SONY

3-860-705-**22** (1)

Portable MiniDisc Recorder

Operating instructions

MZ-R5ST

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WARNING

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

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Caution

The use of optical instruments with this product will increase eye hazard.

Information

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM ANY DEFECTIVE PRODUCT OR THE USE OF ANY PRODUCT.

"MD WALKMAN" is a trademark of Sony Corporation.

Welcome!

Welcome to the world of the MiniDisc! Here are some of the capabilities and features you'll discover with the new MiniDisc Recorder.

- The MiniDisc station system — Use the recorder either by itself or attached to the station dock. Use the recorder attached to the station to enjoy full features and connectivity. Use the recorder detached from the station for portability.
- High-fidelity recording — Low-noise, low-distortion, high-fidelity recording through the optical digital input jack.
- Sampling rate converter — This unit enables you to record programs from digital equipment using other sampling rates, such as a BS tuner or DAT deck.
- Variety of recording options
  — Long recording with monaural recording (up to 148 minutes).
  — Time Machine recording enables you to record from the top of a song even if you pressed the button after you heard the beginning of the song.
  — Connect to an audio-timer to record when you are not home.
- Easy editing with the large LCD panel and the editing buttons
  — Title samples (21 words and phrases).
  — UNDO function lets you undo an editing operation.
- Programmed playback — Play any set of tracks in the order of your choice.
- Card remote commander — Operate the station from a distance. Direct Selection available.
- Output jack for active speakers — Connect to the active speakers SRS-Z1000 (not supplied), etc., to enjoy powerful MD playback at your desktop.

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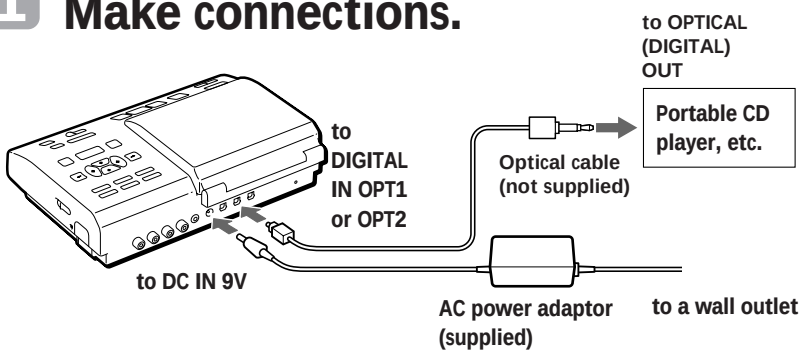
Setting up the station system

Connect other equipment to the station before plugging in the AC power cord. This section explains how to set up to record from a portable CD player, etc., through digital input. To connect for other ways of recording, see "Hookup for recording", (page 34).

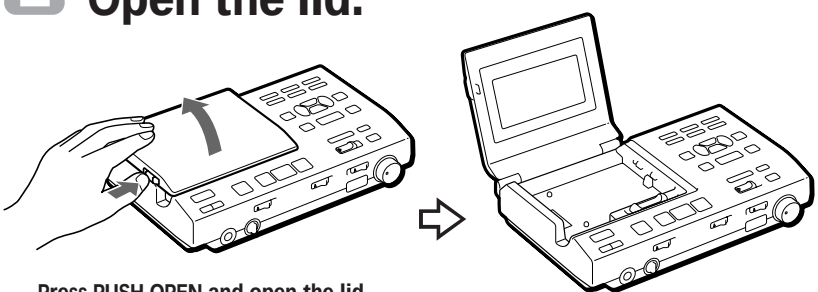
1 Make connections.



① Connect the portable CD player to the station.

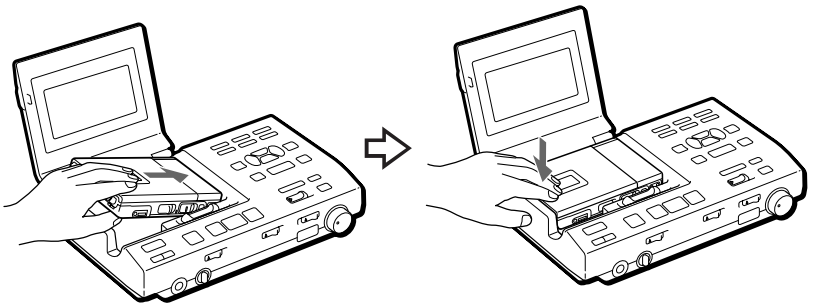
② Connect the AC power adaptor.

2 Open the lid.



Press PUSH OPEN and open the lid.

3 Attach the recorder to the station.

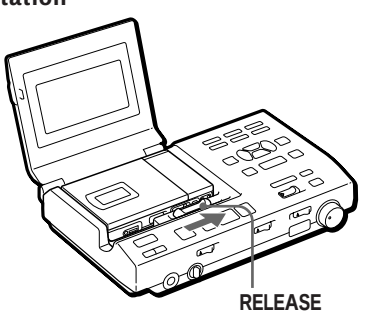


① **Fit the right side of the recorder ...**

② **... and push down the left side until it clicks.**

The display will light up on the station if the recorder is attached correctly.

To detach the recorder from the station



Slide RELEASE fully to the right during stop.

Notes

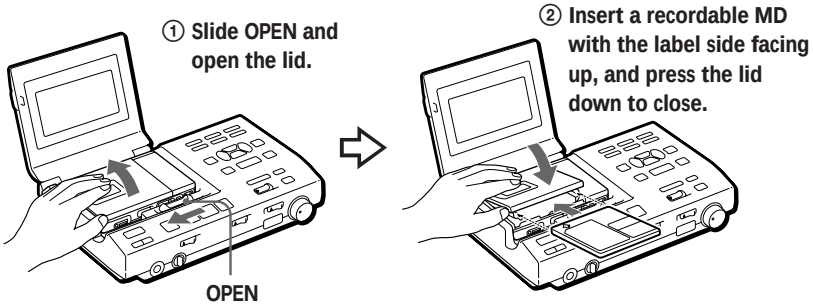
- Set the clock to stamp the recorded date and time (see page 19).
- When recording from a portable CD player, play it on AC power and disable the anti-skip function (such as ESP*).

  * Electronic Shock Protection
- Do not stick stickers, etc., on surfaces where the recorder comes to contact with the station, as this may cause a malfunction.

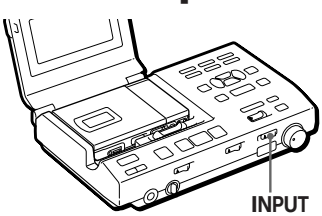
Recording an MD right away!

The explanation here is for recording through digital input. To record through analog input, see page 16. To record with a microphone, see page 15.

1 Insert a recordable MD.



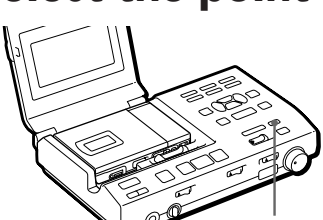
2 Select input.



Set INPUT switch to match the input jack connected to the source.

Input jack	INPUT switch
DIGITAL IN OPT 1	OPT 1
DIGITAL IN OPT 2	OPT 2

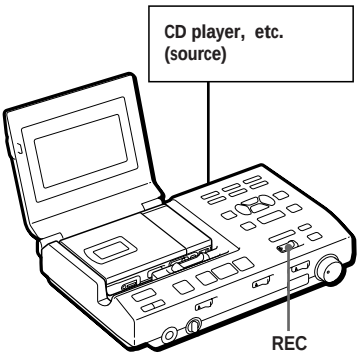
3 Select the point to start recording.



If you want to record from the end of the previous recording, press END SEARCH.

(If you want to start recording from the beginning, skip this step).

4 Record an MD.



① Press and slide REC to the right .
"REC" lights up in the display and recording starts.

② Play the CD or tape you want to record.

To stop recording, press ■.

Note
"Toc Edit" flashes while data of the recording (the track's start and end points, etc.) is being recorded. Do not move or jog the recorder or disconnect the power source while the indication is flashing in the display.

To	Press
Pause	❚❚[1)] Press ❚❚ again to resume recording.
Record part way through the previous recording[2)]	►, ►►I or I◄◄ to find the start point of recording and press ■ to stop. Then slide REC.
Remove the MD	■ and open the lid.[3)]
Turn power off	Press POWER

1) A track mark is added at the point where you press ❚❚; thus the remainder of the track will be counted as a new track.
2) If you start a new recording partway from a previous recording, the previous recording will be overwritten (erased) by the new one.
3) Once you open the lid, the point to start recording will change to the beginning of the first track. Check the point to start recording on the display.

If the recording does not start
- Make sure the MD is not record-protected (page 40).
- If "SCMS NO COPY" is displayed, you cannot record digitally (page 40).
- Premastered MDs cannot be recorded over.

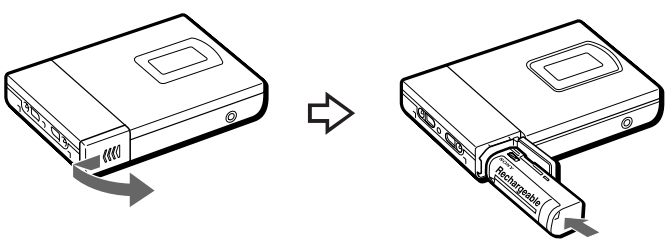
For models supplied with the AC plug adaptor
If the AC power adaptor does not fit the wall outlet, use the AC plug adaptor.

- You can monitor the sound during recording. Plug in the headphones to the ∩HEADPHONES jack on the station, or to ∩/REMOTE jack on the recorder. Note that the quality of sound through the headphones connected to the recorder is inferior to that connected to the station. Use it to confirm recording.
- The power turns off automatically if you leave the station unoperated for 5 minutes during stop. Press ► to turn the power on again.

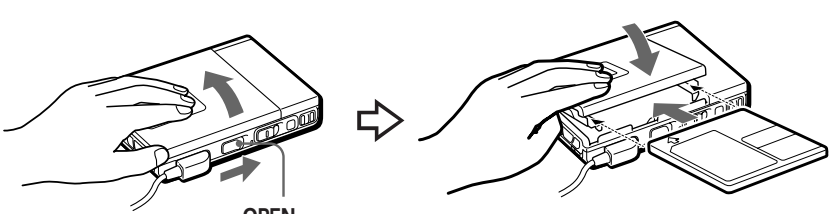
Playing an MD right away!

This section explains how to play MDs on the recorder when it is detached from the station. Make sure the rechargeable battery is fully charged. For charging and other power sources, see “Power Sources”, (pages 36 to 38).

1 Insert the rechargeable battery.



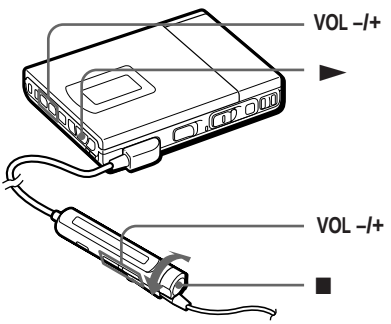
2 Insert an MD.



① Slide OPEN and open the lid.

② Insert an MD with the label side facing up, and press the lid down to close.

3 Play an MD.



① Press ► (Turn the control to ►•▶▶I on the remote control).
A short beep sounds in the headphones.

② Press VOL+/– to adjust the volume.
The volume will be shown in the display.

To stop play, press ■.
A long beep sounds in the headphones.

