

Personal MiniDisc System

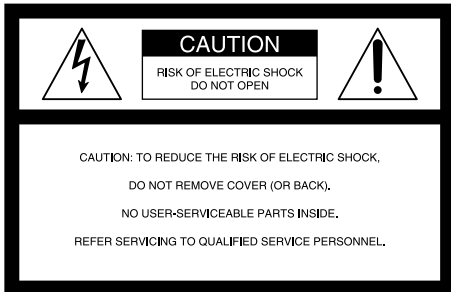
Operating Instructions



ZS-M35

Warning

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



This symbol is intended to alert the user to the presence of 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.

WARNING

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

For customers in Canada

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

Information

For customers in the United States

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

Owner's Record

The model number is located on the bottom and serial number is located in the battery box.

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

Model No. ZS-M35

Serial No. _____

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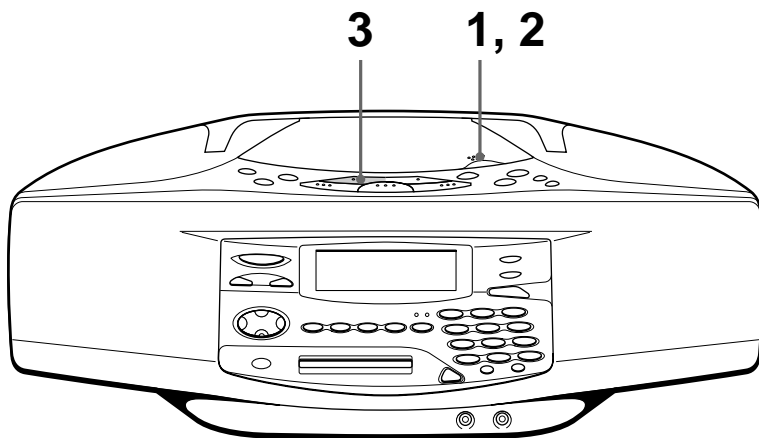
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Playing a CD

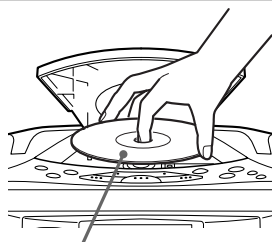


For hookup instructions, see pages 57 - 59.

1

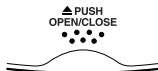


Press  PUSH OPEN/CLOSE down to open the CD compartment and place the CD on the CD compartment.



With the label side up

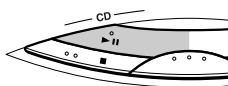
2





Close the lid of the CD compartment.



3



Press CD  (CD  on the remote).

The player turns on (direct power-on) and the player plays all the tracks once.

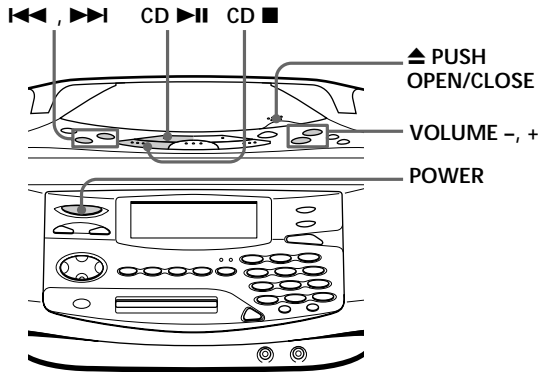
Display



Track number

Playing time

Use these buttons for additional operations



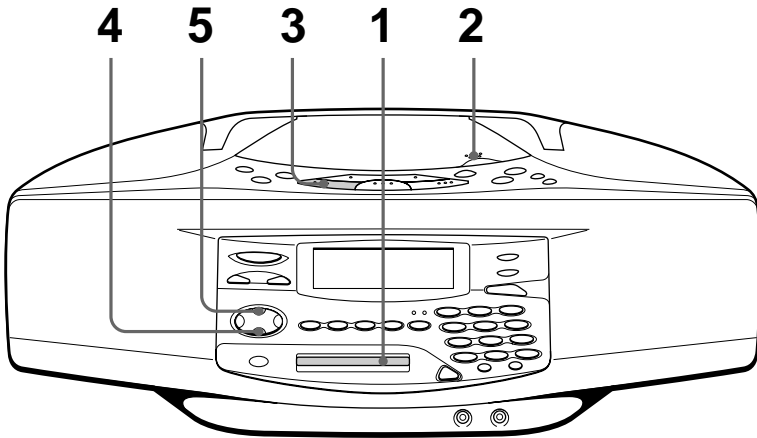
Tip

Next time you want to listen to a CD, just press CD ►||. The player turns on automatically and starts playing the CD.

To	Press
adjust the volume	VOLUME +, - (VOL +, - on the remote)
stop playback	CD ■
pause playback	CD ► (CD on the remote) Press the button again to resume play after pause.
go to the next track	►►
go back to the previous track	◄◄
remove the CD	▲ PUSH OPEN/CLOSE
turn on/off the player	POWER

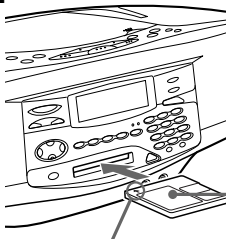
Recording a whole CD

(Synchronized recording)



For hookup instructions, see pages 57 - 59.

1



Insert a recordable MD (direct power-on).

Display



After "TOC Reading" is displayed, the disc name will be displayed if it is labeled.

With the label side up

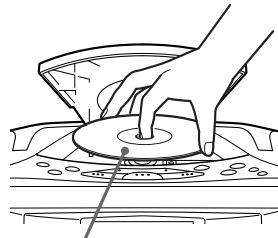
Insert in the direction of the arrow

2



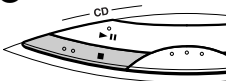
Press ▲ PUSH OPEN/CLOSE and place the CD on the CD compartment.

Press ▲ PUSH OPEN/CLOSE again to close the CD compartment.

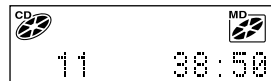


With the label side up

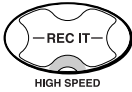
3



Press CD ■.



4

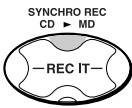


To record at high speed, press **HIGH SPEED**.

The indicator lights up.

To record at normal speed, skip this step.

5



Press **SYNCHRO REC CD** ► **MD**.

The player starts recording automatically.

If the MD has any previous recording, recording will be made from the last recorded position.



Track number of MD

Remaining recording time of MD

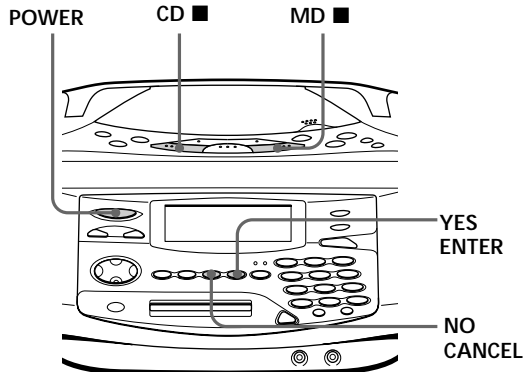
Notes

- **TOC EDIT** After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.
- When you record a whole CD, you cannot pause recording.

Tips

- Adjusting the volume or the audio emphasis (page 49) will not affect the recording level. Keep the volume at a moderate level so as to prevent the sound from skipping.
- To record over the previous recording, see page 33.
- Once the clock is set, the recording date and time are stamped automatically (page 50).
- You can label an MD or a track during recording (page 44).

Use these buttons for additional operations



To	Press
stop recording	MD ■ or CD ■
turn on/off the player	POWER

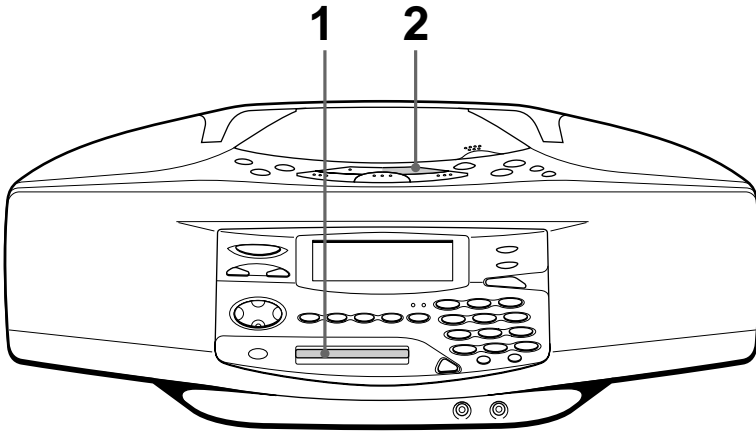
If "CD>MD OK?" alternates with time display

There is not enough space on the MD to record the whole CD.

If it is all right to record as much as possible and cancel recording of some tracks, press YES•ENTER. To stop recording, press NO•CANCEL.

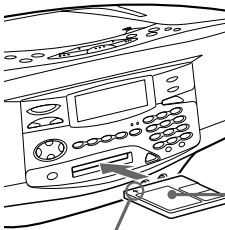
If any other messages are displayed, see page 72.

Playing an MD



For hookup instructions, see pages 57 - 59.

1



Insert in the direction of the arrow

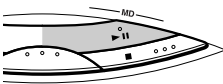
Insert the MD (direct power-on).

Display



After "TOC Reading" is displayed, the disc name will be displayed if it is labeled.

2



Press MD ►|| (MD ► on the remote).

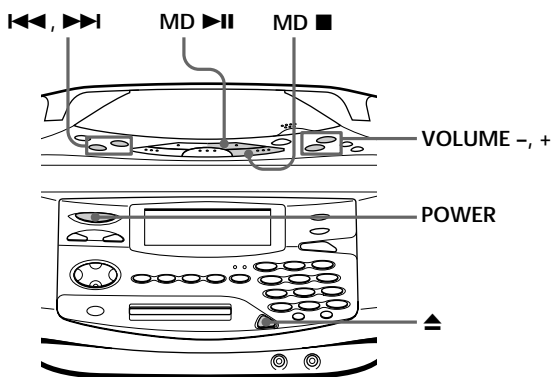
The player plays all the tracks once.

Track name is displayed if it is labeled.



Track number Playing time

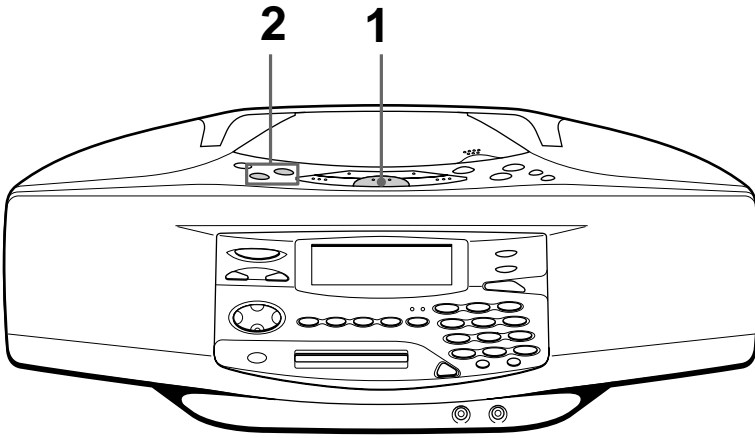
Use these buttons for additional operations

**Tip**

Next time you want to listen to a MD, just press MD ►||. The player turns on automatically and starts playing the MD.

