

CD Radio Cassette-Corder

CFD-570

Operating Instructions

COMPACT
disc
DIGITAL AUDIO

MEGA BASS

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.

For customers in Canada

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.

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 and serial numbers are located on the bottom of the CD radio cassette-corder. Record the serial number in the space provided below. Refer to them whenever you call your Sony dealer regarding this product.

Model No. CFD-570

Serial No. _____

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Welcome!

Thank you for purchasing the Sony CFD-570 CD Radio Cassette-Corder. The CFD series CD radio cassette-corder is packed with fun features. Here are just a few:

- A Mega Bass sound system that boosts low frequency range audio to provide deep, powerful bass through the bass reflex speakers
- A preset feature that lets you store and recall up to 20 of your favorite radio stations
- A timer that lets you set the CD player or radio to turn on or off whenever you want
- A dual tape deck that allows you to record from the radio, CD player or from the other tape deck
- A display window with back light enables you to see the operation
- A remote commander that gives you control of the music from your seat

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.

On power sources

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

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 anything within 10 mm of the side of the cabinet. The ventilation holes must be unobstructed for the player to operate properly and to 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.
- 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.

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 CD or cassette.

Note on using a cassette with more than 90 minutes of play time

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

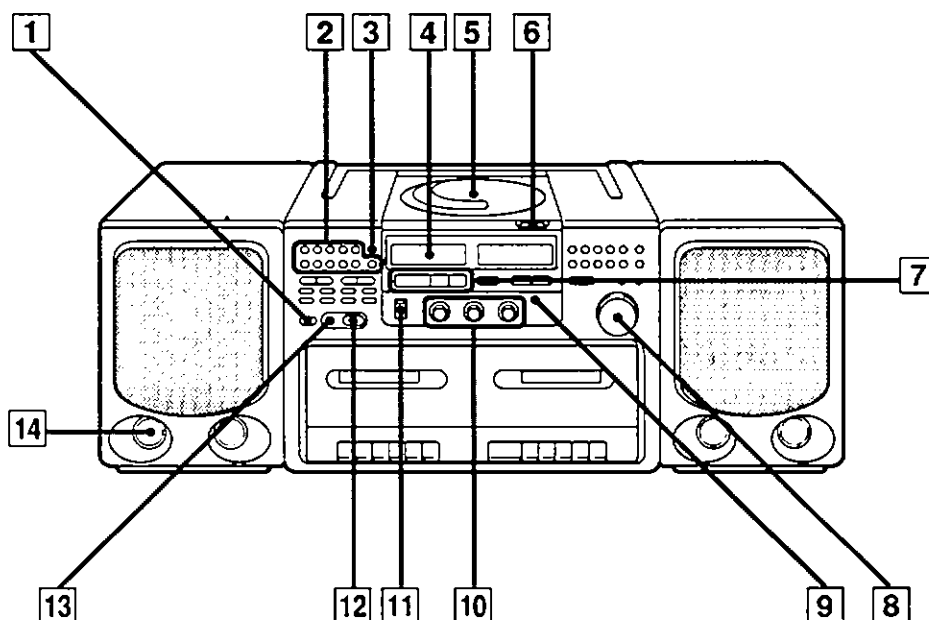
If you have any questions or problems concerning your player, please consult your nearest Sony dealer.

Looking at the Controls

See pages in () for more details.

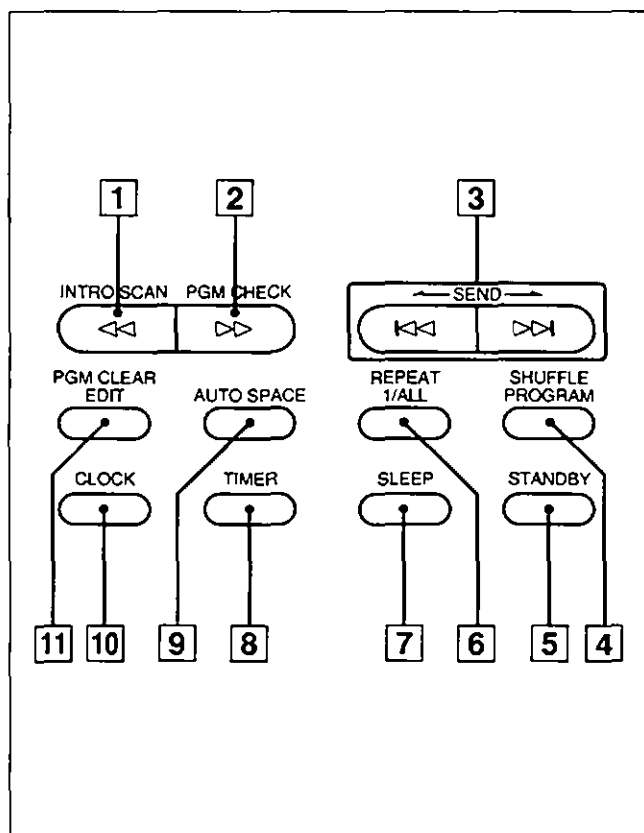
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CD Player and Clock/Timer



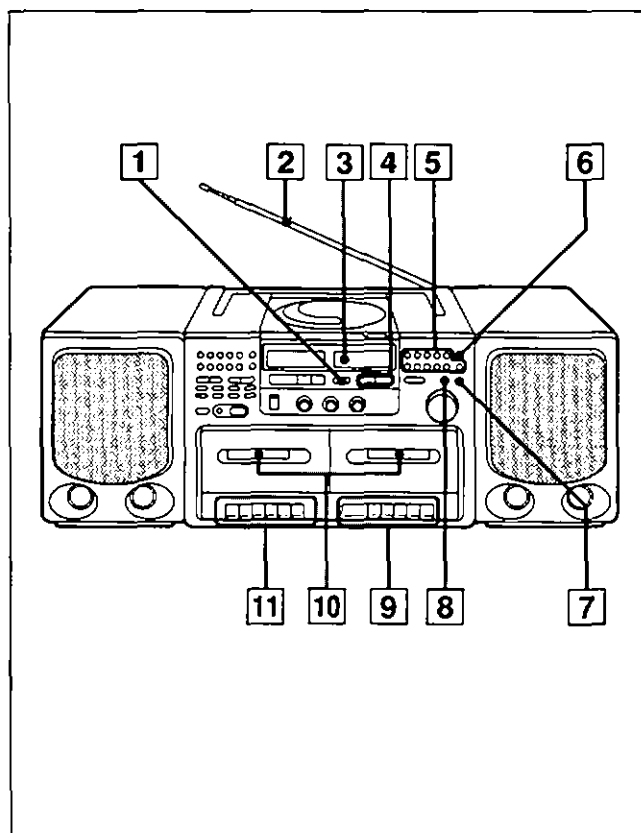
- | | |
|--|--|
| <p>1 POWER switch</p> <p>2 Number buttons (13, 18, 20, 27, 29)</p> <p>3 DISPLAY button (22)</p> <p>4 Display window for CD/timer/clock (8)</p> <p>5 Disc compartment</p> <p>6 OPEN button</p> <p>7 CD operation buttons
 ▷ (play)
 ⏏ (pause)
 □ (stop)</p> <p>8 VOLUME control</p> | <p>9 OPR/BATT (operation/battery) indicator</p> <p>10 ROTARY EQUALIZER controls (14)</p> <p>11 FUNCTION selector
 CD: for playing or recording a CD
 TUNER: for playing or recording a radio program
 DUBBING: for recording a tape
 TAPE: for playing a tape</p> <p>12 Remote sensor</p> <p>13 PHONES (headphones) jack (stereo mini-jack)</p> <p>14 Duct
 Reproduces bass sound.</p> |
|--|--|

Close-Up of Front Control Panel

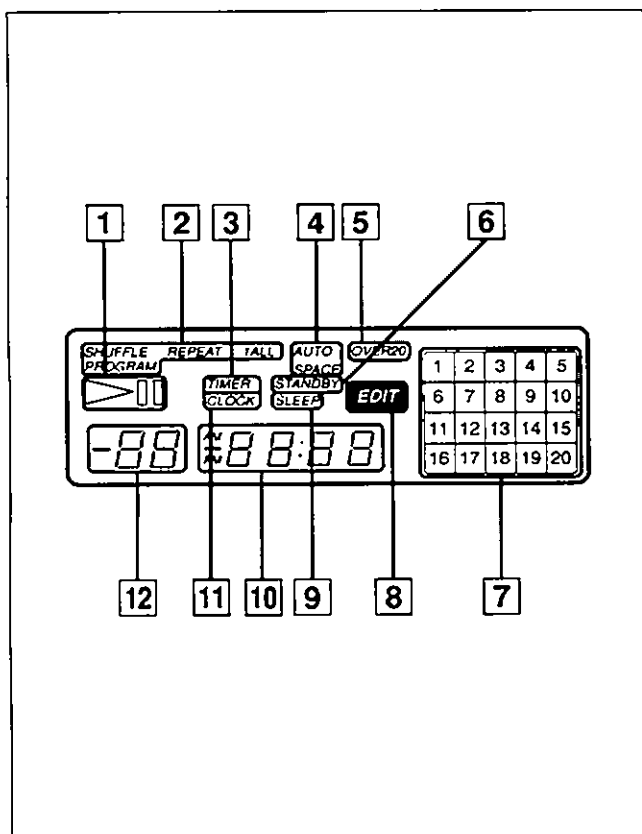


- 1** ◀◀ (manual search)/INTRO SCAN button
- 2** ▶▶ (manual search)/PGM (program) CHECK button
- 3** ◀◀/▶▶ (track search)/SEND buttons
- 4** SHUFFLE/PROGRAM button (19, 20, 21)
- 5** STANDBY button (29)
- 6** REPEAT 1/ALL button (21)
- 7** SLEEP button (28)
- 8** TIMER button (29)
- 9** AUTO SPACE button (26)
- 10** CLOCK button (13)
- 11** PGM CLEAR (program clear)/EDIT button (27)