To	Press (Beeps in the headphones)
Pause	❚❚ (Continuous short beeps) Press ❚❚ again to resume play.
Find the beginning of the current track	I◀◀ once (Turn the control to I◀◀ on the remote control) (Three short beeps)
Find the beginning of the next track	▶▶I once (Turn the control to ►•▶▶I on the remote control) (Two short beeps)
Go backwards while playing[1)]	keep pressing I◀◀ (Turn and hold the control to I◀◀ on the remote control)
Go forward while playing[1)]	keep pressing ▶▶I (Turn and hold the control to ►•▶▶I on the remote control)
Remove the MD	■ and open the lid.[2)]

[1)] To go backward or forward quickly without listening, press ❚❚ and keep pressing I◀◀ or ▶▶I.
[2)] Once you open the lid, the point to start play will change to the beginning of the first track.

If the play does not start
Make sure the recorder is not locked (page 32).

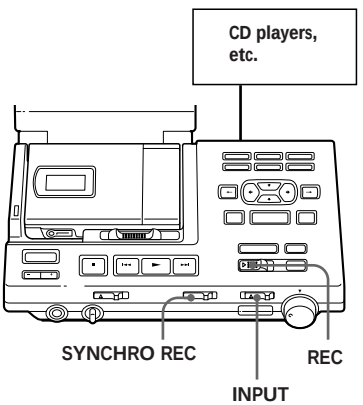
Playback will switch automatically between stereo and monaural according to the sound source.

To play with the recorder attached to the station
See "Playing an MD on the station" (page 20).

When using optional headphones
Use only headphones with a stereo mini-plug. You cannot use headphones with a micro-plug.

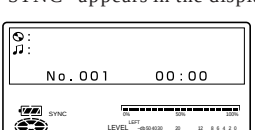
Recording in sync with the source player (Synchro-recording)

You can easily make digital recordings of a digital source on an MD.
Before synchro-recording, make connections to the digital source with a digital cable, and insert a recordable MD.



1 Set INPUT switch to ”OPT1” or ”OPT2”.
Set it to match the input jack connected to the source.

2 Slide SYNCHRO REC to ON.
“SYNC” appears in the display.



3 Press and slide REC to the right.
The recorder stands by for recording.

4 Play the source sound.
The recorder starts recording when it receives the playing sound.

To stop recording, press ■.

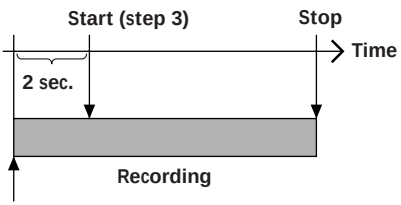
- You cannot pause manually during synchro-recording.
- When there is no sound from the player for more than 3 seconds during synchro-recording, the recorder goes into the standby mode automatically. When the sound comes from the player again, the recorder resumes synchro-recording. If the recorder is kept in the standby mode for 5 minutes or longer, the recorder stops automatically.

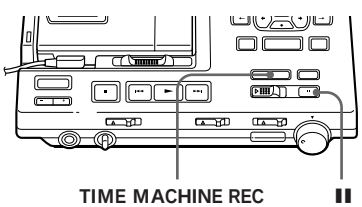
Notes

- Do not switch SYNCHRO REC after step 2. Recording may not be done properly.
- When recording in monaural, follow steps 1 and 2 of “Recording in monaural for double the normal recording time” (page 14) before synchro-recording .

Starting recording going back 2 seconds (Time Machine recording)

The recorder stores sound input in its memory during record standby. When you start Time Machine recording, the sound is recalled from the memory and the recorder starts recording the sound from 2 seconds before.
This is convenient, for example, if you do not want to miss the beginning of a track when recording from a BS or a FM program.





1 While pressing II, press and slide REC to the right.
The recorder stands by for recording.

2 Play the sound source.
The recorder will start storing the sound input.

3 If you want to record through analog input, adjust the recording level (follow step 6 in "Recording through analog input", page 16).

4 Press TIME MACHINE REC to start recording.
The recorder will go back 2 seconds and start recording.

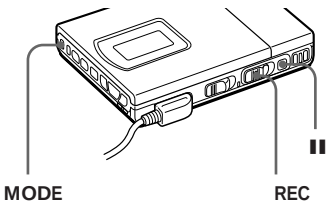
To stop recording, press ■.

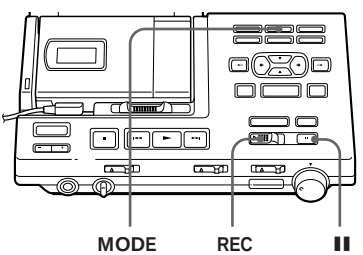
Note

If you have taken less than 2 seconds between steps 2 and 3, then the time the recorder will go back will also be less than 2 seconds.

Recording in monaural for double the normal recording time

For longer recordings, choose to record in monaural. The recording time becomes double the normal. Monaural recording is possible either with the recorder detached from or attached to the station.





1 While pressing ❚❚, press and slide REC to the right.
The recorder stands by for recording.

2 Press MODE.
"MONO" and "Monaural REC" appear in the display, and the recorder switches to monaural recording.

3 If you want to record through analog input on the station, adjust the recording level (play the source and follow step 6 in "Recording through analog input", page 16).

4 Press ❚❚ again to start recording.

5 Play the sound source.

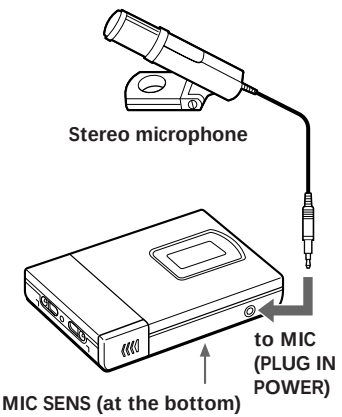
To stop recording, press ■.
The recorder switches back to stereo recording when you record the next time.

Notes

- For longer recordings, we recommend the use of the recorder attached to the station.
- If you record a stereo source in monaural, the sounds from left and right will be mixed.
- Set SYNCHRO REC to OFF when recording through digital input. You cannot record in monaural if SYNCHRO REC is slid to ON.
- The MDs recorded in monaural can be played back only with an MD player / recorder that has the monaural playing function.

Recording from a microphone

Connect a stereo microphone (ECM-717, ECM-MS907, ECM-MS957, etc.; not supplied) to the MIC (PLUG IN POWER) jack. When using the recorder detached from the station, you can only record through the microphone. The recording level is adjusted automatically, though you can adjust manually as well.



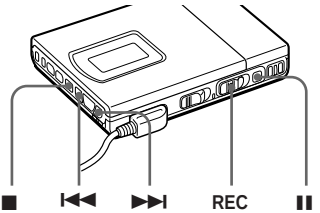
1 Select the sensitivity with MIC SENS. Usually, set it to HIGH. When recording loud sounds such as a live concert, set it to LOW.

2 Insert a recordable MD and start recording.
Press and slide REC to the right.
For other operations, see "Recording an MD right away! " (page 8). The buttons on the station with the same names have the same function.

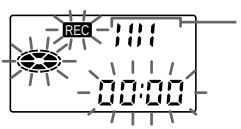
Note

When the recorder is attached to the station, you cannot record through the microphone.

To adjust the recording level manually

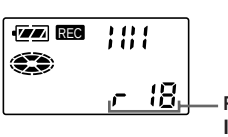


1 While holding down II, press and hold REC to the right for more than 2 seconds.
The recorder stands by for recording.



2 Play the source.

3 Observe the level meter in the display and adjust the recording level by pressing ▶▶I (+) or I◀◀ (–). Set the level so that the meter shows 4 bars at average input level.



4 Press II again to start recording.

To stop recording, press ■.

The recording level control is switched back to automatic control.

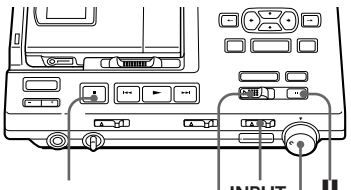
Select the sensitivity with MIC SENS.

Note

Adjust the recording level while the recorder is in standby mode. You cannot adjust it while recording.

Recording through analog input (Analog recording)

When recording from a radio or a record, connect analogically (page 35) and record as follows. Be sure to adjust recording level manually.

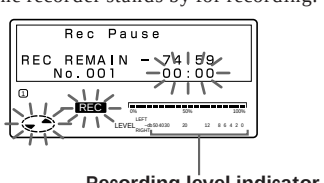


1 Insert a recordable MD.

2 Set INPUT to ANALOG.

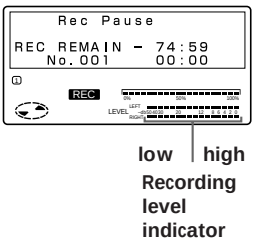
3 Select the point to start recording.
If you want to record form the end of the previous recording, press END SEARCH.

4 While holding down II, press and slide REC to the right.
The recorder stands by for recording.



5 Play the source.

6 Observe the level meter in the display and adjust the recording level with REC LEVEL. Set the level to around 12 (-12dB) at average input level.



7 Press II again to start recording.

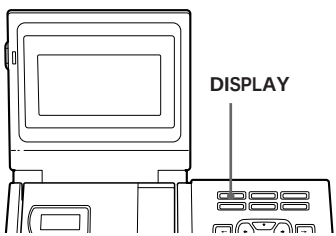
Note

Note that REC LEVEL is effective even during recording; adjusting it will change recording level.

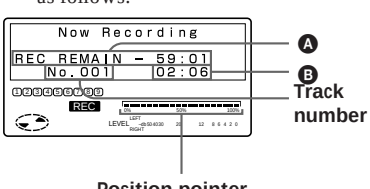
Checking the remaining time or the recording position

You can check information such as the remaining time on the display window of the station, the display window of the recorder, or on the display window of the remote control.

On the station



1 Press DISPLAY.
With each press, the display changes as follows.



While recording

A	B
Remaining time for recording	Elapsed time
Current time and date[1)]	Elapsed time

[1)] Appears only when the clock is set.

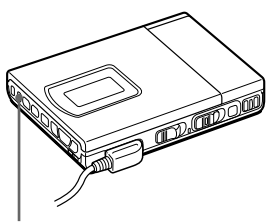
In stop mode

A	B
—	Elapsed time
Remaining time for recording	Elapsed time
Remaining time of the tracks in the disc	Remaining time of the current track
Current time and date[1)]	Elapsed time

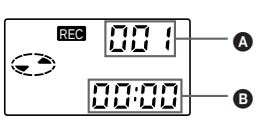
[1)] Appears only when the clock is set.

On the recorder

There is no display on the recorder when it is attached to the station.



1 Press DISPLAY.
Each time you press the button, the display changes as follows.



While recording

A	B
Track number	Elapsed time
—	Remaining time for recording
Current year[1)]	Current month and date[1)]
—	Current time[1)]

[1)] Appears only when the clock is set.

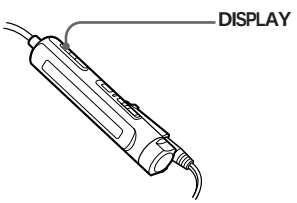
continued

In stop mode

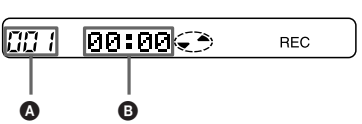
Ⓐ	Ⓑ
Track number	Elapsed time
—	Remaining time for recording
Remaining number of tracks	Remaining time for playback
Current year[1)]	Current month and date[1)]
—	Current time[1)]

[1)]Appears only when the clock is set.

