

CD Radio Cassette-Corder

CFB 500

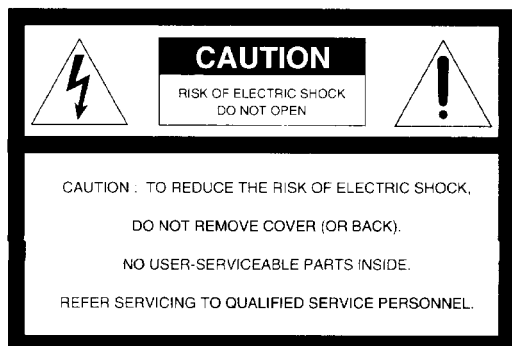
Operating Instructions

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.

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 at the rear of the CD radio cassette-corder. Record the serial number in the space provided below. Refer to these numbers whenever you call your Sony dealer regarding this product.

Model No. CFD-580

Serial No. _____

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Welcome!

Thank you for purchasing the Sony CFD-580 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 two-way bass reflex speakers
- A preset feature that lets you store and recall up to 24 of your favorite radio stations
- A timer that lets you set the CD player, tape 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 Sound Mode feature that adjusts the audio quality for playing
- 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

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.

On power sources

- For AC operation, use the supplied AC power cord; do not use any other type.
- For battery operation, use eight size D (R20) batteries.
- Unplug the 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 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 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

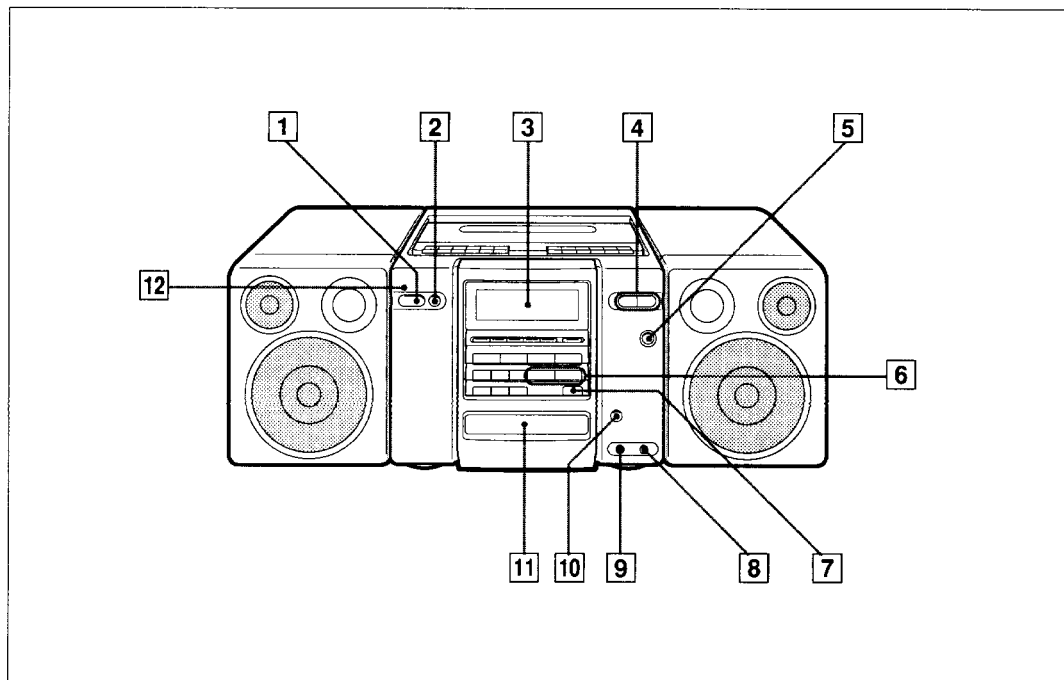
The use of a cassette with more than 90 minutes of play time is not recommended except for long, continuous recording or playback.

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

Looking at the Controls

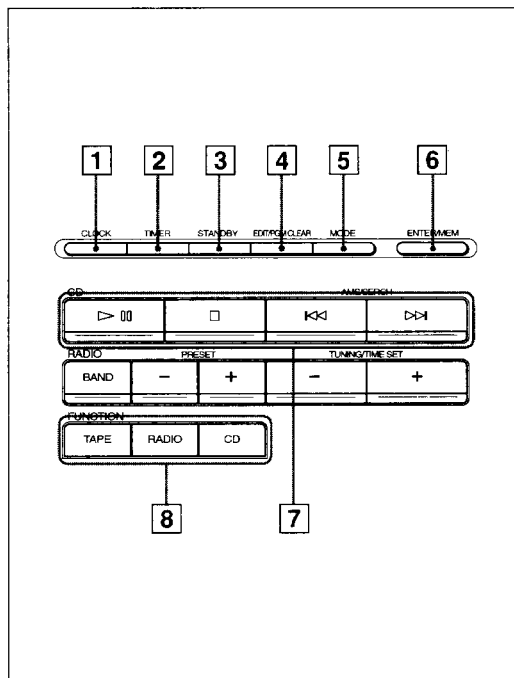
See pages in () for more details.

CD Player and Clock/Timer



- | | |
|---------------------------------------|--|
| 1 POWER switch | 8 MIX MIC jack (30) |
| 2 SLEEP button (28) | 9 PHONES (headphones) jack (stereo mini-jack) |
| 3 MULTI-OPERATION DISPLAY (8) | 10 \triangle OPEN/CLOSE button |
| 4 VOLUME buttons | 11 Disc tray |
| 5 SOUND MODE button (12) | 12 OPR/BATT (operation/battery) indicator |
| 6 TUNING/TIME SET buttons (12) | |
| 7 Remote sensor | |

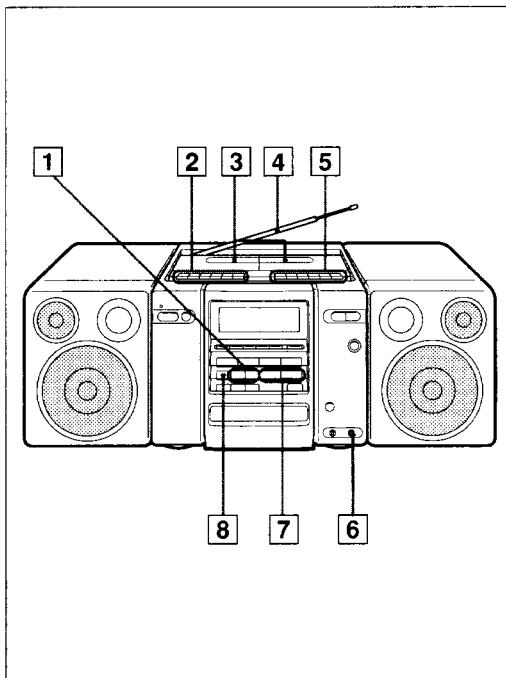
Close-Up of Front Control Panel



- 1** CLOCK button (12)
- 2** TIMER button (29)
- 3** STANDBY button (29)
- 4** EDIT/PGM CLEAR (program clear) button (27)
- 5** MODE button (18)
- 6** ENTER/MEM (memory) button (12, 15, 27)
- 7** CD operation buttons
 - ▶▶ (play/pause)
 - (stop)
 - ◀◀/▶▶ AMS*/SEARCH
- 8** FUNCTION buttons
 - TAPE: for playing or dubbing a tape
 - RADIO: for playing or recording a radio program
 - CD: for playing or recording a CD