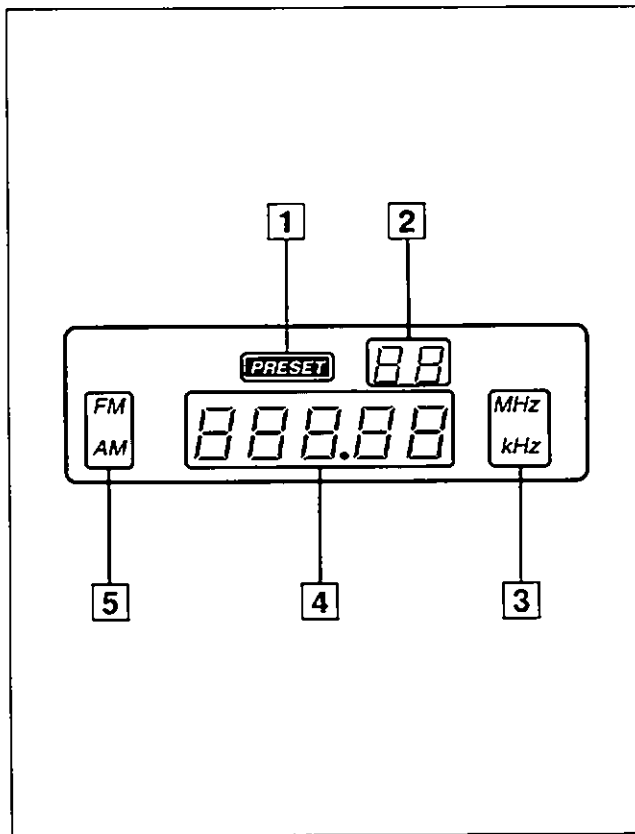
Radio and Tape Player



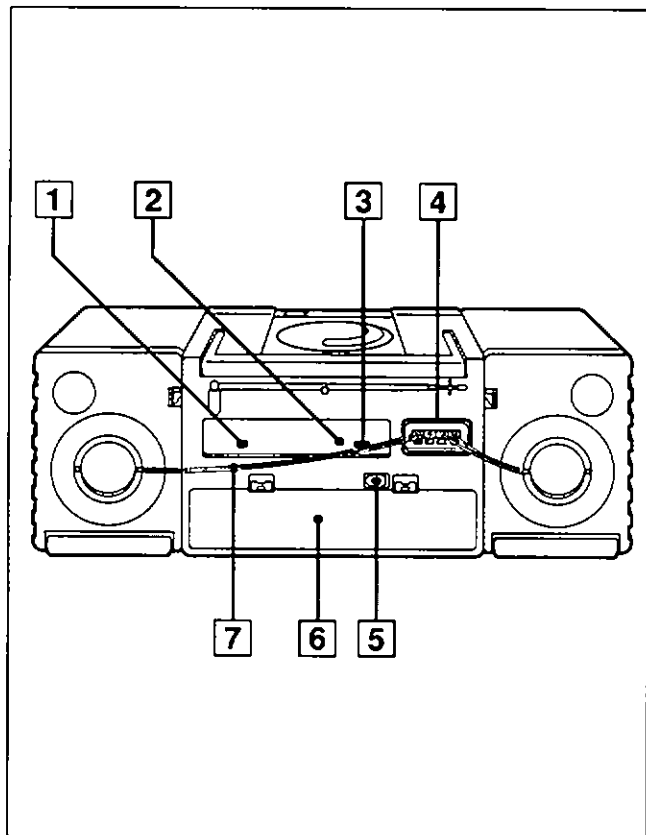
- 1** BAND button (15)
- 2** Telescopic antenna (15)
- 3** Display window for tuner (8)
- 4** TUNING +/- buttons (15, 16)
- 5** Preset tuning buttons (16)
- 6** MEMORY button (16)
- 7** TUNING indicator
- 8** FM ST (stereo) indicator
- 9** Tape operation buttons for deck B
- 10** Cassette compartments
- 11** Tape operation buttons for deck A

Display window for CD/timer/clock

- 1** ▷ (play)/ ⏸ (pause) indication
- 2** CD play mode indications
- 3** Timer indication
- 4** AUTO SPACE indication
- 5** OVER 20 indication
- 6** STANDBY indication
- 7** Music calendar
- 8** EDIT indication
- 9** SLEEP indication
- 10** Time indication
- 11** CLOCK indication
- 12** Selection number/number of selections indication

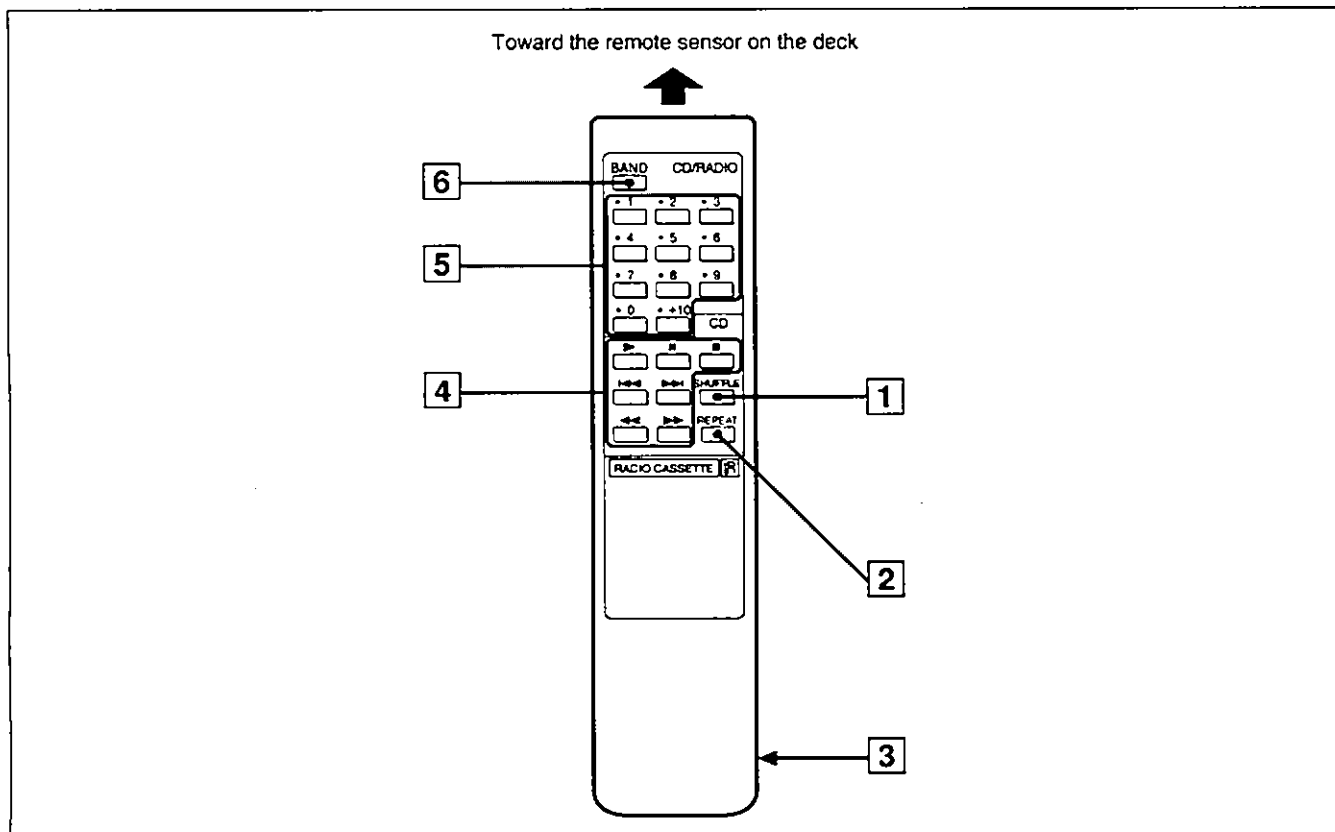
Display window for tuner

- 1** PRESET indication
- 2** Preset number indication
- 3** MHz/kHz indication
- 4** Frequency indication
- 5** FM/AM indication



- 1** FM SENS selector (15)
- 2** MIX MIC (mixing microphone) jack (mini-jack) (30)
- 3** ISS (interference suppress switch) (24)
- 4** SPEAKER OUTPUT terminals (11)
- 5** AC IN (AC power input) socket
Connect to the wall outlet.
- 6** Battery compartment (12)
- 7** Speaker wires

Remote Commander



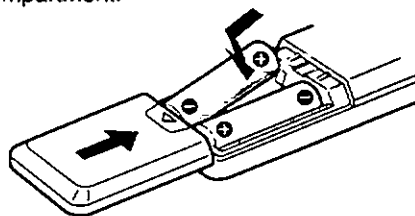
You can use this remote commander for the CD and radio operation.

Controls on the remote commander with the same name as those on the deck have the same function.

- 1** SHUFFLE button
- 2** REPEAT (repeat 1/all) button
- 3** Battery compartment
- 4** CD operation buttons
 - ▶ (play)
 - ⏸ (pause)
 - (stop)
 - ⏮⏭ (track search)
 - ⏮⏭ (manual search)
- 5** Number/preset tuning buttons
- 6** BAND button

Installing batteries

Insert two size AA (R6) batteries (not supplied) into the battery compartment.