On the remote control



1 Press DISPLAY.
Each time you press the button, the display changes as follows. When the recorder is attached to the station, the display will not change from the track number and the elapsed time.



While recording

Ⓐ	Ⓑ
Track number	Elapsed time
Track number	Remaining time for recording
—	Current month[1)] and date
—	Current time[1)]

[1)]Appears only when the clock is set.

In stop mode

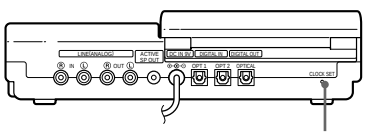
Ⓐ	Ⓑ
Track number	Elapsed time
Track number	Track name[1)]
Number of tracks in the disc	Disc name[1)]
—	Current month and date[2)]
—	Current time[2)]

[1)]Appears only if the disc / track has been labeled.
[2)]Appears only when the clock is set.

If you want to check the playing position or track name while playing, see page 24.

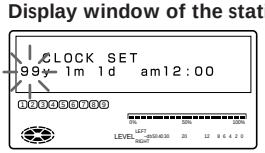
Setting the clock to stamp the recorded time

To stamp the date and time on the MD when you record, you first need to set the clock. You can set the clock either from the detached recorder, or from the station when the recorder is attached.



1 Press CLOCK SET.
Use a pointed object. The digits of the year flash.

Display window of the station



2 Change the current year by pressing ↑ or ↓.
To change the digits rapidly, keep pressing ↑ or ↓.

3 Press → to enter the year.
The digit of the month flashes.

4 Repeat steps 2 and 3 to enter the current month, date, hour, and minute.
When you press TITLE/ENTER to enter the minute, the clock starts operating.

If you make a mistake while setting the clock

Press ■, and set the clock again from step 2. You can skip a step by pressing →.

To set the clock on the recorder

The procedure is the same as in setting the clock on the station. Press CLOCK SET at the bottom of the recorder so that the digit of the year flashes. Change the number with ⏮ or ⏭, and enter with ►. When you press ► to enter the minute, the clock starts operating.
When you attach the recorder to the station after you have set the clock on the recorder, the clock on the station will be synchronized automatically.

To display the time in the 24-hour system

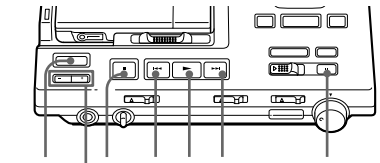
While setting the clock, press DISPLAY. To display the time in the 12-hour system, press DISPLAY again.

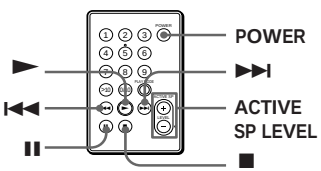
Charging the built-in battery for the clock

When you use the recorder for the first time or after a long period of disuse, charge the built-in battery. After setting the clock, leave the recorder connected to the AC power for about 2 hours to charge the built-in battery. Once charged, the built-in battery should last about a month without connecting to any of the power sources. The recorder will automatically charge the built-in battery while connected to AC power, dry batteries or a rechargeable battery.

Playing an MD on the station

Play an MD with the recorder attached to the station as follows. You can use the card remote commander as well.





To	Operation
Play	Press ►
Adjust the volume of the headphones	Turn LEVEL on the station
Pause	Press II Press II again to resume play
Find the beginning of the current track	Press I◄◄ once
Find the beginning of the next track	Press ►►I once
Go backwards while playing[1)]	Keep pressing I◄◄
Go forward while playing[1)]	Keep pressing ►►I
Remove the MD	Press ■ and open the lid.[2)]
Turn power off	Press POWER

[1)] To go backwards or forward quickly without listening, press II then keep pressing I◄◄ or ►►I.

[2)] Once you open the lid, the point to start play will change to the beginning of the first track.

Note

The power turns off automatically when you leave the station unoperated for 5 minutes during stop. Press POWER or ► to turn the power on again.

Playing back with active speakers

You can enjoy MD playback on active speakers such as SRS-Z1000 (not supplied), etc., by connecting it to the station (page 35).

Operate with the buttons on the station or from the card remote commander.

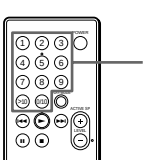
To adjust volume

Press ACTIVE SP LEVEL –/+ on the station or the card remote commander.

Selecting a track directly (Direct Selection)

You can select a track directly by pressing the track number on the card remote commander.

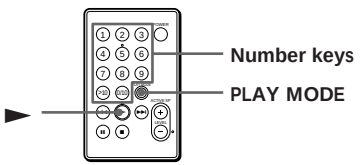
1 Press the number key(s) for the track number of the track of your choice. The recorder will play the selected track.



- To select track number 10, press 0/10.
- To select a track number larger than 10, first press >10, then press the number for the tens digit and then the units digit. Press 0/10 if the units digit is zero.
- To select a track number larger than 100, first press >10 twice, then press the number for the hundreds digit, tens digit, and the units digit.

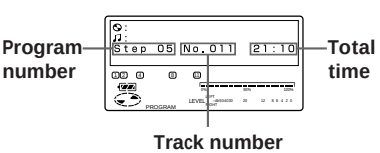
Playing selected tracks in the order of your choice (Program Play)

Select up to 20 tracks and play them in the order of your choice.



1 Press PLAY MODE repeatedly until "PROGRAM" lights up in the display.

2 Press the number key(s) for the track number of your choice in the order to be played.
The tracks are programmed in sequence. You can program up to 20 tracks.



To cancel a track, press ERASE / DELETE on the station.

3 Press ►.
The recorder will play the tracks in the programmed order.

To display the track order

Press SELECT on the station before playing back. With each press, the track number will be displayed in the order programmed.

To change the program

Press ERASE / DELETE on the station before playback to cancel the last track, or press ■ to cancel all tracks. Then, repeat from step 2.

To program from the station

1 Press MODE repeatedly until "PROGRAM" lights up in the display.

2 Select the track number of your choice with the cursor keys and press SELECT.

3 Repeat step 2 and select tracks in the order to be played.

4 Press ►.

Note

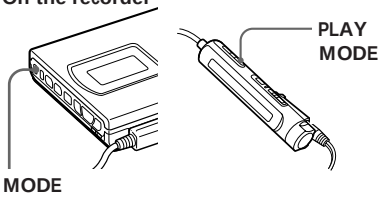
The program will be erased if you do any of the following:

- press ■
- remove the disc
- detach the recorder from the station
- record or edit

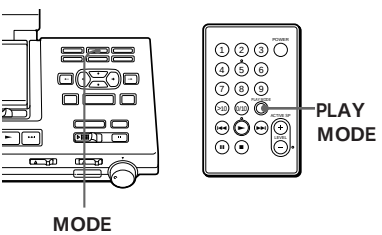
Playing tracks repeatedly

You can play tracks repeatedly in three ways — all repeat, single repeat, and shuffle repeat.

On the recorder



On the station



1 Press MODE (PLAY MODE on the remote control) repeatedly during playback until the play mode indication of your choice appears in the display.

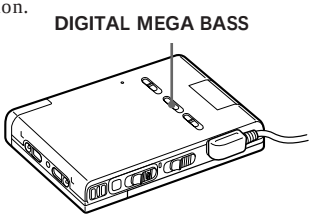
Play mode	Recorder/ Remote control	Station
All the tracks are played repeatedly. (all repeat)	" ⊂ "	REPEAT
A single track is played repeatedly. (single repeat)	" ⊂ *1*"	REPEAT 1
All the tracks are played repeatedly in random order. (shuffle repeat)	" ⊂ *SHUF*"	REPEAT SHUFFLE

To cancel repeat play

Press MODE (PLAY MODE on the remote control) repeatedly until "REPEAT" " ⊂ " disappears from the display.

Emphasizing bass (DIGITAL MEGA BASS)

Mega Bass function intensifies low frequency sound for richer quality audio reproduction. You can use this function only with the recorder detached from the station.



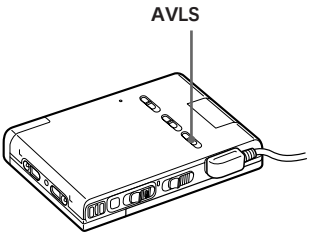
1 Set DIGITAL MEGA BASS to ”1” or ”2”.
The bass sound will be emphasized accordingly (1: moderate effect, 2: strong effect).

Notes

- If the sound becomes distorted when emphasizing bass, turn down the volume.
- Mega Bass function does not affect the sound being recorded.

Protecting your hearing (AVLS)

The AVLS (Automatic Volume Limiter System) function keeps down the maximum volume to protect your ears. You can use this function only with the recorder detached from the station.

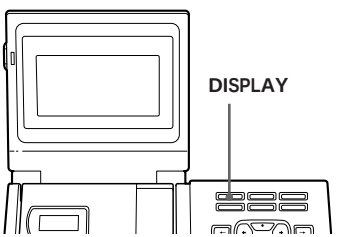


1 Set AVLS to LIMIT.
”AVLS” will appear in the display, and the volume will be limited within a moderate level.

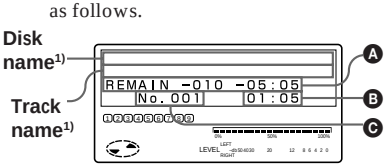
Checking the remaining time or the playing position

You can check information such as track and disc name on the display window of the station, the display window of the recorder, or on the display window of the remote control.

On the station



1 Press DISPLAY during playback. With each press, the display changes as follows.



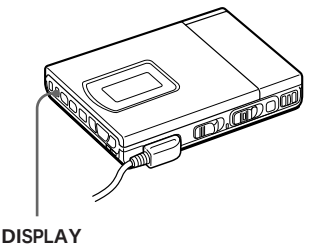
A	B	C
—	Elapsed time	Track number
Remaining number of tracks and remaining time	Remaining time of current track	Track number
Recorded time and date	Recorded time2)	Recorded Year month / date2)

1) Appears only if the disc / track has been labeled.

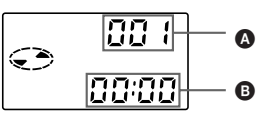
2) Appears only if the recorded date and time has been stamped.

On the recorder

There is no display on the recorder when it is attached to the station.



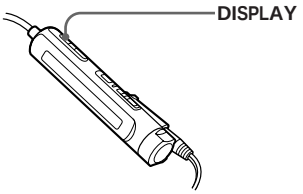
1 Press DISPLAY during playback. With each press, the display changes as follows.



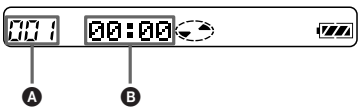
A	B
Track number	Elapsed time
Track number	Remaining time of current track
Remaining number of tracks	Remaining time
Recorded year1)	Recorded month and date1)
—	Recorded time1)

1) Appears only if the recorded date and time has been stamped.

On the remote control



1 Press DISPLAY during playback. With each press, the display changes as follows. When the recorder is attached to the station, the display will not change from the track number and the elapsed time.



Ⓐ	Ⓑ
Track number	Elapsed time
Track number	Track name[1)]
Number of tracks in the disc	Disc name[1)]
—	Recorded month and date[2)]
—	Recorded time[2)]

[1)]Appears only if the disc / track has been labeled.