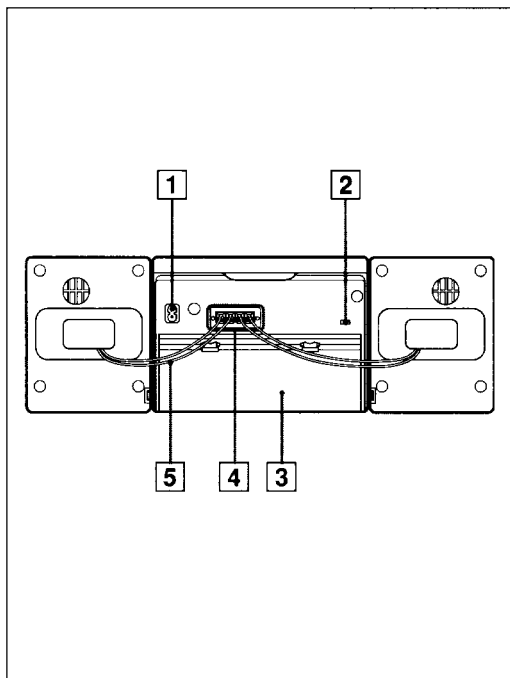
* AMS: Automatic Music Sensor

Radio and Tape Player



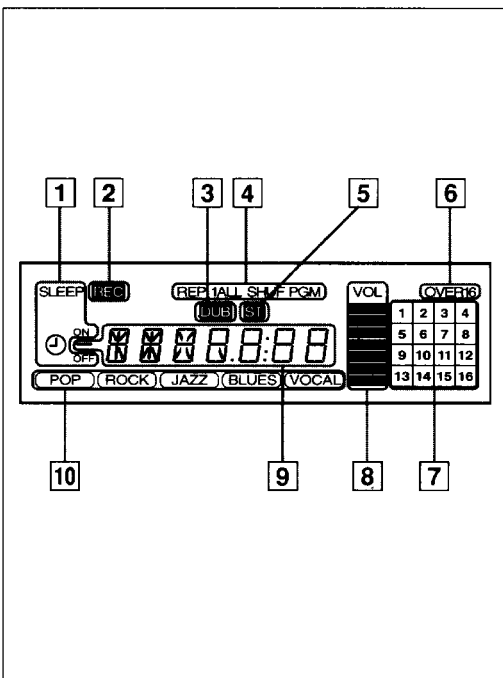
- 1** PRESET buttons (15)
- 2** Tape operation buttons for deck A
- 3** Cassette compartments
- 4** Telescopic antenna (14)
- 5** Tape operation buttons for deck B
- 6** MIX MIC (mixing microphone) jack (mini-jack) (30)
- 7** TUNING/TIME SET button (14, 27)
- 8** BAND button (14)

Rear Panel



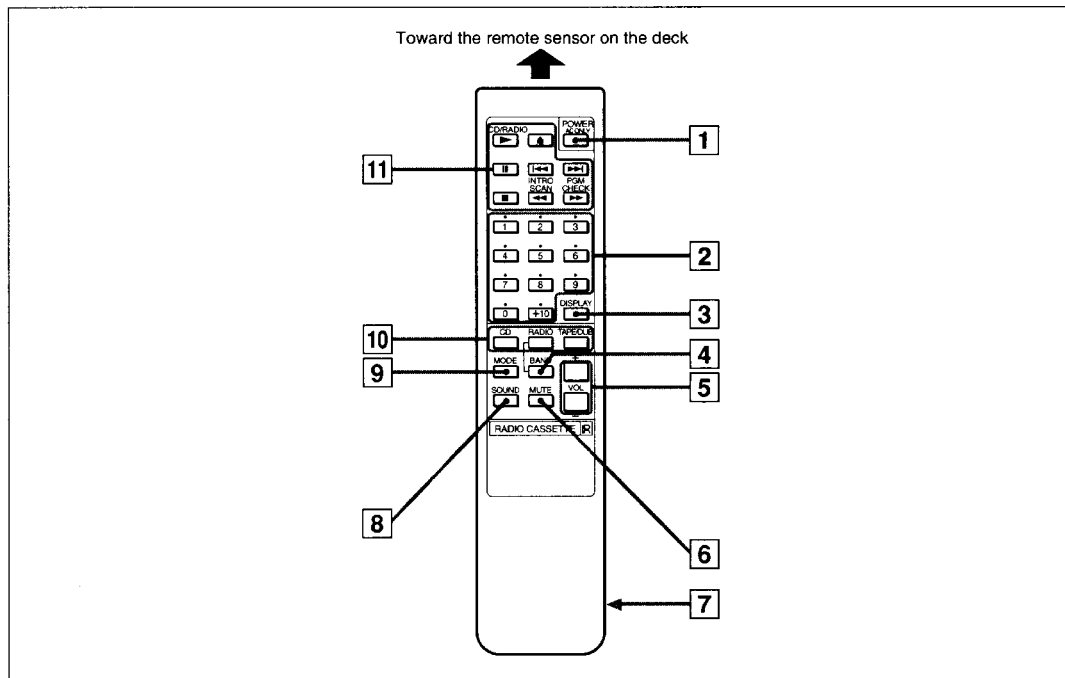
- 1** AC IN (AC power input) socket
Connect to the wall outlet.
- 2** ISS (interference suppress switch) (23)
- 3** Battery compartment (11)
- 4** SPEAKER OUTPUT terminals (10)
- 5** Speaker wires

Display Window



- 1** Timer indications
- 2** REC (record) indication
- 3** DUB indication
- 4** CD play mode indications
- 5** ST (stereo) indication
- 6** OVER 16 indication
- 7** Music calendar/preset radio station numbers
- 8** VOL (volume) indication
- 9** Time/frequency indications
- 10** SOUND MODE indications

Remote Commander



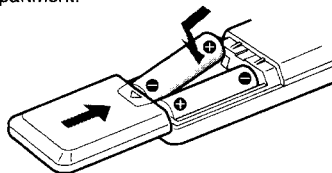
Controls on the remote commander with the same name as those on the deck have the same function. Some controls such as the number buttons are located only on the remote commander.