To	Press
adjust the volume	VOLUME +, - (VOL +, - on the remote)
stop playback	MD ■
pause playback	MD ► (MD on the remote) Press the button again to resume play after pause.
go to the next track	►►
go back to the previous track	◄◄
remove the MD	▲
turn on/off the player	POWER

Listening to the radio



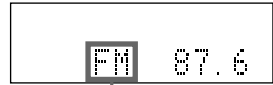
For hookup instructions, see pages 57- 59.

1



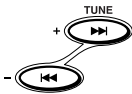
Press RADIO BAND until the band you want appears in the display (direct power-on).

Display



"FM" or "AM" appears

2

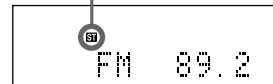


Hold down TUNE + or TUNE - until the frequency digits begin to change in the display.

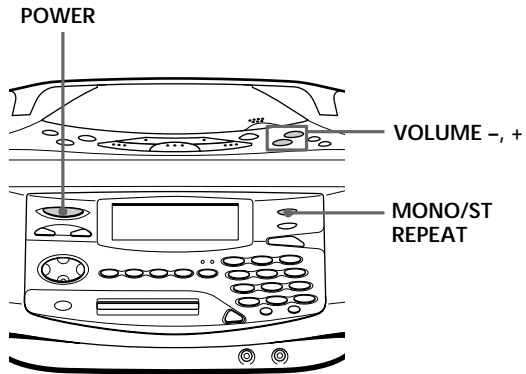
The player automatically scans the radio frequencies and stops when it finds a clear station.

If you can't tune in a station, press TUNE + or TUNE - repeatedly to change the frequency step by step.

Indicates an FM stereo broadcast



Use these buttons for additional operations



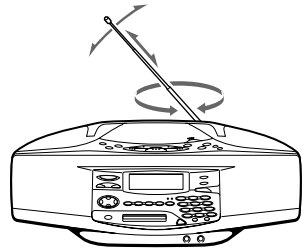
Tips

- If the FM broadcast is noisy, press MONO/ST•REPEAT (MODE on the remote) until “Mono” appears in the display and radio will play in monaural.
- Next time you want to listen to the radio, just press RADIO BAND. The player turns on automatically and starts playing the previous station.

To	Press
adjust the volume	VOLUME +, - (VOL +, - on the remote)
turn on/off the radio	POWER

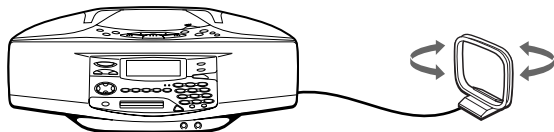
To improve broadcast reception
FM:

Reorient the antenna for FM.



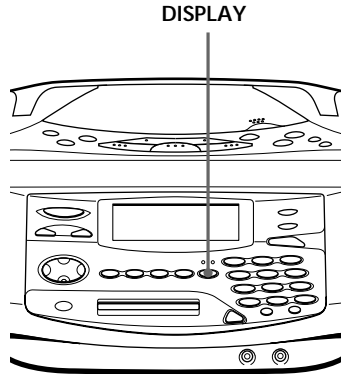
AM:

Keep the AM loop antenna as far from the player and reorient it.



Using the display

You can check information about the CD and MD using the display.



Tip

When using the CD containing text information, the disc name, the artist name, etc. appear in the display (page 15).

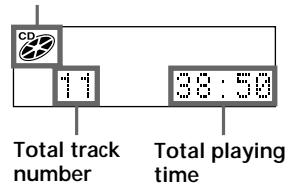
Note

During repeat play (page 18), shuffle play (page 19) and program play (page 20), the number of tracks left and remaining time on the CD will not be displayed.

During stop (CD)

The total track number and playing time are displayed.

CD indication



During play (CD)


The current track number and playing time are displayed.

To check the remaining time

Press DISPLAY.

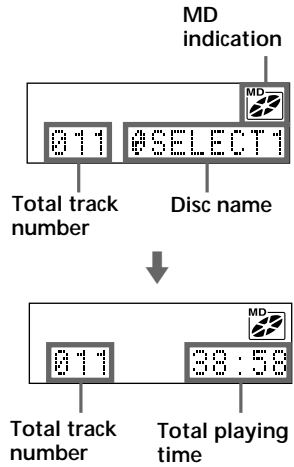
To display	Press DISPLAY
the current track number and remaining time on the current track	once
the number of tracks left and remaining time on the CD	twice
the current track number and playing time (normal indication)	three times

Tip

The disc name is displayed only with the MDs that have been electronically labelled. If the MDs not be labelled, the  indication only will be displayed.

During stop (MD)

The total track number and playing time are displayed.



To check the remaining recording time on the MD
Press DISPLAY.

continued

Using the display (continued)

Tip

The track name is displayed only with the MDs that have been electronically labeled. If the MDs not labeled, the "i" indication only will be displayed.

Note

During repeat play (page 18), shuffle play (page 19) and program play (page 20), the number of tracks left and remaining time on the MD will not be displayed.

During play (MD)

The current track number and the track name are displayed first, then the current track number and the playing time are displayed.

To check the remaining time, recording date and time, etc.

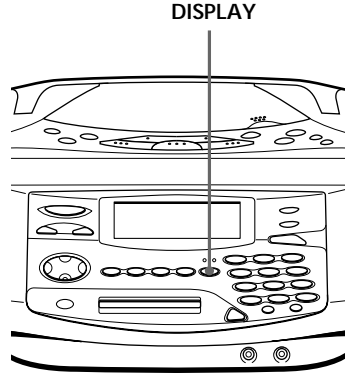
Press DISPLAY.

To display	Press DISPLAY
the current track number and remaining time on the current track	once
the number of tracks left and the disc name	twice
the number of tracks left and remaining time on the MD	three times
recording date and time*	four times
the current track number and the track name	five times
the current track number and playing time (normal indication)	six times


* Once the clock is set, the recording date and time are stamped automatically (page 49).

Checking CD text information

You can display the CD text (the disc name, the artist name, the track name, etc.) when this information is recorded on the CD.

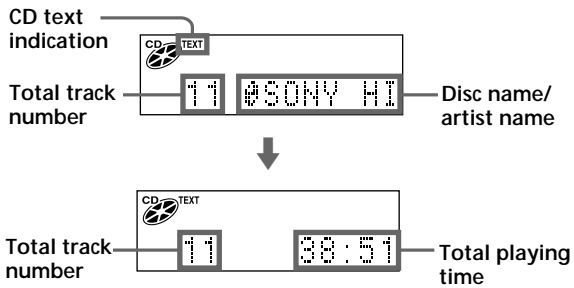


Tips

- 
 This mark appears on the CD, the CD case, etc., when the CD contains text information.
- This player can display up to 1,500 characters of text information per CD. If a CD has text information of more than 1,500 characters, the excess characters will be omitted.

During stop (CD)

The total track number and playing time are displayed.



continued

Checking CD text information (continued)

During play (CD)

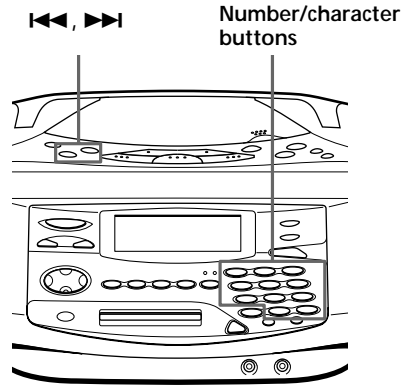
The current track number and the track name are displayed first, then the current track number and the playing time are displayed.

If you press DISPLAY, indications in the display change as follows:

To display	Press DISPLAY
the current track number and remaining time on the current track	once
the number of tracks left and the disc name/artist name	twice
the number of tracks left and remaining time on the CD	three times
the current track number and the current track name	four times
the current track number and playing time (normal indication)	five times

Locating a specific track

You can quickly locate any track on a CD or an MD using the number/character buttons. You can also find a specific point in a track while playing a CD or an MD.



Note

You cannot locate a specific track if “REP PGM”, “REP SHUF”, “PGM” or “SHUF” is lit in the display. Turn off the indication by pressing ■.

Tips

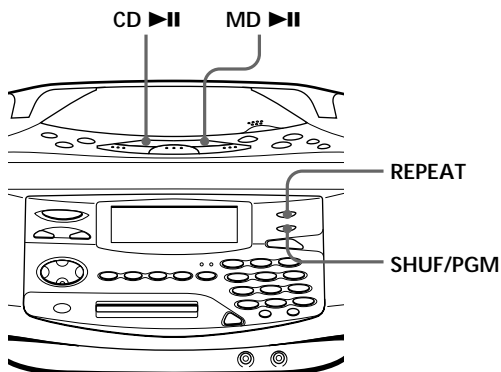
- To locate a track numbered over 10, press >10 first, then the corresponding number/character buttons.
Example:
To play the track number 23, press >10 first, then 2 and 3.
To play the track number 10, you can use the 0/10 button as well as >10, 1 and 0.
- To select a track on an MD numbered 100 or more, press >10 twice, then the corresponding number/character buttons.

To locate	Press
a specific track directly	the number/character button of the track.
a point while listening to the sound	▶▶▶ (forward) or ⏮ (backward) while playing and hold down until you find the point.
a point while observing the display	▶▶▶ (forward) or ⏮ (backward) in pause and hold down until you find the point.

Playing tracks repeatedly

(Repeat Play)

You can play tracks repeatedly in normal, shuffle or program play modes.



On the remote

During stop, press MODE repeatedly until “REP 1”, “REP ALL”, “REP SHUF” or “REP PGM” appears in the display. Then play the CD or the MD.

You can also select “REP 1” or “REP ALL” during play.

To repeat	Do this
a single track	<ol style="list-style-type: none"> 1 Play the track you want. 2 Press REPEAT until “REP 1” appears in the display.
all the tracks	<ol style="list-style-type: none"> 1 Start normal play. 2 Press REPEAT until “REP ALL” appears in the display.
tracks in random order	<ol style="list-style-type: none"> 1 Start shuffle play (page 19). 2 Press REPEAT until “REP SHUF” appears in the display.
programed tracks	<ol style="list-style-type: none"> 1 Start program play (page 20). 2 Press REPEAT until “REP PGM” appears in the display.

To cancel Repeat Play

Stop play first. Then, press REPEAT until “REP” disappears from the display.

Playing tracks in random order

(Shuffle Play)

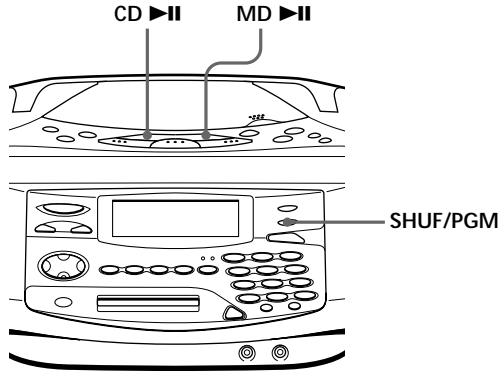
You can play tracks in random order.