[2)]Appears only if the recorded date and time has been stamped.

If you want to check the remaining time or the recording position while recording or in stop mode, see page 17.

►*Editing recorded tracks*

You can edit your recordings by adding/erasing track marks or labeling tracks and MDs. Premastered MDs cannot be edited.

Notes on editing

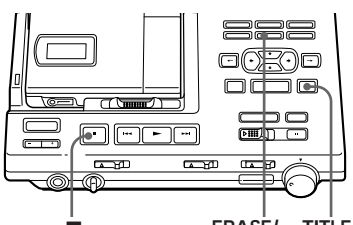
- Do not move or jog the recorder while "Toc Edit"* is flashing in the display.
- You cannot edit tracks on an MD that is record-protected. Before editing tracks, close the tab on the side of the MD.

*TOC = Table of Contents

Erasing tracks (ERASE)

To erase a track

Make sure of the track you are erasing.



1 Press ERASE/DELETE while playing the track you want to erase.
"Erase OK? → Push Enter" appears in the display, and the recorder plays the selected track repeatedly. To cancel erasing, press ■.

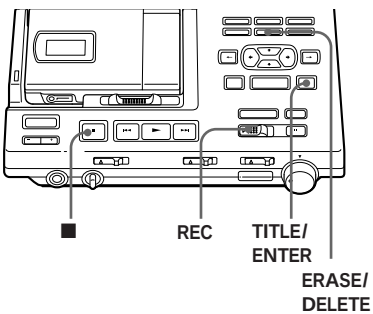
2 Check the track number in the display and press TITLE/ENTER.
The track is erased from the MD and the remaining tracks are renumbered. The recorder will start to play the next track.

To erase a part of a track

Add track marks (page 27) at the beginning and the end of the part you want to erase, then erase the part.

To erase the whole disc

You can erase all the tracks and data of the MD at the same time.
Be sure to check the contents of the disc you want to erase.

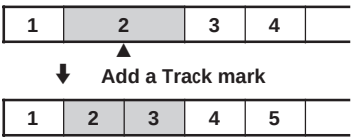


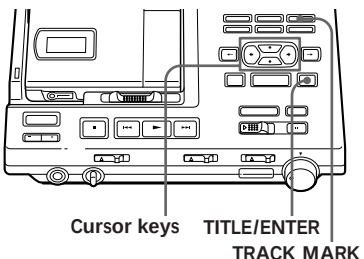
1 In stop mode, keep pressing ERASE/DELETE and press and slide REC to the right.
"All Erase OK ? → Push Enter" appears in the display. To cancel erasing, press ■.

2 Press TITLE/ENTER.
"Toc Edit" flashes in the display. When the MD is erased, "BLANK DISC" appears.

Adding a track mark (TRACK MARK ON)

You can add track marks so that the part after the new track mark is counted as a new track.
The track numbers will increase as follows.





1 While playing or pausing an MD, press TRACK MARK on the station at the point you want to add a mark. "Rehearsal" and "Track Mark ON OK? → Push Enter" will appear. A four second segment will be played repeatedly. Press the cursor keys to adjust the point to be marked. It can be moved forward or backward up to eight seconds, in 0.06 second steps. To cancel adding, press ■.

2 Press TITLE/ENTER.
"Track Mark ON" will be displayed. A track mark is added and the portion after the mark will be counted as a new track.

To insert a track mark on the recorder

Press T MARK during playback or pause. A track mark will be added where you pressed the button.

To add track marks while recording

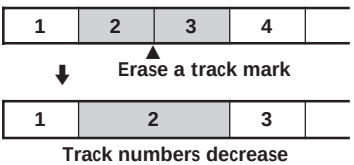
Press TRACK MARK on the station, T MARK on the recorder or TRACK MARK on the remote control. A track mark will be added where you pressed the button.

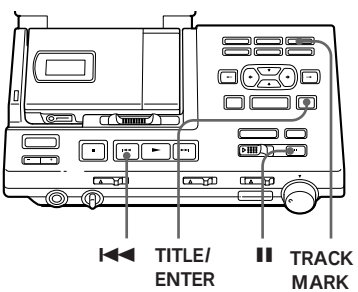
Note

When adding a track mark with the recorder, or when adding a track mark during recording, the mark will be added at the point where you pressed the T MARK or the TRACK MARK button. You cannot adjust its position with the cursor keys.

Erasing a track mark (TRACK MARK OFF)

When you record with analog (line) input, unnecessary track marks may be recorded where recording level is low. You can erase a track mark to combine the tracks before and after the track mark. The track numbers will change as follows.





1 While playing the track with the track mark you want to erase, press II to pause.

2 Find the track mark by pressing I◄◄ lightly.
For example, to erase the third track mark, find the beginning of the third track. “00:00” appears in the display.

3 Press TRACK MARK on the station.
”Rehearsal” will light up and ”Track Mark OFF OK? → Push Enter” will appear. A four second segment will be played repeatedly.
To cancel erasing, press ■.

4 Press TITLE / ENTER.
”Track Mark OFF” will be displayed. The track mark is erased and the two tracks are combined. The number of the newly combined track will be that of the first track. The succeeding tracks will be renumbered.

To erase a track mark on the recorder

Press I◄◄ or ►►I during pause to find the track mark you want to erase. Press T MARK.

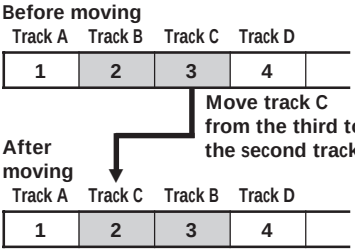
Note

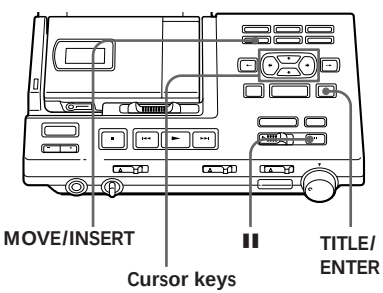
When erasing a track mark with the recorder, the mark will be erased where you pressed the T MARK button. There will be no repeated play.

When you erase a track mark, the date, time, and name assigned to the mark are also erased.

Moving recorded tracks (MOVE)

You can change the order of the recorded tracks.





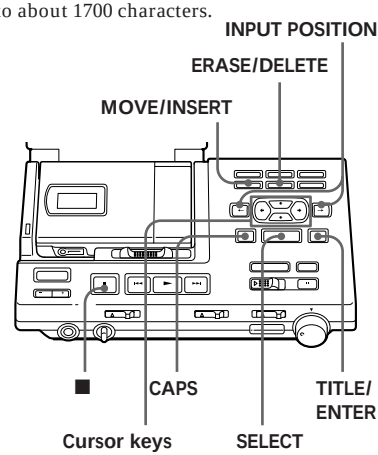
1 While playing or pausing the track you want move, press MOVE/INSERT.
For the example above, "Move MV003 → 003" and "OK? → Push Enter" appear in the display.

2 Press the cursor keys to select the new track position.
← or ↓ moves the track number down. ↑ or → moves the track number up.
To cancel moving, press ■.

3 Press TITLE/ENTER.
The track moves to the position before the designated track.

Labeling recordings (TITLE)

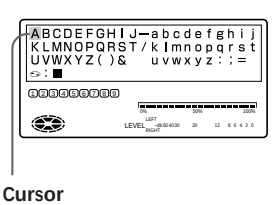
You can label the MDs and tracks you recorded with letters, numbers, and marks. Each label can be made up of up to 200 characters, and each MD can hold up to about 1700 characters.



1 To label a track , play the track you want to label.
To label an MD, insert the MD you want to label. If an MD is already inserted, press ■ to stop.

2 Press TITLE/ENTER.
A set of characters will be displayed.

3 Press the cursor keys to select a character and press SELECT to enter.



continued

Press	To
CAPS	Switch between the alphabet, symbols and numbers, and title samples.
Cursor keys	Move the cursor up / down / right / left.
INPUT POSITION ←/→	Move the input position left / right.
SELECT	Enter a letter and move the input position to the right.
■	Cancel labeling.
MOVE / INSERT	Insert a blank space.
ERASE / DELETE	Delete a letter and move the input position to the left.

4 Repeat step 3 until you have entered all the characters for the label.

5 Press TITLE / ENTER.
The track or disk is labeled.

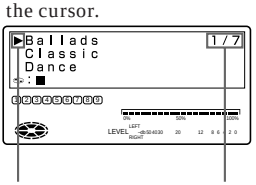
To cancel labeling, press ■.

Available characters

- Capital and small letters of the English alphabet
- Numbers 0 to 9
- ! " # $ % & ( ) * + – . ; < = > ? @ _ ` ' , / : _ (space)

To use the title samples

Use any of the 21 sample words / phrases as a disc name, track title, or message.
Press ←/→ to change the page.
Press ↑/↓ to move the cursor (>) up or down.
Press SELECT to enter the title chosen with the cursor.



To relabel recordings

Follow steps 1 and 2 to display the label of the track or MD. Enter a new character over the one you want to change, then press TITLE / ENTER.

Notes

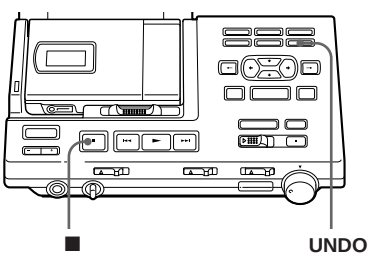
- You cannot relabel premastered MDs or label MDs that have not been recorded.
- The recorder is able to display, but cannot label using, Japanese "Katakana" characters.

Cancelling the last editing operation (UNDO)

You can undo the last perfomed editing operation and return to the previous status.
However, you cannot undo an editing operation if you have done any of the following afterwards:

- slide the REC switch
- turn off the power or remove the MD
- remove the recorder from the station
- leave both the recorder and the station unoperated for more than 5 minutes
- remove the AC power adaptor from the wall outlet

1 Press UNDO during stop.



The following messages will appear according to the last performed editing operation.

Operation	Message
Erase a track	”Erase Undo OK?”
Erase all tracks	”All Erase Undo OK?”
Insert a track mark	”Track Mark ON Undo OK?”
Erase a track mark	”Track Mark OFF Undo OK?”
Move a track	”Move Undo OK?”
Name a disc	”Disc Name Undo OK?”
Name a track	”Track Name Undo OK?”

2 Press TITLE/ENTER.
”TOC EDIT” will appear for a few seconds and the MD will return to the previous status.

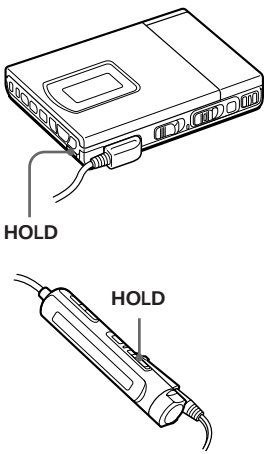
To cancel UNDO, press ■.

Note

Once you have undone an editing operation, you cannot undo this undoing process itself to restore the original editing operation.

Locking the controls (HOLD)

To prevent the buttons from being accidentally operated when you carry the recorder, use this function.



