

CD Radio Cassette-corder



# CFD-64

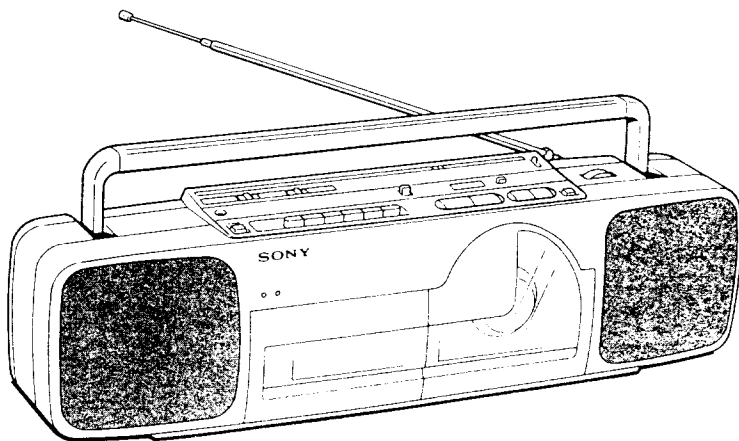
## Operating Instructions

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

## Owner's Record

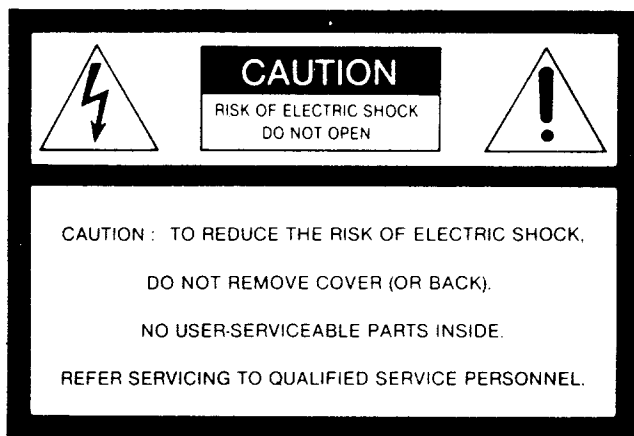
The model and serial numbers are located on the bottom exterior. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. CFD-64      Serial No. \_\_\_\_\_



## WARNING

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



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.

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# Precautions

## On safety

- Operate the unit only on 120V AC or 12V DC.  
For AC operation, use the supplied AC power cord; do not use any other type.  
For battery operation, use eight size D (R20) batteries.
- Unplug the unit from the wall outlet when it is not to be used for an extended period of time.
- When the internal batteries are not to be used, remove them to avoid damage caused by battery leakage and corrosion.
- As the laser beam used in this unit is harmful to the eyes, do not attempt to disassemble the casing. Refer servicing to qualified personnel only.
- Should any solid object or liquid fall into the unit, unplug the unit, and have it checked by qualified personnel before operating it any further.

## On placement

- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust, or mechanical shock.
- Do not place anything within 10mm 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.
- 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.
- Be careful not to lift the handle while the telescopic antenna is in a raised position.

## On operation

- 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 lenses 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.
- If the unit has not been used for a long time, set it in the playback mode to warm it up for a few minutes before inserting a cassette.