Tip

During shuffle play, you cannot select the previous track by pressing **⏮**.

On the remote

Press MODE until “SHUF” appears in the display.



Before you begin, make sure that the CD or MD player is in stop mode.

- 1** Press SHUF/PGM until “SHUF” appears in the display.
- 2** Press CD ▶|| (or MD ▶||) to start shuffle play.

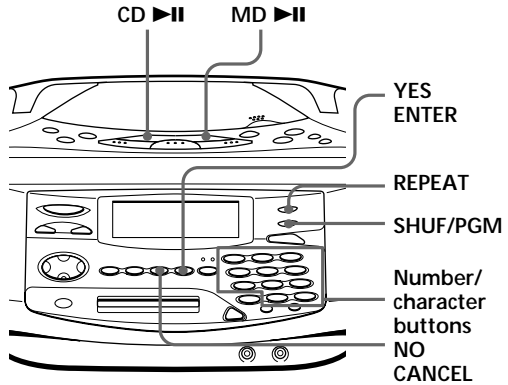
To cancel Shuffle Play

Stop play first. Then, press SHUF/PGM until “SHUF” disappears from the display.

Creating your own program

(Program Play)

You can arrange the playing order of up to 20 tracks on a CD or an MD.



On the remote

Press MODE until "PGM" appears in the display, then press the number/character button to select the track.

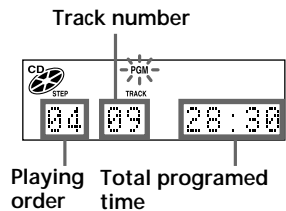
Tip

If you made a mistake, press NO • CANCEL and re-enter the track number using the number/character buttons.

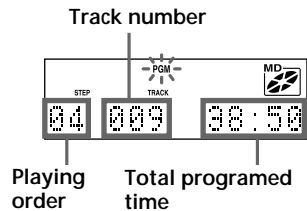
Before you begin, make sure that the CD or MD player is in stop mode.

- 1 Press SHUF/PGM until "PGM" appears in the display.
- 2 Press the number/character buttons for the tracks you want to program in the order you want.

(In case of CD)



(In case of MD)



- 3 Press CD ►|| (or MD ►||) to start program play.

Tips

- If the program play is finished, the program is saved. You can play the same program again by pressing ►II.
- If you open the lid of the CD compartment, the program is erased.
- If you take out the MD, the program is erased.
- During play, total programmed time cannot be displayed.

To cancel Program Play

Stop play first. Then, press SHUF/PGM until “PGM” disappears from the display.

To check the order of tracks before play

Before starting the program play, press YES • ENTER.

Every time you press YES • ENTER, the track number appears in the programmed order.

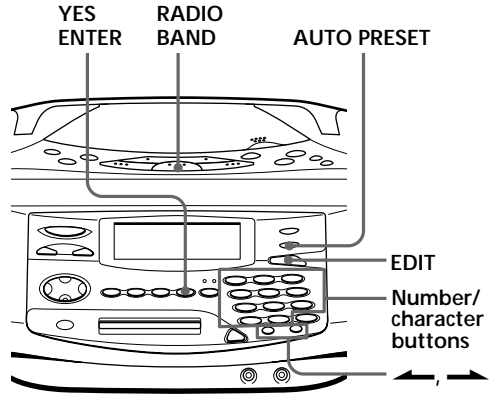
To change the current program

Change before starting the program play.

To	Do this
erase the last track in the program	<ol style="list-style-type: none"> 1 Press NO • CANCEL. The track programmed last is erased. 2 Re-enter the track numbers by pressing the number/character buttons.
change the whole program completely	<ol style="list-style-type: none"> 1 Press ■ to erase the whole program. 2 Create a new program following the programming procedure.

Presetting radio stations

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



- 1 Press **RADIO BAND** until the band you want appears in the display.
- 2 Hold down **AUTO PRESET** until “Auto Preset” flashes in the display.

The stations are stored in memory in the lower frequencies (from the preset number 1, in numerical order) as long as the station has a signal strong enough.

When you've done presetting, the station stored in the preset number 1 will be tuned in automatically.

If a station cannot be preset automatically

You need to preset a station with a weak signal manually. Also, when you want to replace preset stations with a new one, proceed as follows:

- 1 Press **RADIO BAND** until the band you want appears in the display.
- 2 Press **TUNE +** or **TUNE -** repeatedly until you tune in the station you want.
- 3 Hold down the number/character button that you want to preset the new station on for 2 seconds.

The new station replaces the old one.

The characters you can input

- Uppercase letters:
ABCD.....WXYZ
- Lowercase letters:
abcd.....wxyz
- Numbers and symbols:
0123456789!"#\$%&()*.,
<=>? @_`+ -',/:
□ (space)

To label the preset station

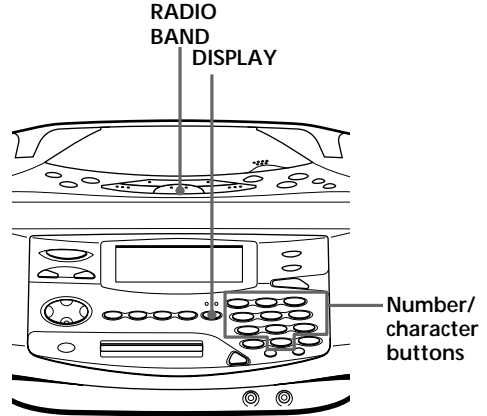
- 1 According to the procedure on page 24, tune in the station you want to label.
- 2 Press EDIT for 2 seconds.
- 3 Input the name of the station (up to 12 characters).
For details, see step 3 on page 45.

To	Use
move the cursor	← or →
select the characters	the number/character buttons
erase the characters	DELETE
insert the characters	INSERT

- 4 Press YES • ENTER.

Playing preset radio stations

Once you've preset the stations, use the number/character buttons to tune in your favorite stations.



- 1** Press RADIO BAND until the band you want appears in the display.
- 2** Press the number/character buttons of the station you want.

The preset number and the station name are displayed, then the preset number and frequency of the station.

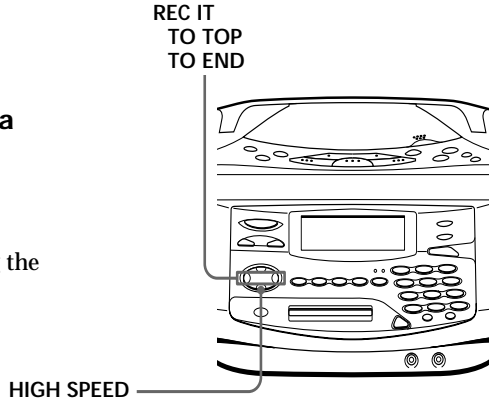
To check the station name

Press DISPLAY. To return to the frequency indication, press DISPLAY again.

Recording the track you are listening to

(Synchronized recording of a single track - REC IT)

You can record the track you are listening to from its beginning using the TO TOP or TO END button.



Notes

- **TOC EDIT** After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.
- If you turn up the volume too high, sound skipping may occur.

Tips

- To record over the previous recording, see page 33.
- Once the clock is set, the recording date and time are stamped automatically (page 50).
- You can label the track during recording (page 44).

- 1 Insert a recordable MD.
- 2 Insert the CD and play the track you want to record.
- 3 To record at high speed, press HIGH SPEED. The indicator lights up. To record at normal speed, skip this step.
- 4 Press TO TOP or TO END of REC IT. The player goes back to the beginning of the track you are listening to, and starts recording.

When you use a recorded MD:

To record before the previous recording, press TO TOP.

To record after the previous recording, press TO END.

When you use a new MD:

Press either TO TOP or TO END.

When recording is finished, MD player will stop operation automatically but CD player will continue play.

continued

Recording the track you are listening to (Synchronized recording of a single track – REC IT) (continued)

If “CD>MD OK?” alternates with time display

There is not enough space on the MD to record the whole program.

If it is all right to record as much as possible and cancel recording of some tracks, press YES•ENTER.
To stop recording, press NO•CANCEL.

If any other messages are displayed, see page 73.

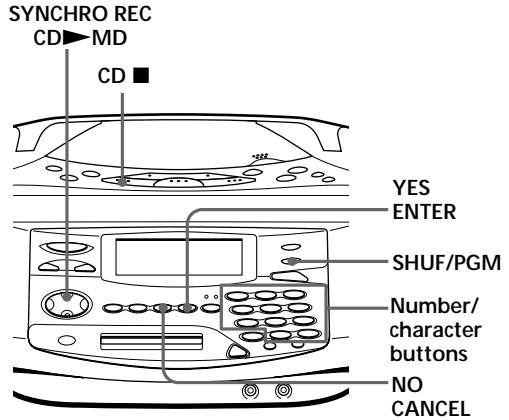
Recording the tracks you programmed

(Synchronized recording of the tracks you programmed)

You can record the tracks you programmed.

Tip

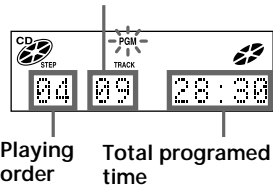
If you made a mistake, press NO • CANCEL and re-enter the track number using the number/character buttons.



Recording

- 1 Insert a recordable MD.
- 2 Insert the CD you want to record and press CD ■.
- 3 Press SHUF/PGM until “PGM” appears in the display.
- 4 Press the number/character buttons for the tracks you want to program in the order you want.

Programed track



- 5 Press SYNCHRO REC CD ► MD.
The player starts recording automatically.
If the MD has any previous recording, recording will be made from the last recorded position.

continued

Recording the tracks you programed (Synchronized recording of the tracks you programed) (continued)

Notes

- **TOC EDIT** After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.
- If you turn up the volume too high, sound skipping may occur.

Tips

- To record over the previous recording, see page 33.
- Once the clock is set, the recording date and time are stamped automatically (page 50).
- You can label the MD and the track during recording (page 44).

If "CD>MD OK?" alternates with time display

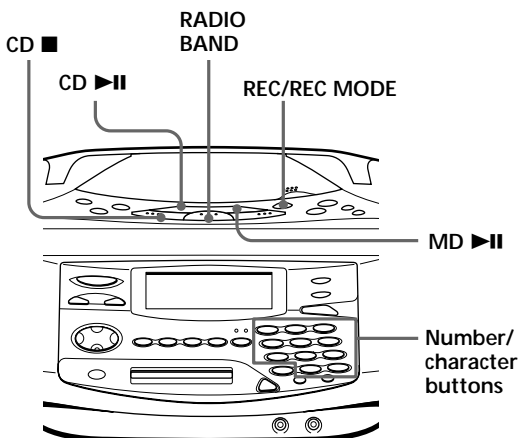
There is not enough space on the MD to record the whole program.

If it is all right to record as much as possible and cancel recording of some tracks, press YES•ENTER. To stop recording, press NO•CANCEL.