- 1** POWER switch
- 2** Number buttons (17, 19)
- 3** DISPLAY button
- 4** BAND button
- 5** VOL (volume) buttons
- 6** MUTE button
- 7** Battery compartment
- 8** SOUND mode button
- 9** MODE button

- 10** FUNCTION buttons
 - CD: for playing or recording a CD
 - RADIO: for playing or recording a radio program
 - TAPE/DUB: for playing or dubbing a tape
- 11** CD operation buttons
 - ▶ (play)
 - ⏏ (open/close)
 - ⏸ (pause)
 - ⏮/⏭ (AMS)
 - (stop)
 - ⏮/INTRO SCAN (search/intro scan play)
 - ⏭/PGM CHECK (search/program check)

Installing batteries

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

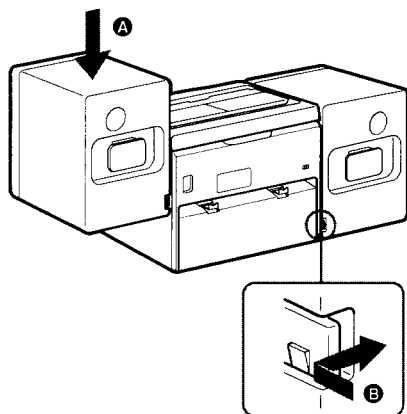


To avoid malfunction, keep the commander away from direct sunlight or strong illumination.

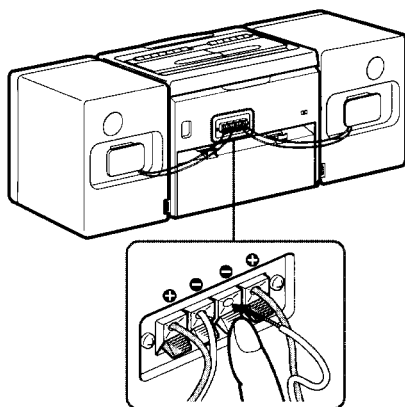
Connecting the Speakers

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

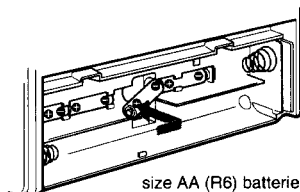
Unlock the speaker **B** and slide the speaker box all the way up and away from the player.

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 eight size D (R20) batteries when the CD cassette-corder becomes a portable. At all times keep four size AA (R6) batteries installed to keep the clock powered and programmed settings in memory.

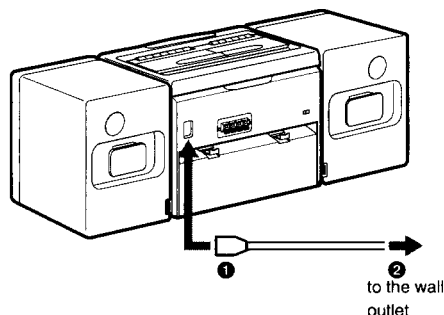
Installing batteries for the clock/timer/memory

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



Operating the player on AC power

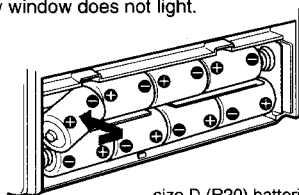
Insert one end of the supplied AC power cord to the AC IN socket located at the rear of the player ① and the other end to the wall outlet ②.



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 eight size D (R20) batteries (not supplied) in the larger compartment.

When you operate the player on batteries, the back light in the display window does not light.



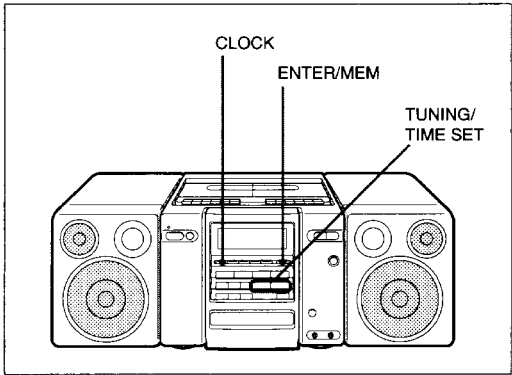
When to replace the batteries

- 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 or the clock stops operating.

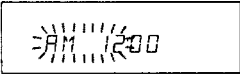
When the batteries are weak, replace all the batteries with new ones. Connect the player to the AC power source when replacing the size AA (R6) batteries so that the memory data for the CD player and radio will not be erased.

Setting the Clock

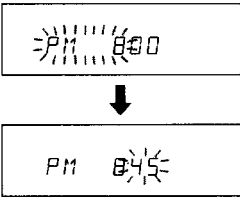
To use the timer, you need to set the clock. Insert four size AA (R6) batteries in the small battery compartment, and connect the CD cassette-corder to a wall outlet or insert eight size D (R20) batteries (see *Choosing Power Sources* on page 11).



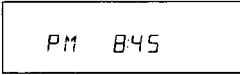
- 1 Depress and hold **CLOCK** until "AM" or "PM" and the hour digit flashes.



- 2 Set the current hour by pressing **TUNING/TIME SET** (-/+) until the correct hour is displayed. Then press **ENTER/MEM**. The minute digits flash. Set the minutes the same way.



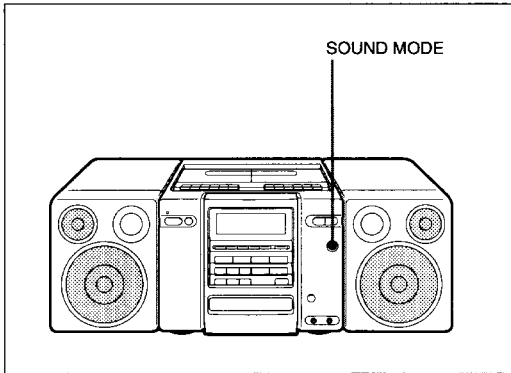
- 3 Press **CLOCK** again. The clock starts from 00 seconds. The clock disappears after about 4 seconds.



To check the time while playing a CD or the radio
Press **CLOCK**. The current time appears for about 4 seconds.

Selecting the Audio Emphasis

When playing CDs, tapes, or radio programs, use the **SOUND MODE** button or the **MEGA BASS** button to adjust the audio emphasis of the sound you are listening to.