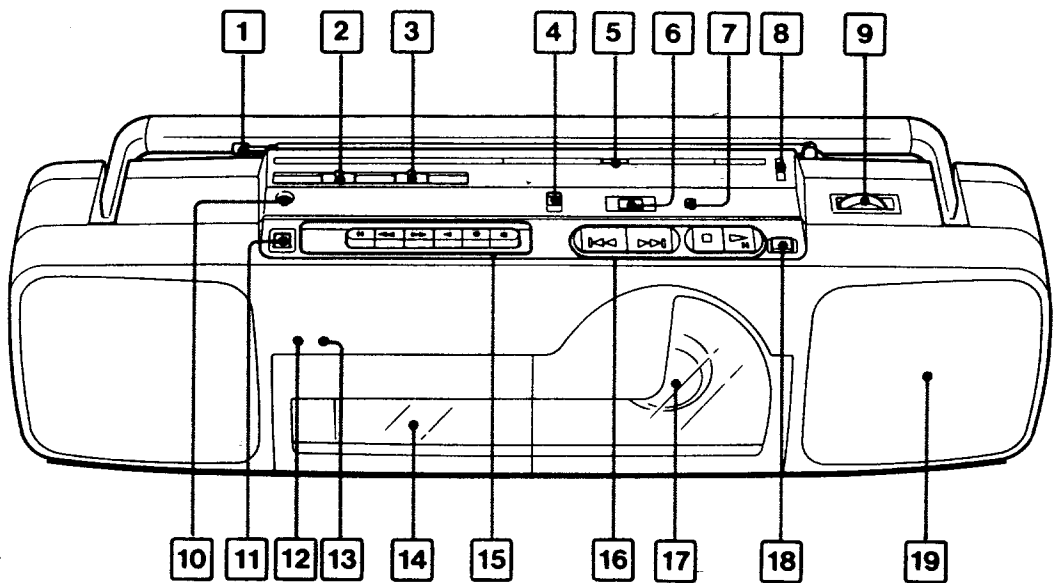
## Note on the 120-minute cassette

The use of a 120-minute cassette tape is not recommended except for long continuous recording or playback.

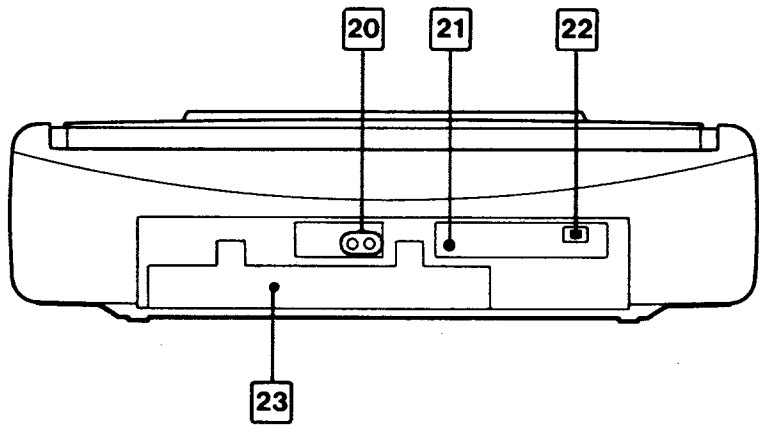
If you have any question or problem concerning your unit that is not covered in this manual, please consult the nearest Sony dealer.

# Location and Function of Controls

Refer to the pages indicated in ● for details.