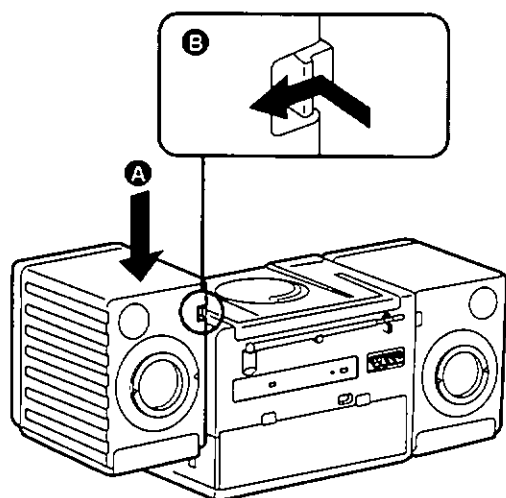
To avoid malfunction, keep the commander away from direct sunlight or strong illumination.

Connecting the Speakers

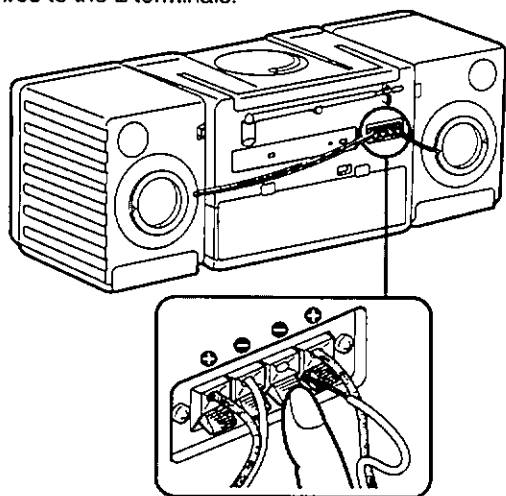
A8:

For easy transport, the dual speakers are detachable. Before you begin listening to music, attach the speaker boxes and connect the speaker wires as shown below. Make sure you turn off the power before making any connections.

- 1 Align the grooves and slide the speaker box down until it snaps into place. **A**



- 2 Connect the black wires to (-) minus terminals and the red wires to (+) plus terminals. Connect the right speaker wires to the R terminals, and the left speaker wires to the L terminals.



To detach the speakers

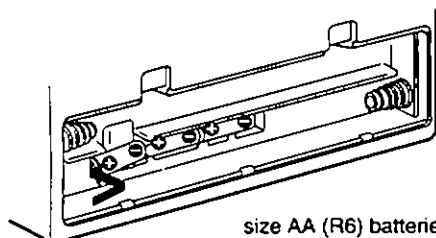
Unlock the speaker **B** and slide the speaker box all the way up and away from the player.

Choosing Power Sources

The CD cassette-corder has three separate power sources. Use the AC power source whenever you record because recording consumes the most power. Use ten size D (R20) batteries when the CD cassette-corder becomes a portable. At all times keep three size AA (R6) batteries installed to keep the clock powered and programmed settings in memory.

Installing batteries for the clock/timer/memory

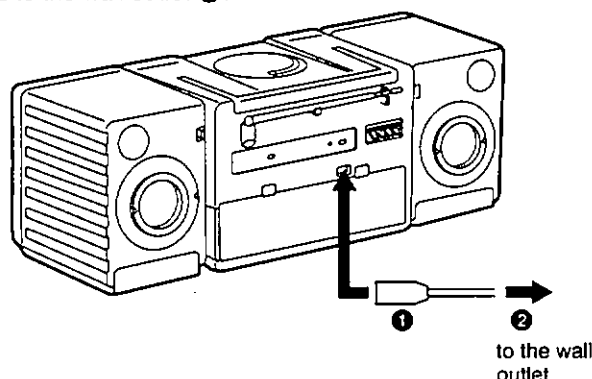
Remove the CD from the player to prevent it from falling out. In the smaller compartment insert three size AA (R6) batteries (not supplied) for the clock/timer/memory.



size AA (R6) batteries (3)

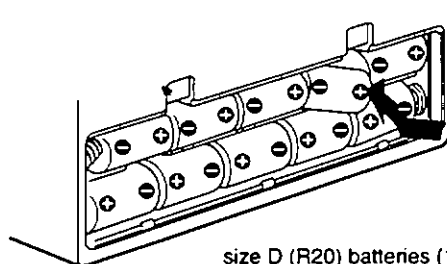
Operating the player on AC power

Insert one end of the supplied AC power cord to the AC IN socket located at the rear of the player ❶ and the other end to the wall outlet ❷.



Operating the player on batteries

To play your CD cassette-corder on batteries, the AC power cord must be disconnected from the player. Unplug the player and insert ten size D (R20) batteries (not supplied) in the larger compartment.



size D (R20) batteries (10)

When to replace the batteries

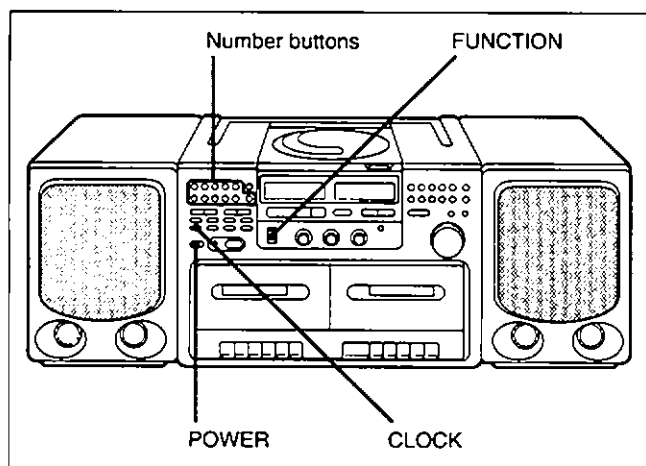
- Replace the size D (R20) batteries when: the OPR/BATT indicator dims or when the player stops operating.
- Replace the size AA (R6) batteries when: the indications in the display window dim, the clock stops operating or the remote commander does not function.

When the batteries are weak, replace all the batteries with new ones. Connect the player to the AC power source when replacing the size AA (R6) batteries so that the memory data for the CD player and radio will not be erased.

Setting the Clock

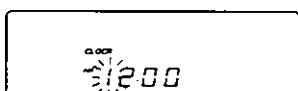
A8

To use the timer, you need to set the clock. Insert three size AA (R6) batteries in the small battery compartment, and connect the CD cassette-corder to a wall outlet or insert ten size D (R 20) batteries (see *Choosing Power Sources* on page 12).

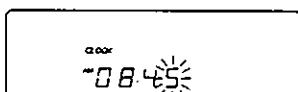
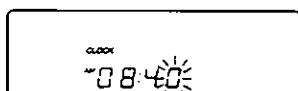
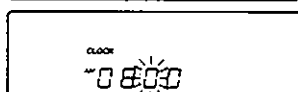
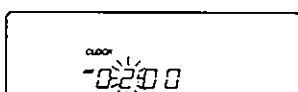


- 1 Turn the power off (⏻ OFF (TIMER/SLEEP)).

- 2 Depress and hold CLOCK until "CLOCK" appears in the display window.

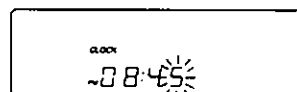


- 3 Press the number buttons to set the hour and then the minute.
If the hour and/or minute has one digit, press 0 before the number.

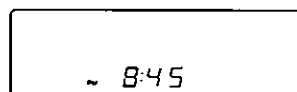


The flashing position shows where the next number will be entered.

- 4 Select "AM" or "PM" by pressing +10/AM/PM.



- 5 Press CLOCK again.
The clock starts from 00 seconds.



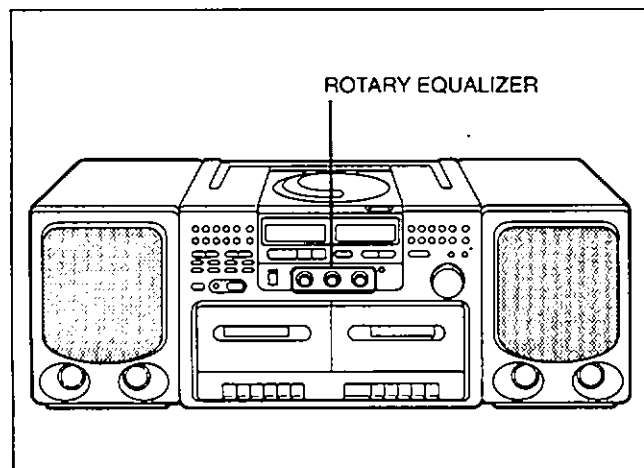
To check the time while playing a CD
Press CLOCK.

If you make a mistake

Press ◀◀ or ▶▶ until the digit you want to change flashes and then re-enter the correct number.

Adjusting the Sound Emphasis

When playing CDs, tapes, or radio programs, use the ROTARY EQUALIZER controls to equalize the reproduced sound.



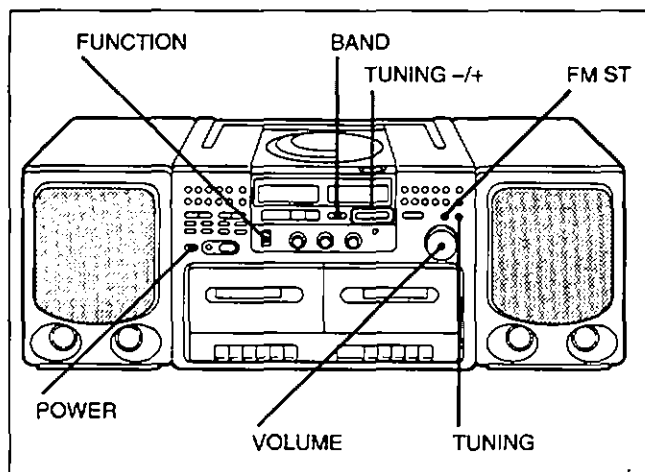
To equalize the reproduced sound

Turn the ROTARY EQUALIZER controls.