If any other messages are displayed, see page 72.

Recording from the radio or a CD

You can record from the radio or a CD to an MD using the REC button. You can start or stop recording at any point you want. You can also pause recording.



Notes

- **TOC EDIT** After you stop recording, do not disconnect the AC power cord or move the player while “TOC EDIT” is flashing in the display. If you do so, recording may not be done properly.
- While recording from radio, you cannot change the station.
- If you turn up the volume too high, sound skipping may occur.

Tips

- To record over the previous recording, see page 33.
- To add track marks during recording, press REC where you want to add track marks.
- To add track marks after recording, see “Dividing recorded tracks” on page 39.

Recording from the radio

When receiving conditions are good, track marks are added on the MD automatically:

- when there is no sound input during recording for more than 2 seconds.
- when a soft sound like pianissimo continues during recording.
- when you pause recording.

If unnecessary track marks are added, erase them after recording (see “Combining recorded tracks” on page 41).

- 1 Tune in the station you want to record from.
- 2 Insert a recordable MD.
- 3 Press REC/REC MODE (● on the remote).
The player stands by for recording.
- 4 Press MD ► (MD ► or MD ■ on the remote).
Recording will be made from the last recorded position.

To stop recording

Press MD ■.

continued

Recording from the radio or a CD (continued)

Tip

When you record a program of a station whose name is labeled on this player, the station name is recorded automatically as the track name (up to 50 names) (page 23).

Notes

- **TOC EDIT** After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.
- If you turn up the volume too high, sound skipping may occur.

Tips

- To record over the previous recording, see page 33.
- To add track marks during recording, press REC/REC MODE where you want to add track marks.
- To add track marks after recording, see "Dividing recorded tracks" on page 39.

To pause recording

Press MD ►|| (MD || on the remote). Press the button again to resume recording.

Recording from a CD

Track marks on the source CD are recorded on the same positions on the MD. Track marks are also added automatically on the MD when you pause recording.

If unnecessary track marks are added, erase them after recording (see "Combining recorded tracks" on page 41).

- 1 Insert a CD.
- 2 Press CD ■ to activate the CD player.
- 3 Insert a recordable MD.
- 4 Press REC/REC MODE (● on the remote).
The player stands by for recording.
- 5 Press MD ►|| (MD ► or MD || on the remote).
Recording will be made from the last recorded position.
- 6 Press CD ►||.

To stop recording

Press MD ■.

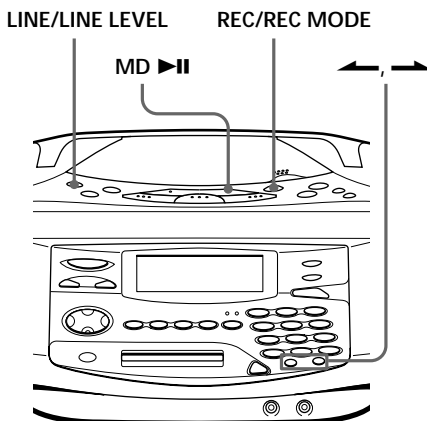
To pause recording

Press MD ►|| (MD || on the remote). Press the button again to resume recording.

Extending the recording time

(Monaural recording)

If you choose to record in monaural, the recording time becomes double the normal mode; however, the recorded sound will lose the real sound presence to some extent. Choose the recording mode accordingly.



Notes

- **TOC EDIT** After you stop recording, do not disconnect the AC power cord or move the player while “TOC EDIT” is flashing in the display. If you do so, recording may not be done properly.
- While recording from radio, you cannot change the station.
- If you turn up the volume too high, sound skipping may occur.

Tips

- To record over the previous recording, see page 33.
- To add track marks during recording, press REC/REC MODE where you want to add track marks.
- To add track marks after recording, see “Dividing recorded tracks” on page 39.

1 Prepare the music source you want to record.

Source	Do this
CD	Insert a CD, and press CD ■.
RADIO	Tune in the station.
LINE	Turn on the component connected to LINE IN. Press LINE/LINE LEVEL until “LINE” appears in the display.

2 Insert a recordable MD.

3 Press and hold REC/REC MODE until “Stereo REC” flashes in the display.

4 Press ◀ or ▶ until “Mono REC” flashes in the display, and press YES • ENTER.

The player stands by for recording.

5 Press MD ▶▶ (MD ▶ or MD ▶▶ on the remote).

Recording will be made from the last recorded position.

6 Play the sound source.

Recording from the CD: Play the CD.

Recording from the connected equipment : Play the component connected to the LINE IN jack.

continued

Extending the recording time (continued)

Tips

- When you record a program of a station whose name is labeled on this player, the station name is recorded automatically as the track name (up to 50 names) (page 23).
- Once you have stopped recording by pressing MD ■, the player switches back to stereo recording when you record the next time.
- If you record a stereo source in monaural, the sounds from left and right will be mixed.
- The MDs recorded in monaural using this player can be played back only with an MD player/recorder that has the monaural playing function.

To stop recording

Press MD ■.

To pause recording

Press MD ►|| (MD || on the remote). Press the button again to resume recording.

Recording on a recorded MD

There are two ways of recording on a recorded MD.

- To add to the previous recording. The previous recording will remain.
- To record over the previous recording. The previous recording will be erased.

Adding recording (the previous recording will remain)

Insert a recorded MD, and start recording (pages 6, 29, 30 and 31). Recording will be made from the last recorded position.

If there is not enough space on the MD to record

When recording a whole CD, "CD>MD OK?" appears in the display (page 7). When recording from the radio or a CD, press DISPLAY to check the recording remaining time on the MD.

Recording over the previous recording (the previous recording will be erased)

To record over from the beginning of the MD after erasing all tracks on the MD

First, erase all tracks on an MD (page 37). You can use the MD the same as a new one. Then, record on the MD as usual.

To record over from a specific point on the MD

- 1 Play the MD and press MD ►|| to pause play at the point you want to start recording.
- 2 Press REC to make the player in standby mode.
- 3 Press MD ►|| to start recording.
- 4 Play the sound source.

Note

When recording over from a specific point on the MD:

If the new recording is shorter than the previous recording, a part of the previous recording will remain after the recording. As you repeat this type of recording, many fragments of recording will remain on the MD. We recommend that you erase all tracks on the MD (page 37) if you no longer need to keep the recording. Then, start recording on the blank MD.

Before editing

On the MD, track marks are inserted between the tracks. You can find the beginning of the tracks quickly using the track marks. You can change the positions of the track marks. For instance, you can divide a certain track into several tracks by adding track marks. You can also combine some tracks into a new longer track by erasing some track marks.

The position of the track marks to be added are different depending on the type of recording or recording conditions

The type of recording	The position of the track marks to be added
Recording a whole CD (page 6)	The same positions on the source CD
Recording from a CD using REC/REC MODE button (page 30)	<ul style="list-style-type: none"> • The same positions on the source CD • The position where you pause recording • The position where you press REC/REC MODE
Recording from the radio or other equipment connected to the player (pages 29 and 61)	<ul style="list-style-type: none"> • When there is no sound input or a soft sound continues during recording for more than 2 seconds • The positions where you pause recording • The positions where you press REC/REC MODE

You can add or erase track marks after recording. When you record, for instance, from a radio or other equipment connected to the player, track marks may be added to the positions you do not want. If that happens, change the positions of the track marks to those you want.

Change the track marks correctly

- To erase a track mark → “Combining recorded tracks (Combine Function)” (page 41): You can combine two tracks into a single one by erasing the track mark between the two tracks.
- To add a track mark → “Dividing recorded tracks (Divide Function)” (page 39): You can divide one track into two tracks by adding a track mark.

You can also use the following functions

- Erasing a single track → “Erasing recordings (Erase Function)” (page 36)
- Erasing all tracks on an MD → “Erasing recordings (Erase Function)” (page 37)
- Changing the order of the tracks → “Moving recorded tracks (Move Function)” (page 43)
- Locating any point in the track quickly → “Dividing recorded tracks (Divide Function)” (page 39)
- Combining several independently recorded portions into a single track → “Erasing recordings (Erase Function)” (page 36) and “Combining recorded tracks (Combine Function)” (page 41)

Note

TOC EDIT After you stop recording, do not disconnect the AC power cord or move the player while “TOC EDIT” is flashing in the display. If you do so, recording may not be done properly.

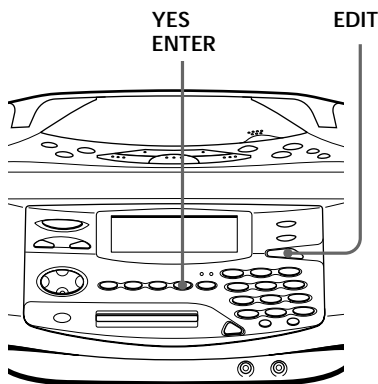
Erasing recordings

(Erase Function)

You can quickly erase the recorded tracks or unnecessary portion in the track. Unlike a cassette-corder, blank portion will not remain after erasure.

Here are three options to erase recordings:

- Erasing a single track
- Erasing all tracks on an MD
- Erasing a portion of a track



Notes

- If “Protected” appears in the display, the tab on the MD is in the record-protect position (page 64).

- **TOC EDIT** After you stop recording, do not disconnect the AC power cord or move the player while “TOC EDIT” is flashing in the display. If you do so, recording may not be done properly.

Erasing a single track

You can erase a whole track quickly. When you erase a track, the total number of tracks on the MD decreases by one and all tracks following the erased one are renumbered.

- 1 Play the track you want to erase.
- 2 Press EDIT repeatedly until “Track Erase” appears in the display.
- 3 Press YES • ENTER.

“Erase OK?” appears in the display, and one-track repeat play starts. Once you have erased a track, you cannot recover it. Be sure to check the contents of the track you are trying to erase.

If you want to cancel the erase function at this point:

Press NO • CANCEL or MD ■.

- 4 Press YES • ENTER.

“Complete” appears in the display for a few seconds, and the current track will be erased.

Note

TOC EDIT After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.

Erasing all tracks on an MD

You can erase the disc name, all recorded tracks and their names at the same time. After you have erased all tracks on the MD, you can use it as a new MD.

1 While the player is stopped, press EDIT repeatedly until "All Erase" appears in the display.

2 Press YES•ENTER.

"All Erase OK?" appears in the display. Once you have erased tracks, you cannot recover them. Be sure to check the contents of the disc you are trying to erase.

If you want to cancel the erase function at this point:

Press NO•CANCEL or MD ■.

3 Press YES•ENTER.

After "TOC EDIT" disappears from the display, "Blank Disc" appears in the display, and all contents on the MD are erased.

continued

Erasing recordings (Erase Function) (continued)

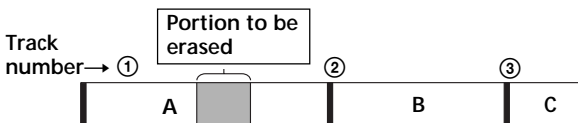
Note

TOC EDIT After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.

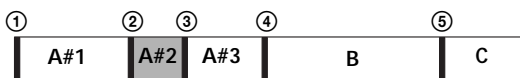
Erasing a portion of a track

By using the Divide (page 39), Erase (page 36) and Combine (page 41) functions, you can erase specific portions of a track.

