

Table of contents

Preparing a power source	6
---------------------------------------	----------

Recording an MD right away!	8
--	----------

Playing an MD right away!	11
--	-----------

Various ways of recording	13
VOR (Voice Operated Recording)	13
Recording from a microphone	14
Recording from externally connected equipment	15
Recording with digital (optical) input (optical cable required)	16
Recording with analog (line) input (line cable required)	17
To start/stop recording in sync with the source player (Synchro-recording)	18
Recording in monaural for double the normal recording time	19
Setting the clock to stamp the recorded time	19
Checking the remaining time or the recording position	20

Various ways of playback	22
Enhancing voice clarity during playback (Voice Up)	22
Finding a point quickly (Easy Search)	22
Listening at a fast speed (Fast Playback)	23
Playing tracks repeatedly	23
Emphasizing bass (DIGITAL MEGA BASS)	24
Checking the remaining time or the playing position	24
Locking the controls (HOLD)	25

Editing recorded tracks	26
Adding a track mark	26
Track marking to divide a recording	26
Track marking important points	26
Erasing a track mark	27
Erasing tracks	28
To erase a track	28
To erase the whole disc	28
Moving recorded tracks	29
Labeling recordings	29

Power sources	32
When to replace the batteries	32
Using house current	32

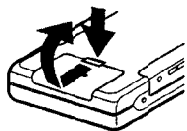
Additional information	33
Precautions	33
Troubleshooting	35
System limitations	37
Messages	38
Specifications	40
What is an MD?	41
Looking at the controls	43

Preparing a power source

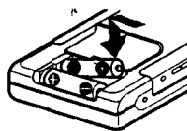
This section explains how to prepare the recorder for battery-powered operation. For information on connecting the recorder to an AC power outlet, see page 32.

1 Insert dry batteries.

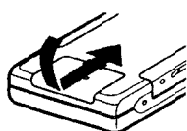
Back of the recorder



Press and slide the battery compartment lid as shown in the illustration.



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

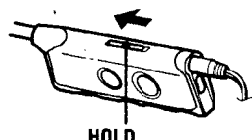
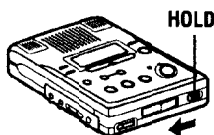


Close the lid.

Notes

- Do not use manganese dry batteries. If you do, recording may not be possible.
- Insert the \oplus and \ominus poles of the batteries correctly as shown on the recorder.

2 Unlock the control.



Slide HOLD to the direction of the arrow in the illustration.

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 for the clock. After setting the clock, leave the dry batteries installed for about more than two hours so that the built-in battery is automatically charged. You can use the recorder while charging. Note that various settings, such as clock, return to the factory settings if you take out dry batteries while charging. Once charged, the recorder will automatically charge the built-in battery while connected to dry batteries. When the built-in battery is charged, the settings, such as clock, will remain for about one month after dry batteries are taken out. For details on setting a clock, see page 19.

To	Press
Remove the MD	■STOP to stop recording and open the lid. (The lid does not open while "TOC Edit" flashing in the display.)

¹⁾ The REC indicator flashes during recording pause. Track marks are not added while recording with microphones, even when the recorder is paused.

If the recording does not start

- Make sure the recorder is not locked (page 25).
- Make sure the MD is not record-protected (page 42).
- Premastered MDs cannot be recorded over.

- Make sure not to switch the recording mode while recording. If you do, recording may not occur.