Frequency coverage	Turn the control clockwise	Turn the control counterclockwise
MEGA BASS 100 Hz	to increase heavy bass sounds	to decrease heavy bass sounds
1 kHz	to provide more presence of vocals	to provide less presence of vocals
10 kHz	to increase the brightness of the sound	to decrease the brightness of the sound or to reduce tape hiss

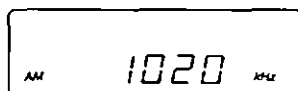
Listening to the Radio

Whenever you want to listen to the radio, set the FUNCTION selector to TUNER. To quickly find and play your favorite radio stations, store them using the station preset function described in the next two sections.



1 Turn on the power and set FUNCTION to TUNER.

2 Press BAND until the band you want appears.



3 Tune in a radio station by pressing TUNING +/- . When the desired station is tuned in, the TUNING indicator lights.

If the radio tunes to an FM stereo broadcast, the FM ST indicator lights up. If the received FM stereo is too weak, the reception becomes monaural, and the FM ST indicator will go off.

4 Adjust the volume and the sound emphasis (see *Adjusting the Sound Emphasis* on page 14).

To turn off the radio

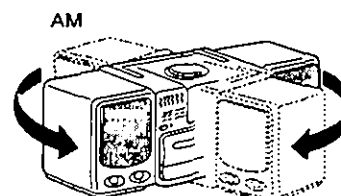
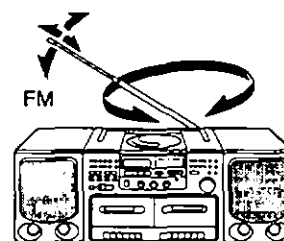
Set the POWER switch to OFF.

To reduce FM noise

Set the FM SENS selector at the rear of the player to LOCAL. Normally it is set to DX.

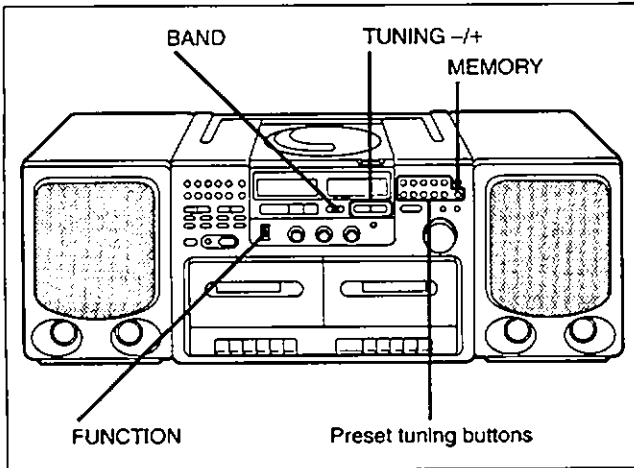
To improve broadcast reception

Reorient the antenna (for FM) or the player itself (for AM).



Presetting Radio Stations

You can store radio frequencies in the player's memory to tune in your favorite stations at a touch of a button. You can preset up to 20 radio stations.



- 1 Set FUNCTION to TUNER.
- 2 Press BAND until the band you want appears.
- 3 Tune in your favorite station by pressing TUNING +/-.
- 4 While keeping MEMORY pressed, press the desired preset tuning button.
The preset number appears in the display window. Your favorite station is stored in memory.
When a preset number is more than 9, while keeping MEMORY pressed, press +10 and then another number. (See the examples below.)

Example: Preset number 10

While keeping MEMORY pressed

Press $\text{+10} \rightarrow \text{0}$

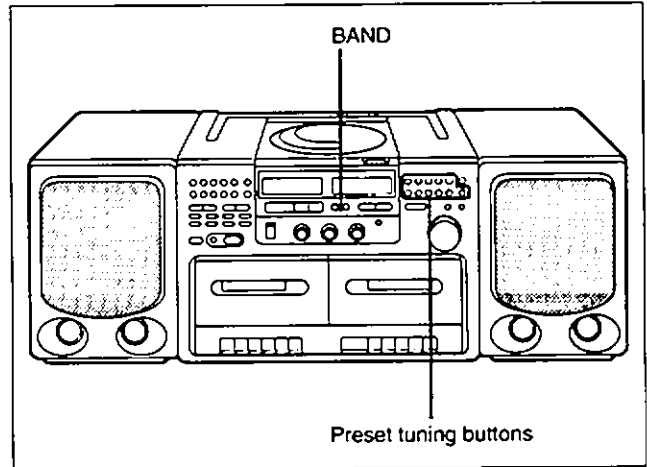
Example: Preset number 20

While keeping MEMORY pressed

Press $\text{+10} \rightarrow \text{+10} \rightarrow \text{0}$

Playing Preset Radio Stations

Once you have preset the stations, use the preset tuning buttons to tune in your favorite stations.



Selecting the band

Press BAND to select the band. Then, press a preset tuning button to tune in a stored station.

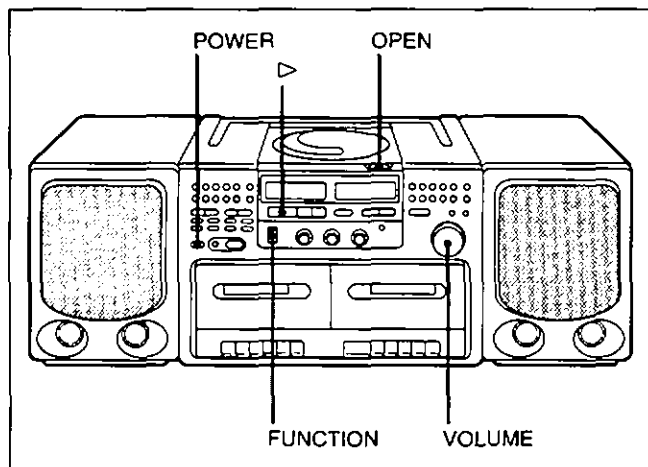
If a preset number is more than 9, press +10 and then another number. Refer to the examples in *Presetting Radio Stations*.

To erase a preset station

Storing a new station on a previously used preset number will erase the old station and replace it with the new one.

Playing a CD (normal play)

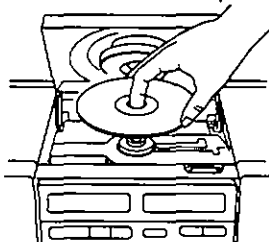
You can operate the CD cassette-corder from the deck or with the supplied remote commander. Also, you can play 12 cm (5 inch) and 8 cm (3 inch) CDs without an adaptor.



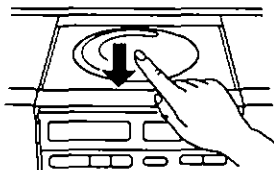
- 1 Turn on the power and set FUNCTION to CD. If there is no disc in the disc compartment "no disc" lights in the display window.

- 2 Press OPEN to open the disc compartment.

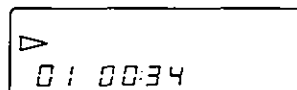
- 3 Holding the CD by the edge, place the CD in the disc compartment with the label side up.



- 4 Close the compartment lid. The disc track numbers appear in the music calendar. If the disc contains more than 20 tracks, "OVER 20" appears in the display window.



- 5 Press ▷ (play). The CD player plays all the tracks once. The track number and playing time appear in the display window. Tracks disappear from the music calendar as they are played.



Between tracks, the remaining time before the next track is displayed.

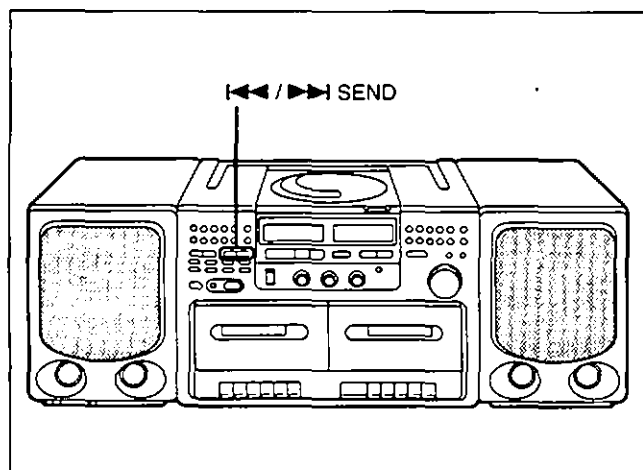


- 6 Adjust the volume and sound emphasis (See *Adjusting the Sound Emphasis* on page 14). (Be careful not to turn up the volume excessively while listening to a portion with very low audio inputs. If you do, the speakers may be damaged when a peak level plays.)

To	Press	
	Remote	Deck
Stop play	■	□
Pause		
Resume play after pause		
Remove the CD	First ■, then OPEN	First □, then OPEN
Turn off the power	POWER (□ OFF)	POWER (□ OFF)

Playing Specific Tracks

You can find the beginning of a track or a point in a track while the player is playing or paused. Find a particular track by specifying the track number.



To find the beginning of a track (AMS^{*1})

To find	Press ^{*2}
the beginning of the current track	◀◀ once
the beginning of the previous tracks	◀◀ repeatedly
the beginning of the next track	▶▶ once
the beginning of the succeeding tracks	▶▶ repeatedly

^{*1}AMS: Automatic Music Sensor

^{*2}If the SHUFFLE or PROGRAM EDIT indication is displayed, press SHUFFLE/PROGRAM to clear the indication.