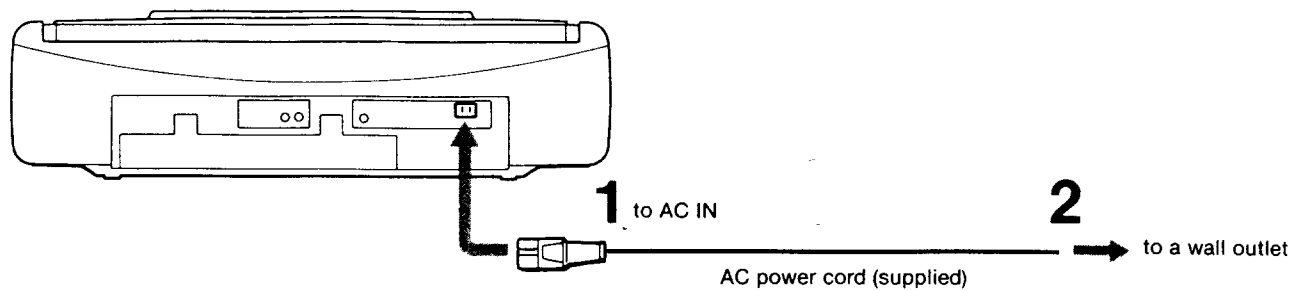
## Rear panel



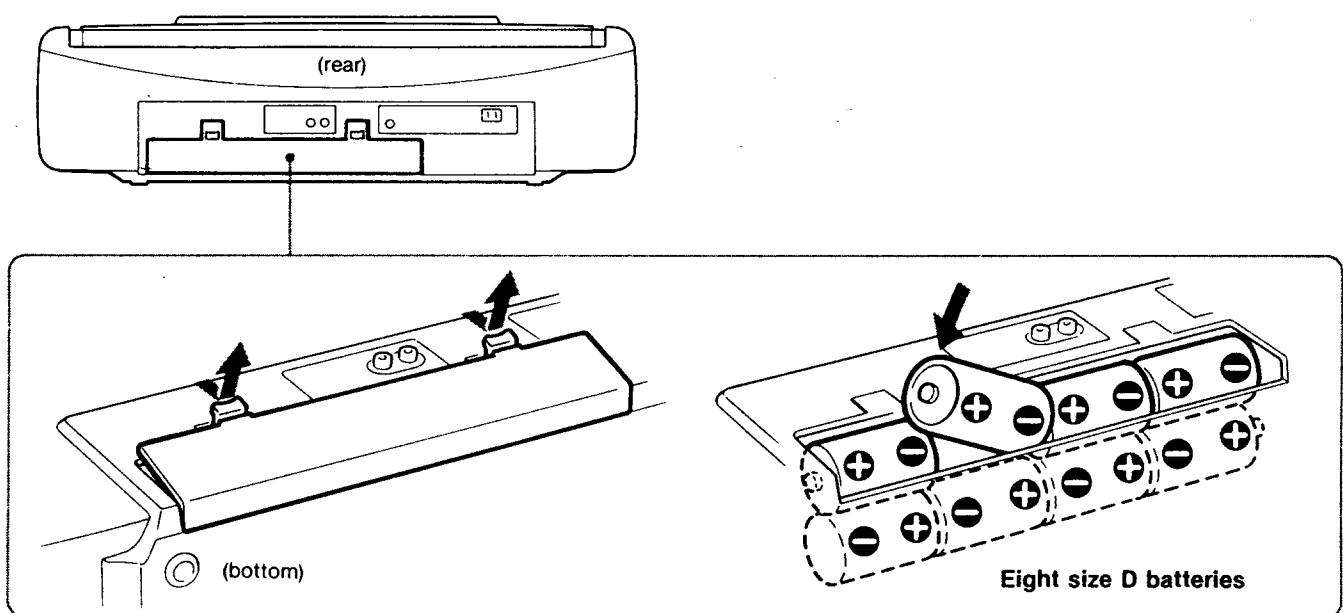


# Power Sources

## House Current



## Batteries



### Polarity of the batteries

Insert the batteries with correct polarity and in the order as indicated on the rear of the unit.

**Note:** The unit cannot be operated on the internal batteries when the AC power cord is connected to the unit.

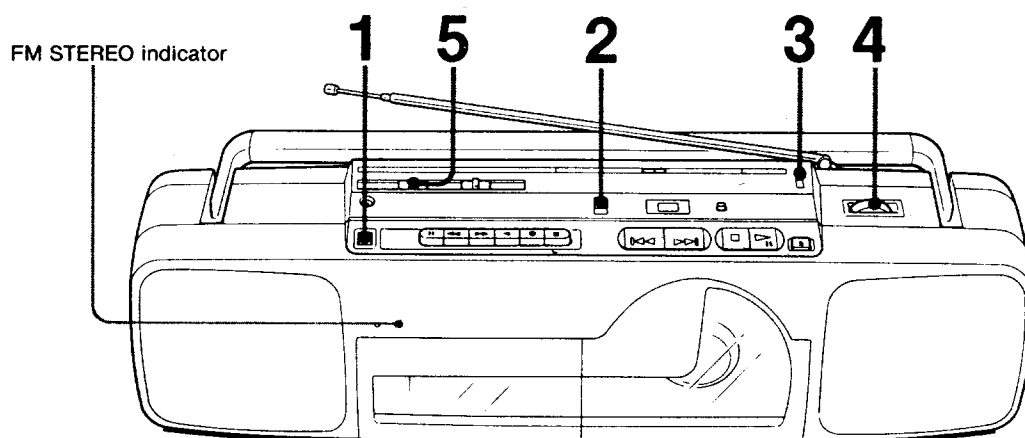
### Battery replacement

The OPR/BATT indicator lights up during operation. If the batteries become weak, the indicator will glow faintly. In this case, replace all the batteries with new ones. For information on battery life, see "Specifications" on the back cover.

### For critical recordings or disc playing

Operating the unit using the AC power cord is recommended.

# Radio Reception



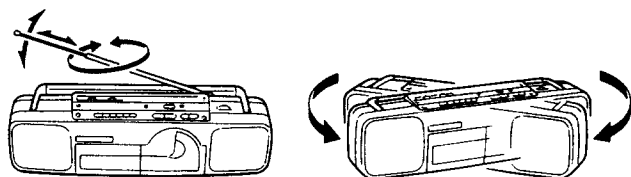
- 1** Depress **POWER** (ON).
- 2** Set **FUNCTION** to **RADIO**.
- 3** Select the desired band, **FM** or **AM**.
- 4** Tune in a desired station.
- 5** Adjust **VOLUME**.

To turn off the radio, press and release **POWER** (OFF).