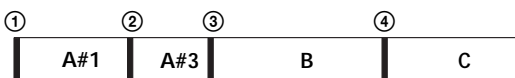
Example: Erasing a portion of track A



1 Divide A into three parts (page 39).



2 Erase A#2 (page 36).



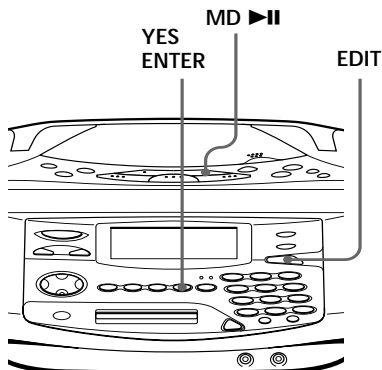
3 Combine A#1 and A#3 (page 41).



Dividing recorded tracks

(Divide Function)

When recording from the radio, etc., track marks may not be added correctly. A number of tracks may be included in a single track. You can divide these tracks into separate tracks, and add a new track mark to each track. All tracks following the divided tracks are renumbered.



Tips

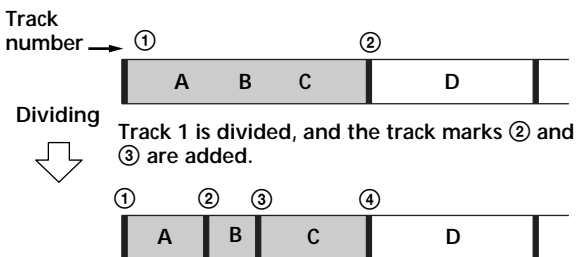
- To put the divided tracks together, see “Combining recorded tracks” on page 41.
- To divide a track during recording, press REC/REC MODE at the point where you want to add the track mark.

Note

If “Sorry” appears in the display, you cannot divide the track.

If you repeat editing on the MD, you may not be able to divide a track. This is due to the system limitations of the MD (page 65), but not caused by malfunction.

Example: Dividing track 1 into three tracks



- 1** While playing the MD, press MD >|| at the point where you want to create a new track.
The player pauses.
- 2** Press EDIT repeatedly until “Divide” appears in the display.
- 3** Press YES•ENTER.
“Divide OK?” appears in the display.

If you want to cancel the divide function at this point:

Press NO•CANCEL or MD ■.

continued

Dividing recorded tracks (Divide Function) (continued)

Note

TOC EDIT After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.

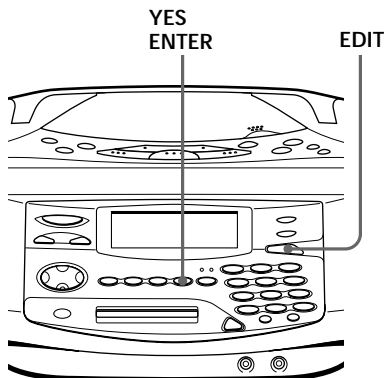
4 Press YES•ENTER.

"Complete" appears in the display for a few seconds after the track is divided. The original track only has the track name, while the new track has no name (this happens only when the track you divided had its track name).

Combining recorded tracks

(Combine Function)

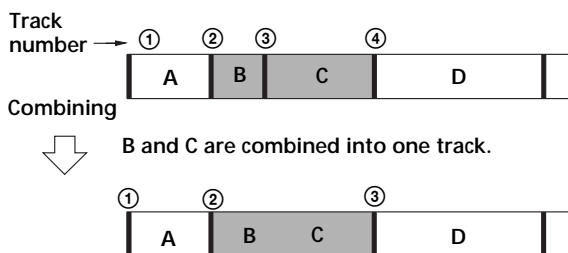
You can combine two adjacent tracks into a single one. Using the combine function, you can combine a number of fragmented recordings or delete the unnecessary track marks. All tracks following the combined track are renumbered.



Notes

- If “Sorry” appears in the display, you cannot combine the tracks.
If you repeat editing on the MD, you may not be able to combine the tracks. This is due to the system limitations of the MD (page 65), but not caused by malfunction.
- If “Cannot Edit” appears in the display, you may be trying to combine the tracks on the first track. You cannot use the combine function on the first track.

Example: Combine the tracks B and C



- 1** Play the track you want to combine.
Example: To combine tracks B and C, play the track C.
- 2** Press EDIT repeatedly until “Combine” appears in the display.
- 3** Press YES•ENTER.
“Combine OK?” appears in the display; the player enters the playback pause mode.
If you want to cancel the combine function at this point:
Press NO•CANCEL or MD ■.

continued

Combining recorded tracks (Combine Function) (continued)

Note

TOC EDIT After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.

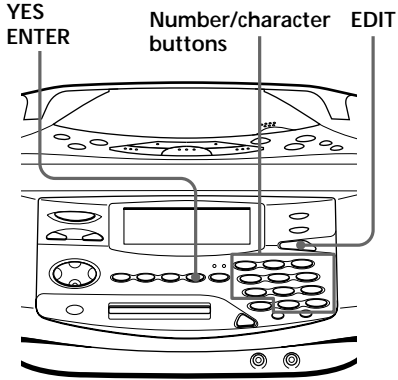
4 Press YES•ENTER.

"Complete" appears in the display for a few seconds after the tracks are combined. If both of the combined tracks had track names, the name of the latter track is erased.

Moving recorded tracks

(Move Function)

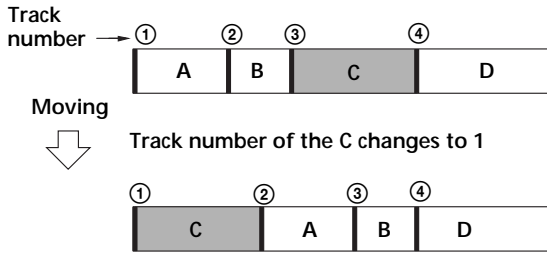
You can change the order of the tracks. After you move the track, the track numbers are renumbered automatically.



Note

TOC EDIT After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.

Example: Moving C to the position of track 1

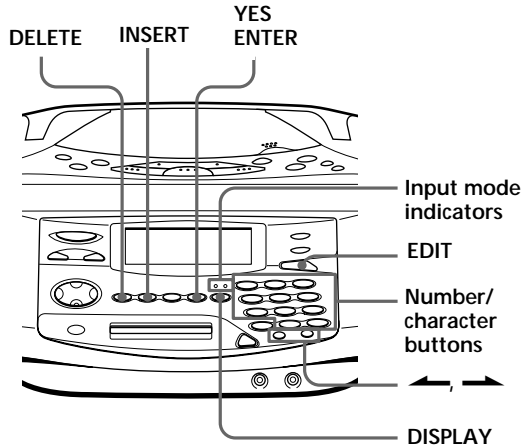


- 1** Play the track you want to move.
- 2** Press EDIT repeatedly until "Track Move" appears in the display.
- 3** Press YES•ENTER.
 "→Track 003?" appears in the display, and one-track repeat play starts.
- 4** Press the number/character buttons to select the new track position.
If you want to cancel the move function at this point:
 Press NO•CANCEL or MD ■.
- 5** Press YES•ENTER.
 "Complete" appears in the display for a few seconds after the track is moved.

Labeling recordings

(Name Function)

Either during recording or after recording, you can label the MDs and the tracks you have recorded with letters, numbers and symbols. You can input up to about 1,700 characters into each MD.



Notes

- When recording a CD containing CD text information, a track name appears in the display at the time of labeling. Change the name according to step 3 on page 45, if necessary, then press YES•ENTER. The track names that have been labeled on a CD will not be recorded on an MD until you press YES•ENTER to confirm it.
- Certain characters contained in the CD text information (É, à, ñ, ç, ß, [,], etc.) cannot be labelled on the MD. These characters will be labelled as blanks on the MD.

Labeling during recording

- You can label both MDs and tracks during synchronized recording of a whole CD (page 6) or the tracks you programmed (page 27).
- You can label the tracks only during synchronized recording of a single track – REC IT (page 25).

During synchronized recording of a whole CD or the tracks you programmed

You can label an MD or a track with up to 50 characters. You can label up to 30 tracks. If you want to label more than 30 tracks, label the tracks after recording (page 48).

- 1** During recording, press EDIT repeatedly until “Disc Name” or “Track Name” appears in the display, and press YES•ENTER.
When you label an MD, select “Disc Name”.
When you label a track, select “Track Name”.
- 2** When you label a track, press ◀ or ▶ to select the track number in a CD, and press YES•ENTER.
When you label an MD, proceed to step 3.

The characters you can input

- Uppercase letters: ABCD.....WXYZ
- Lowercase letters: abcd.....wxyz
- Numbers and symbols: 0123456789!"#\$%&()*.;<=>?@_`+ -',/; □ (space)

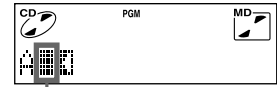
Note

TOC EDIT After you stop recording, do not disconnect the AC power cord or move the player while "TOC EDIT" is flashing in the display. If you do so, recording may not be done properly.

3 Input the characters.

① Press DISPLAY to select the character input mode.

Display



Cursor

- Uppercase letters input mode: The ABC indicator lights up.
- Lowercase letters input mode: The abc indicator lights up.

② Input the name using the number/character buttons (page 46).

③ Press → to make the cursor shift rightward.

You can also use the following buttons:

Button to use	Function
←, →	Move the cursor leftward or rightward.
DELETE	Delete the character marked by the cursor.
INSERT	Make a space between the characters.

4 Repeat step 3 to complete an entire name.

5 Press YES • ENTER.

The name has been labeled on the MD.

continued

Labeling recordings (Name function) (continued)

The characters you can input

Numbers, letters and symbols are allocated to each number/character button.

Each time you press the button, the character changes in the display as shown in the following table.

Buttons	Uppercase letters input mode (the ABC indicator lights up)	Lowercase letters input mode (the abc indicator lights up)
1	1	1
2ABC	↔ A → B → C → 2 ↵	↔ a → b → c → 2 ↵
3DEF	↔ D → E → F → 3 ↵	↔ d → e → f → 3 ↵
4GHI	↔ G → H → I → 4 ↵	↔ g → h → i → 4 ↵
5JKL	↔ J → K → L → 5 ↵	↔ j → k → l → 5 ↵
6MNO	↔ M → N → O → 6 ↵	↔ m → n → o → 6 ↵
7PQRS	↔ P → Q → R → S → 7 ↵	↔ p → q → r → s → 7 ↵
8TUV	↔ T → U → V → 8 ↵	↔ t → u → v → 8 ↵
9WXYZ	↔ W → X → Y → Z → 9 ↵	↔ w → x → y → z → 9 ↵
0/10	0	0
>10	_____	_____
SYMBOL	↔ ! → " → # → \$ → % → & → (→) → * → . → : → ; → < → = → ↔ , → - → + → ^ → _ → ` → ~ → ? → > ↵	

Notes

- When recording a CD containing CD text information, a track name appears in the display at the time of labeling. Change the name according to step 3 on page 45, if necessary, then press YES•ENTER. The track names that have been labeled on a CD will not be recorded on an MD until you press YES•ENTER to confirm it.
- Certain characters contained in the CD text information (É, á, ñ, ç, ß, [,], etc.) cannot be labelled on the MD. These characters will be labeled as blanks on the MD.