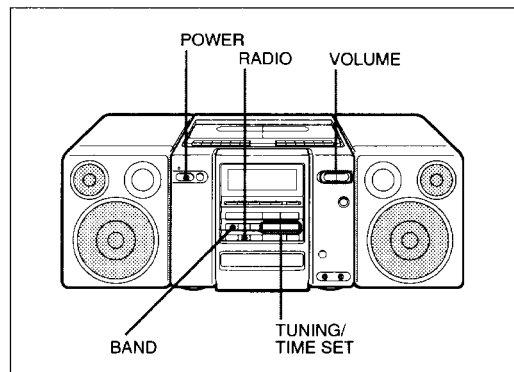


To choose the sound characteristic
Press **SOUND MODE** on the deck or **SOUND** on the remote commander to select the audio emphasis you want. Choose one of the following options:

Choose	To get
POP	Light, bright sounds, emphasizing high and middle range audio
ROCK	Powerful, clear sounds, emphasizing low and high range audio
JAZZ	Percussive sounds, emphasizing bass audio
BLUES	Powerful, rich sounds, emphasizing middle range audio and a bass sound a little higher than "JAZZ"
VOCAL	The presence of vocals, stressing middle range audio
no indication	The whole dynamic range for music such as classical music

Listening to the Radio

Whenever you want to listen to the radio, press the RADIO button. 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 press RADIO until "RADIO" appears in the display window.

RADIO

- 2 Press BAND until the band you want appears.

AM 1020

- 3 Tune in a radio station either automatically or manually.

To tune automatically: Keep pressing TUNING/TIME SET (-/+). Release it when the frequency digits begin to change rapidly in the display. The CD cassette-corder automatically scans the radio frequencies and stops when it finds a clear station.

To tune manually: Press TUNING/TIME SET (-/+) once at a time to tune in a station.

If the radio tunes to an FM stereo broadcast, the "ST" (stereo) indication appears.

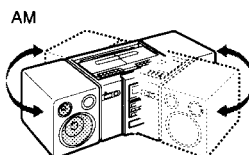
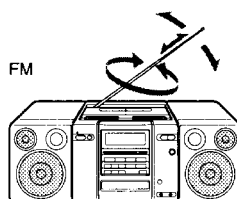
- 4 Press VOLUME to adjust the volume and select the audio emphasis (see *Selecting the Audio Emphasis* on page 12).

VOL 23

To	Press
Turn off the radio	POWER
Display sound type	MODE once
Reduce FM noise	MODE twice to display "MONO" Though the noise will be reduced, the radio will play in monaural.

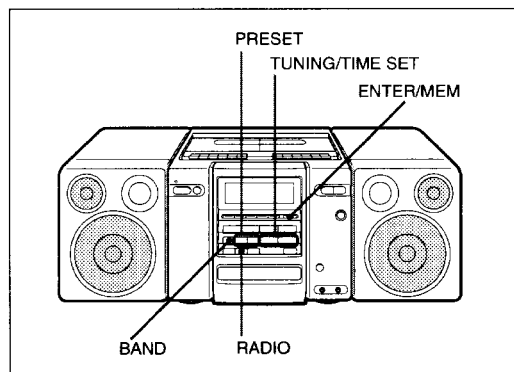
To improve broadcast reception

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 24 radio stations, 12 for each AM and FM band in any order.



- 1 Press RADIO until "RADIO" appears in the display window.

RADIO

- 2 Press BAND until the band you want appears.

- 3 Tune in your favorite station by pressing TUNING/TIME SET (-/+).

- 4 Press and hold ENTER/MEM for about 2 seconds. A preset number flashes in the music calendar.

FM 87.6



- 5 Decide on a preset number for the station (1 to 12). Press PRESET (-/+) to display the number.

- 6 Press ENTER/MEM. Your favorite station is stored in memory.

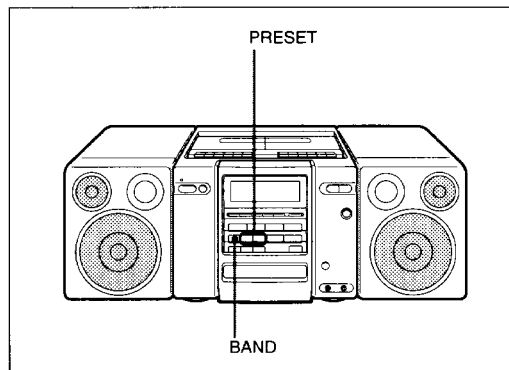
FM 87.6



FM 87.6 has been stored on preset number 3.

Playing Preset Radio Stations

Once you have preset the stations, use the PRESET (-/+) buttons to tune in your favorite stations.



Selecting on the deck

Press BAND to select the band. Then, press PRESET (-/+) to tune in a stored station.

Selecting with the remote commander

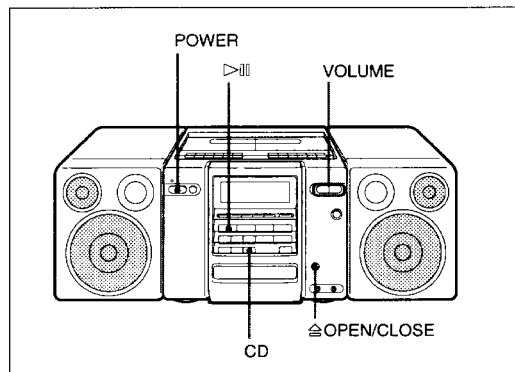
Press BAND to select the band. Then, using the number buttons, display the preset number for the station you want to hear. For example, if you want to hear the station set at preset number 9, press 9. For numbers greater than 9 press +10 and another number. For example, to display preset number 10, press +10 and 0.

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.

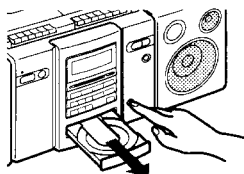


- 1 Turn on the power and press CD until "Cd" appears in the display window.

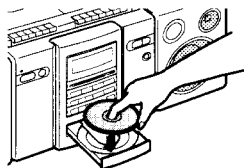


If there is no disc on the tray "no disc" lights in the display window.

- 2 Press \triangle OPEN/CLOSE to open the disc tray.



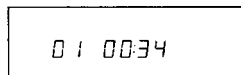
- 3 Holding the CD by the edge, place the CD on the disc tray with the label side up.



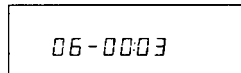
- 4 Press \triangle OPEN/CLOSE. The disc track numbers appear in the music calendar. If the disc contains more than 16 tracks, "OVER 16" appears in the display window.

- 5 Press \triangleright (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.