1 Slide HOLD in the direction of the →.

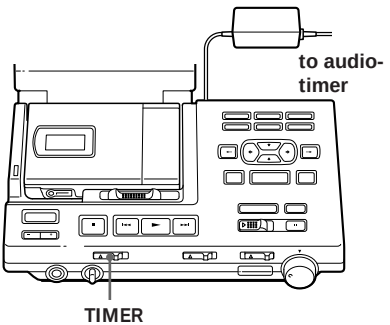
On the recorder, slide HOLD to lock the controls of the recorder. On the remote control, slide HOLD to lock the controls of the remote control.

Slide HOLD in the opposite direction of the arrow to unlock the controls.

The HOLD function on the recorder is disabled while it is attached to the station. The HOLD function on the remote control is unaffected.

Recording/playing with a timer

Start recording or playback at a preset time using an audio-timer (optional).



1 Plug in the AC power adaptor of the station to the audio-timer (optional).

2 Adjust recording level manually and press ■ if recording through analog input (steps 4 to 6 of "Recording through analog input", page 16).

3 Set TIMER to "REC" or "PLAY".
To start recording at the preset time: select "REC". Recording will start automatically after the part that is already recorded in the MD.
To start playback at the preset time: select "PLAY".

4 Set the time on the audio-timer and turn the power off.
The audio-timer will turn on automatically at the preset time, which will then turn on the station.

Notes

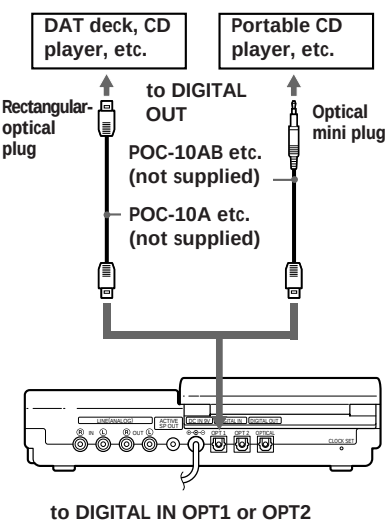
- To record monaurally using an audio-timer, press MODE for 2 seconds or longer after step 3. The timer recording setting will be displayed. If the recording mode is in ”Stereo”, press MODE again so that it changes to ”Monaural”.
- If you are using the station for the first time or after a long period of disuse, charge the built-in backup battery of the station before using a timer. The recorder uses this backup battery when it writes TOC information (see page 49) after the timed recording is complete and the power is turned off. To charge the built-in battery, connect the AC power adaptor to the station. Full charging takes about 10 hours. The battery will last for about a week; do not set the timer to start recording in more than a week.

Hookup for recording — connecting with CD players, etc.

Record sounds from other equipment on the station. Connection differs with digital and analog. Connect accordingly.

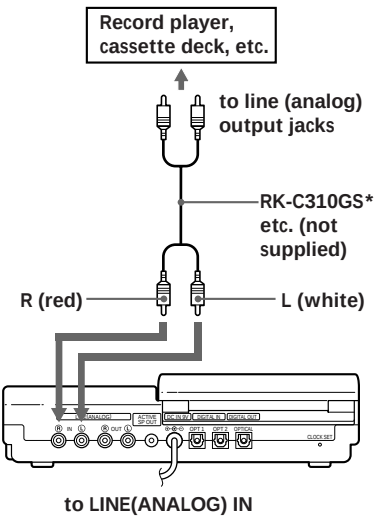
Hookup for digital recording

The built-in sampling rate converter enables you to connect digital sources with a different sampling rate (such as a BS tuner or a DAT deck) and record digitally.
After connection, set the INPUT switch to OPT1 or OPT2 to match the connection.



Hookup for analog recording

After connection, set the INPUT switch to ANALOG and adjust recording level (page 16).

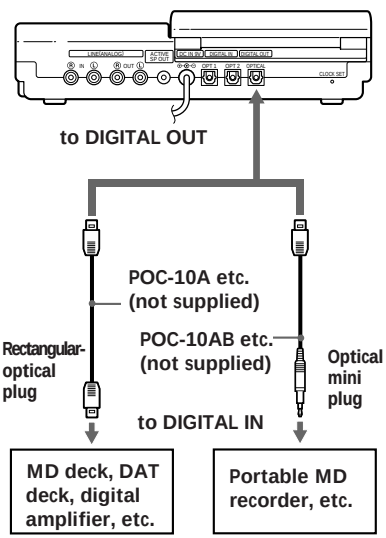


* Use the connecting cords without an attenuator.

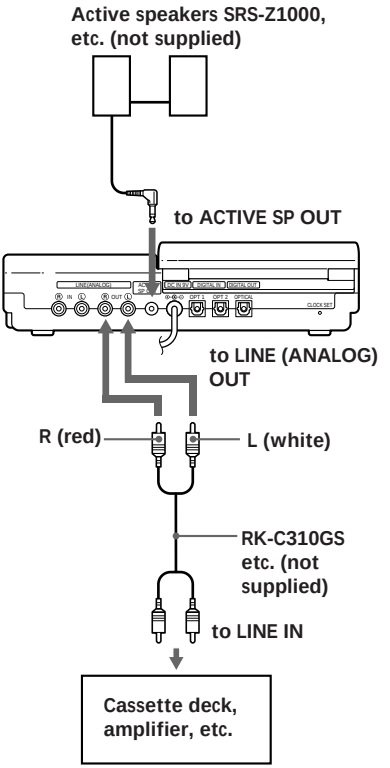
Hookup for playback — connecting with amplifiers or active speakers

Play or record sounds from the recorder on other equipment. Connection differs with usage and type of equipment. Connect accordingly.

Hookup with digital equipment



Hookup with analog equipment

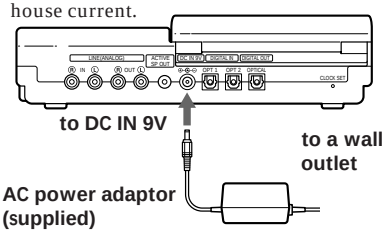


Power sources

You can use the following power sources:
When the recorder is attached to the station
— house current (wall outlet)
When the recorder is used by itself
using the battery compartment of the recorder
— lithium ion rechargeable battery LIP-8 (supplied)
using the supplied external battery case
— two LR6 (size AA) dry batteries

Using the station on house current

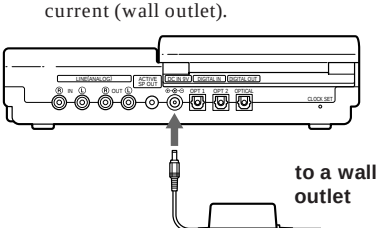
The station can be powered only by the house current.



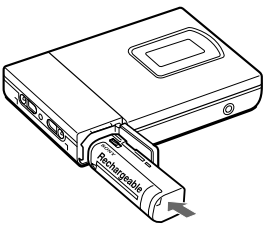
Using the recorder on a lithium ion rechargeable battery

Before using the supplied LIP-8 lithium ion rechargeable battery for the first time, charge it in the station.

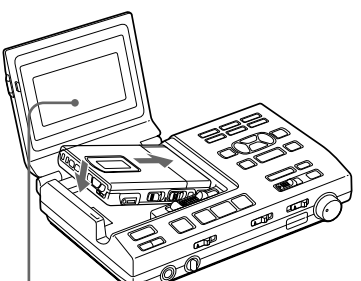
1 Connect the station to the house current (wall outlet).

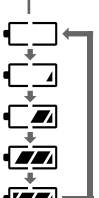


2 Insert the LIP-8 lithium ion rechargeable battery (supplied) in the battery compartment of the recorder and close the lid.



3 Attach the recorder to the station. ▭ will appear in the display and charging starts.



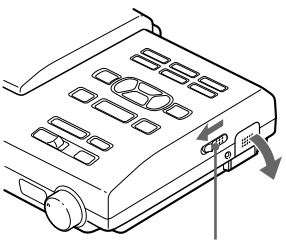


A rechargeable battery inserted in the battery compartment of the station is charged whether or not the power is turned on as long as the AC power adaptor is connected properly.

To charge on the station with the recorder detached

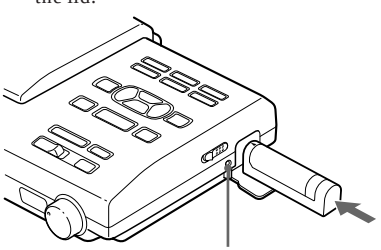
The LIP-8 lithium ion rechargeable battery can also be charged on the station with the recorder detached.

1 Slide the OPEN switch at the side of the station in the direction of the arrow.



OPEN

2 Insert the lithium ion rechargeable battery (supplied) in the battery compartment of the station and close the lid.



CHARGE indicator: Lights up while charging. Goes off when charging is complete.

If a rechargeble battery is inserted both in the recorder and in the station, the battery in the recorder is charged first, and the CHARGE indicator flashes.

Charging time

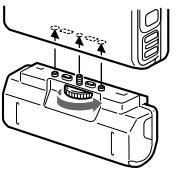
80%	Approx. 2 hours
100%	Approx. 3 hours

(To charge a completely discharged battery)

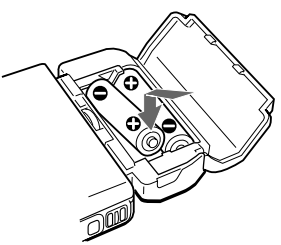
Using the recorder on dry batteries

Use the supplied external battery case.

1 Attach the supplied battery case.



2 Insert two LR6 (size AA) dry batteries (not supplied).



Note

When using the lithium ion rechargeable battery and dry batteries together, stop operation before exchanging the battery(ies), even when changing only one of the two.

Battery life[1)]

For longer recordings, we recommend using the recorder attached to the station.

Batteries	Recording[2)]	Playback
LIP-8 lithium ion rechargeable battery	Approx. 3.5 hours	Approx. 5.5 hours
Two LR6 (size AA) Sony alkaline dry batteries	-----[3)]	Approx. 9 hours
LIP-8 + two LR6 (size AA)	-----[3)]	Approx. 16 hours

[1)] The battery life may be shorter due to operating conditions and the temperature of the location.

[2)] When you record, use a fully charged rechargeable battery.

[3)] Recording time may differ according to the alkaline batteries.

When to replace the batteries

When the dry batteries or rechargeable battery are weak, ▭ or "LoBATT" flashes in the display of the recorder or the remote control. Replace the dry batteries or charge the rechargeable battery.

Precautions

On safety

Do not put any foreign objects in the DC IN 9 V jack.

On power sources

- Use house current, lithium ion rechargeable battery or two LR6 (size AA) batteries.
- For use of the station: Use the AC power adaptor supplied with this unit. Do not use any other AC power adaptor since it may cause the station to malfunction.

Polarity of the plug

- The recorder is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the recorder itself has been turned off.
- If you are not going to use this recorder for a long time, be sure to disconnect the power supply (AC power adaptor, dry batteries, rechargeable battery, or car battery cord). To remove the AC power adaptor from the wall outlet, grasp the plug itself; never pull the cord.

On heat build-up

Heat may build up in the recorder if it is used for an extended period of time. In this case, leave the recorder turned off until it cools down.

On installation

- Never use the recorder where it will be subjected to extremes of light, temperature, moisture or vibration.
- Never wrap the recorder in anything when it is being used with the AC power adaptor. Heat build-up in the recorder may cause malfunction or damage.

On the headphones

Road safety

Do not use headphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in many areas. It can also be potentially dangerous to play your recorder at high volume while walking, especially at pedestrian crossings. You should exercise extreme caution or discontinue use in potentially hazardous situations.