## To improve receiving condition

**FM**

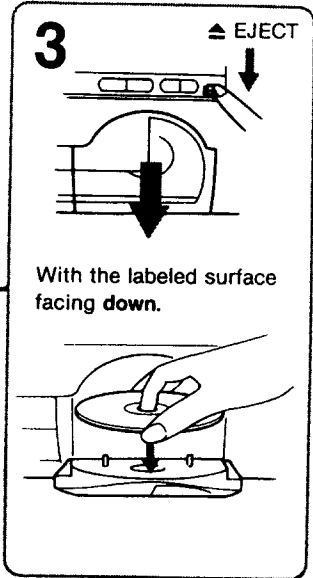
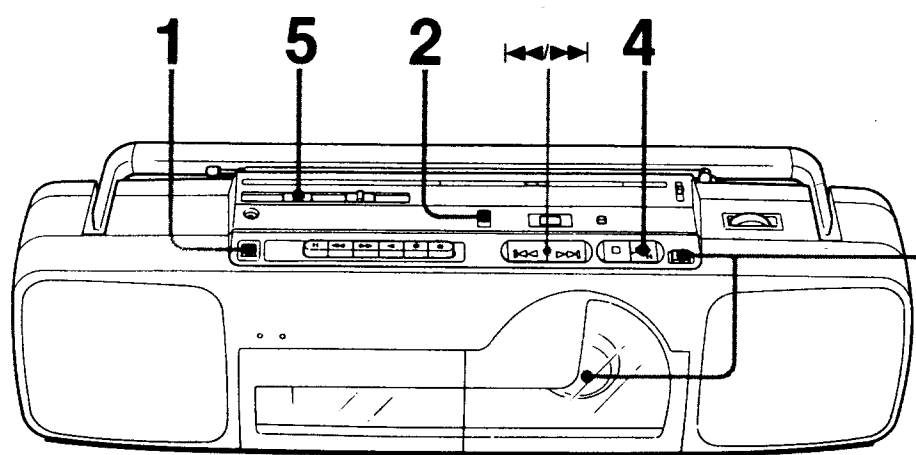
**AM**



## If the receiving FM stereo signal is weak

The unit automatically enters the monaural reception mode.  
The **FM STEREO** indicator goes off.

# Disc Playing



- 1 Depress **POWER** (⏻ ON).
- 2 Set **FUNCTION** to CD.
- 3 Insert a disc.  
Close the lid firmly until a click sounds.
- 4 Press **▶||**.  
Play will start from the beginning of the disc.
- 5 Adjust **VOLUME**.

### To stop play

	Press
To stop play for a moment	▶
To release the pause mode	▶
To stop play	■
After use	■ → POWER (⏻ OFF)
To remove the disc	■ → ▲

### Display window

During CD play the track number of the selection being played is displayed.

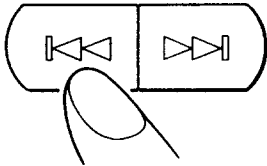


Track number



**To Locate the Beginning of a Desired Selection (AMS\*)**

Press ◀◀ or ▶▶ during play or pause.



**To locate a previous selection**

Press ◀◀ **once** to locate the beginning of the selection being played.

Press **continuously** to locate a previous selection.

**To locate a selection ahead**

Press ▶▶ **once** to locate the next selection after that being played.

Press **continuously** to locate a selection ahead.

**In pause mode**

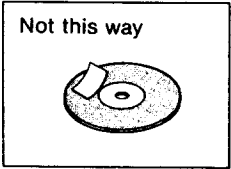
The player pauses at the beginning of each selection. To start playing, press ▶||.

**Note:** With the AMS function, it may be difficult to locate the beginning of a desired selection depending on the signal of the disc.

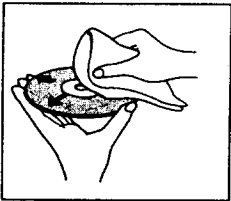
**Notes on Compact Discs**



Handle the disc by its edge, and to keep the disc clean, do not touch the rainbow colored surface.



Do not stick paper or tape or write anything on the labeled surface.



Before playing, clean the disc with the optional CD cleaner. Wipe the disc from the center out.

Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

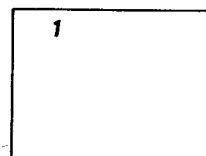
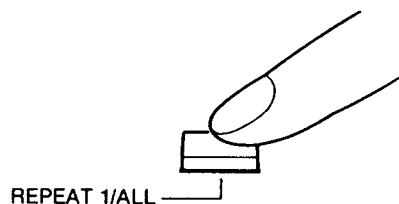
After playing, store the disc in its case.

Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight where there can be a considerable rise in the temperature.

\* AMS: Automatic Music Sensor

## To Repeat Only One Selection—Repeat 1 Play

Press REPEAT 1/ALL while playing the selection you want to repeat.

