

CD Radio Cassette-Corder

Operating Instructions

CFD-980

Warning

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



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

For customers in the United States

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

Owner's Record

The model number is located at the rear and the serial number is located in the battery compartment.

Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. CFD-980

Serial No. _____

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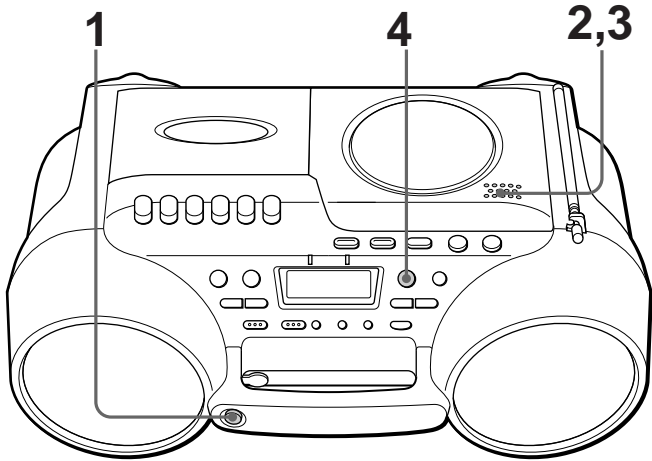
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Playing a CD



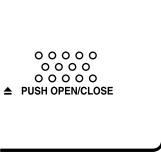
Connect the supplied AC power adaptor (see page 25).

1

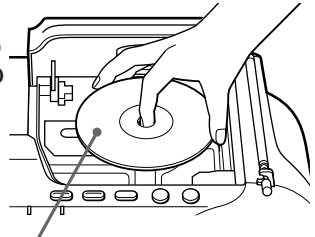


Press **POWER** to turn on the player.

2

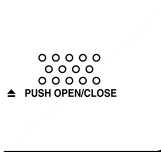


Press **▲ PUSH OPEN/CLOSE** down to open the lid of the CD compartment and place the CD on the CD compartment.

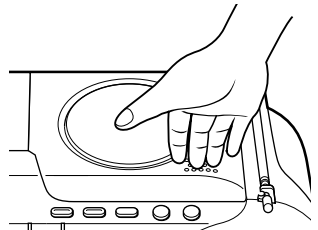


With the label side up

3



Close the lid of the CD compartment.



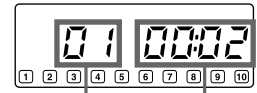
4



Press ►||.

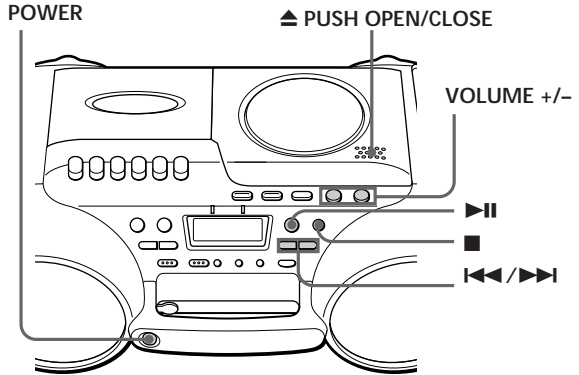
The player plays all the tracks once.

Display



Track number Playing time

Use these buttons for additional operations



Note

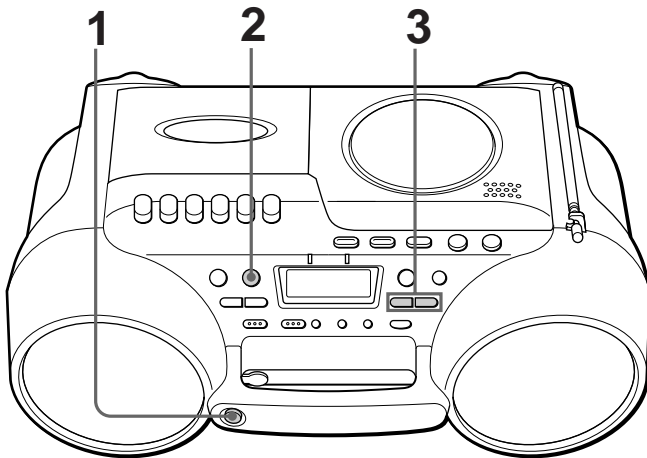
You cannot open the lid of the CD compartment when the speakers are facing upward. This is to prevent the CD from falling out of the CD compartment.



CD compartment

To	Press
Adjust the volume	VOLUME +/-
Stop playback	■
Pause playback	► Press again to resume play after pause.
Go to the next track	▶▶
Go back to the previous track	◀◀
Remove the CD	▲ PUSH OPEN/CLOSE
Turn off the player	POWER

Listening to the radio



Connect the supplied AC power adaptor (see page 25).

1



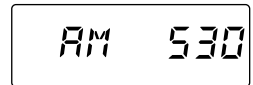
Press POWER to turn on the player.

2



Press BAND until the band you want appears in the display.

Display



3

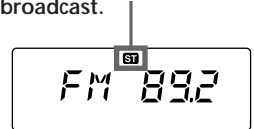


Hold down TUNING/TIME SET +/- until the frequency digits begin to change in the display.