To find a point in a track

In play mode, press ◀◀ or ▶▶ and listen for the point you want to hear.

In pause mode, press ◀◀ or ▶▶ and observe the time counter.

To listen to a specific track

Press the number for the track you want to hear. Play starts immediately. To play tracks with numbers equal to or greater than 10, press +10/AM/PM first, then the number buttons 1 to 0. (See the examples below.)

Example:

To play from the 10th selection

Press $\overset{+10}{\bigcirc}$ → \bigcirc^0
 AM/PM

Display 10

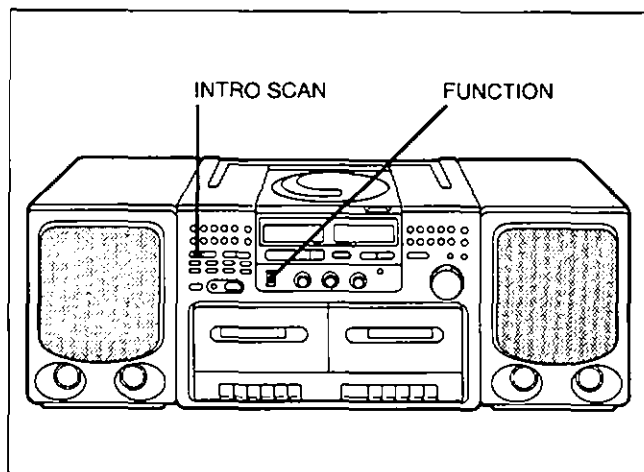
To play from the 33rd selection

Press $\overset{+10}{\bigcirc}$ → $\overset{+10}{\bigcirc}$ → $\overset{+10}{\bigcirc}$ → \bigcirc^3
 AM/PM AM/PM AM/PM

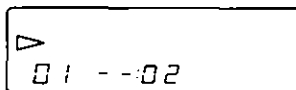
Display 33

Playing the Beginning of Each Track (intro scan)

You can sample the first 10 seconds of each track on a CD. Use the INTRO SCAN button for this function in normal play, shuffle play and program play modes.



- 1 Set FUNCTION to CD.
- 2 Press INTRO SCAN while the player is stopped. The first track plays for ten seconds. The player then skips to the next track to be played.



To start playing a track

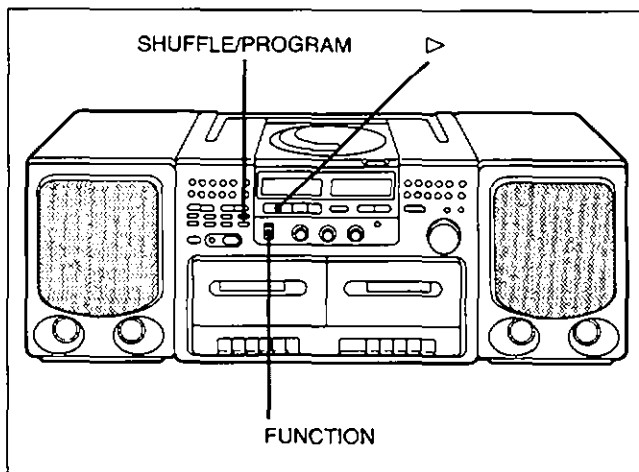
Press ▷ (play).

To cancel intro scan

Press any button for CD operation.

Playing Tracks in Random Order (shuffle play)

In shuffle play tracks play in mixed order. For example, instead of playing tracks 1, 2, 3 in order, they will play in any order such as 2, 1, 3.



- 1 Set FUNCTION to CD.
- 2 Press SHUFFLE/PROGRAM until "SHUFFLE" appears in the display window.



- 3 Press ▷ (play). The tracks play in random order. When a track finishes, its track number disappears from the music calendar.

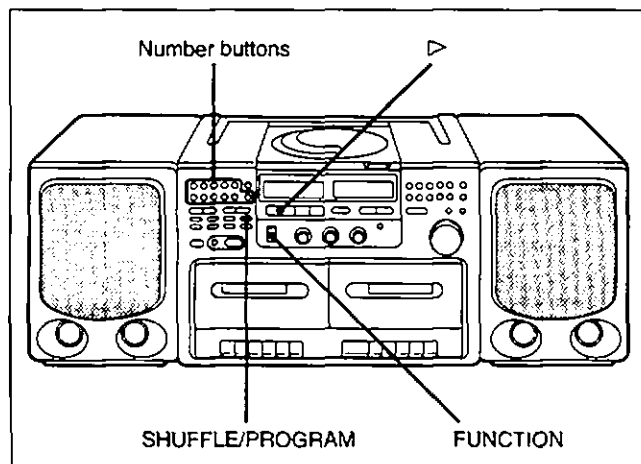
To	Press
Stop shuffle play	<input type="checkbox"/>
Cancel shuffle play	SHUFFLE/PROGRAM until no indication appears in the display

Notes

- You cannot display the remaining time on the CD during shuffle play.
- When you display "SHUFFLE" during normal play, shuffle play begins from the selection being played.

Playing Tracks in the Desired Order (program play)

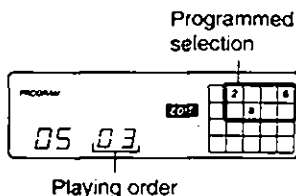
Program the CD cassette-corder to play tracks in any order you choose.



- 1 Set FUNCTION to CD.
- 2 Press SHUFFLE/PROGRAM until "PROGRAM EDIT" appears in the display window.



- 3 Press the number buttons for the tracks you want played in the order you want them played (e.g., 2, 8, 5). Up to 21 tracks can be programmed.



To check the total playing time while programming tracks

While you are programming the tracks, press DISPLAY. The total playing time of the programmed selections will be displayed.

If you make a mistake

Press PGM CLEAR/EDIT once and re-enter the track number.

- 4 Press > (play).

The tracks play in the order programmed. The track numbers disappear as the selections are played, but the programmed selections are memorized until the lid of the disc compartment is open.

To	Press
Stop play	<input type="checkbox"/>
Cancel program play	SHUFFLE/PROGRAM until no indication appears in the display

To change the order of the tracks

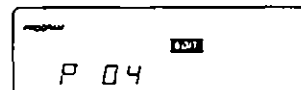
To change the order of the tracks, you must erase the current program and create a new one.

To erase the current program

Open and close the disc compartment when the CD is stopped. The current program will be erased. Follow the steps in *Playing Tracks in the Desired Order* to create a new program. Be sure the OPR/BATT indicator lights up; otherwise, the selections programmed cannot be erased.

To program a pause

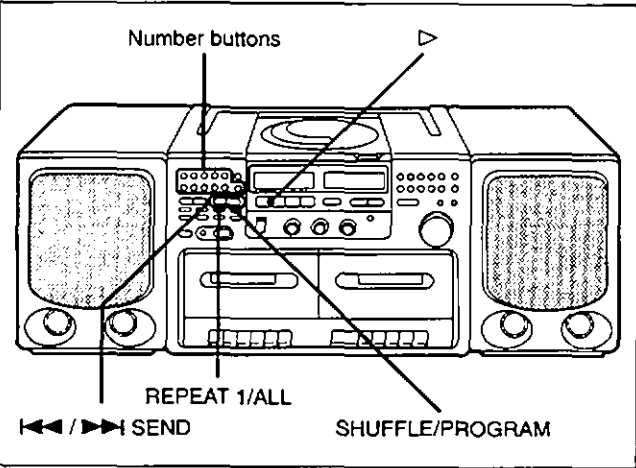
If "AUTO SPACE" is displayed in the display window, press AUTO SPACE until the indication disappears. Press ☐ at the desired position to program a pause. Pause counts as one selection.



During program play, when "P" appears in the display window, the player will be set in pause. To play the next selection, press ☐.

Playing Tracks Repeatedly

You can play tracks repeatedly in normal, shuffle or program play modes. In shuffle play, the tracks play in a different order each time. Repeat only one track or all the tracks.



Repeating a single track

- 1 Press REPEAT 1/ALL until "REPEAT 1" appears in the display window.

REPEAT 1

00
- 2 Press the number of the track you would like repeated (or use the **SEND** buttons).
- 3 Press **▷** (play).
The track selected plays repeatedly.

Repeating all the tracks

- 1 Press REPEAT 1/ALL until "REPEAT ALL" appears in the display window.

REPEAT ALL

00
- 2 Press **▷** (play).
The player begins playing at the first track. When all the tracks have played once, the player starts playing from the first track again.

Repeating the shuffle play

- 1 Press SHUFFLE/PROGRAM until "SHUFFLE" appears in the display window.

SHUFFLE

00
- 2 Press REPEAT 1/ALL.
"SHUFFLE" changes to "SHUFFLE REPEAT" in the display window.

SHUFFLE REPEAT

00
- 3 Press **▷** (play).
The player plays all the tracks repeatedly in different orders.

Repeating the program play

- 1 Press SHUFFLE/PROGRAM until "PROGRAM EDIT" appears in the display window.

PROGRAM EDIT

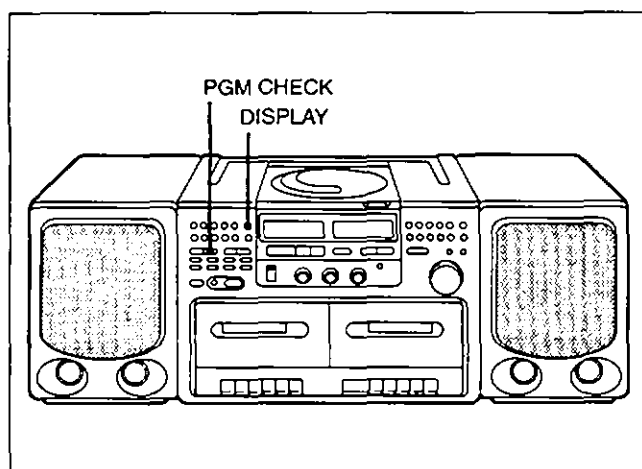
00 00
- 2 Press the number buttons for the tracks you want played in the order you want them played.
- 3 Press REPEAT 1/ALL.
"PROGRAM EDIT" changes to "REPEAT PROGRAM EDIT" in the display window.