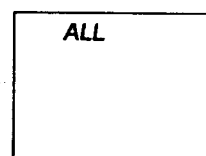
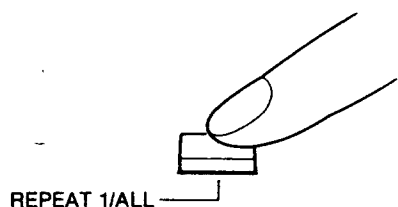


When the selection being played reaches its end, it is played from the beginning again.

To release the repeat play, press REPEAT 1/ALL twice.

## To Repeat the Entire Disc—Repeat All Play

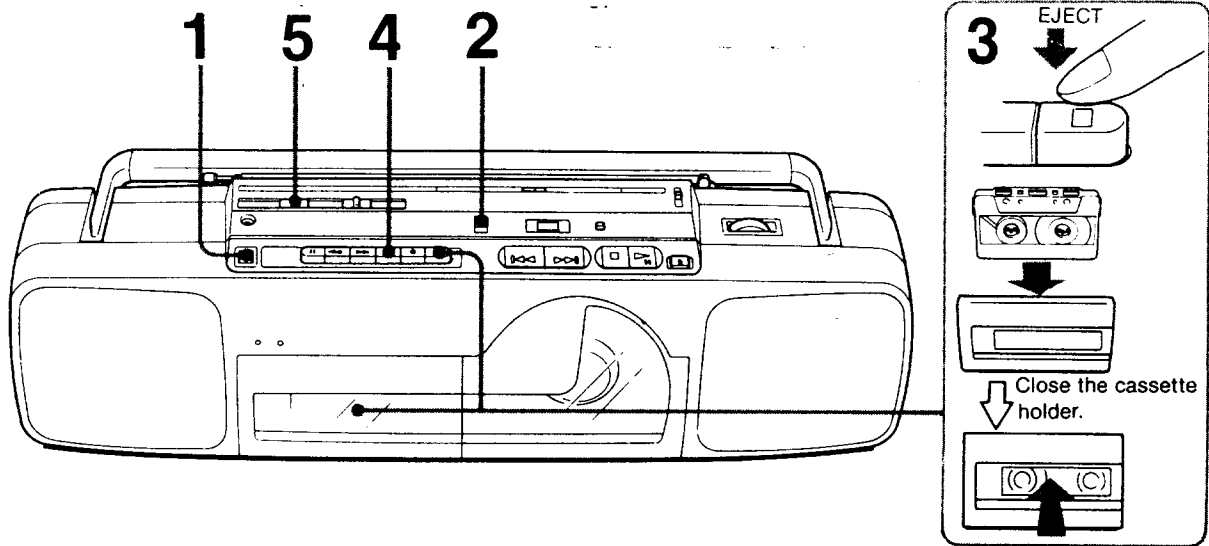
Press REPEAT 1/ALL twice while playing the disc you want to repeat.



When the last selection on the disc being played reaches its end, all the selections are played from the beginning of the disc again. Repeat play continues until you stop.

To release the repeat play, press REPEAT 1/ALL.

# Tape Playback



**1** Depress POWER (⏻ ON).

**2** Set FUNCTION to TAPE.

**3** Insert a cassette.

Use only TYPE I (normal) tapes.

**4** Press ◀.

**5** Adjust VOLUME.

## To stop play

	Press
To stop play for a moment	⏸
To release the pause mode	⏸
To stop play	■
After use	■ → POWER (⏻ OFF)

## At the tape end

The depressed ◀ button will be released automatically.

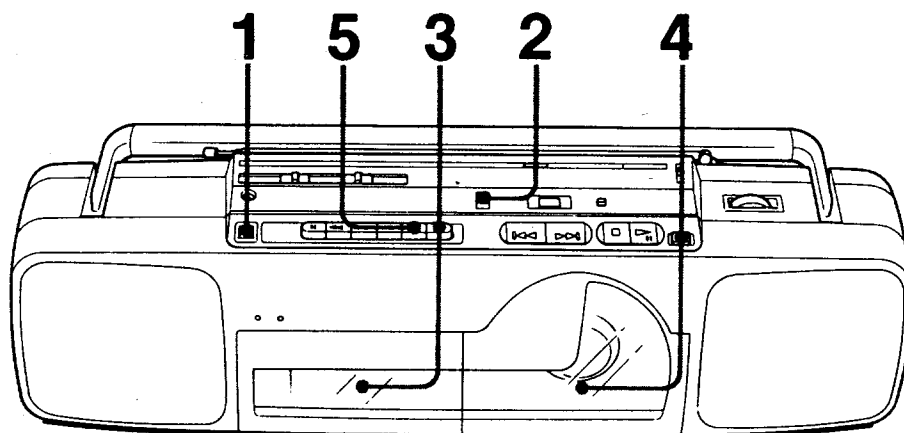
## To wind the tape rapidly for each direction

Press ▶▶ or ◀◀.