During REC IT recording

You can label a track name only. You can input up to 100 characters.

- 1** During recording, press EDIT.
The display waits for the input of the characters.
- 2** According to steps 3 and 4 on page 45, label a track.
- 3** Press YES•ENTER.
The name is labeled on the MD.

continued

Labeling recordings (Name function) (continued)

Tip

When using an MD that has been already labeled, a disc name or a track name appears in the display at the time of labelling. Change the name according to step 3 on page 45, if necessary, then press YES•ENTER to confirm the new name.

Labeling after recording

To label an MD or a track, operate as follows. You can input up to 100 characters for each label.

- 1** When you label an MD, insert the MD you want to label and stop operation.
When you label a track, play the track you want to label.
- 2** Press EDIT repeatedly until “Disc Name” or “Track Name” appears in the display, and press YES•ENTER.
When you label an MD, select “Disc Name”.
When you label a track, select “Track Name”.
- 3** Label the MD or the track according to steps 3 and 4 on page 45.
- 4** After completing an entire name, press YES•ENTER.
The name is labeled on the MD.

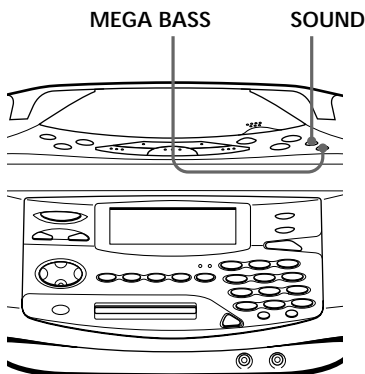
To change the name

According to step 1 on this page, make the disc name or the track name you want to change appear in the display. Replace the old name with a new one, and press YES•ENTER.

Selecting the audio emphasis

(SOUND/MEGA BASS)

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



Selecting the sound characteristic

Press SOUND to select the audio emphasis you want. Each time the button is pressed, the display changes.

Choose	For
Sound ROCK	Rock'n'roll music: powerful, clean sounds, emphasizing low and high range audio.
Sound POP	Popular music: light, bright sounds emphasizing high and middle range audio
Sound JAZZ	Jazz: percussive sounds, emphasizing bass audio.
Sound VOCAL	Vocals: the presence of vocals, stressing middle range audio
Sound Off	Classical music: the whole dynamic range for music

Reinforcing the bass sound

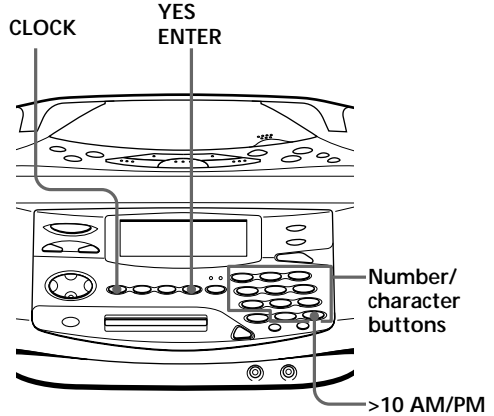
Press MEGA BASS until "MEGA BASS On" appears in the display.

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

Setting the clock

“- -y - -m - -d” and “- :- -” indications appear in the display until you set the clock.

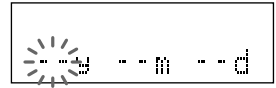
Once the clock is set, the recording date and time are stamped automatically (pages 7, 25 and 28).



Tips

- The time display system of this player is the 12-hour system.
- You can set the clock of this player any time, no matter whether power is on or off.

- 1** Press and hold **CLOCK** until the year digits flash.



- 2** Set the date.

Example: Set Feb. 14, 2001

- ①** Press the number/character buttons to set the year and press **YES•ENTER**.



- ②** Press the number/character buttons to set the month and press **YES•ENTER**.

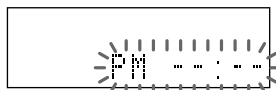


- ③** Press the number/character buttons to set the day and press **YES•ENTER**.

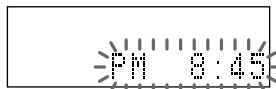


3 Set the time.

- ① Press >10 AM/PM to select “AM” or “PM”.



- ② Press the number/character buttons to set the hour and minute digits.



Example: To set 8:45, press 8→4→5.

4 Press YES•ENTER.

The clock starts from 00 seconds.



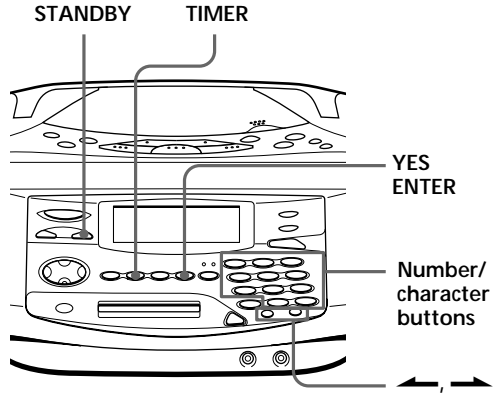
To display the time

Press CLOCK. To go back to the previous display, press CLOCK again. When the power is turned off, the time indication is displayed.

Waking up to music

You can wake up to music or a radio program at a preset time.

Make sure you have set the clock (see “Setting the clock” on page 50).



Notes

- You cannot preset waking up timer and recording timer (page 55) at the same time.
- When playing the sound of the component connected to the LINE IN jack of the player, refer to the operating instructions of the component.

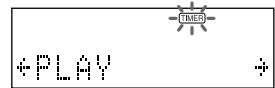
Before you begin, make sure “TIMER” is not displayed. If displayed, press STANDBY.

1 Prepare the music source you want to play.

Source	Do this
MD	Insert an MD.
CD	Insert a CD.
RADIO	Tune in the station.
LINE	Turn on the component connected to LINE IN.

2 Press TIMER.

“TIMER” flashes in the display.



Make the following settings by checking the indications in the display.

3 Press ◀ or ▶ until “PLAY” flashes in the display, and press YES•ENTER.


“MD”, “CD”, “RADIO” or “LINE” flashes in the display.

4 Press ◀ or ▶ until the music source you want to play (“MD”, “CD”, “RADIO” or “LINE”) appears in the display, and press YES•ENTER.

Tip

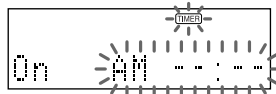
If you made a mistake, press NO•CANCEL. The setting entered last will be cleared. Re-enter it.

Tips

- To exit the standby mode, press STANDBY to make "TIMER" disappear from the display.
- The preset settings remain until you reset them.
- As long as the  indication appears in the display, the player is in timer mode.

5 Set the timer to the hour and the minutes you want the music to go on.

- ① Press >10 AM/PM to select "AM" or "PM".



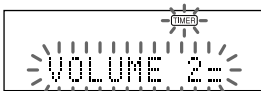
- ② Press the number/character buttons to set the hour and the minutes.

Example: To set 6:45, press 6→4→5.

- ③ Press YES•ENTER.

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

7 Press ← or → to set the volume you want, and press YES•ENTER.



8 Press STANDBY.

"TIMER" lights up; the player enters the standby mode.

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

To check/change the waking up timer settings

Press TIMER, then press YES•ENTER. Each time you press YES•ENTER, a stored setting is displayed in the set order. To change the setting, display the setting you want to change and re-enter it.

To use the player before a timer playback starts

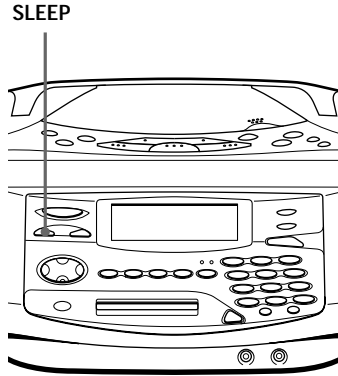
If you turn on the player, you can use it as usual (in case of the radio, if you listen to the station which is different from the one you tuned in step 1 on page 52, you will hear that station at the preset time). Turn off the player before the preset time.

To stop play

Turn off the power.

Falling asleep to music

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



Tips

- You can combine the waking up timer with the sleeping timer. Set the waking up timer first (page 52), turn on the player, and then set the sleeping timer.
- You can prepare the different music for the waking up timer and the sleeping timer. However, you cannot store different radio stations.
- You can set different volume for the waking up timer and the sleeping timer. For instance, you can sleep at lower volume and wake up at higher volume.

- 1 Play the music source you want.
- 2 Press SLEEP until “SLEEP” appears in the display.
- 3 Press SLEEP to select the minutes for the sleeping timer.

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

“60” → “90” → “120”
→ no indication →
“10” → “20” → “30”.



If 4 seconds have passed after you pressed SLEEP, the minutes in the display are entered.

The preset time has passed, the player goes off automatically.

To cancel the sleep function

Press SLEEP to make “SLEEP” disappear from the display.

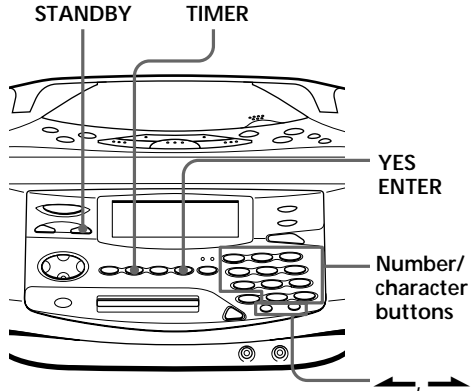
To change the preset time

Do the steps 2 and 3 again.

Timer-recording radio programs

You can set timer to record the radio at a certain time. You can also record from the component connected to the LINE IN jack of the player.

Make sure you have set the clock (see “Setting the clock” on page 50).



Notes

- You cannot preset recording timer and waking up timer (page 52) at the same time.
- When recording from the component connected to the LINE IN jack of the player, refer to the operating instructions of the component.

Before you begin, make sure “TIMER” is not displayed. If displayed, press STANDBY.

- 1 Tune in the radio station and insert an MD.
- 2 Press TIMER.

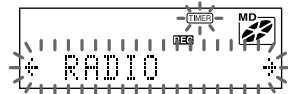
“TIMER” flashes in the display.



Make the following settings by checking the indications in the display.

- 3 Press **←** or **→** until “Stereo REC” or “Mono REC” flashes in the display, and press YES•ENTER.
- 4 Press **←** or **→** until “RADIO” flashes in the display, and press YES•ENTER.

When recording from the component connected to the LINE IN jack of the player, press **←** or **→** until “LINE” flashes in the display, and press YES•ENTER.



continued

Timer-recording radio programs (continued)

Tip

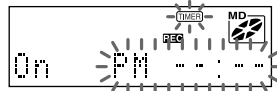
If you made a mistake, press NO•CANCEL. The setting entered last will be cleared. Re-enter it.