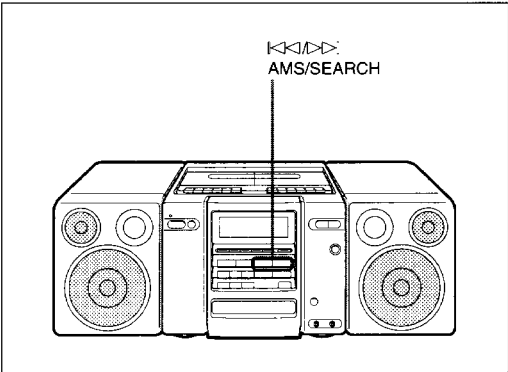


- 6 Adjust the volume and audio emphasis (See *Selecting the Audio Emphasis* on page 12). (Be careful not to turn up the volume excessively while listening to a portion with very low audio inputs. If you do, the speakers may be damaged when a peak level plays.)

To	Press	
	Remote	Deck
Stop play	■	□
Pause		\triangleright
Resume play after pause		\triangleright
Remove the CD	First ■, then ▲	First □, then \triangle
Turn off the power	POWER	POWER

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

To find	Press*	
	Remote	Deck
the beginning of the current track	⏮ once	⏮ once
the beginning of the previous tracks	⏮ repeatedly	⏮ repeatedly
the beginning of the next track	⏭ once	⏭ once
the beginning of the succeeding tracks	⏭ repeatedly	⏭ repeatedly

* If one of the following indications is displayed, press the □ (stop) button to clear the indication: REP 1, REP ALL, REP SHUF, SHUF, PGM, REP PGM.

To find a point in a track

Remote	Deck
In play mode, press ◀◀ or ▶▶. Listen for the point you want to hear.	In play mode, keep pressing ⏮ or ⏭. Listen for the point you want to hear.
In pause mode, press ◀◀ or ▶▶. Observe the time counter.	In pause mode, keep pressing ⏮ or ⏭. Observe the time counter.

To listen to a specific track

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

Example:

To play from the 10th selection

Press **+10** → **0**

Display 1- 10

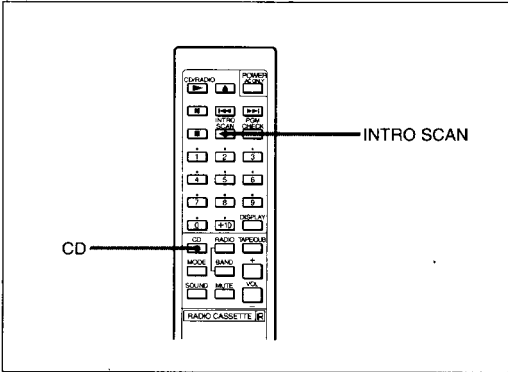
To play from the 33rd selection

Press **+10** → **+10** → **+10** → **3**

Display 1- 2- 3- 33

Playing the Beginning of Each Track (intro scan)

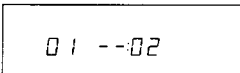
You can sample the first 10 seconds of each track on a CD. Use the remote commander for this function in normal play, shuffle play and program play modes.



- 1 Press CD until “Cd” appears in the display window.



- 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

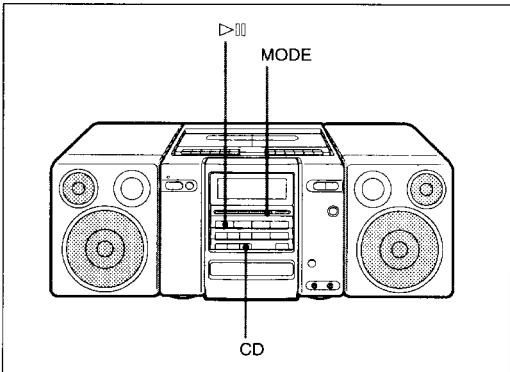
Press ► (play).

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 Press CD until “Cd” appears in the display window.



- 2 Press MODE until “SHUF” 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.

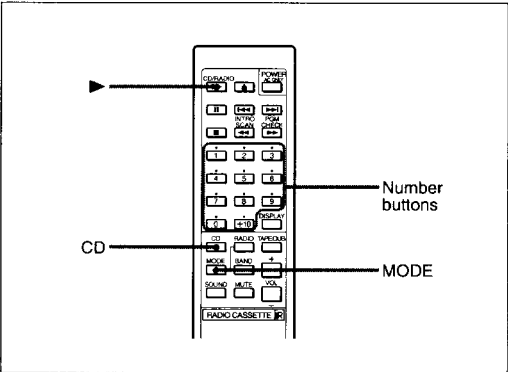
To	Press
Stop shuffle play	<input type="checkbox"/>
Cancel shuffle play	MODE until no indication appears in the display

Notes

- You cannot display the remaining time on the CD during shuffle play.
- When you display “SHUF” 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. Use the remote commander for this.



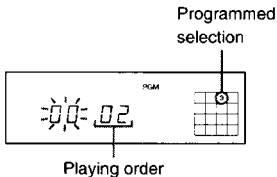
- 1 Press CD until "Cd" appears in the display window.



- 2 Press MODE until "PGM" appears in the display window.



- 3 Press the number buttons on the remote commander for the tracks you want played in the order you want them played (e.g., 6, 1, 9). Up to 17 tracks can be programmed.



To check the total playing time while programming tracks

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

If you make a mistake

Press EDIT/CLEAR on the deck 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. When the last track has played, all the programmed track numbers light in the music calendar again.

To	Press
Stop play	■
Cancel program play	MODE 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

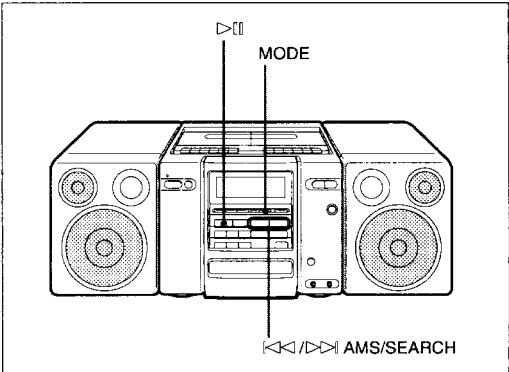
Press ■ (stop) once if the CD is stopped and twice if the CD is playing. The current program will be erased. Follow the steps in *Playing Tracks in the Desired Order* to create a new program.

To program the tracks on the deck

Press ◀◀/▶▶ AMS/SEARCH to select the track you want to program and then press ENTER/MEM. Repeat this procedure for up to 17 tracks.

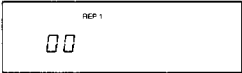
Playing Tracks Repeatedly

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 MODE until "REP 1" appears in the display window.