Be sure to press ■ to release ▶▶ or ◀◀ at the tape end of each direction.

# Recording CD Sound

Recording can be made only on the front side of the cassette.



**1** Depress POWER (ON).

**2** Set FUNCTION to CD.

**3** Insert a cassette. (See page 11.)  
Use only TYPE I (NORMAL) tape for recording.  
Advance the leader tape.

**4** Insert a disc. (See page 8.)

**5** Depress ●.

After approximately 4 seconds, recording starts from the beginning of the disc.

To stop recording, press ■ of CD player and cassette deck.

## Important

### When the tape reaches the end during recording

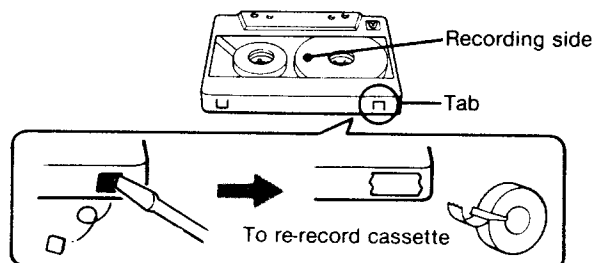
● button is released automatically. The CD sound, which is still heard, is not recorded any longer.

### Recording level

Recording level adjustment is not necessary. During recording, the volume setting of the speakers or headphones has no effect on recording.

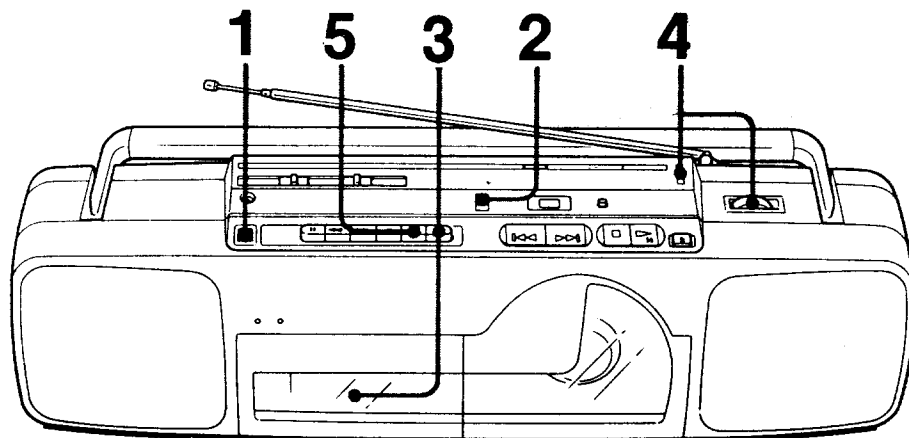
### To prevent accidental erasure

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



# Recording Radio Sound

Recording can be made only on the front side of the cassette.



**1** Depress POWER (ON).

**2** Set FUNCTION to RADIO.

**3** Insert a cassette. (See page 11.)  
Use only TYPE I (NORMAL) tape for recording.  
Advance the leader tape.

**4** Select the desired band, FM or AM and tune in the desired station.

**5** Depress ●.

To stop recording, press ■ of the cassette deck.

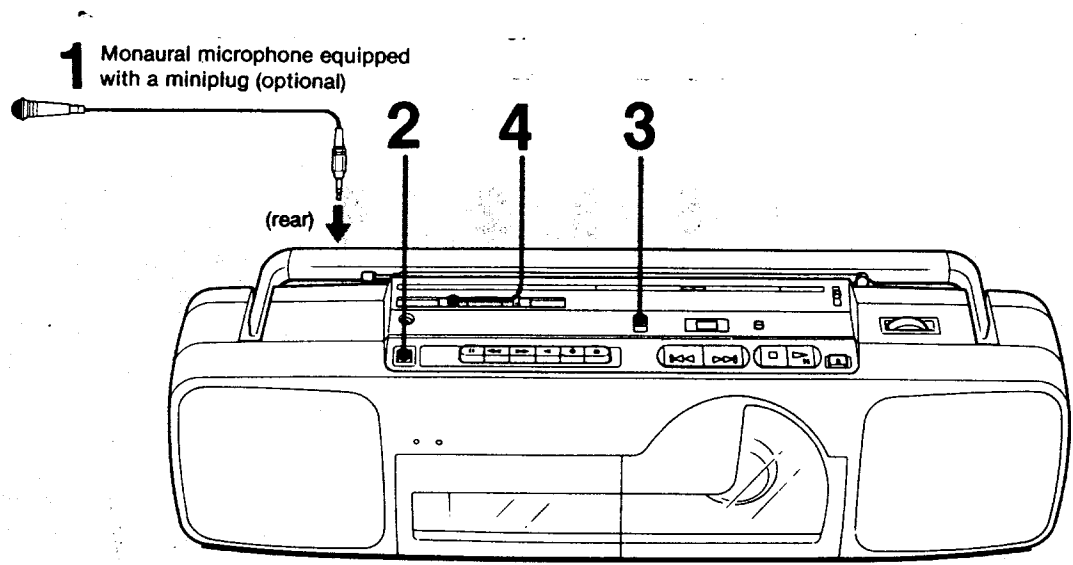
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## Important