PROGRAM REPEAT EDIT

05 03
- 4 Press **▷** (play).
The same program plays repeatedly.

To	Press
Stop play	<input type="checkbox"/>
Cancel repeat play	REPEAT 1/ALL until no indication appears in the display

Checking and Changing Time and Track Order



Checking the remaining time

To display	Press
Remaining time on the current track	DISPLAY once
Remaining time on the CD and the number of tracks left*	DISPLAY twice
Playing time and number of tracks	DISPLAY in stop mode

* If the disc has more than 20 tracks, "OVER 20" appears in the display window, and the remaining time appears as "--:--".

Note

During shuffle play or repeat play, the remaining time on the CD cannot be displayed even if you press DISPLAY.

Checking the order of programmed tracks

Before playing the CD, press PGM CHECK. With each press, the selections appear in the programmed order.

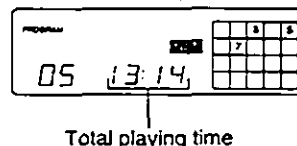
Changing the order of programmed tracks

To change the order of the tracks, you must erase the current program and create a new one. Open and close the disc compartment when the CD is stopped. The current program will be erased.

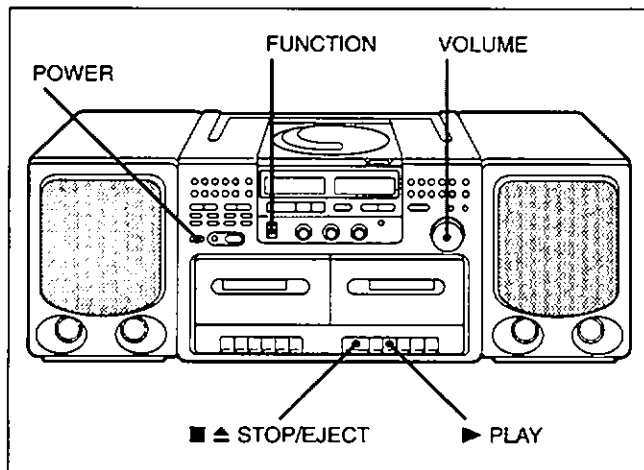
Be sure the OPR/BATT indicator lights up; otherwise, the selections programmed cannot be erased.

Checking the total playing time of the programmed tracks

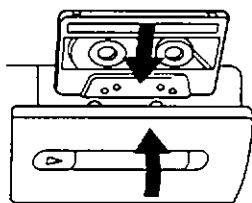
During programming, press DISPLAY. The total playing time appears. When a pause has been programmed, the playing time after the pause appears.



Playing a Tape



- 1 Turn on the power and set FUNCTION to TAPE.
- 2 Press ■▲ STOP/EJECT to open the tape compartment. Insert a recorded tape with the side you want to play facing forward. Close the compartment.



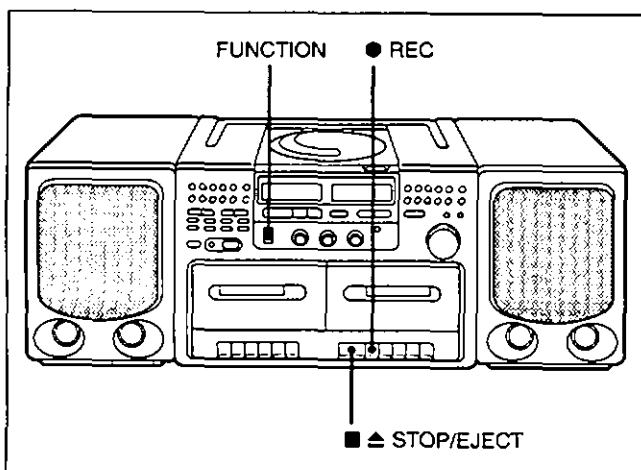
- 3 Press ▶ PLAY to start playing.
- 4 Adjust the volume and the sound emphasis (see *Adjusting the Sound Emphasis* on page 14).

To	Press
Stop play	■▲ STOP/EJECT
Pause	PAUSE
Resume play after pause	PAUSE
Fast forward*	▶▶ FF
Rewind*	◀◀ REW
Remove the cassette	■▲ STOP/EJECT
Turn off the power	POWER (□ OFF)

* For the side facing forward.

Recording From the Radio

Whenever you record, we recommend you operate the CD cassette-corder on the AC power cord instead of using batteries because recording consumes a lot of battery power. We recommend you use TYPE I (normal) tape (printed on the tape cassette).



- 1 Set FUNCTION to TUNER.
- 2 Tune in the desired radio station.
- 3 Press ■▲ STOP/EJECT and put a blank tape into deck B with the side you want to record facing forward.
- 4 Press ● REC on deck B.
▶ PLAY on deck B depresses automatically and recording starts.

The recording level is adjusted automatically

Adjusting the volume or the sound emphasis will not affect the recording level. However, these controls will change the sound levels you hear through speakers or headphones.

To stop recording

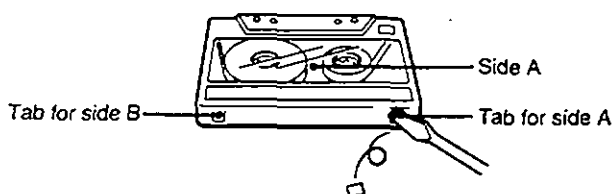
Press ■▲ STOP/EJECT on deck B.

To reduce noise while AM recording

If the radio makes a whistling sound, set the ISS (Interference Suppress Switch) at the rear of the player to the position which most decreases the noise. Normally it is set to "2".

Saving a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated. If you later want to reuse the tape for recording, cover the broken tab with adhesive tape.

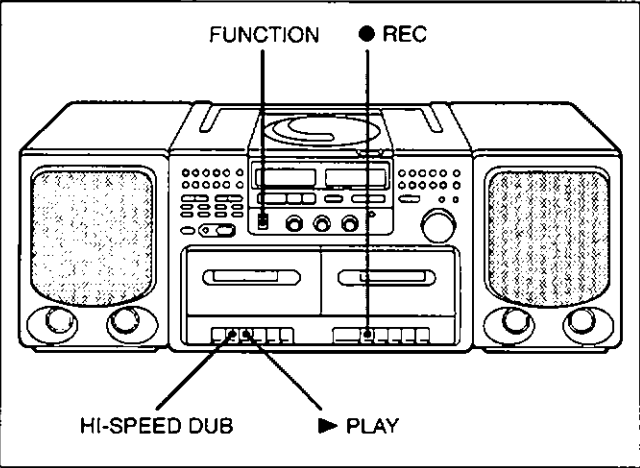


To erase a recording

- 1 Disconnect the microphone if connected at the MIX MIC jack.
- 2 Set FUNCTION to TAPE.
- 3 Press ● REC.

Recording From Another Tape (dubbing)

You can record from one tape to another. Use TYPE I (normal) tape for the best results.



The recording level is adjusted automatically
Adjusting the volume or the sound emphasis will not affect the recording level. However, these controls will change the sound levels you hear through speakers or headphones.

To	Press
Stop recording	■▲ STOP/EJECT on deck A, then B
Stop playing	■▲ STOP/EJECT on deck A
Pause during play	PAUSE on deck A
Pause during record	PAUSE on deck B

- 1 Set FUNCTION to DUBBING.
- 2 Insert a recorded tape in deck A with the side to be played facing forward.
- 3 Insert a blank tape into deck B with the side you want to record on facing forward.
- 4 Press ● REC on deck B.
▶ PLAY on deck B depresses automatically and deck B stands by for recording.

5 Select the recording speed. Choose one of two options:

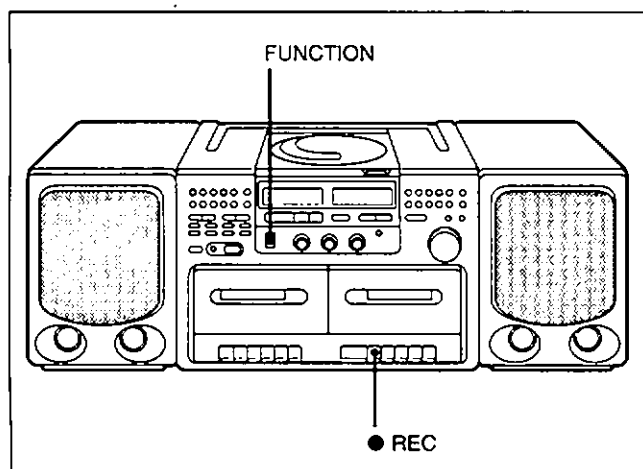
To record at	Press
Normal speed	▶ PLAY on deck A
High speed	HI-SPEED DUB on deck A

Recording standby is automatically released and dubbing starts.

- If the tape in deck A finishes first, the ▶ PLAY button will pop up and deck B will stop. The ● REC and ▶ PLAY buttons on deck B will still be depressed. To release them, press the ■▲ STOP/EJECT button.
- If the tape in deck B finishes first, the ● REC and ▶ PLAY buttons on deck B will pop up. Deck A will continue to play.

Recording a CD

You can record from a CD to a tape. Use a TYPE I (normal) tape for the best results.