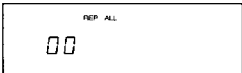


- 2 Press the number of the track you would like repeated (or use the <<</>>> AMS/SEARCH buttons on the deck).

- 3 Press >|| (play).
The track selected plays repeatedly.

Repeating all the tracks

- 1 Press MODE until "REP ALL" appears in the display window.



- 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 tracks in random order

- 1 Press MODE until "REP SHUF" appears in the display window.



- 2 Press >|| (play).
The player plays all the tracks repeatedly in different orders.

Repeating programmed tracks

- 1 Press MODE until "REP PGM" appears in the display window.

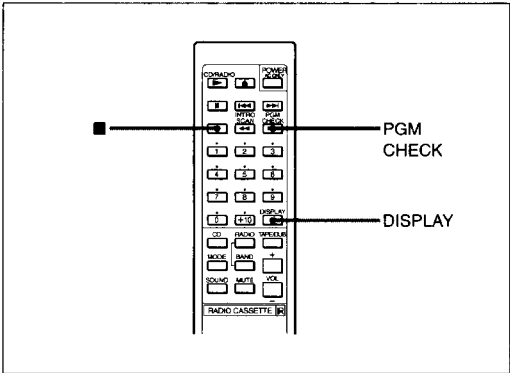


- 2 Press the number buttons on the remote commander for the tracks you want played in the order you want them played.

- 3 Press >|| (play).
The same program plays repeatedly.

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

Checking and Changing Track Order



Checking the order of programmed tracks

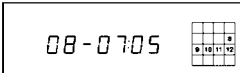
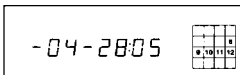
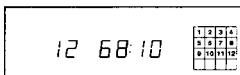
Before playing the CD, press PGM CHECK on the remote commander, or ENTER/MEM on the deck. With each press, the selections appear in the programmed order.

Changing the order of programmed tracks

To change the order of the tracks, you must erase the current program and create a new one. Press ■ (stop) once if the CD is stopped and twice if the CD is playing. The current program will be erased.

Checking the remaining time

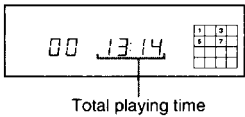
Use the remote commander to do this.

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
	

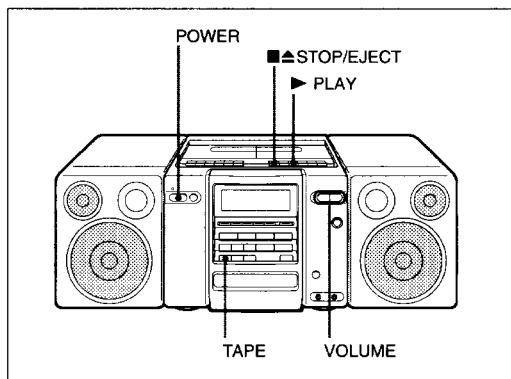
* If the disc has more than 16 tracks, "OVER 16" appears in the display window, and the remaining time appears as "—:—".

Checking the total playing time of the programmed tracks

Before playing the CD, press DISPLAY on the remote commander. The total playing time appears. When a pause has been programmed, the playing time after the pause appears.



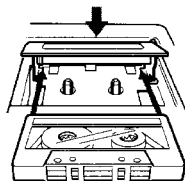
Playing a Tape



- 1 Turn on the power and press TAPE until "TAPE" appears in the display window.

TAPE

- 2 Press ■▲ STOP/EJECT to open the tape compartment. Insert a recorded tape with the side you want to play facing up. Close the compartment.



- 3 Press ► PLAY to start playing.

- 4 Adjust the volume and the audio emphasis (see *Selecting the Audio Emphasis* on page 12).

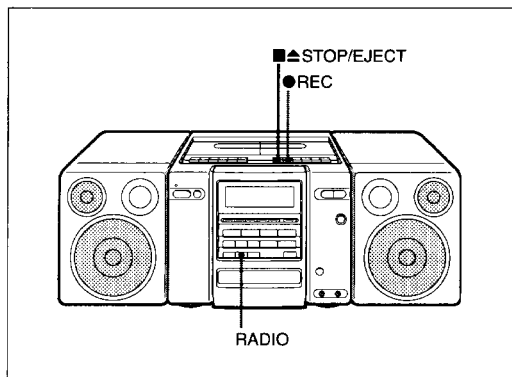
VOL 23

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

* For the side facing up.

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 Press RADIO until "RADIO" appears in the display window.

RADIO

- 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 on facing up.

- 4 Press ● REC on deck B.
▶ PLAY on deck B depresses automatically. "REC" lights up and recording starts.

FM 87.6

The recording level is adjusted automatically

Adjusting the volume or the audio emphasis will not affect the recording level.

To stop recording

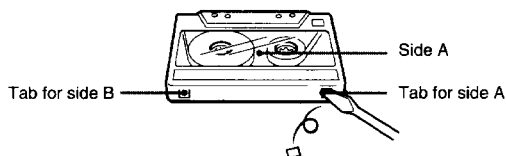
Press ■▲ STOP/EJECT on deck B.

To reduce noise while AM recording

If the radio makes a whistling sound, set the ISS (Interference Suppress Switch) at the rear of the unit 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.

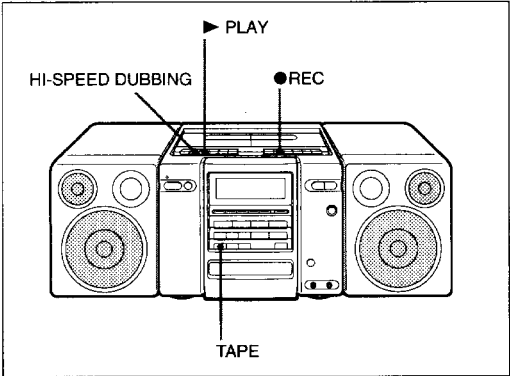


To erase a recording

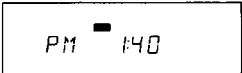
- 1 Disconnect the microphone if connected at the MIX MIC jack.
- 2 Press TAPE until "TAPE" appears in the display window.
- 3 Press ● REC.

Recording From Another Tape (dubbing)

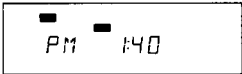
You can record from one tape to another. Use TYPE I (normal) tape for the best results.



- 1 Insert a recorded tape in deck A with the side to be played facing up. Close the compartment.
- 2 Press TAPE until "DUB" appears in the display window.