### When the tape reaches the end during recording

● button is released automatically. The radio sound, which is still heard, is not recorded any longer.

# Microphone Mixing



- 1** Connect a microphone (optional) to the MIX MIC jack.  
If the microphone has a power switch, set it to ON.

**2** Depress POWER (⏻ ON).

**3** Choose the desired sound source with FUNCTION selector and play the sound source to be mixed.
- 4** Adjust the volume of the sound source being played.  
(This does not affect the microphone level.)

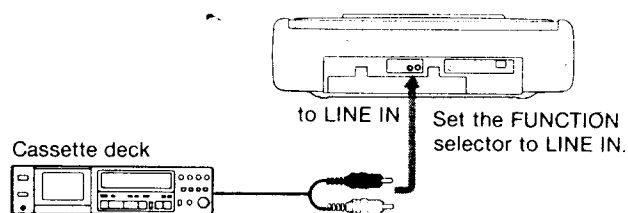
After use, press POWER (⏻).

Sound source	FUNCTION
CD sound	CD
Radio programs	RADIO
Tape sound	TAPE
The sound of the equipment connected to the LINE IN jacks	LINE IN

To record the mixed sound, insert a cassette to be recorded and press ●.

**Note**  
If a howling sound occurs, move the microphone away from the speakers or turn down the volume.

# Listening to a Tape Played on an External Deck

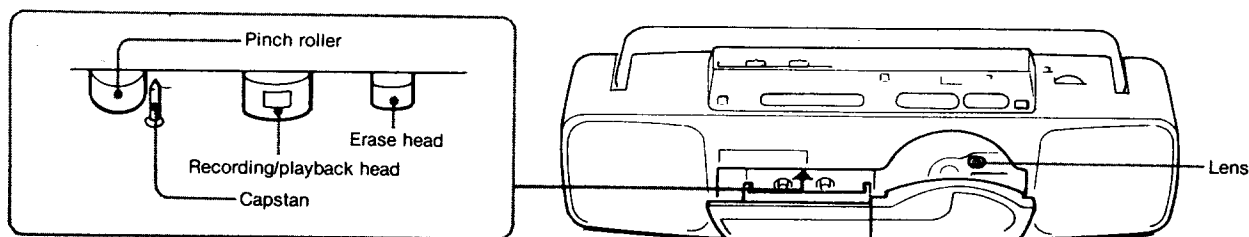


To record from a cassette deck  
Insert a cassette and press ●.

## Notes on making connections

- Before making connections, be sure to turn off the power (□ OFF).
- The connecting cords should be fully inserted into the jacks.
- Note that the red plug of the connecting cord is for the R (right)-channel and the white plug for the L (left)-channel.

## Maintenance



### Cleaning the heads and tape path

Contaminated heads cause insufficient recording or sound drop-out in playback.

We recommend cleaning after every 10 hours of operation. To make the best possible recordings, however, you should clean all surfaces over which the tape travels before making each recording.

Wipe the heads, the pinch rollers and the capstans with a cleaning tip slightly moistened with cleaning fluid or alcohol, as shown above.

After cleaning the heads and tape path, insert a cassette when the areas cleaned are completely dry.

### Demagnetizing heads

After 20 to 30 hours of use, enough residual magnetism will have built up on the heads to begin to cause loss of high frequencies and hiss. At this time you should demagnetize the heads and all metal parts in the tape path with a commercially available head demagnetizer. Be sure that the cassette-corder is turned off while you demagnetize.

### Cleaning the lens

If you have accidentally touched the lens of the CD player section with dirty fingers or the dust has accumulated on the lens, the unit will not operate properly. In such cases clean the lens with lens cleaning kit (optional).