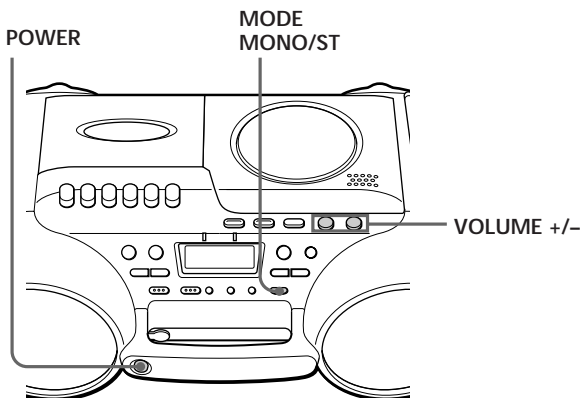
The player automatically scans the radio frequencies and stops when it finds a clear station.

If you can't tune in a station, press the button once at a time.

Indicates an FM stereo broadcast.



Use these buttons for additional operations

**Tip**

If the FM broadcast is noisy, press **MODE•MONO/ST** until “Mono” appears in the display and the radio will play in monaural.

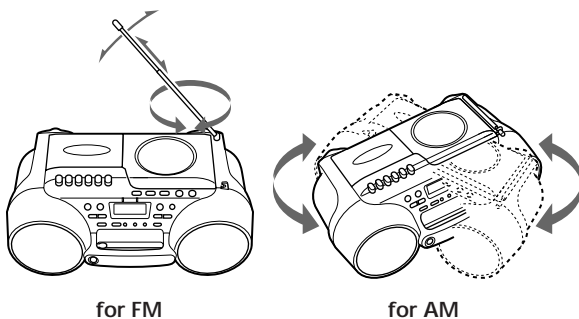
Note

When carrying the player, be sure to telescope the antenna completely and fold it down to prevent damaging it.

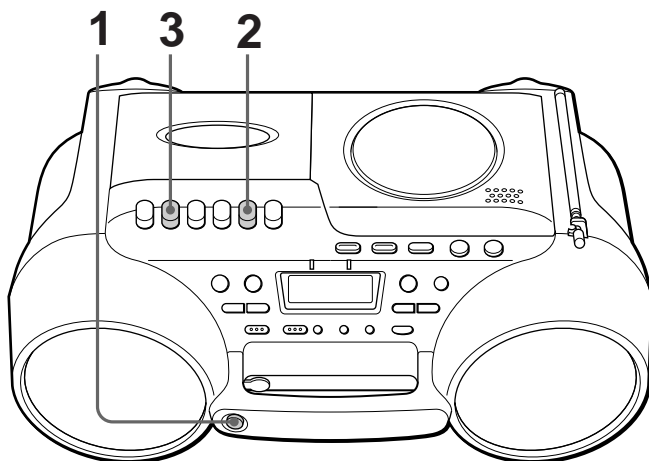
To	Press
Adjust the volume	VOLUME +/-
Turn off the radio	POWER

To improve broadcast reception

Reorient the antenna for FM. Reorient the player itself for AM.



Playing a tape



Connect the supplied AC power adaptor (see page 25).

1



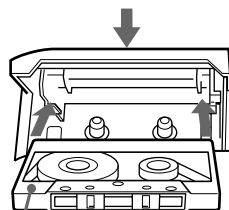
Press **POWER** to turn on the player.

2



STOP/EJECT

Press **▲** to open the tape compartment and insert a recorded tape. Use TYPE I (normal) tape only. Close the compartment.



With the side you want to play facing upward

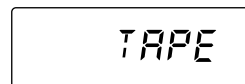
3



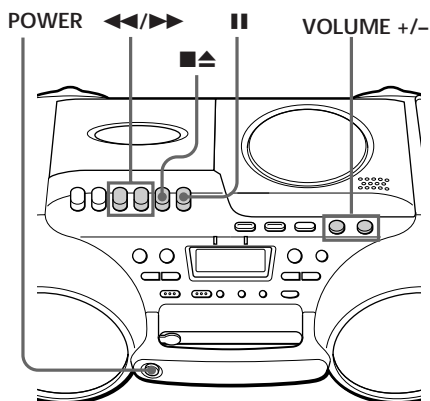
PLAY

Press **▶**.
The player starts playing.

Display

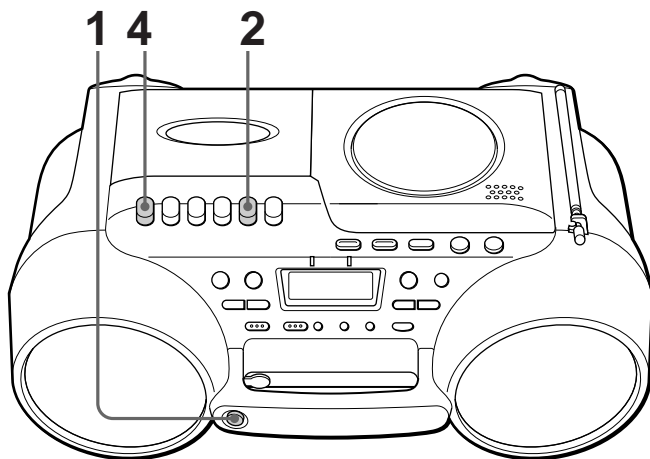


Use these buttons for additional operations



To	Press
Adjust the volume	VOLUME +/-
Stop playback	■▲
Fast-forward or rewind the tape	▶▶ or ◀◀
Pause playback	 Press the button again to resume play after pause.
Eject the cassette	■▲
Turn off the player	POWER

Recording on a tape



Connect the supplied AC power adaptor (see page 25).