Tips

- To exit the standby mode, press STANDBY to make “TIMER” and “REC” disappear from the display.
- The preset settings remain until you reset them.
- As long as the ⏻ indication appears in the display, the player is in timer mode.

5 Set the timer to the hour and the minutes you want to start recording.

- ① Press >10 AM/PM to select “AM” or “PM”.



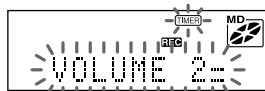
- ② Press the number/character buttons to set the hour and the minutes.

Example: To set 7:00, press 7→0→0.

- ③ Press YES•ENTER.

6 Set the timer to the hour and the minutes you want to stop recording. (Do as step 5.)

- 7** Press ← or → to set the volume you want, and press YES•ENTER.



8 Press STANDBY.

“TIMER” and “REC” are displayed, and the player enters the standby mode.

At the preset time, the power will go on and the recording will start. Then the power will go off at the preset time, and the player will enter the standby mode again.

To check/change the recording timer settings

Press TIMER, then press YES•ENTER. Each time you press YES•ENTER, a stored setting is displayed in the set order. To change the setting, display the setting you want to change and re-enter it.

To use the player before a timer-recording starts

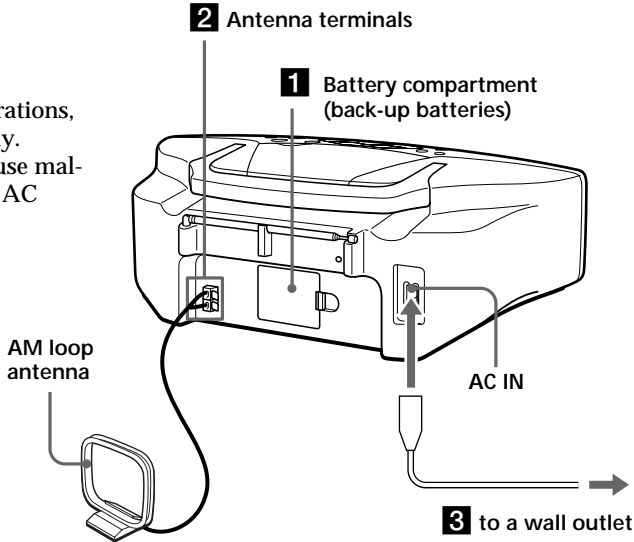
If you turn on the player, you can use it as usual (in case of the radio, if you listen to the station which is different from the one you tuned in step 1 on page 55, you will hear that station at the preset time). Turn off the player before the preset time.

To stop timer-recording

Turn off the power.

Preparing the system

According to the illustrations, connect the cords firmly. Wrong connections cause mal-functions. Connect the AC power cord last.

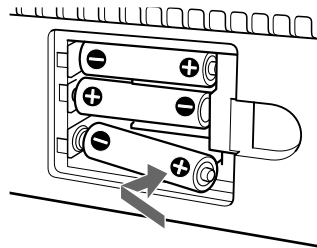


Note

Be sure to turn off the power of the player before connecting/disconnecting the AC power cord or removing/inserting batteries.

1 Inserting the back-up batteries

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



Insert three size AA (R6) batteries (not supplied)

(rear)

Replacing batteries

With normal use, the batteries should last for about one year.

Replace all the batteries with new ones at intervals of about one year.

continued

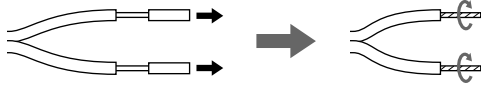
Preparing the system (continued)

Note

Keep the AM loop antenna away as far as possible from the player. If you do not, noise may be heard.

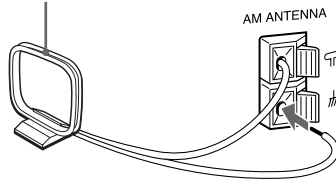
2 Hooking up the antenna

- 1 Strip the coating from the end of the cable and twist the wires.



- 2 Connect the wires to the terminals.

AM loop antenna*
(supplied)



*Reorient the antenna to improve broadcast reception

Setting up the AM loop antenna



3 Connecting the AC power cord

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

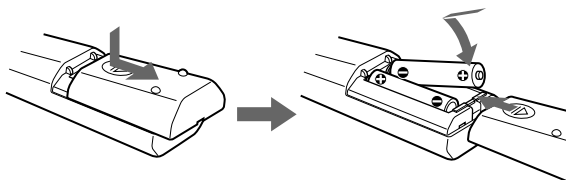
About the demonstration mode

The player enters the demonstration mode about 10 seconds after you connected the AC power cord to the wall outlet. Demonstration indications such as “DEMONSTRATION” and “PERSONAL MD SYSTEM ZS-M35” appear in the display one after another.

The player also enters the demonstration mode if you do not operate the player for about one minute after you turned it on.

To exit the demonstration mode, set the clock of the player (page 50).

4 Inserting batteries into the remote



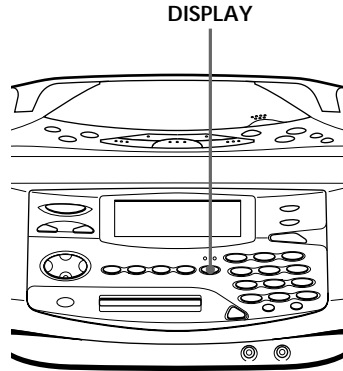
Insert two size AA (R6) batteries (not supplied)

Replacing batteries

With normal use, the batteries should last for about six months. When the remote no longer operates the player, replace all the batteries with new ones.

Saving power

Even when power is turned off, this player consumes about 6.5 W for time indication, timer operation and remote control reception. If you use the saving power function, you can reduce power consumption to less than 1 W.



When power is turned off, press and hold DISPLAY for about 2 seconds.

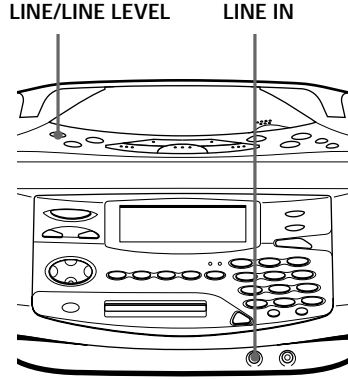
The player enters the lower power consumption standby mode.

To make the time indication appear, press and hold DISPLAY for about 2 seconds when the player is turned off.

Connecting optional components

You can enjoy the sound from a TV or VCR through the speakers of this player.

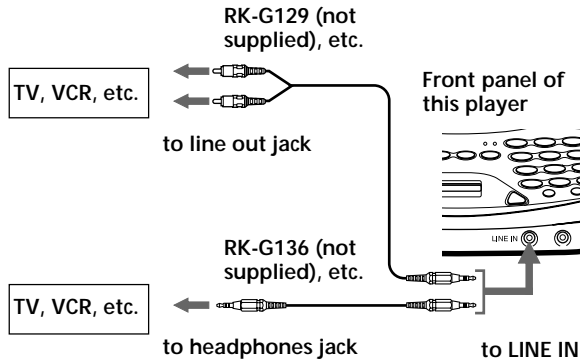
Be sure to turn off the power of each component before making connections. For details, refer to the instructions of the component to be connected.



Note

Connect the cords firmly to avoid any malfunction.

Connecting a TV or a VCR



After finishing the connections, turn on the player, and press LINE/LINE LEVEL to display "LINE".

continued

Connecting optional components (continued)

Tip

If there is no sound input for more than 2 seconds during recording, a track mark is stamped automatically.

Recording the sound from the connected components

- 1 Insert a recordable MD.
- 2 Press LINE/LINE LEVEL on the top panel to display “LINE”.
- 3 Press REC/REC MODE.
The player stands by for recording.
- 4 Press MD ►||.
Recording starts.
- 5 Play the optional component connected to the LINE IN jack of the player.

If the volume of the component connected to the LINE IN jack is too high

Press LINE/LINE LEVEL repeatedly to display “Level: High” (“Level: Normal” under the normal conditions) or reduce the volume of the connected component.

Precautions

On safety

- As the laser beam used in the CD and MD 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

- The player is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the player itself has been turned off.
- Unplug the player from the wall outlet when it is not to be used for an extended period of time.
- When the 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 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 the player on an inclined or unstable place.
- Do not place anything within 10 mm of the side of the cabinet. The ventilation holes must be unobstructed for the player to operate properly and prolong the life of its components.

- If the player is left in a car parked in the sun, be sure to choose a location in the car where the player will not be subjected to the direct rays of the sun.
- 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 lenses inside the CD and MD player section. Should this occur, the player will not operate properly. In this case, remove the CD or MD and wait about an hour for the moisture to evaporate.

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

Notes on CDs

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



continued

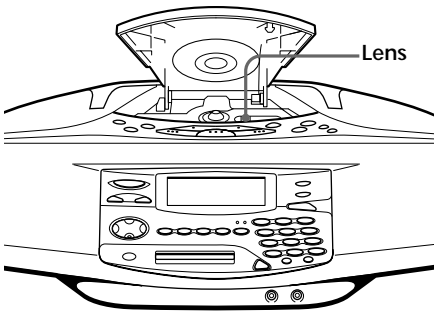
Precautions (continued)

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

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

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 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 MDs

- Do not open the shutter to expose the MD. Close the shutter immediately if the shutter opens.



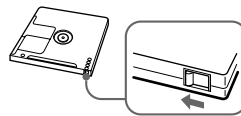
Shutter Cartridge

- Wipe the disc cartridge with a dry cloth to remove dirt.

Protecting a recorded MD

To record-protect an MD, slide open the tab at the side of the MD (so the tab is concealed).

In this position, the MD cannot be recorded. To record on the MD, slide close the tab.



Slide open the tab.

System limitations of the MD

The recording system in your MiniDisc recorder is radically different from those used in cassette and DAT decks and the system has limitations described below. Note, however, that these limitations are due to the inherent nature of the MD recording system itself and not to mechanical causes.

"Disc Full" appears in the display even before the MD has reached the maximum recording time (60, 74 or 80 minutes).

When 254 tracks have been recorded on the MD, "Disc Full" appears regardless of the total recorded time. More than 254 tracks cannot be recorded on the MD. To continue recording, erase unnecessary tracks.

"Disc Full" appears in the display even before the MD has reached the maximum track number or recording time.

Repeated recording and erasing may cause fragmentation and scattering of data. Although those scattered data can be read, each fragment is counted as a track. In this case, the number of tracks may reach 254 and further recording is not possible. To continue recording, erase unnecessary tracks.

The remaining recording time does not increase even after erasing numerous short tracks.

Tracks under 12 seconds long are not counted, so erasing them may not increase the recording time.

Some tracks cannot be combined with others.

Track combination may become impossible when tracks are under 12 seconds long.

The total recorded time and the remaining time on the MD may not reach the maximum recording time (60, 74 or 80 minutes).

Recording is done in minimum units of 2 seconds each, no matter how short the material. The contents recorded may thus be shorter than the maximum recording capacity. Disc space may also be further reduced by scratches.

The sound may dropout while fast-forwarding or rewinding the edited tracks.