Preventing hearing damage

Avoid using headphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use.

Caring for others

Keep the volume at a moderate level. This will allow you to hear outside sounds and to be considerate to the people around you.

On the MiniDisc cartridge

- Do not break open the shutter.
- Do not place the cartridge where it will be subject to light, extreme temperatures, moisture or dust.

On cleaning

- Clean the recorder casing with a soft cloth slightly moistened with water or a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene as it may mar the finish of the casing.
- Wipe the disc cartridge with a dry cloth to remove dirt.
- Dust on the lens may prevent the unit from operating properly. Be sure to close the disc compartment lid after inserting or ejecting an MD.

Notes on batteries

Incorrect battery usage may lead to leakage of battery fluid or bursting batteries. To prevent such accidents, observe the following precautions:

- Install the + and – poles of the batteries correctly.
- Do not install new and used batteries or different kinds of batteries together.
- Do not try to recharge dry batteries.
- When the recorder is not to be used for a long time, be sure to remove the batteries.
- If a battery leak should develop, carefully and throughly wipe away battery fluid from the battery compartment before inserting new ones.

Notes on lithium battery

- Keep the lithium battery out of reach of children. Should the battery be swallowed, consult a doctor immediately .
- Wipe the battery with a dry cloth to assure good contact.
- Be sure to install the battery in the correct polarity position.
- Do not hold the battery with metallic tweezers, as doing so may cause a short-circuit.
- Do not break up the battery or throw it into a fire, which might cause it to explode.
  Carefully dispose of the used battery.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

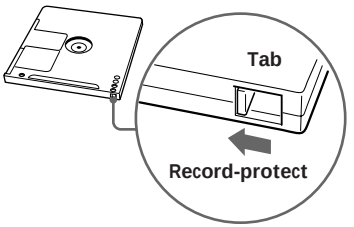
Note on mechanical noise

The recorder gives off mechanical noise while operating, which is caused by the power-saving system of the recorder and it is not a problem.

To protect a recorded MD

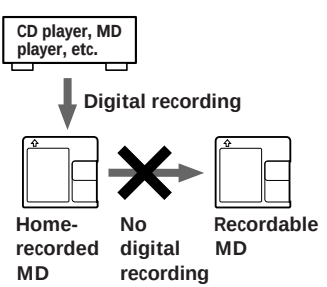
To record-protect an MD, slide open the tab at the side of the MD. In this position, the MD cannot be recorded. To record again, slide the tab back so the tab is visible.

Back of the MD



Note on digital recording

This recorder uses the Serial Copy Management System, which allows only first-generation digital copies to be made from premastered software. You can only make copies from a home-recorded MD by using the analog (line out) connections.



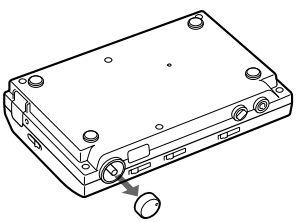
If you have any questions or problems concerning your recorder, please consult your nearest Sony dealer.

For the customers in Europe
When disposing of the station

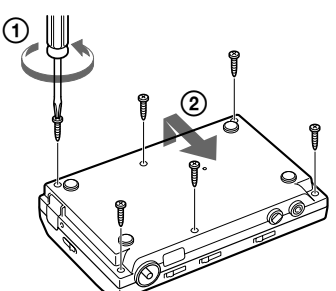
The station holds two nickel cadmium batteries inside, used to power the recording / playback timer. When disposing of the station unit, be sure to remove the internal batteries following the steps shown below, and dispose of them properly, such as by recycling them.

1 Unplug the AC power adaptor.

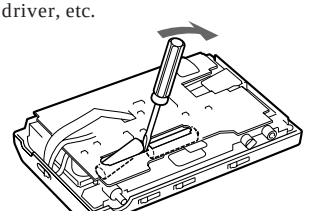
2 Pull out the REC LEVEL control knob.



3 Unscrew 6 screws at the rear of the unit and disassemble the cabinet.



4 Remove the batteries with a minus driver, etc.



Notes

- Never disassemble the station unit except for disposing of the unit.
- Do not short-circuit the plus and minus terminals of the removed batteries.

Troubleshooting

Should any problem persist after you have made these checks, consult your nearest Sony dealer.

Recorder

Symptom	Cause/Solution
Cannot operate.	• The HOLD function is turned on (”HOLD” appears in the display when you press an operation button on the recorder). ➡ Disable HOLD by sliding the HOLD switch in the opposite direction of the arrow (page 32). • The rechargeable battery or dry batteries are weak (▭ or ”LoBATT” flashes in the display). ➡ Charge the rechargeable battery / replace the dry batteries (pages 36, 37). • The rechargeable battery or dry batteries have not been installed correctly. ➡ Install the battery(ies) with correct polarity (pages 36, 37).
The lid does not open.	• The lock of the lid is not released. ➡ Slide OPEN after charging the rechargeable battery / replacing the dry batteries or attaching the recorder to the station.
Cannot record / edit.	• The microphone is not connected (when recording with the recorder detached from the station). ➡ Connect the microphone. • The recording level is too low (during manual recording). ➡ Adjust the recording level (page 15).
No sound comes through the headphones.	• The headphones plug is not connected firmly. ➡ Plug in the plug of the headphones firmly to the remote control. Plug in the plug of the remote control firmly to ∩ / REMOTE. • The plug of the remote control is dirty. ➡ Clean it with a cloth. • AVLS is on. ➡ Slide AVLS to NORMAL (page 23).

Station

Symptom	Cause/Solution
Cannot operate.	• The AC power adaptor is not plugged in securely. ➡ Plug it in securely to the DC IN 9V jack and the wall outlet. • The recorder is not attached securely to the station. ➡ Attach it correctly (page 7).
Cannot charge the rechargeable battery.	• The AC power adaptor is not connected properly. ➡ Connect it properly.

Symptom	Cause/Solution
Cannot record / edit.	• The INPUT switch is not set correctly. ➔ Set the INPUT switch to match the connection (page 8, 34). • The recording level is too low (during analog recording). ➔ Adjust the recording level (page 16). • When recording from a portable CD player with digital connection, you did not pause the portable CD player first ("NO DIGITAL SIGNAL" appears in the display). ➔ Pause the portable CD player, and then start recording. • There is no digital output when attempting to record digitally from a portable CD player. ➔ Run the portable CD player on house current and disable the anti-skip function (such as ESP). • The analog recording was made using a connecting cord with an attenuator. ➔ Use a connecting cord without an attenuator.
Various display appear one after another on the display panel.	• The station is in the demonstration mode. (You pressed DISPLAY for 2 seconds or longer when the power is turned off). ➔ Press DISPLAY for 2 seconds or longer again to exit demonstration mode.

Common

Symptom	Cause/Solution
Cannot operate.	• Moisture has condensed inside the recorder. ➔ Take the MD out and leave the recorder in a warm place for several hours until the moisture evaporates. • You pressed a button while the disc indication was rotating quickly. ➔ Wait until the indication rotates slowly. • The recorder was exposed to mechanical shock, exessive static electricity, abnormal power voltage caused by lightning, etc., during operation. ➔ Restart as follows. 1 Disconnect all power sources. 2 Leave the recorder for about 30 seconds. 3 Connect the power source.
Cannot play back from the first track.	• Playback was stopped in the middle of the disc the last time. ➔ Press ⏮ repeatedly (turn the control to ⏮ on the remote control) or open and close the lid once so that the point to start play returns to the beginning of the disc.
The sound skips during playback.	• The recorder is placed where it receives continuous vibration. ➔ Put the recorder on a stable place. • A very short track (such as a narration or an introduction) may cause the sound to skip.

Symptom	Cause/Solution
The sound has a lot of static.	• You are operating near a source of strong magnetism, such as a TV. ➡ Move the recorder away from the source of magnetism.
Cannot record / edit.	• Power was disrupted, or there was a blackout during recording / editing. ➡ The recording up to that point will be erased. Rerecord.
Cannot find the track marks.	• You pressed ▮▮ after pressing ⏮ or ⏭. ➡ Press ▮▮ before pressing ⏮ or ⏭.
No sound comes through the headphones.	• The volume is too low. ➡ Adjust the volume by pressing VOL + / – (LEVEL on the station).
No clock display (”--y--m--d” appears). The recorded date and time does not get stamped.	• The clock has not been set. ➡ Set the clock (page 19).
The clock loses time.	• The built-in battery for the clock is weak because the power supply had been cut off for a period of time. ➡ Charge the built-in battery by attaching the recorder to the station and plugging the AC power adaptor to DC IN 9 V on the station and the wall outlet (page 19). Note that the clock may gain or lose up to about 2 minutes per month under normal condition.

System limitations

The recording system in your MiniDisc recorder is radically different from those used in cassette and DAT decks and is characterized by the 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.

Symptom	Cause
“TRACK FULL” appears even before the disc has reached the maximum recording time (60 or 74 minutes).	When 254 tracks have been recorded on the disc, “TRACK FULL” appears regardless of the total recorded time. More than 254 tracks cannot be recorded on the disc. To continue recording, erase unnecessary tracks.
“TRACK FULL” appears even before the disc 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.
Track marks cannot be erased.	When the data of a track is fragmented, the track mark of a fragment under 12 seconds long cannot be erased. You cannot combine a track recorded in stereo and a track recorded in monaural; nor can you combine a track recorded with digital connection and a track recorded with analog connection.
The remaining recording time does not increase even after erasing numerous short tracks.	Tracks of under 12 seconds in length are not counted and so erasing them may not lead to an increase in the recording time.
The total recorded time and the remaining time on the disc may not total the maximum recording time (60 or 74 minutes).	Normally, recording is done in minimum units of approximately 2 seconds. When recording is stopped, the last unit of recording always uses this unit of 2 seconds even if the actual recording is shorter. Likewise, when recording is restarted after the stop, the recorder will automatically insert a blank space amounting to 2 seconds before the next recording. (This is to prevent accidental erasing of a previous track whenever a new recording is started). Therefore, the actual recording time will decrease whenever a recording is stopped; a maximum of 6 seconds compared to the potential recording time for each stop.
The edited tracks may exhibit sound dropout during search operations.	The fragmentation of data may cause sound dropout while searching because the tracks are played in higher speed than normal playback.

Error Messages

If the following messages flash in the display window of the station or the remote control, check the chart below. The display of the recorder will flash ⁼⁼ . ⁼⁼ when a message is displayed on the station or the remote control.

Station (remote control)	Meaning/Remedy
BLANK DISC (BLANK)	• An MD with no recording on it is inserted. ➡ Insert a recorded MD.
CONNECTION ERROR (—)	• The recorder is not attached to the station securely. ➡ Attach it securely.
DISC ERROR (ERROR)	• The recorder cannot read the disc (it's scratched or dirty). ➡ Reinsert or replace the disc
DISC FULL (FULL)	• There is no more space to record on the disc (less than 12 seconds available). ➡ Replace the disc.
EDIT BUSY (BUSY)	• You tried to operate the recorder while it was accessing the recorded data. ➡ Wait until the message goes out (in rare cases, it may take 2–3 minutes).
— (LoBATT)	• Batteries are weak. ➡ Charge the rechargeable battery / replace the dry batteries (pages 36, 37).
MEMORY OVER (MEMORY)	• You tried to record when there is no indication in the display, with the recorder placed where it receives continuous vibration. ➡ Put the recorder on a stable place, and start recording again.
NAME FULL	• You tried to enter more than 200 characters for a track or disc name or more than 1700 for the entire disc. ➡ Enter the characters within the limit.
NO DIGITAL SIGNAL (—)	• The recorder could not detect digital input signals. ➡ Make sure that the source is connected securely. Ignore when recording analogically.
NO DISC (No DISC)	• You tried to play or record with no disc in the recorder. ➡ Insert an MD.
P / B ONLY (PbONLY)	• You tried to record or edit a premastered MD (P / B stands for "playback".) ➡ Insert a recordable MD.
PROTECTED DISC (SAVED)	• You tried to record or edit on a MD with the tab in the record-protect position. ➡ Slide the tab back.