- 3 Insert a blank tape into deck B with the side you want to record on facing up.
- 4 Press ● REC on deck B.
▶ PLAY on deck B depresses automatically. "REC" and "DUB" appear in the display window 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 DUBBING on deck A

- 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.

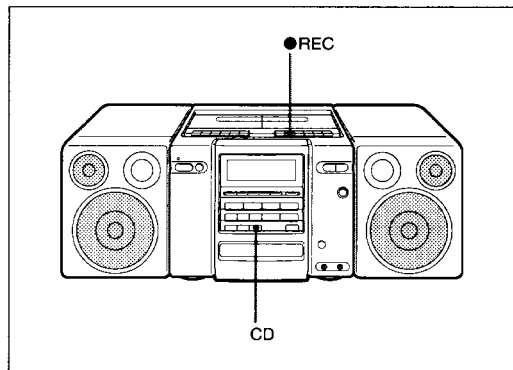
The recording level is adjusted automatically

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

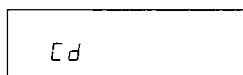
To	Press
Stop recording	■ ▲ STOP/EJECT on deck A, then B
Stop playing	■ ▲ STOP/EJECT on deck A
Pause during play	PAUSE on deck A
Pause during record	PAUSE on the deck B

Recording a CD

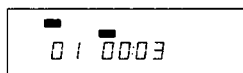
You can record from a CD to a tape. Use a TYPE I (normal) tape for the best results.



- 1 Insert a CD.
- 2 Press CD until "Cd" appears in the display window.



- 3 Insert a blank tape into deck B with the side you want to record on facing up.
- 4 Press ● REC on deck B.
▶ PLAY depresses automatically. The "REC" and "DUB" indications appear and recording starts from the beginning of the CD.



The recording level is adjusted automatically

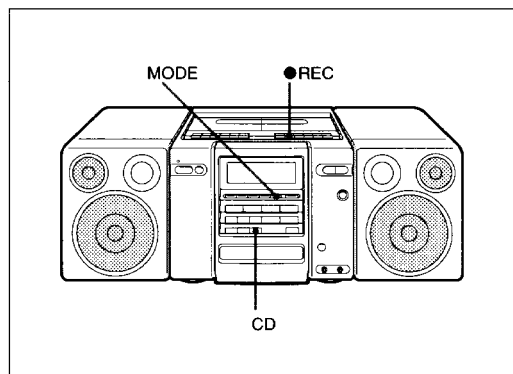
Adjusting the volume or the audio emphasis will not affect the recording level. However, these controls will change the sound levels you hear through speakers or headphones.

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

Recording a CD: Specifying Track Order

You can have the CD cassette-corder create programs based on either track order or tape length. To record based on tape length, see the next section, *Recording a CD: Specifying Tape Length*.

Choose the order that tracks record on a tape by making programs for sides A and B of the tape. Record on TYPE I (normal) tape.



- 1 Insert a CD.
- 2 Insert a blank tape to deck B with the side you want to record facing up.
- 3 Press CD until "Cd" appears in the display window.
- 4 Press MODE until "PGM" appears in the display window.
- 5 Press the number buttons on the remote commander for the tracks you want to record in the order you want them to record for one side.

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

- 6 Determine how you want to record.

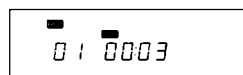
To record on both sides of the tape

- 1 Press II on the remote commander to enter a pause.
- 2 Continue programming for the second side (step 5 above).
- 3 Go to step 7. After the tape finishes recording the first side, turn over the tape manually and press ● REC again.

To record on one side of the tape

- Go to step 7.

- 7 Press ● REC
"REC" and "DUB" appear in the display window and recording starts.

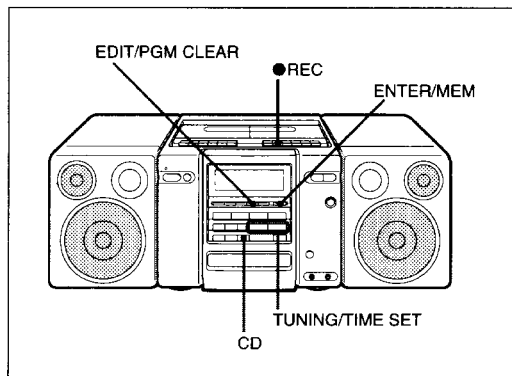


To cancel record

Press ■ ▲ STOP/EJECT on the tape deck.

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 up.
Use a tape longer than the total playing time of the disc.

3 Press CD until "Cd" appears in the display window.
If "SHUF" or "PGM" is displayed, press the (stop) button until the indication disappears.

4 Press EDIT/PGM CLEAR to select EDIT 1, EDIT 2 or EDIT 3 based on the following options:

Note: When you press EDIT/PGM CLEAR, the track orders for program play (page 19) will be erased.

To have the player

Fit tracks on the tape without changing the original CD order.

Select

EDIT 1

E-1

Fit tracks on the tape letting the player change the original CD order for the best fit.

EDIT 2

E-2

Record all the tracks on the tape in the original CD order. If the last track on side A has to be cut, the track will start recording again from the beginning on side B.

EDIT 3

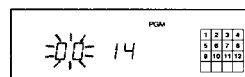
E-3

If you've selected EDIT 3, skip steps 5 and 6.

5 Enter the total tape length by pressing TUNING/TIME SET (-/+).

6 Press ENTER/MEM.

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



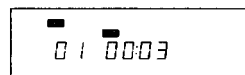
The indication "14" shows that 12 tracks plus a pause have been programmed. Additional tracks can be programmed from the 14th step.

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.

"REC" and "DUB" appears in the display window and recording starts.



When recording on side A is finished, the CD player pauses and the tape runs to the end of side A (erasing any previous recordings). Then, take the tape out and reverse the recording side.

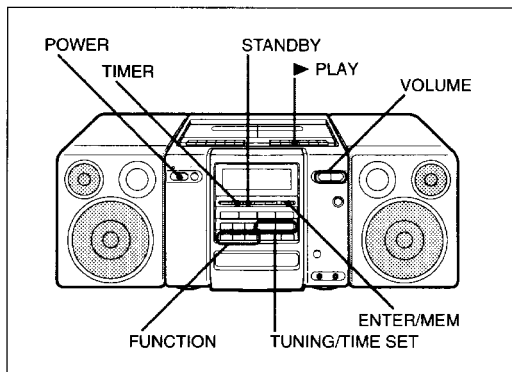
Note: If you open the disc tray, the track order programmed to record will be erased.

To cancel programmed record

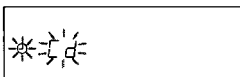
Press STOP/EJECT on the tape deck.

