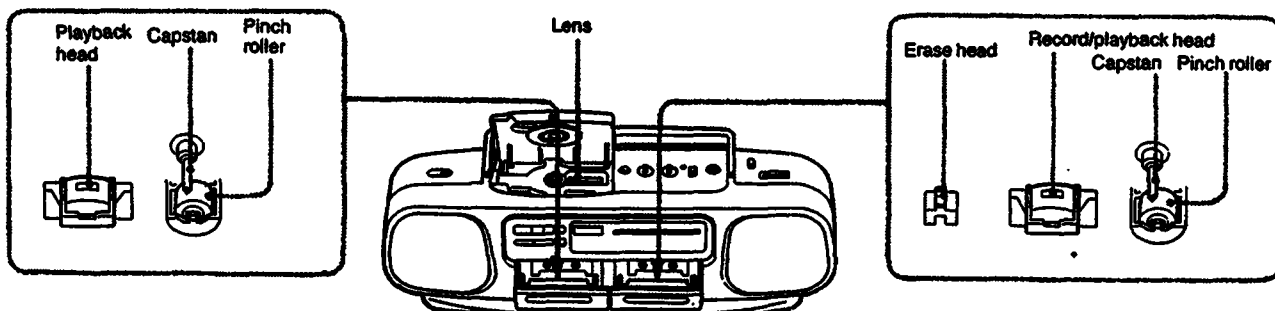
## CD operation

### The unit does not operate

- The disc is inserted with the label surface down.
- The disc compartment lid is not closed.
- Dusty or defective disc → Clean the disc with an optional cleaning cloth. Wipe the disc from the center out.
- Moisture condensation → See "Precautions".
- Improper FUNCTION selector setting
- When the CD operation buttons cannot be activated, turn off the power and turn it on again.

### Skipping of sound in CD operation

- Dusty or defective disc → Clean the disc.
- Dirty lens → Clean the lens with a commercially available blower.
- Strong vibrations



## Tape operation

### No tape operation

- **PAUSE** button is depressed. → Press again to release it.

### REC button cannot be depressed.

- The cassette inserted has the tabs removed. → Cover the slots.

### Sound drop-outs, loss of high frequencies, or excessive noise

- Dirty heads → Clean the portions illustrated below with a cleaning tip slightly moistened with cleaning fluid or alcohol.

### Recording or playback cannot be made or there is a decrease in sound level.

- Dirty heads → Clean the heads.
- Improper FUNCTION selector setting

### Unsatisfactory erasing

- Dirty erase head → Clean the head.

# Specifications

## AUDIO POWER SPECIFICATIONS

### POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2-ohm loads, both channels drive from 150–10,000 Hz: rated 2.0 W per channel minimum RMS power, with no more than 10% total harmonic distortion in AC operation.

## OTHER SPECIFICATIONS

### CD player section

System  
Laser diode properties

Compact disc digital audio system  
Material: GaAlAs  
Wavelength 780 nm  
Emission duration: Continuous  
Laser output: Less than 44.6 mW\*  
\* This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block.  
20 – 20,000 Hz  $\pm 1$  dB  
Below measurable limit

Frequency response  
Wow and flutter

### Radio section

Frequency range

FM: 87.6 – 108 MHz  
AM: 530 – 1,710 kHz

Antennas

FM: Telescopic antenna  
AM: Built-in ferrite bar antenna

### Tape recorder section and general

Recording system  
Frequency response  
Speaker  
Power output

4-track 2-channel stereo  
70 – 10,000 Hz (with TYPE I <normal> cassette)  
Full-range speakers: 10 cm dia., cone type  
2.3 W + 2.3 W (at 3.2 ohms, 10% harmonic distortion)

Input

Mixing microphone input jack (minijack)  
Sensitivity 2.5 mV

Output

For low impedance microphone  
Headphone jack (stereo minijack)  
For 16 – 68 ohms impedance headphones

### Power requirements

Australian model: 240 V AC, 50 Hz  
Models for other countries: 120 V AC, 60 Hz  
DC 9 V, 6 size D (R20) batteries  
AC 25 W

### Power consumption Battery life

	FM recording	Playback	CD playing
Sony SUM-1 (NS)	approx. 7.5	approx. 5.5	approx. 2.5
Sony Alkaline AM1 (N)	approx. 17	approx. 11	approx. 4.5

### Dimensions

640 × 205 × 224 mm (w/h/d)  
(25 1/4 × 8 1/8 × 8 7/8 inches)

### Weight

incl. projecting parts and controls  
Approx. 5.4 kg incl. batteries (Approx. 11 lb 14 oz).

### Supplied accessory

AC power cord (1)

Design and specifications subject to change without notice.

### Optional accessories

Sony "MDR" headphone series  
Sony "Dynamic microphone" series  
Head demagnetizer HE-5C  
CD cleaner XP-CD1, XP-CD4