1

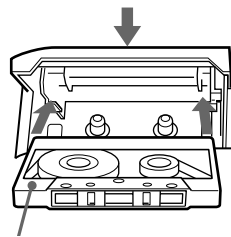


Press **POWER** to turn on the player.

2



Press **▲**/**▼** to open the tape compartment and insert a blank tape. Use TYPE I (normal) tape only.



With the side you want to record on facing upward

3



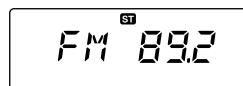
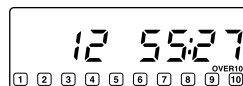
Select the program source you want to record.

To record from the CD player, insert a CD (see page 4) and press **■** on the CD section.



To record from the radio, press **BAND** and tune in the station you want (see page 6.)

Display



4

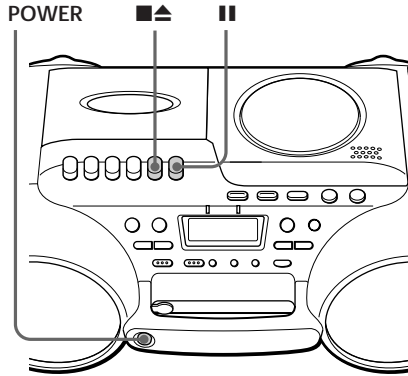


Press ● to start recording.
 (▶ is depressed automatically.)

Tips

- Adjusting the volume or the audio emphasis (see page 27) will not affect the recording level.
- To erase a recording, proceed as follows:
 - 1 Press POWER.
 - 2 Press FUNCTION repeatedly until “TAPE” appears in the display. Insert the tape whose recording you want to erase into the tape compartment.
 - 3 Press ●.

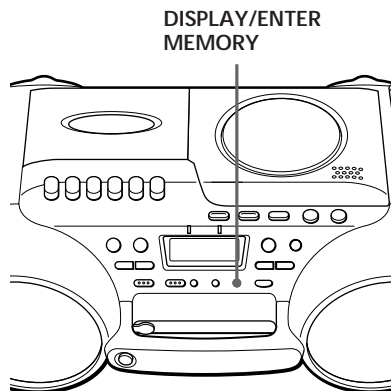
Use these buttons for additional operations



To	Press
Stop recording	■▲
Pause recording	 Press the button again to resume recording.
Turn off the player	POWER

Using the display

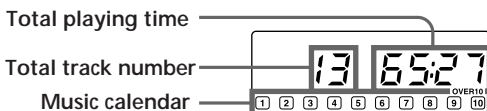
You can check information about the CD using the display.



Checking the total track number and playing time

Check the display in stop mode.

If the CD has more than 10 tracks, "OVER 10" appears in the display.



Checking the remaining time

Press DISPLAY/ENTER•MEMORY while playing a CD.

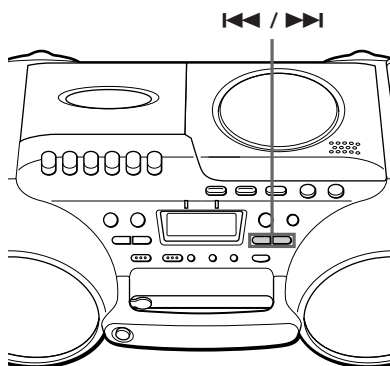
The track numbers in the music calendar disappear after they are played.

To display	Press DISPLAY/ENTER•MEMORY
The current track number and the remaining time on the current track*	Once
Remaining time on the CD and the number of tracks left	Twice
The current track number and playing time	Three times

* For a track whose number is more than 20 the remaining time appears as "--:--".

Locating a specific point in a track

You can locate a specific point in a track while playing a CD using **▶▶▶** or **◀◀◀**.

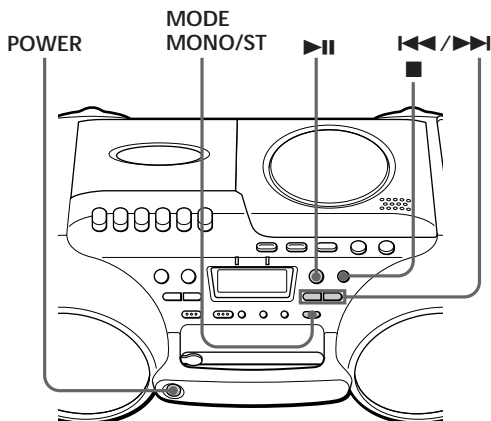


To locate	Press
a point while listening to the sound	▶▶▶ (forward) or ◀◀◀ (backward) while playing and hold down until you find the point.
a point while observing the display	▶▶▶ (forward) or ◀◀◀ (backward) in pause and hold down until you find the point.

Playing tracks repeatedly

(Repeat Play)

You can play tracks repeatedly in normal, shuffle or program play modes (see page 16).



- 1 Press POWER to turn on the player.
- 2 Press ■.
- 3 Press MODE•MONO/ST until the repeat mode you want appears in the display.

To repeat	Select
a single track	"REP 1"
all the tracks	"REP ALL"
tracks in random order	"SHUF" "REP"
programed tracks	"PGM" "REP" and then program tracks (see step 4 on page 16).

- 4 Do either of the following to start repeat play:
 - When you've selected "REP1", select the track by pressing ◀◀ or ▶▶ and press ▶▶.
 - When you've selected "REP ALL", "SHUF" "REP" or "PGM" "REP", press ▶▶.