Waking Up to Music

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 12. Make sure the ⌚ (clock) indication is not lit in the display window.



- 1 Turn on the power and press **TIMER**.
The ⌚ (clock) and function indications flash.



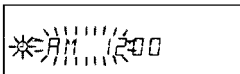
- 2 Press one of the three **FUNCTION** buttons for the type of music you want to listen to: **TAPE**, **RADIO** or **CD**.

- 3 Prepare the desired music source.

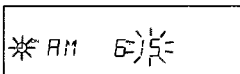
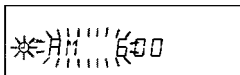
To play	Do this
a Tape	Insert a tape in deck B
the Radio	Tune in a station
a CD*	Place a CD on the disc tray

* You can play a CD in any play mode.

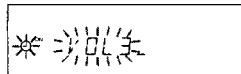
- 4 Press **ENTER/MEM**.



- 5 Set the timer to the hour you want the music to go on by pressing **TUNING/TIME SET** (–/+), then **ENTER/MEM**. Set the minutes, then press **ENTER/MEM**.



- 6 Set the volume by pressing **VOLUME**.



- 7 Press **TIMER**.
All your settings have been stored in the memory of the CD cassette-corder.

- 8 Press **STANDBY**.
The ⌚ (clock) indication lights and the power goes off.



- 9 Press **▶ PLAY** on deck B if you have inserted a tape.
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**, then **ENTER/MEM**.

Each time you press the **ENTER/MEM** button, each stored setting appears. After you have checked the time, press **TIMER** again.

To stop play of	Press
the Tape	■ ▲ STOP/EJECT , then POWER
the Radio	POWER
the CD	□, then POWER

To cancel the timer

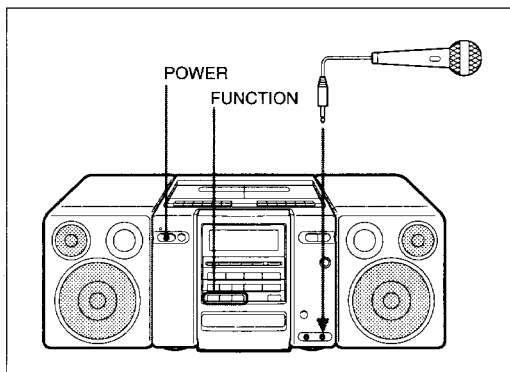
Press **STANDBY** to make the ⌚ (clock) indication disappear from the display window.

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 the ⌚ (clock) indication is not lit 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 Press one of the FUNCTION buttons to choose a sound source.

To	Press
Use the CD cassette-corder as a public address system	TAPE
Mix sound	TAPE, RADIO or CD

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.

Notes on the microphone

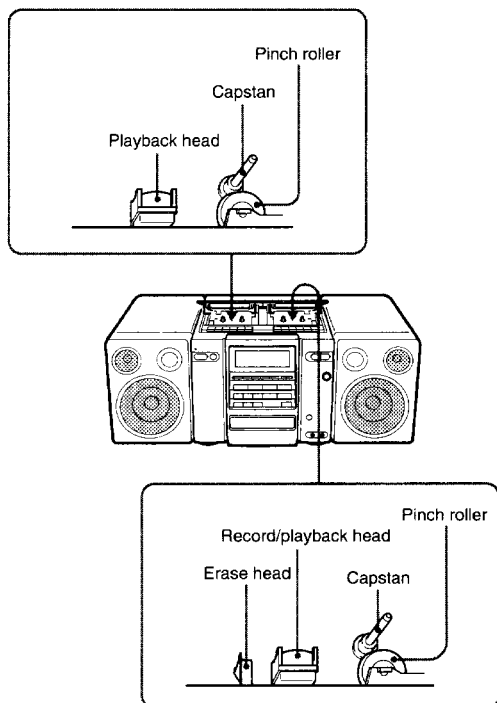
- If acoustic feedback (howling) occurs, turn down the volume or move the microphone away from the speakers. We do not recommend you use a microphone that has an echo function.
- Microphone sounds cannot be mixed in high-speed dubbing mode.

Maintenance

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 4-ohm loads, both channels driven from 150-10,000 Hz; rated 7 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 1 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 HF60
Frequency response	TYPE I (normal) cassette: 50–12,000 Hz

General

Speaker	Full range: 8 cm (3¼ inches) dia., cone type Tweeter: 5 cm (2 inches) dia.
Inputs	Mixing microphone input jack (minijack): Sensitivity 2.45 mV For low impedance microphone
Outputs	Headphones jack (stereo minijack): For 8–32 ohms impedance headphones

Power requirements

For CD radio cassette-corder:
120 V AC, 60 Hz
12 V DC, 8 size D (R20) batteries
For clock/timer/memory:
6 V DC, 4 size AA (R6) batteries
For remote commander:
3 V DC, 2 size AA (R6) batteries

Power consumption

Battery life

For CD radio cassette-corder:

	FM recording	Tape playback	CD playback
Sony SUM-1 (NS)	approx. 4 h	approx. 2 h	approx. 1 h
Sony Alkaline AM1	approx. 12 h	approx. 5.5 h	approx. 3 h

For clock/timer/memory:
approx. 1 year

For remote commander:
approx. 6 months

Dimensions

635 × 208 × 242 mm (w/h/d)
(25 × 8¼ × 9½ in.) (incl. projecting parts and controls)

Mass

8.4 kg (18 lb. 8 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

Troubleshooting Guide

	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. 11</i>. Replace the batteries with new ones if they are weak, <i>p. 11</i>.
	<ul style="list-style-type: none"> There's no audio. 	<ul style="list-style-type: none"> Make sure the display window is displaying 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. 11</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 tray is closed. Place the CD with the label surface up. Clean the CD, <i>p. 32</i>. Take out the CD and leave the disc tray open for about an hour to dry moisture condensation. Make sure "Cd" appears in the display window, <i>p. 16</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. The tape does not play. 	<ul style="list-style-type: none"> Make sure the safety tab on the cassette in deck B is in place, <i>p. 23</i>. Make sure "TAPE" appears in the display window.
	<ul style="list-style-type: none"> The tape does not erase completely. 	<ul style="list-style-type: none"> Clean the erasing heads. Replace all the batteries with new ones if they are weak, <i>p. 11</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. 23</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. 32</i>. Demagnetize the heads using a demagnetizer, <i>p. 32</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. 12</i>. Replace all the batteries with new ones if they are weak, <i>p. 11</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 the ⌚ (clock) indication is displayed.

Remote Commander

- The remote commander does not function.
 - Replace all the batteries in the remote commander with new ones if they are weak, *p. 9*.
 - 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.

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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