To record shuffle/program play

- 1 Turn on the power and set FUNCTION to CD.
- 2 Select shuffle or program play.
- 3 Press ● REC.

After about 8 seconds, the CD starts automatically and recording starts.

- 1 Insert a CD.
- 2 Set FUNCTION to CD.
- 3 Insert a blank tape into deck B with the side you want to record on facing forward.
- 4 Press ● REC on deck B.
▶ PLAY on deck B depresses automatically. After about 8 seconds, the CD starts automatically and recording starts from the beginning of the CD.

The recording level is adjusted automatically

Adjusting the volume or the sound emphasis will not affect the recording level. However, these controls will change the sound levels you hear through speakers or headphones.

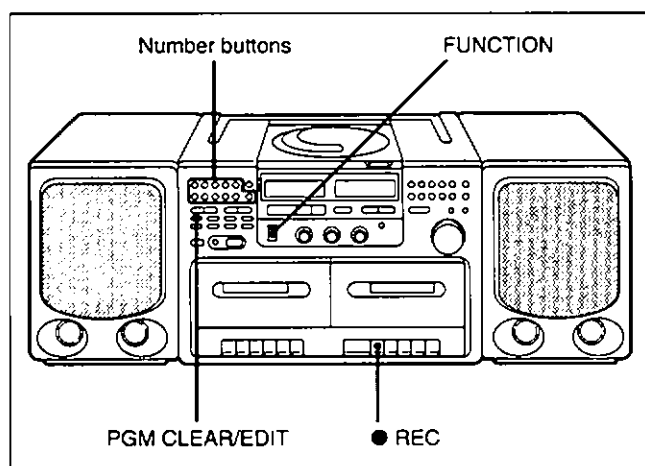
To	Press
Stop recording	■▲ STOP/EJECT on deck B
Stop play	□ on the CD player
Pause during play	⏸ on the CD player
Pause during record	⏸ PAUSE on deck B

To record the blank spaces on the tape while recording CD program

Press AUTO SPACE. "AUTO SPACE" appears in the display window. A four-second blank space is automatically recorded on the tape. For normal recording, press AUTO SPACE again.

Recording a CD: Specifying Tape Length

You can have the CD player make programs that will fit the length of the tape. Use a TYPE I (normal) tape.



1 Insert a CD.

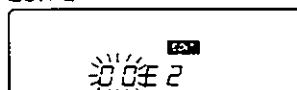
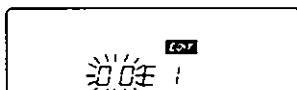
2 Insert a blank tape to deck B with the side you want to record on facing forward.
Use a tape longer than the total playing time of the disc.

3 Set FUNCTION to CD.
If "SHUFFLE", "PROGRAM EDIT" or "AUTO SPACE" is displayed, press SHUFFLE/PROGRAM or AUTO SPACE until the indication disappears.

4 Press PGM CLEAR/EDIT to select EDIT 1 or EDIT 2 based on the following options:

Note: When you press PGM CLEAR/EDIT, the track orders for program play (page 20) will be erased.

To have the player	Select
Fit tracks on the tape without changing the original CD order.	EDIT 1
Fit tracks on the tape letting the player change the original CD order for the best fit.	EDIT 2



5 Enter the total tape length by pressing the number buttons.

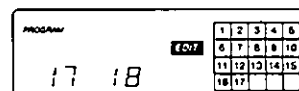
Example:

For 46-minute tape, press 4, then 6.

For 90-minute tape, press 9, then 0.

6 Press PGM CLEAR/EDIT.

The player automatically creates programs for sides A and B of the tape. The tracks that will play appear in the music calendar.



The indication "18" shows that 17 tracks plus a pause have been programmed. Additional tracks can be programmed from the 18th step.

If the CD total playing time exceeds the tape length, the tape length flashes and "—" is displayed.
Replace the tape with a longer tape and repeat from step 5.

7 Press ● REC on deck B.

► PLAY on deck B depresses automatically. After about 8 seconds, the CD starts automatically and the recording starts.

When recording on the front side is finished

The CD player pauses and the tape runs to the end of side A (erasing any previous recordings).

1 Take out the tape and reverse the recording side.

2 Reinsert the tape and press ● REC on deck B and ◻◻. After about 8 seconds, the CD starts automatically and the recording starts on the reverse side.

Note: If you open the disc compartment, the track order programmed to record will be erased.

To cancel programmed record

Press ■▲ STOP/EJECT on deck B.

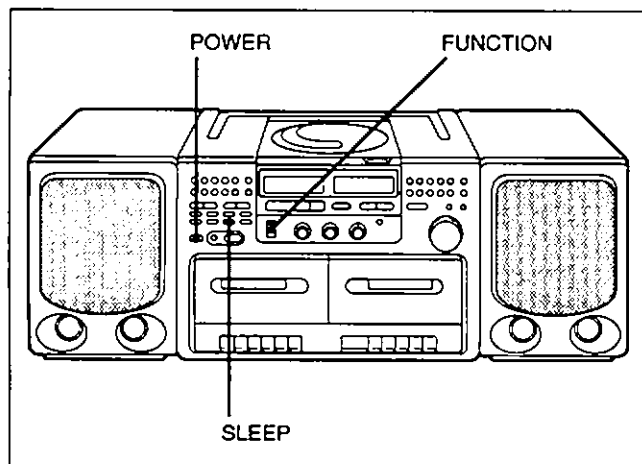
To check the programmed selections

Press PGM CHECK. You can check the selections from the beginning one by one.

Falling Asleep to Music

AS3

You can set the CD cassette-corder to turn on and/or off at a certain time. This is convenient when you want to wake up or go to sleep to music. To fall asleep to music use the sleep timer.

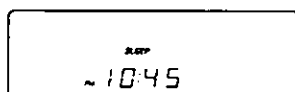


1 Turn on the power and set FUNCTION to CD, TUNER or TAPE for the type of music you want to fall asleep to.

2 Play the desired music source.

To play	Press
a CD	▷
the Radio	BAND, and tune in a station
a Tape	▶ PLAY

3 Press SLEEP.
"SLEEP" appears in the display window.



4 Turn the power off (□ OFF (TIMER/SLEEP)).
The CD cassette-corder plays for 60 minutes, then shuts off automatically.

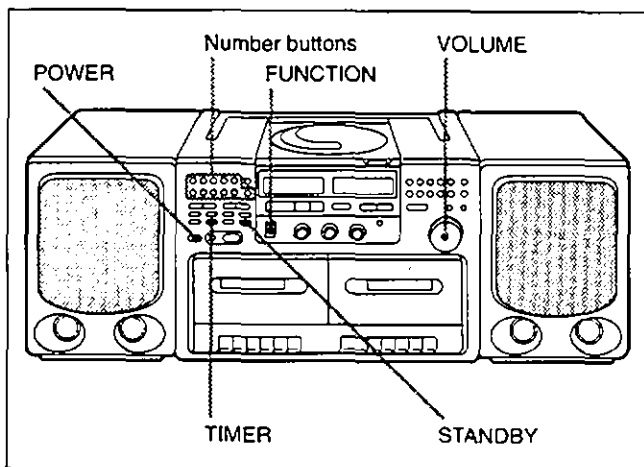
To cancel the sleep function
Press SLEEP again.

Falling asleep and waking up to same music

1 Activate the sleep function by following steps 1 – 3 in *Falling Asleep to Music* on this page.

2 Set the wake up timer by following steps 1 – 8 in *Waking Up to Music* on the next page.
"SLEEP" and "STANDBY" are displayed in the display window.

You can wake up to music at a preset time. Make sure the current time is correct. If it is not, reset it referring to the section *Setting the Clock* on page 13. Make sure "STANDBY" does not appear in the display window.



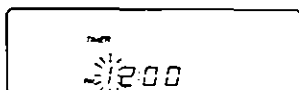
- 1 Turn on the power and set FUNCTION to CD or TUNER for the type of music you want to listen to.

- 2 Prepare the desired music source.

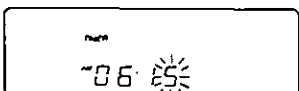
To play	Do this
the Radio	Tune in a station
a CD*	Place a CD in the disc compartment

* You can play a CD in any play mode.

- 3 Press TIMER.
"TIMER" appears in the display window.



- 4 Set the timer to the hour and the minute you want the music to go on by pressing the number buttons. If the hour and/or minute has one digit, press 0 before the number.
Select "AM" or "PM" by pressing +10/AM/PM.

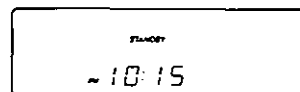


- 5 Press TIMER.

- 6 Set the volume by turning VOLUME.

- 7 Turn the power off (⏻ OFF (TIMER/SLEEP)).

- 8 Press STANDBY.
"STANDBY" appears in the display window.



At the preset time, the power will go on and the music will play. Two hours after the turn-on time, the power will go off again.

To check when the player will go on
Press TIMER when "STANDBY" is displayed.

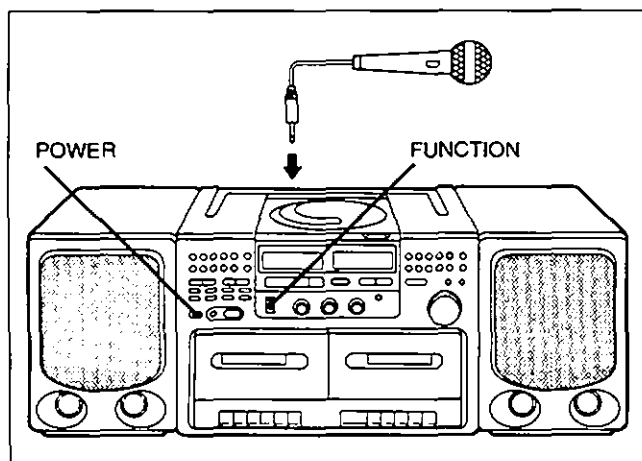
To cancel the timer
Press STANDBY to make "STANDBY" disappear from the display window.