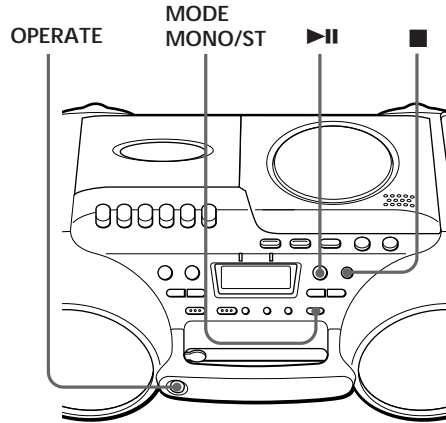
To cancel Repeat Play

Press MODE•MONO/ST until "REP" disappears from the display.

Playing tracks in random order

(Shuffle Play)

You can play tracks in random order.



- 1** Press OPERATE to turn on the player.
- 2** Press ■.
“Cd” appears in the display.
- 3** Press MODE•MONO/ST until “SHUF” appears in the display.
- 4** Press ▶|| to start shuffle play.

To cancel Shuffle Play

Press MODE•MONO/ST until “SHUF” disappears from the display.

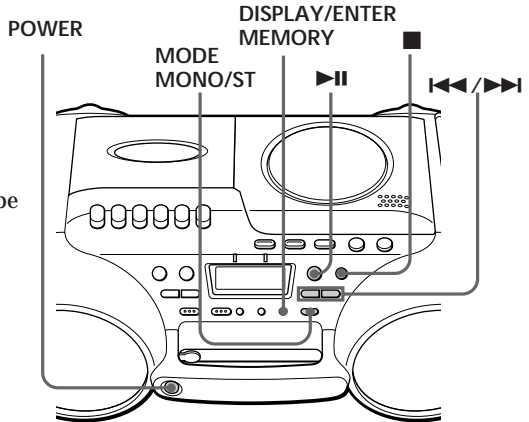
Creating your own program

(Program Play)

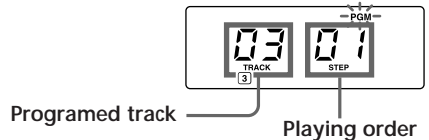
You can make a program of up to 20 tracks in the order you want them to be played.

Tips

- You can play the same program again, since the program is saved until you open the CD compartment.
- You can record your own program. After you've created the program, insert a blank tape into the tape compartment and press ● to start recording.



- 1 Press POWER to turn on the player.
- 2 Press ■.
“Cd” appears in the display.
- 3 Press MODE•MONO/ST until “PGM” appears in the display.
- 4 Press ◀◀/▶▶ and press DISPLAY/ENTER•MEMORY for the tracks you want to program in the order you want. You can program up to 20 tracks.



- 5 Press ▶▶ to start program play.

To cancel Program Play

Press MODE•MONO/ST until “PGM” disappears from the display.

To check the order of tracks before play

Press DISPLAY/ENTER•MEMORY.

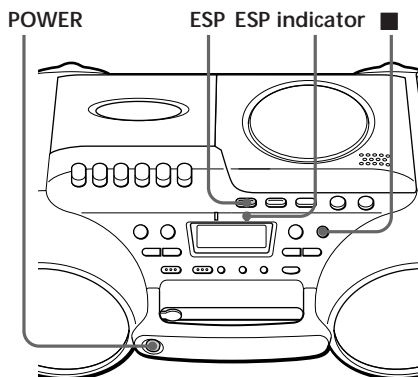
Every time you press the button, the track number appears in the programmed order.

To change the current program

Press ■ once if the CD is stopped and twice if the CD is playing. The current program will be erased. Then create a new program following the programming procedure.

Preventing sound from skipping (ESP)

The ESP (Electronic Shock Protection) function prevents the sound from skipping by using a buffer memory that stores music data for about 10 seconds.



Notes

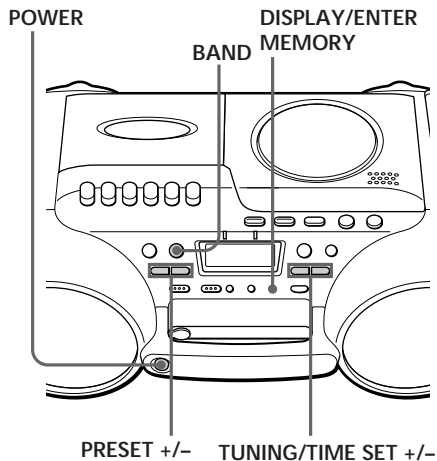
- Playing may stop when the player gets a strong shock even with the ESP function on.
- You may hear a noise or sound skip:
 - when you listen to a dirty or scratched CD.
 - when you listen to an audio test CD.
 - when the player receives continuous shock.
- Sound may drop for a while if you press ESP during play.
- During recording, you cannot change the setting of the ESP function.

- 1** Press POWER to turn on the player.
- 2** Press ■.
“Cd” appears in the display.
- 3** Press ESP.
The ESP indicator lights up.

To release the ESP function
Press ESP again.