### Cleaning the cabinet

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.

### Important

Do not demagnetize the erase heads.

# Specifications

## AUDIO POWER SPECIFICATIONS

With 4-ohm loads, both channels driven from 100-10,000 Hz: rated 3.5 W per channel minimum RMS power, with no more than 10% total harmonic distortion in AC operation.

## Other Specifications

<b>CD player section</b>	
System	Compact disc digital audio system
Laser diode properties	Material: GaAlAs Wavelength: 780 nm Emission duration: Continuous Laser output: Max 44.6μW* * This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block.
<b>Radio section</b>	
Frequency range	FM: 87.6–108 MHz AM: 530–1,605 kHz
Antennas	FM: Telescopic antenna AM: Built-in ferrite bar antenna
<b>Tape recorder section and general</b>	
Recording system	4-track 2-channel stereo
Fast winding time	Approx. 2 min. with Sony cassette C60
Frequency response	with TYPE I (NORMAL) cassette: 80–8,000 Hz (general)
Speakers	10 cm dia., cone type
Power output	Model for Canada: 4W + 4W (at 4 ohms, 315 Hz, 10% harmonic distortion)

Inputs	Mixing microphone input jack (minijack) Sensitivity 2.5 mV For low impedance microphone Line input jacks (phono jacks)—2 Sensitivity 0.44 V Input impedance 47 kilohms or higher	
Outputs	Headphones jack (stereo minijack)—1 For 16–68 ohms impedance headphones	
Power requirements	120 V AC, 60 Hz DC 12 V, 8 size D (R20) batteries	
Power consumption	AC 35 W	
Battery life	(hour)	
Batteries	Sony SUM-1 (NS)	Sony Alkaline AM1
Tape playback	Approx. 4	Approx. 6
FM recording	Approx. 8	Approx. 12
Disc playing	Approx. 2	Approx. 3
Dimensions	577 × 167 × 155.5 mm (w/h/d) (22 $\frac{3}{4}$ × 6 $\frac{5}{8}$ × 6 $\frac{1}{8}$ inches) incl. projecting parts and controls	
Weight	5.2 kg (11 lb 8 oz) incl. batteries	
Supplied accessory	AC power cord (1)	

Design and specifications subject to change without notice.

## Optional Accessories

- Sony "DYNAMIC MICROPHONE" series
- Sony "MDR" headphones series
- Cleaning kit KK-4
- CD lens cleaning kit KK-9
- CD disc cleaner XP-CD3
- Cleaning cassette C-1KN

# Troubleshooting Guide

The unit does not operate.	<ul style="list-style-type: none"><li>The AC power cord is not connected (for AC operation).</li><li>Incorrect polarity of batteries (See page 6.)</li><li>Weak batteries (See page 6.)</li></ul>
No audio	<ul style="list-style-type: none"><li>Slide the VOLUME control toward MAX.</li><li>Check the FUNCTION selector setting.</li><li>The headphones are plugged in to PHONES jack (when listening through the speakers).</li></ul>
Disc play does not begin.	<ul style="list-style-type: none"><li>The disc is inserted with the labeled surface facing up.</li><li>The disc compartment lid is not closed.</li><li>Moisture condensation (See page 3.)</li><li>When the CD operation buttons cannot be activated, turn off the unit and begin again.</li></ul>
Skipping of sound	<ul style="list-style-type: none"><li>Dusty or defective disc (See page 9.)</li><li>Dirty lens (See page 15.)</li><li>Strong vibrations</li></ul>
Tape does not move.	<ul style="list-style-type: none"><li>The cassette is being inserted improperly.</li><li>The tape is slack.</li><li>The cassette compartment lid is not closed.</li></ul>
The ● button cannot be activated.	<ul style="list-style-type: none"><li>No cassette in the cassette holder.</li><li>The tab is removed from the cassette. (See page 12.)</li></ul>
Recording or playback cannot be made or there is a decrease in sound level.	<ul style="list-style-type: none"><li>Dirty heads (See page 15.)</li><li>Improper setting of the FUNCTION selector</li></ul>
Unsatisfactory erasing	<ul style="list-style-type: none"><li>Dirty erase head (See page 15.)</li><li>Weak batteries (See page 6.)</li></ul>
Excessive wow or flutter, or sound drop-out	<ul style="list-style-type: none"><li>Contamination of the capstan or pinch roller (See page 15.)</li><li>Magnetic contamination of the head (See page 15.)</li><li>Weak batteries (See page 6.)</li></ul>