If you make a mistake
Repeat steps 1 to 8. The previous preset time will be cancelled and the new one will be stored in memory.

To have the player go on the next day at the same time
You need not set the timer again. The preset time and the sound source you chose are stored in memory until you reset them. If "STANDBY" does not appear in the display window, press STANDBY to reactivate the timer.

Setting Up a P-A System

You can use the CD cassette-corder as a public address system. You can also mix sounds by adding your voice or other audio through the microphone as you record. Use a monaural microphone with mini-plug (not supplied).



1 Plug the microphone into the MIX MIC jack and turn on the microphone and the CD cassette-corder.

2 Set FUNCTION as indicated in the table below.

To	Set to
Use the CD cassette-corder as a public address system	TAPE
Mix CD sound	CD
Mix radio programs	TUNER
Mix tape sound*	DUBBING

* Insert a tape to be played back into deck A.

3 Sing or speak into the microphone and adjust the volume.

To record mixed sounds

Insert a tape (TYPE I) in deck B and press ● REC. The recording level is adjusted automatically.

Note on the microphone

If acoustic feedback (howling) occurs, turn down the volume or move the microphone away from the speakers. We do not recommend you use a microphone that has an echo function.

Maintenance

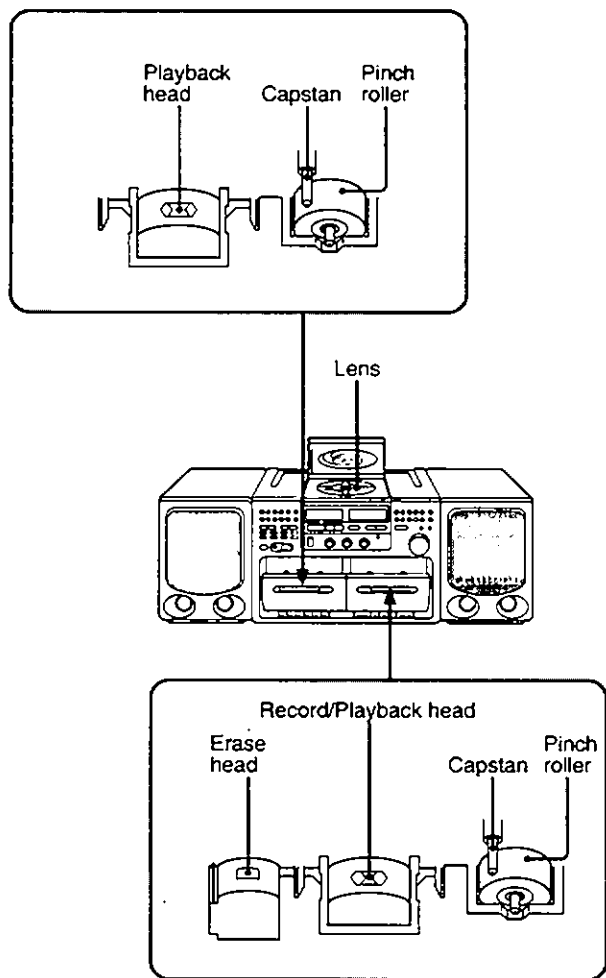
Cleaning the lens

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

Contaminated heads cause poor recording or sound drop-out in playback. We recommend cleaning after every 10 hours of operation. To make the best possible recording, however, you should clean all surfaces over which tape travels before each recording.

Wipe the heads, the pinch rollers and the capstans with a cleaning swab slightly moistened with cleaning fluid or alcohol.



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

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 benzene.

Notes on Compact Discs

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



- Do not use solvents such as benzene, 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.
- After playing, store the CD in its case.

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

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven from 150-10,000 Hz; rated 2.5 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.)
Spindle speed	200 r/min (rpm) to 500 r/min (rpm) (CLV)
Error correction	Sony Refined Super Strategy Cross Interleave Reed Solomon Code
Number of channels	2
Frequency response	20–20,000 Hz $\pm 0/-2$ dB
Wow and flutter	Below measurable limit

Radio section

Frequency range	FM: 87.6–108 MHz AM: 530–1,710 kHz
Antennas	FM: Telescopic antenna AM: Built-in ferrite bar antenna

Cassette-corder section

Recording system	4-track 2-channel stereo
Fast winding time	Approx. 120s (sec.) with Sony cassette C60
Frequency response	TYPE I (normal) cassette: 80–10,000 Hz Playback with TYPE I (normal) cassette: 60–12,000 Hz

General

Speaker	Full range: 10 cm (4 inches) dia., cone type
Inputs	Mixing microphone input jack (minijack): Sensitivity 2.5 mV For low impedance microphone
Outputs	Headphones jack (stereo minijack): For 16–68 ohms impedance headphones

Power output (excluding US model)	6 W + 6W (at 3.2 ohms, 10% harmonic distortion)
Power requirements	For CD radio cassette-corder: 120 V AC, 60 Hz 15 V DC, 10 size D (R20) batteries For clock/timer/memory: 4.5 V DC, 3 size AA (R6) batteries For remote commander: 3 V DC, 2 size AA (R6) batteries
Power consumption	25 W
Battery life	For CD radio cassette-corder:

	FM recording	Tape playback	CD playback
Sony SUM-1 (NS)	approx. 9 h	approx. 4 h	approx. 1.5 h
Sony Alkaline AM1	approx. 16 h	approx. 8 h	approx. 4 h

	For clock/timer/memory: approx. 1 year For remote commander: approx. 6 months
Dimensions	696 \times 255 \times 236 mm (w/h/d) (27 $\frac{1}{4}$ \times 10 $\frac{1}{4}$ \times 9 $\frac{3}{4}$ in.) (excl. projecting parts and controls)
Mass	9.4 kg (20 lb. 12 oz.) (incl. batteries)
Supplied accessories	AC power cord (1) Remote commander (1)

Design and specifications subject to change without notice.

Optional accessories

Sony DYNAMIC MICROPHONE series
Sony MDR headphone series

	Symptom	Remedy
General	<ul style="list-style-type: none"> The power does not come on. 	<ul style="list-style-type: none"> Connect the AC power cord securely. Insert the batteries with the correct polarity, <i>p. 12</i>. Replace the batteries with new ones if they are weak, <i>p. 12</i>.
	<ul style="list-style-type: none"> There's no audio. 	<ul style="list-style-type: none"> Make sure the FUNCTION selector is set to the function you want to operate. Adjust the volume. Unplug the headphones when listening through speakers.
Radio	<ul style="list-style-type: none"> The audio is weak or poor quality. 	<ul style="list-style-type: none"> Replace all the batteries with new ones if they are weak, <i>p. 12</i>. Move the player away from the TV. If you are using the remote commander while listening to AM radio, noise may be heard. This is unavoidable.
	<ul style="list-style-type: none"> The picture of the TV is 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.
CD Player	<ul style="list-style-type: none"> The CD does not play. "No disc" lights in the display window even when a CD is in place. 	<ul style="list-style-type: none"> Make sure the disc compartment is closed. Place the CD with the label surface up. Clean the CD, <i>p. 31</i>. Take out the CD and leave the disc compartment open for about an hour to dry moisture condensation. Make sure the FUNCTION selector is set to CD, <i>p. 17</i>.
	<ul style="list-style-type: none"> 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.
Tape Player	<ul style="list-style-type: none"> The tape does not move when you press an operation button. 	<ul style="list-style-type: none"> Close the cassette compartment securely.
	<ul style="list-style-type: none"> The ● REC button does not function. 	<ul style="list-style-type: none"> Make sure the safety tab on the cassette in deck B is in place, <i>p. 24</i>. Make sure the FUNCTION selector is set to CD or TUNER.
	<ul style="list-style-type: none"> The tape does not erase completely. 	<ul style="list-style-type: none"> Clean the erasing head. Replace all the batteries with new ones if they are weak, <i>p. 12</i>.
	<ul style="list-style-type: none"> The tape does not record (dub). 	<ul style="list-style-type: none"> Make sure the tape is inserted properly. Make sure the safety tab of the cassette in deck B is in place, <i>p. 24</i>.
	<ul style="list-style-type: none"> The audio is weak. The audio quality is poor. 	<ul style="list-style-type: none"> Clean the heads, pinch rollers and capstans, <i>p. 31</i>. Demagnetize the heads using a demagnetizer, <i>p. 31</i>.
Timer	<ul style="list-style-type: none"> The timer does not operate. 	<ul style="list-style-type: none"> Make sure the time on the clock is correct, <i>p. 13</i>. Replace all the batteries with new ones if they are weak, <i>p. 12</i>. Check to see if the AC power had been cut off. Make sure the tape in deck B has not wound to the end. Make sure "STANDBY" is displayed.

Continued on next page.

Remote Commander

- The remote commander does not function.
 - Replace all the batteries in the remote commander with new ones if they are weak, *p. 10*.
 - Make sure you are pointing the remote commander at the remote sensor on the deck.
 - Remove any obstacles in the path of the remote commander and the player.
 - Make sure the remote sensor is not exposed to strong light such as direct sunlight or fluorescent lamp light.
 - Move closer to the deck when using the remote commander.
 - Make sure the batteries for the clock/timer/memory are installed, *P. 12*.
-

After trying the above remedies, if the player still does not function properly, unplug the AC power cord and remove the batteries for the clock/timer/memory. After all the indications in the display window disappear, insert the batteries for the clock/timer/memory again. The player should then function properly.

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