Presetting radio stations

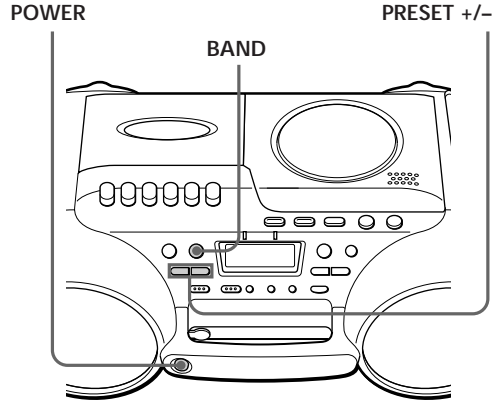
You can store radio stations into the player's memory. You can preset up to 20 radio stations, 10 for each band in any order.



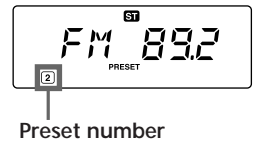
- 1** Press POWER to turn on the player.
- 2** Press BAND to select the band.
- 3** Tune in a station you want.
- 4** Hold down DISPLAY/ENTER•MEMORY for about 2 seconds.
- 5** Press PRESET+/- until the preset number (1 to 10) you want for the station flashes in the music calendar.
- 6** Hold down DISPLAY/ENTER•MEMORY again.
The new station replaces the old one.

Playing preset radio stations

Once you've preset the stations, use PRESET +/- to tune in your favorite stations.



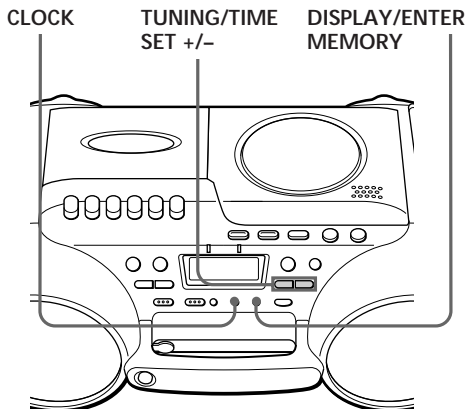
- 1 Press POWER to turn on the player.
- 2 Press BAND to select the band.
- 3 Press PRESET +/- to tune in a stored station.



Setting the clock

Before you set the clock, connect the AC power adaptor (see page 25.)

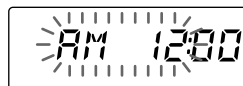
Before you set the clock, "AM 12:00" flashes.



Tip

The time display system:
12-hour system

- 1 Press **CLOCK** for about 2 seconds until the hour digit flashes.



- 2 Press **TUNING/TIME SET +/-** until you set the current hour. Then press **DISPLAY/ENTER•MEMORY**.

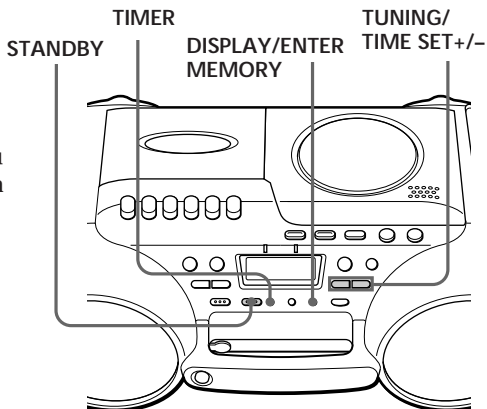
The minute digits flash. Set the minutes by pressing **TUNING/TIME SET +/-** until the correct minute is displayed.



- 3 Press **DISPLAY/ENTER•MEMORY**.
The clock starts from 00 seconds.

Waking up to music

You can wake up to music or a radio program at a preset time. Make sure you have set the clock (“Setting the clock” on page 21).



- 1 Prepare the music source you want to play.

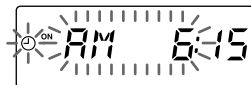
To play	Do this
the radio	Tune in a station
a CD	Insert a CD.

- 2 Press **TIMER**.

The \ominus (clock) and the music source (“Cd” or “RADIO”) flash.

- 3 Select the music source (“Cd” or “RADIO”) by pressing **TUNING/TIME SET +/-**, then **DISPLAY/ENTER•MEMORY**.

- 4 Set the timer to the hour you want the music to start by pressing **TUNING/TIME SET +/-**, then **DISPLAY/ENTER•MEMORY**.



Set the minutes, then press **DISPLAY/ENTER•MEMORY**.

- 5 Set the timer to the hour and the minutes you want the music to go off. (Do as step 4.)

Tip

You can have the player go on the next day at the same time. Just press **STANDBY** until the ☹ indication appears in the display. The preset settings remain until you reset them.

Note

The timer mode is canceled:

- when you press ► button of the tape player while music plays in the timer mode.
- when you select "TAPE" using **FUNCTION**.

- 6** Press **TUNING/TIME SET +/-** to set the volume, then **DISPLAY/ENTER•MEMORY**.



- 7** Press **STANDBY**.

The ☹ indication lights up and the power goes off.

At the preset time, the power will go on, and the music will play. Then the power will go off at the preset time, and the player will enter into the standby mode.

To check/change when the playback will start

Press **TIMER**, then **DISPLAY/ENTER•MEMORY**.

Each time you press **DISPLAY/ENTER•MEMORY**, a stored setting lights up. Change the setting if you need to when the setting lights up.

To use the player before a timer playback starts

Just turn on the player, and then you can use it.

If you turn off the player before the preset time, timer playback will start at the preset time.