Tracks created through editing may exhibit sound dropout during fast-forwarding or rewinding because high-speed playback takes time to search for the position on the disc when the tracks are scattered on the disc.

continued

System limitations of the MD (continued)

Guide to the serial copy management system

Digital audio equipment such as CDs, MDs, DATs, etc., copy music easily with high quality, for these products process music as a digital signal. The Serial Copy Management System allows you to make only a single copy of a recorded digital source through digital-to-digital connections because music programmes may be copyrighted.

This system is applied to this player.

You can make only a first-generation copy* through a digital-to-digital connection.

That is :

- 1 You can make a copy of a digital sound programme on the market such as CDs, MDs, etc., but you cannot make a second copy from the first-generation copy.
- 2 You can make a copy of a digital signal from a digitally-recorded analog sound programme on the market such as an analog record, music cassette tape, etc., or from digital satellite broadcasts, but you cannot make a second copy.

Note

No restrictions apply when a digital signal is recorded as an analog signal (that is, when a digital signal is recorded through analog-to-analog connection).

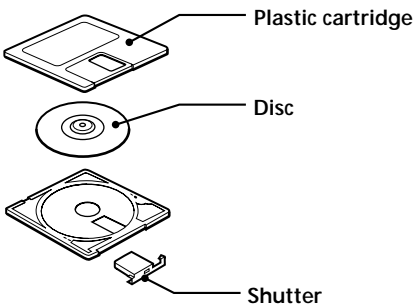
* A first-generation copy is a digital recording of a digital signal made on digital audio equipment through a digital-to-digital connection.

Getting to know the MD

Structure

The 2.5-inch MiniDisc (MD) is compact and easy to handle requiring less care as it is encased in a plastic cartridge that looks like a 3.5-inch diskette (see illustrations below).

Parts making up a MiniDisc



Disc variation

MDs come in two types: pre-mastered (pre-recorded) and recordable (blank). Pre-mastered MDs cannot be recorded on or over like cassette tapes. To record, you must use a “recordable MD.”

Pre-mastered MDs

Pre-mastered MDs are recorded and played like regular CDs. A laser beam focus on the pits on the surface of the MD and reflects the information back to the lens in the recorder. The recorder then decodes the signals and plays them back as music.



Recordable MDs

Recordable MDs, which use magneto-optical (MO) technology, can be recorded again and again. The laser inside the recorder applies heat to the MD, demagnetizing the magnetic layer of the MD. The recorder then applies a magnetic field to the layer. This magnetic field corresponds exactly to the audio signals generated by the connected source. (The north and south polarities equate to digital “1” and “0.”) The demagnetised MD adopts the polarity of the magnetic field, resulting in a recorded MD.



continued

Getting to know the MD (continued)

Features

Long recording

The MD uses a new digital audio compression technology called Adaptive Transform Acoustic Coding (ATRAC). To store more sound in less space, ATRAC extracts and encodes only those frequency components actually audible to the human ear.

Quick random access

Like CDs, MDs offer instantaneous random access to the beginning of any music track. Pre-mastered MDs are recorded with location addresses corresponding to each music track.

Shock-resistant memory

One major drawback of optical read systems is that they skip or mute the sound when subject to vibration. The MD system resolves this problem by using a buffer memory that stores audio data.

Troubleshooting

	Symptom	Remedy
General	There is no audio.	<ul style="list-style-type: none"> • Press POWER to turn on the player. • Connect the AC power cord securely. • Adjust the volume. • Unplug the headphones from the \odot jack when listening through speakers. • Wait until "TOC Reading" disappears from the display.
	The picture of your TV becomes unstable.	<ul style="list-style-type: none"> • Move the player away from the TV.
	Various indications appear in the display one after another.	<ul style="list-style-type: none"> • The player is in the demonstration mode. → Set the clock to exit the demonstration mode.
	Noise is heard.	<ul style="list-style-type: none"> • Someone is using a portable telephone or other equipment that emits radio waves near the player. → Move the portable telephone, etc., away from the player.
CD Player	The CD does not play./"No Disc" lights in the display even when a CD is in place.	<ul style="list-style-type: none"> • Make sure that the CD compartment is closed. • Place the CD with the label surface up. • Clean the CD. • Take out the CD and leave the CD compartment open for about an hour to dry moisture condensation.
	The sound drops out. Noise is heard.	<ul style="list-style-type: none"> • Reduce the volume. • Clean the CD, or replace it if the CD is damaged. • Place the player in a location free from vibration. • The sound may drop out or noise may be heard if the CD is recorded using a personal computer (CD-R, etc.)
	An incompletely inserted MD cannot be pulled out.	<ul style="list-style-type: none"> • The MD player's self-lock system has gripped the MD. Insert the MD completely, then press \blacktriangle.
MD Player	"Disc Error" lights in the display and the player does not operate.	<ul style="list-style-type: none"> • Take the MD out and insert it again. If "Disc Error" remains, replace the MD. Try erasing all tracks on the MD (page 37).
	"-- -:--" appears in the display instead of the playing time or the remaining time.	<ul style="list-style-type: none"> • This player can display the time up to 159 minutes 59 seconds. If the time is longer than this, it will be displayed as "-- -:--".

continued

Troubleshooting (continued)

	Symptom	Remedy
MD Player	The MD does not play.	<ul style="list-style-type: none"> • Take out the MD and leave the player in a warm place for several hours until the moisture evaporates. • The MD is inserted in the wrong direction. Slide the MD into the disc compartment with the label side up and the arrow pointing towards the opening until the player grips it. • The MD may be blank (the music calendar does not appear). Replace the disc with one that has been recorded.
	The MD does not record.	<ul style="list-style-type: none"> • The MD is record-protected ("Protected" appears). Close the record-protect slot. • The track has been protected using another MD recorder ("Trk Protect" appears). Release the track-protect on the same MD recorder that protected the track. • The player is not connected properly to the sound source. Make connections properly to the sound source. • A pre-mastered MD is inserted. Replace it with a recordable MD. • There is not enough space left on the MD. Replace it with another recordable MD with enough space, or erase unnecessary tracks. • There has been a power failure. The AC power cord has been disconnected. Data recorded to that point may be lost. Repeat the recording procedure.
	The recorded sound drops out.	<ul style="list-style-type: none"> • The sound was recorded at high volume. Record again at lower volume.
Radio	A stereo program cannot be received in stereo.	<ul style="list-style-type: none"> • Press MONO/ST•REPEAT until "Stereo" appears in the display (page 11).
	The audio is weak or has poor quality.	<ul style="list-style-type: none"> • The FM stereo broadcast may be noisy (page 11). • Move the player away from the TV. • If you are using the remote while listening to an AM radio, noise may be heard. This is unavoidable. • Move the AM loop antenna away from the player.

	Symptom	Remedy
Timer	The timer does not operate.	<ul style="list-style-type: none"> • Make sure the time on the clock is correct. • Check to see if the AC power had been cut off. • Make sure "TIMER" appears in the display. • Check and change the preset start/stop time if both times are set to the same time.
	The remote does not function.	<ul style="list-style-type: none"> • Replace all the batteries in the remote with new ones if they are weak (page 59). • Make sure that you are pointing the remote at the remote sensor on the player. • Remove any obstacles in the path of the remote 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 player when using the remote.

Operation may become unstable depending on the power supply or other causes because this player employs a microcomputer to link each operation. If other troubles not described above occur, disconnect the AC power cord from the wall outlet and take out the back-up batteries. Press and hold POWER for about 30 seconds, then reinsert the back-up batteries and connect the mains lead to the wall outlet again. (In this case, clock set, timer or preset radio stations are reset to the initial settings. Set these items again if you need.) If the problem persists, please consult your nearest Sony dealer.

Error messages

If a problem occurs, one of the following error messages may flash in the display window.

This message will flash	If
Blank Disc	you try to play an MD with no recording on it.
Cannot Edit	you try to use the combine function on the first track of the MD.
Disc Error	you inserted a damaged MD or an MD missing a TOC (information on recording contents).
Disc Full	there is no more space for recording or editing on the MD. (See "System limitations of the MD" on page 65.)
Error	you try to programme the 21st track. You can programme up to 20 tracks. you try to make the player enter the timer standby mode though you have not set the clock.
Name Full	the labelling capacity of the MD has reached its limit. Each label can be made up of up to 100 characters. You can input up to about, 1,700 characters into each MD.
No Disc	you try to play or record with no CD or MD in the player.
No MD	you try to play or record with no MD in the player (in case of synchronized recording, etc.).
PB Disc	you try to record or edit on a pre-mastered MD (PB means playback).
Protected	you try to record or edit on an MD with the tab in the record-protect position.
Sorry	you try to edit, ignoring the system limitations of the MD.
TRK Protect	you try to record or edit a track that has been already protected using other MD recorders.
No Text	you have selected the track that has no text information when playing a CD containing CD text information.

Specifications

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 4-ohm loads, both channels driven from 150 - 10,000 Hz; rated 4 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: 785 nm

Emission duration: Continuous

Laser output: Less than 44.6 μ W

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

Spindle speed

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

Number of programme positions

2

Frequency response

20 - 20,000 Hz $\pm 1/-2$ 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: AM loop antenna

MD player section

System

Minidisc digital audio system

Disc

MiniDisc

Laser diode properties

Material: GaAlAs

Wave length: 785 nm

Emission duration: Continuous

Laser output: Less than 44.6 μ W

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

Recording/playback time

Stereo recording:

Maximum 80 minutes (with MDW-80)

Monaural recording:

Maximum 160 minutes (with MDW-80)

Revolutions

400 rpm to 900 rpm (CLV)

Error correction

Advanced Cross Interleave Reed Solomon Code (ACIRC)

Sampling frequency

44.1 kHz

Coding

Adaptive Transform Acoustic Coding (ATRAC)

Modulation system

EFM (Eight-to-Fourteen Modulation)

Number of program positions

2 stereo program positions

Frequency response

20 - 20,000 Hz $\pm 1/-2$ dB

Signal-to-noise ratio

Over 80 dB (during playback)

Wow and flutter

Below measurable limit

continued

Specifications (continued)

General

Speaker

Full-range : 8 cm (3 in.) dia., 4 ohms cone type (2)

Inputs

LINE IN (stereo minijack): Sensitivity 436 mV /
870 mV

Outputs

Headphones jack (stereo minijack) (1):
For 32 ohms impedance headphones

Power output (excluding US model)

5 W + 5 W (at 4 ohms, 10 % harmonic distortion in
AC operation)

Power requirements

For personal minidisc system:
120 V AC, 60 Hz

For back-up memory:
4.5 V DC, 3 size AA (R6) batteries

For remote control:
3 V DC, 2 size AA (R6) batteries

Power consumption

24 W

Dimensions (incl. projecting parts)

approx. 498.5 × 173.5 × 277 mm (w/h/d)
(17 3/4 × 6 1/2 × 9 1/2 inches)

Mass

approx. 5.2 kg (13 lb. 4 oz)

Supplied accessories

AC power cord (1)
Remote control (1)
AM loop antenna (1)

Optional accessories

Sony MDR headphone series

U.S. and foreign patents licensed from Dolby
Laboratories Licensing Corporation.

Design and specifications are subject to change without
notice.

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