Station (remote control)	Meaning/Remedy
PROTECTED TRACK (TrPROT)	• You tried to record over or edit a track that is protected from erasing. ➔ Record over / edit other tracks.
SCMS NO COPY (—)	• You tried to digitally copy a source that is protected by the Serial Copy Management System. (You cannot make copies of a digitally connected source which was itself recorded using digital connection). ➔ Record using analog line connection (page 34).
SORRY (SORRY)	• You tried to erase a track mark at the beginning of the first track. • You tried to erase a track mark to combine tracks the recorder cannot combine (ex; a stereo and monaural track).
TEMPERATURE OVER (TEMP)	• Heat has built up in the recorder. ➔ Let the recorder cool down.
TRACK FULL (TrFULL)	• The disc reached the maximum number of tracks (254). ➔ Erase unneccesary tracks.

Specifications

System

Audio playing system
MiniDisc digital audio system
Laser diode properties
Material: GaAlAs
Wavelength: λ = 780 nm
Emission duration: continuous
Laser output: less than 44.6 µW*aZx
*This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7mm aperture.
Recording and playback time
Maximum 74 minutes (MDW-74, stereo recording)
Maximum 148 minutes (MDW-74, monaural recording)
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 channels
2 stereo channels
1 monaural channel
Wow and Flutter
Below measurable limit

Recorder

Frequency response
20 to 20,000 Hz ± 3 dB
Input
MIC (PLUG IN POWER): stereo mini-jack, input level 0.22–0.78 mV
Output
🎧/REMOTE: stereo mini-jack, maximum output level 5 mW+ 5 mW, load impedance 16 ohm

Station

Frequency response
5 to 20,000 Hz ± 0.5 dB
Input
LINE (ANALOG) IN: phono jack, rated input level 500mV
DIGITAL IN OPT1, OPT2: rectangular-shaped optical plug, wavelength 660nm
Output
LINE (ANALOG) OUT: phono jack, rated output level 500mV, load impedance 10 kilohoms or greater
ACTIVE SP OUT: stereo minijack, rated output level 500mV, load impedance 4.7 kilohms or greater
DIGITAL OUT; rectangular-shaped optical plug, output level -17dBm, wavelength 660nm
🎧HEADPHONES: stereo phone jack, peak output level 5mW + 5mW, load impedance 16 ohms
Sampling rate converter
Input: 32 kHz/44.1 kHz/48 kHz
Output: 44.1 kHz

General

Power requirements
Recorder:
Lithium ion rechargeable battery LIP-8 (supplied)
Two LR6 (size AA) alkaline dry batteries (not supplied)
Station:
Sony AC power adaptor (supplied) connected to the DC IN 9V jack:
220-230V AC, 50/60 Hz
Internal batteries for memory back-up:
Two NC-AA600FT(SYH), 1.2 V, 600 mAh, Ni-Cd batteries (supplied)
Card remote controller:
CR2025 lithium battery
Battery life
See "Battery life" (page 38)
Dimensions
Recorder: Approx. 104.5 x 20.1 x 77 mm
Station: Approx. 232 x 61 x 154 mm (w/h/d) not incl. projecting parts and controls
Mass
Recorder: Approx. 185g
Approx. 235g incl. a recordable MD, headphones with remote control, and LIP-8 lithium ion rechargeable battery
Station: Approx. 970g

Supplied accessories
AC power adaptor (1)
Card remote commander (1)
Headphones with remote control (1)
Lithium ion rechargeable battery LIP-8 (1)
Battery case (1)
Ear attachment (2)
Carrying pouch (1)

Optional accessories

Battery charger (for LIP-8) BC-LIP8
Lithium ion rechargeable battery LIP-8
Optical Cable
POC-151HG, POC-152HG, POC-MZ1, POC-MZ2, POC-15B, POC-15AB, POC-DA12SP
Line Cable RK-G136
Stereo Microphones ECM-717, ECM-MS907, ECM-MS957
Stereo Headphones* MDR-D77, MDR-D55, MDR-CD470, MDR-E888LP
Active Speakers SRS-Z1000
Recordable MDs MDW-series
MiniDisc Carrying Case CK-MD4
MiniDisc Filing Box CK-MD10

Your dealer may not handle some of the above listed accessories. Please ask the dealer for detailed information about the accessories in your country.

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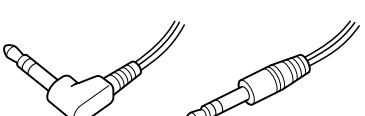
Design and specifications are subject to change without notice.

* Whether you should plug the headphones directly to ∩/REMOTE on the recorder or to a remote control, use only headphones with stereo mini-plugs.

stereo mini-plugs



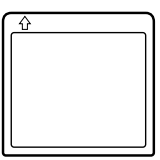
What is an MD?

How MiniDisc works

MiniDisc (MD) comes in two types: premastered (prerecorded) and recordable (blank). Premastered MDs, recorded at music studios, can be played back almost endlessly. However, they cannot be recorded on or over like cassette tapes. To record, you must use a "recordable MD".

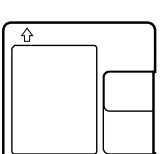
Premastered MDs

Premastered MDs are recorded and played like regular CDs. A laser beam focuses on the pits in 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 demagnetized MD adopts the polarity of the magnetic field, resulting in a recorded MD.

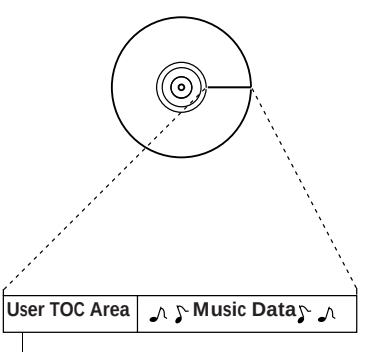


How the MiniDisc got so small

The 2.5-inch MiniDisc, encased in a plastic cartridge that looks like a 3.5-inch diskette (see illustration above), uses a new digital audio compression technology called ATRAC (Adaptive TRansform Acoustic Coding). 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. Premastered MDs are recorded with location addresses corresponding to each music selection. Recordable MDs are manufactured with a "User TOC Area" to contain the order of the music. The TOC (Table of Contents) system is similar to the "directory management system" of floppy disks. In other words, starting and ending addresses for all music tracks recorded on the disc are stored in this area. This lets you randomly access the beginning of any track as soon as you enter the track number (AMS), as well as label the location with a track name as you would a file on a diskette.



Contains the order and start/end points of the music.

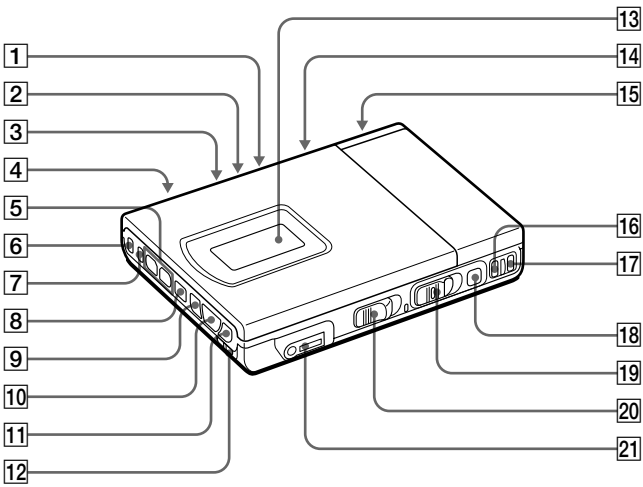
Shock-Resistant Memory

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

Looking at the controls

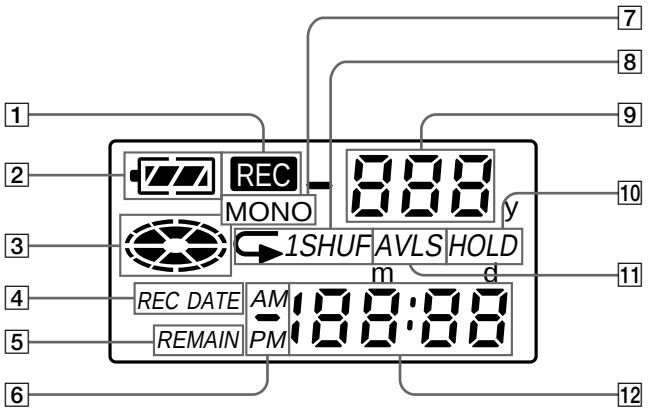
See pages in ( ) for details.

The recorder



1 MIC SENS (Mic sensitivity) (15)
2 DIGITAL MEGA BASS switch (23)
Select to emphasize bass sound.
3 AVLS (Automatic Volume Limiter System) switch (23)
Slide to LIMIT to limit the maximum volume.
4 MIC (PLUG IN POWER) jack (15)
5 VOL (volume) – / + buttons (11)
6 MODE button (14, 22)
Each time you press here while playing an MD, the recorder plays the MD in a different play mode: normal play, all repeat, single repeat, or shuffle repeat. Press here while recording to select monaural recording.
7 DISPLAY button (17, 24)
Press to display the current play mode, the remaining time of the current track, the remaining time of the disc, or the recording date and time.
8 ■ (stop) button (9, 11, 20)
9 ⏮ (rewind / AMS) button (9, 11, 20)
10 ▶ (play) button (9, 11, 20)
11 ⏭ (fast forward / AMS) button (9, 11, 20)
12 HOLD switch (32)
Slide to lock the controls of the recorder.
13 Display window
14 CLOCK SET button (19)
15 Battery compartment (36)
16 END SEARCH button (9)
17 T MARK button (27)
18 ❚❚ (pause) button (9, 11, 20)
19 REC switch (9)
20 OPEN switch (10)
21 🎧 / REMOTE (headphones / remote) jack

The display window of the recorder



1 REC indication
Lights up while recording. When flashing, the recorder is in record standby mode.

2 Battery indication (36, 38)
Appears when the rechargeable battery is in the battery compartment of the recorder.

3 Disc indication
Shows that the disc is rotating for recording, playing or editing an MD.

4 REC DATE (recorded / current date) indication (17, 24)
Lights up along with the date and time the MD was recorded. When only "DATE" lights up, the current date and time are displayed.

5 REMAIN (remaining time / tracks) indication (17, 24)
Lights up along with the remaining number of tracks, remaining time of the track, or remaining time of the MD.

6 AM / PM indication (17, 24)
Lights up along with the time indication in the 12-hour system.

7 MONO (Monaural) indication
Appears when recording monaurally or playing back a monaural disc.

8 Play mode indication (22)
Shows the play mode of the MD.
⊂ (all repeat): All tracks play repeatedly.
⊂ 1(single repeat): One track plays repeatedly.
⊂ SHUF(shuffle repeat): Tracks will be repeated in random order.