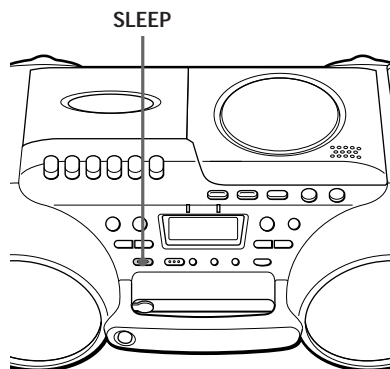
In case of the radio, however, if you listen to the station which is different from the one you tuned in in step 1 on page 22, you will hear that station at the preset time. Make sure to tune in the station you want to listen to before you turn off the player.

To stop play

Press **POWER**.

Falling asleep to music

You can set the player to turn off automatically after 10, 20, 30, 60, 90 and 120 minutes, allowing you to fall asleep while listening to music.



Tips

- When you are playing radio or CD, make sure that ► of the tape player is not depressed.
- You can fall asleep and wake up to different music. First, set the wake up timer by following steps in "Waking up to music" on page 22. Then, turn the power on and follow the steps on this page to set the sleep timer. When you are listening to the radio, make sure to tune in the station you want to wake up to.

Note

When you are playing a tape using this function:

If the tape length of one side is longer than the set time, the player will not go off until the tape reaches the end.

- 1 Play the music source you want.
- 2 Press SLEEP to display "SLEEP."
- 3 Press SLEEP to select the minutes until the player goes off automatically.

Each time you press the button, the indication changes as follows:

"60" → "90" → "120" → no indication → "10" → "20" → "30"

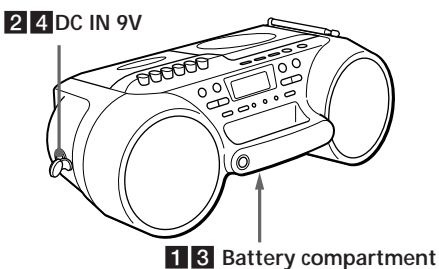


To cancel the sleep function

Press POWER to turn off the power.

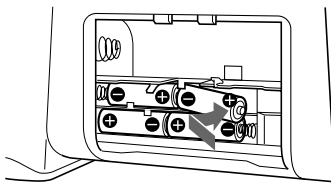
Choosing the power sources

You can use the AC power, batteries or the car battery as a power source.



1 Inserting the back-up batteries

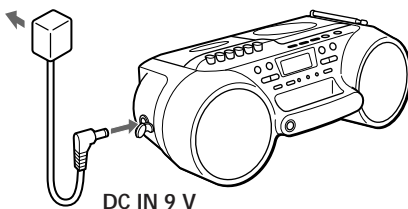
Insert four size AA (R6) batteries (not supplied) into the battery compartment. These batteries work to save the memory data.



2 Connecting the AC power adaptor

Insert one end of the supplied AC power adaptor (AC-CD980) to the DC IN 9 V socket located on the side of the player, and the other end to the wall outlet.

To a wall outlet



Note

Use only the supplied AC power adaptor (AC-CD980). Do not use any other AC power adaptor.



Polarity of the plug

continued

Choosing the power sources (continued)

Tip

Replace the batteries when the OPR/BATT indicator dims or when the player stops operating. Replace all the batteries with new ones. Before you replace the batteries, be sure to take out the CD from the player.

Notes

- Use only the supplied car battery cord (DCC-EC9N). Do not use any other car battery cord.



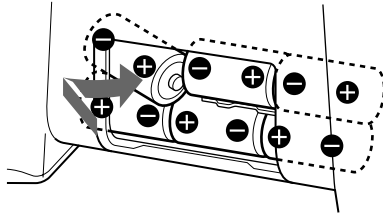
Polarity of the plug

- Use the supplied car battery cord only with a negative \ominus grounded car that uses a 12 V battery.
- If the inside of the cigarette lighter socket is dirty with ashes, etc., the plug of the car battery cord may become heated due to a bad contact. Before connecting the cord, be sure to clean the socket.
- When listening to the radio on this player, the car battery cord may cause noise. Extend it as long as possible, and keep it as far away as possible from the player.

3 Using the player on batteries

Insert six size D (R20) batteries (not supplied) into the battery compartment.

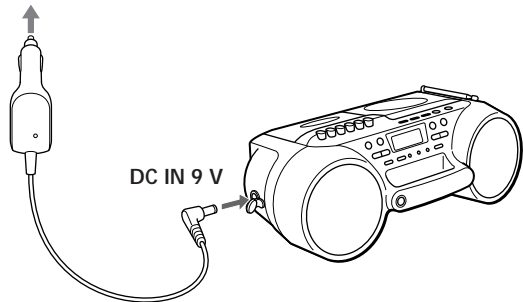
To use the player on batteries, disconnect the AC power adaptor from the player.



4 Using the player on car battery

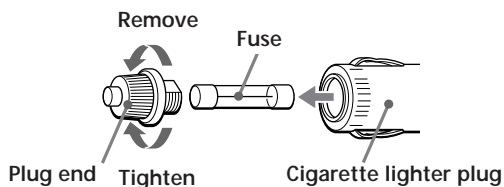
Insert one end of the supplied car battery cord (DCC-EC9N) to the DC IN 9 V socket located on the side of the player, and the other end to a cigarette lighter socket.

To a cigarette lighter socket



To replace the fuse of the car battery cord

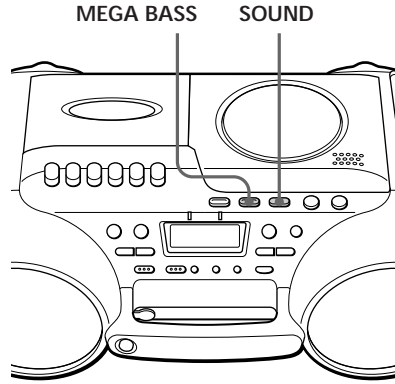
Be sure to use the fuse with the correct amperage. (2.5 A, 125 V, length 31.75 mm)



Selecting the audio emphasis

(Sound Mode/MEGA BASS)

You can adjust the audio emphasis of the sound you are listening to.



Selecting the sound characteristic

Press SOUND to select the audio emphasis you want.

Choose	To get
ROCK	powerful, clean sounds, emphasizing low and high range audio
POP	light, bright sounds emphasizing high and middle range audio
LIVE	percussive sounds, emphasizing bass audio
VOCAL	the presence of vocals, stressing middle range audio
OFF	the whole dynamic range for music such as classical music

Reinforcing the bass sound

Press MEGA BASS.

"MEGA BASS" appears in the display. To return to normal sound, press the button again.

Precautions

On safety

- 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.
- Should any solid object or liquid fall into the player, unplug the player, and have it checked by qualified personnel before operating it any further.
- Do not place anything within 10 mm of the side of the cabinet. The ventilation holes must be unobstructed for the player to operate properly and prolong the life of its components.
- If the player is left in a car parked in the sun, be sure to choose a location in the car where the player will not be subjected to the direct rays of the sun.

On power sources

- For AC operation, use the supplied AC power adaptor (AC-CD980); do not use any other type.
- Unplug the AC power adaptor from the wall outlet when the player is not to be used for an extended period of time.
- For battery operation, use six size D (R20) batteries.
- When the batteries are not to be used, remove them to avoid damage that can be caused by battery leakage or corrosion.
- For car battery operation, use the supplied car battery cord (DCC-EC9N); do not use any other cord.
- The nameplate indicating operating voltage, power consumption, etc. is located at the rear.

On placement

- Do not leave the player in a location near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Do not place the player on an inclined or unstable place.
- Since a strong magnet is used for the speakers, keep personal credit cards using magnetic coding or spring-wound watches away from the player to prevent possible damage from the magnet.

Do not immerse in water

This product is not meant to be immersed in water or come in continuous contact with water.

- Before opening or shutting the cassette compartment or battery compartment lid, be sure to wipe off water, dust or sand on the outside of the player.
- Water in the headphones jack may cause rusting. Cover the jack with the attached rubber cap when the headphones is not used.
- If the player is splashed with salt water, wipe clean with a damp cloth, then dry with a soft dry cloth. Do not wash under running water; do not use soap or detergent; do not dry with an electric hair dryer.
- The supplied AC power adaptor and car battery cord are not water resistant. To prevent shock hazard, avoid using the player near water during AC or car battery operation.

On operation

- If the player 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 CD and wait about an hour for the moisture to evaporate.
- If the player 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.

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

Notes on CDs

- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.



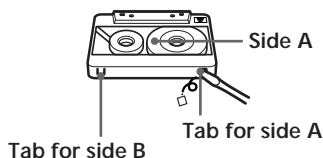
- Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the CD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight as there can be a considerable rise in temperature inside the car.

- Do not stick paper or sticker on the CD, nor scratch the surface of the CD.
- After playing, store the CD in its case.

If there is a scratch, dirt or fingerprints on the CD, it may cause tracking error.

Notes on cassettes

- Break off the cassette tab from side A or B to prevent accidental recording. If you want to reuse the tape for recording, cover the broken tab with adhesive tape.



- The use of a cassette with more than 90 minutes of play time is not recommended except for long, continuous recording or playback.

Troubleshooting

	Symptom	Remedy
General	The power is not on.	<ul style="list-style-type: none"> • Connect the AC power adaptor to a wall outlet securely. • Make sure the batteries are inserted correctly.
	There is no audio.	<ul style="list-style-type: none"> • Make sure the function you want to use appears in the display. • Adjust the volume. • Unplug the headphones when listening through speakers.
	"no disc" lights in the display even when a CD is in place.	<ul style="list-style-type: none"> • Insert the CD with the label surface up.
CD Player	The CD does not play.	<ul style="list-style-type: none"> • Make sure that the CD compartment is closed. • Place the CD with the label surface up. • Clean the CD. • Take out the CD and leave the CD compartment open for about an hour to dry moisture condensation. • Make sure "Cd" appears in the display.
	The sound drops out.	<ul style="list-style-type: none"> • Reduce the volume. • Clean the CD, or replace it if the CD is badly damaged • Place the player in a location free from vibration.
	The lid of the CD ompartment will not open.	<ul style="list-style-type: none"> • You cannot open the CD compartment when the speakers are facing upward.
Radio	The audio is weak or has poor quality.	<ul style="list-style-type: none"> • Replace all the batteries with new ones if they are weak. • Move the player away from the TV.
	The picture of your TV becomes unstable.	<ul style="list-style-type: none"> • If you are listening to an FM program near the TV with an indoor antenna, move the player away from the TV.