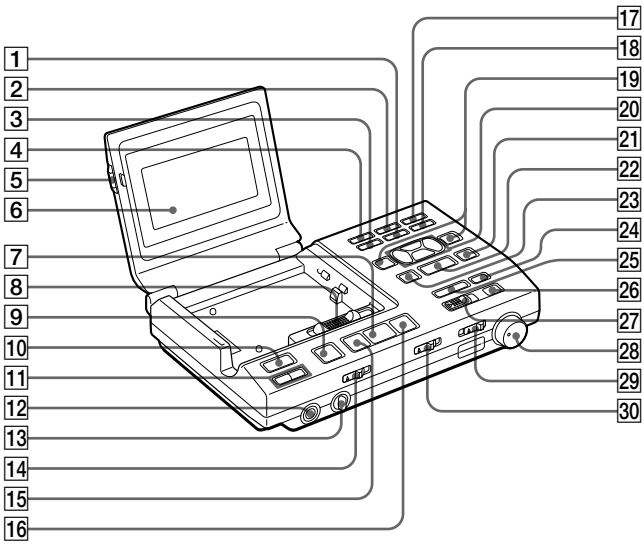
9 Track number indication
Shows the track number playing currently.

10 HOLD indication (32)
Lights up when the HOLD switch is set on.

11 AVLS indication (23)
Lights up when the AVLS switch is set on.

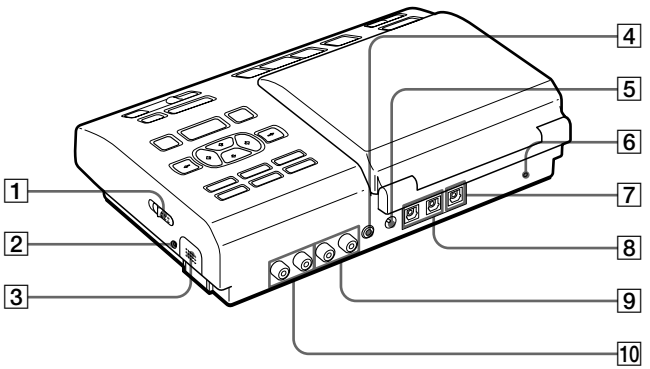
12 Time display (17, 24)
Shows the recorded time, current time, elapsed time of the track being played and the remaining time of the track or the disc.

Front panel of the Station



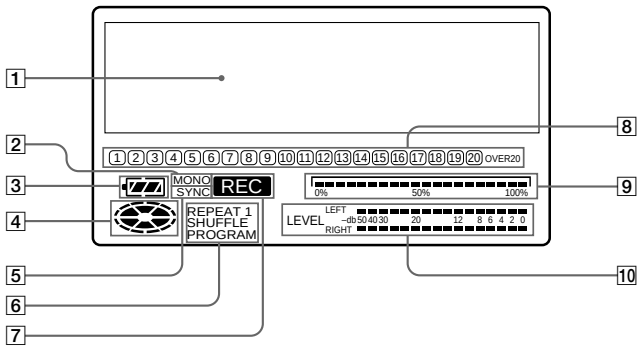
1 ERASE / DELETE button (26)
2 MODE button (14, 22)
3 MOVE / INSERT button (14, 22)
4 DISPLAY button (17, 24)
5 PUSH OPEN button (6)
6 Display window
7 ► (play) button (9, 11, 20)
8 OPEN • RELEASE switch (7)
9 ■ (stop) button (9, 11, 20)
10 POWER switch
11 ACTIVE SP LEVEL – / + buttons (20)
12 ∩ HEADPHONES jack for stereo plug
13 LEVEL dial
Adjust the volume of HEADPHONE jack on the station, not the recorder.
14 TIMER switch (32)
15 I◄◄ (rewind / AMS) button (9, 11, 20)
16 ►►I (fast forward / AMS) button (9, 11, 20)
17 TRACK MARK button (27)
18 UNDO button (30)
19 INPUT POSITION ← / → buttons (30)
20 Cursor keys
21 TITLE / ENTER button (26, 30)
22 SELECT button (30)
23 CAPS button (30)
24 END SEARCH button (9)
25 TIME MACHINE REC button (13)
26 ❚❚ (pause) button (9, 11, 20)
27 REC switch (9)
28 REC LEVEL (ANALOG) control (16)
29 INPUT switch (8, 34)
30 SYNCHRO REC switch (12)

Back panel of the Station



1 OPEN (open the lid) switch (37)
2 CHARGE lamp (37)
Lights up while charging the rechargeable battery on the station.
3 Rechargeable battery compartment (37)
4 ACTIVE SP OUT jack (35)
5 DC IN 9V jack (36)
6 CLOCK SET button (19)
7 DIGITAL OUT (OPTICAL) jack (35)
8 DIGITAL IN (OPT1, OPT2) jacks (34)
9 LINE (ANALOG) OUT jack (35)
10 LINE (ANALOG) IN jack (34)

The display window of the station



1 Character information display (17, 24)
Displays the disc and track names*, date, error messages, track numbers, etc.
*Disc and track names appear only with MDs that have been electronically labeled.

2 MONO (monaural) indication

3 Battery indication (36, 38)
Shows battery condition. Lights up when a rechargeable battery is inserted. While charging the rechargeable battery, this indication shows the charging condition.

4 Disc indication
Shows that the disc is rotating for recording, playing or editing an MD.

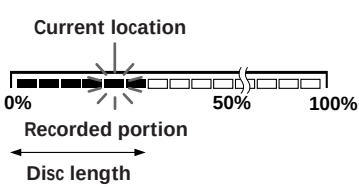
5 SYNC (sychronized recording) indication
Lights up while synchro-recording.

6 Play mode indication (22)
Shows the play mode of the MD.
REPEAT (all repeat): All tracks play repeatedly.
REPEAT 1 (single repeat): One track plays repeatedly.
REPEAT SHUFFLE (shuffle repeat): Tracks will be repeated in random order.
PROGRAM (program play) indication: Lights up when programming for program play or executing program play.

7 REC (record) indication
Lights up while recording. When flashing, the recorder is in record standby mode.

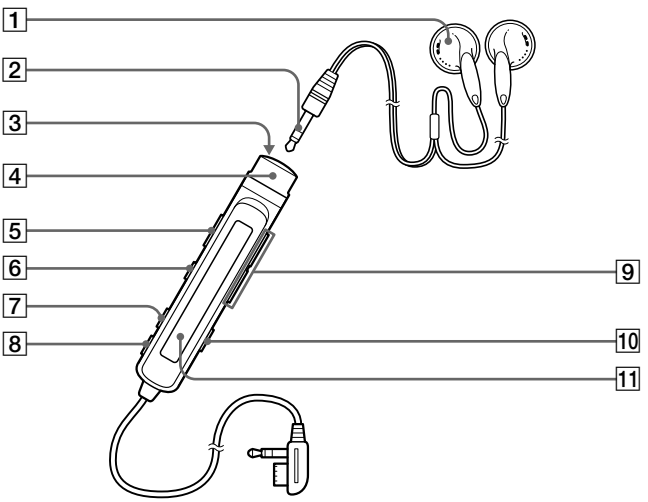
8 Music calendar
Displays the number of tracks recorded in MD, remaining tracks during shuffle play.

9 Position pointer
Shows the current location on the MD. The point under recording or playing flashes. The recorded position lights up.



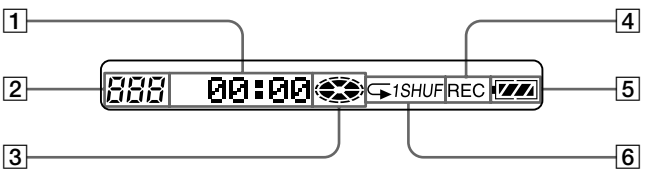
10 Peak level meter
Shows the volume of the MD being played or recorded.

The headphones with a remote control



1 Headphones
Can be replaced with optional headphones.
2 Stereo mini-plug
3 ■ (stop) button (9, 11)
4 Control (11)
To play, turn to ►/►►I during stop.
Turn to ►/►►I during play to search the beginning of the succeeding track; hold in this position to fast-forward.
Turn to I◄◄ during play to search the beginning of the preceeding track; hold in this position to rewind.
5 HOLD switch (32)
Slide to lock the controls of the remote control.
6 ❚❚ (pause) button (9, 11)
7 PLAY MODE button (22)
8 DISPLAY button (17, 24)
9 VOL (volume) – / + buttons (11)
10 TRACK MARK button (27)
11 Display window

The display window of the remote control



1 Character information display (17, 24)
Displays the disc and track names, date, elapsed time, etc.

2 Track number indication
Shows the track number of the track being recorded or played.

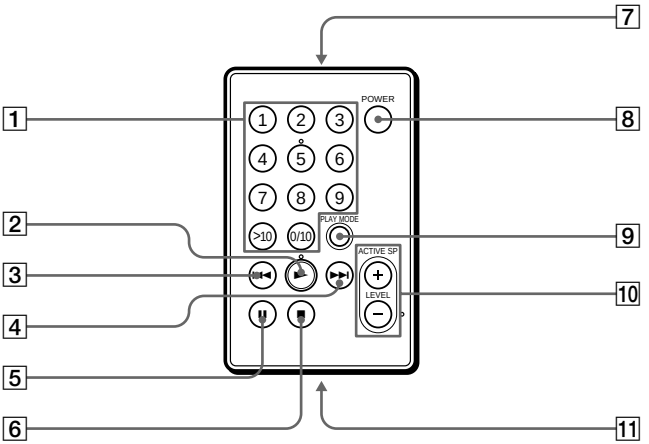
3 Disc indication
Shows that the disc is rotating for recording, playing or editing an MD.

4 REC (record) indication
Lights up while recording. When flashing, the recorder is in record standby mode.

5 Battery indication (36, 38)
Shows battery condition.While charging the rechargeable battery, this indication shows the charging condition.

6 Play mode indication (22)
Shows the play mode of the MD.

Card remote commander



1 Number keys
2 ► (play) button (20)
3 ⏮ (rewind / AMS) button (20)
4 ⏭ (fast forward / AMS) button (20)
5 ❚❚ (pause) button (20)
6 ■ (stop) button (20)
7 Transmitter
Direct it toward the remote sensor on the station.
8 POWER button (20)
9 PLAY MODE button (22)
10 ACTIVE SP (active speaker) LEVEL + / – buttons (20)
11 Battery compartment

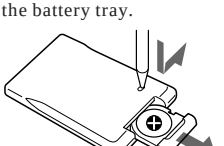
Using the remote commander

- You may not be able to use the remote commander when the remote sensor on the station is exposed to direct sunlight or strong illumination. The effective range of the remote commander is appoximately 5 meters.
- Other Sony audio products may respond to the remote commander supplied with this unit. In this case, place other products away from the station. If you choose to use them near each other and want to block the effect of the remote commander on either one, cover the remote sensor on the product with adhesive tape, etc.

Replacing the lithium battery

When the battery becomes weak, the range of the remote commander becomes shorter. Replace the battery with a new CR2025 lithium battery (not supplied).

1 Insert a pointed object to the slot. Slide and hold it as shown below.
2 Pull out the battery tray.



3 Insert a CR2025 lithium battery (not supplied) with the (+) side facing up.

Insert with correct polarity, or the remote commander will not work.

Sony Corporation Printed in Japan