	Symptom	Remedy
Tape Player	The tape does not move when you press an operation button.	<ul style="list-style-type: none"> • Close the cassette compartment securely.
	The REC ● button does not function/The tape does not play.	<ul style="list-style-type: none"> • Make sure the safety tab on the cassette is in place. • Make sure "TAPE" appears in the display.
	The tape does not erase completely.	<ul style="list-style-type: none"> • Clean the erasing head (see page 32). • The source which was recorded on TYPE II (high position) or TYPE IV (metal) tape using this unit is being played. Record on TYPE I (normal) tape and play.
	The tape does not record.	<ul style="list-style-type: none"> • Make sure the tape is inserted properly. • Make sure the safety tab of the cassette is in place.
	The audio is weak/The audio quality is poor.	<ul style="list-style-type: none"> • Clean the heads, pinch roller and capstan (see page 32). • Demagnetize the heads using a demagnetizer (see page 32).
	The sound is distorted.	<ul style="list-style-type: none"> • The TYPE II (high position) or TYPE IV (metal) tape is being used. Use TYPE I (normal) tape only.
Timer	The timer does not operate.	<ul style="list-style-type: none"> • Make sure the time on the clock is correct. • Check to see if the AC power had been cut off. • Make sure the ☹ (clock) indication is displayed.

The player uses a built-in micro computer for its various operations. Due to change in power supply conditions, etc., operation may sometimes become unstable. After trying the above remedies, if the player still does not function properly, press RESET in the battery compartment with a pointed material. If the problem persists, please consult your nearest Sony dealer.

Maintenance

Cleaning the lens

If the lens becomes dirty, it may cause a skipping of sound during CD operation. Clean with a commercially available blower.

Cleaning the tape heads and tape path

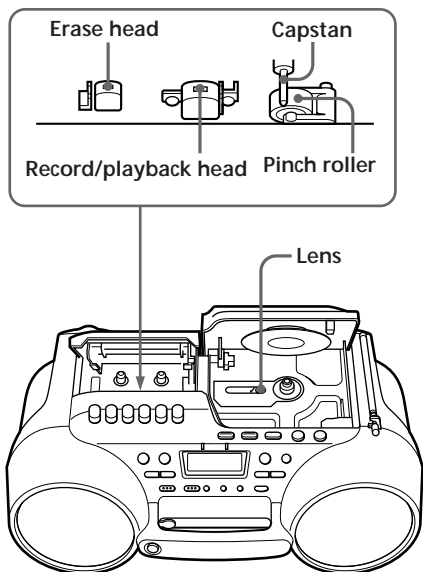
Wipe the heads, the pinch roller and the capstan with a cleaning swab slightly moistened with cleaning fluid or alcohol after every 10 hours of operation for optimum playback and recording quality. To make the best possible recording, however, we recommend that you clean all surfaces over which tape travels before each recording.

Demagnetizing the tape heads

After 20 to 30 hours of use, enough residual magnetism will have built up on the tape heads to begin to cause loss of high frequency sound and hiss. At this time, you should demagnetize the heads and all metal parts in the tape path with a commercially available tape head demagnetizer.

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.



After cleaning, insert a tape when the areas cleaned are completely dry.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven from 150 - 15,000 Hz; rated 1.8 W per channel-minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

Other Specifications

CD player section

System

Compact disc digital audio system

Laser diode properties

Material: GaAlAs

Wave length: 780 nm

Emission duration: Continuous

Laser output: Less than 44.6 μ W

(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

Spindle speed

200 r/min (rpm) to 500 r/min (rpm) (CLV)

Number of channels

2

Frequency response

20 - 20,000 Hz +0.5/-1 dB

Wow and flutter

Below measurable limit

Radio section

Frequency range

FM: 87.6 - 108 MHz

AM: 530 - 1,710 kHz

Aerials

FM: Telescopic aerial

AM: Built-in ferrite bar aerial

Cassette-corder section

Recording system

4-track 2 channel stereo

Fast winding time

Approx. 130 s (sec.) with Sony cassette C-60

Frequency response

TYPE I (normal): 50 - 13,000 Hz

General

Speaker

Full range: 10 cm (4 in.) dia.,
3.2 ohms, cone type (2)

Outputs

Headphones jack (stereo minijack)

For 16 - 68 ohms impedance headphones

Power output (excluding US model)

2.0 W + 2.0 W (at 3.2 ohms, 10 % harmonic distortion)

Power requirements

For CD radio cassette-corder:

DC IN 9 V jack accepts:

Supplied AC power adaptor (AC-CD980) for use with 120 V AC, 60 Hz

Supplied car battery cord (DCC-EC9N) for use with 12 V car battery

9 V DC, 6 size D (R20) batteries

For memory back-up:

6 V DC, 4 size AA (R6) batteries

Power consumption

AC 20 W

Battery life

For CD radio cassette-corder

FM recording

Sony R20P: approx. 15 h

Sony alkaline LR20: approx. 20 h

Tape playback

Sony R20P: approx. 12 h

Sony alkaline LR20: approx. 17 h

CD recording

Sony R20P: approx. 4 h

Sony alkaline LR20: approx. 6 h

Dimensions

Approx. 435 × 163 × 242 mm (w/h/d)

(17 ¼ × 6 ½ × 9 ⅝ inches) (incl. projecting parts)

Mass

Approx. 3.9 kg (8 lb. 10 oz) (incl. batteries)

Supplied accessories

AC power adaptor AC-CD980 (1)

Car battery cord DCC-EC9N (1)

Spare fuse (1)

Design and specifications are subject to change without notice.

Optional accessories

Sony MDR headphones series

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