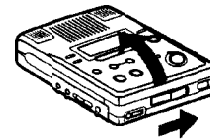
Notes

- For long recordings, it is recommended that you power the recorder from a house current using an optional AC power adaptor AC-E30HG (page 32).
- The lid will not open during recording or until "TOC Edit" disappears from the display after the recording has completed.
- If the power supply is disrupted (i.e. the batteries are removed or becomes exhausted or the optional AC power adaptor is disconnected) during a recording operation, or while "TOC Edit" appears in the display, then it will not be possible to open the lid until power is restored.
- "Data Save" or "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. If you do, the material recorded up to that point will not be saved to the disc.
- When you record through the microphones, the various sounds made by the recorder will also be recorded.
- Do not connect an optional AC power adaptor during a recording operation if you are operating the recorder on battery power. If you do, the material recorded up to that point will not be saved to the disc.
- The built-in microphones do not operate whenever an optional microphone is connected into the MIC (PLUG IN POWER) jack on the recorder.
- The built-in microphones do not operate whenever an optical cable or a line cable is connected into the LINE IN (OPTICAL) jack on the recorder.

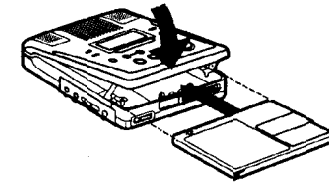
Playing an MD right away!

You can play recordable MDs or premastered MDs. Sound output from the built-in speaker is monaural, but stereo listening is possible through the supplied headphones/earphones with a remote control.

1 Insert an MD.

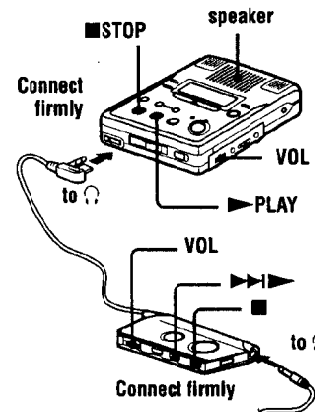


① Slide OPEN to open the lid.



② Insert an MD with the label side facing up, and press down hard on the lid (at the center of the front edge as shown above) to close it firmly.

2 Play an MD.



① Press ►PLAY.

② Turn VOL to adjust the volume.
The volume will be shown in the display.

To stop play, press ■STOP.
Playback starts from the point you last stopped playing.
After you press the ■STOP button, the recorder will automatically turn off in about 30 seconds.

To listen in stereo

Connect the supplied headphones/earphones with a remote control to the \odot jack on the recorder. On the remote control, use the $\blacktriangleright\blacktriangleright$ button to start playback, the \blacksquare STOP button to stop the recorder, and the VOL control to adjust the volume. If you are using the remote control, you will hear short beeps whenever you press the $\blacktriangleright\blacktriangleright$ button, and a long beep whenever you press the \blacksquare STOP button.

To	Press (Beeps in the headphones/earphones)
Find the beginning of the current track	$\blacktriangleleft\blacktriangleleft$ REVIEW/AMS once (Press the control towards $\blacktriangleleft\blacktriangleleft$ on the remote control). (Three short beeps)
Find the beginning of the next track	$\blacktriangleright\blacktriangleright$ CUE/AMS once (Press the control towards $\blacktriangleright\blacktriangleright$ on the remote control). (Two short beeps)
Pause	\blacksquare PAUSE (Press \blacksquare on the remote control). (Continuous short beeps) Press \blacksquare PAUSE again to resume play.
Go backwards while playing ¹⁾	keep pressing $\blacktriangleleft\blacktriangleleft$ REVIEW/AMS (Press and hold the control towards $\blacktriangleleft\blacktriangleleft$ on the remote control).
Go forward while playing ¹⁾	keep pressing $\blacktriangleright\blacktriangleright$ CUE/AMS (Press and hold the control towards $\blacktriangleright\blacktriangleright$ on the remote control).
Remove the MD	\blacksquare STOP (\blacksquare on the remote control) and open the lid. ²⁾

¹⁾ To go backward or forward quickly without listening, press \blacksquare PAUSE (\blacksquare on the remote control) and keep pressing $\blacktriangleleft\blacktriangleleft$ REVIEW/AMS or $\blacktriangleright\blacktriangleright$ CUE/AMS (press and hold the control towards $\blacktriangleleft\blacktriangleleft$ or $\blacktriangleright\blacktriangleright$ on the remote control).

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

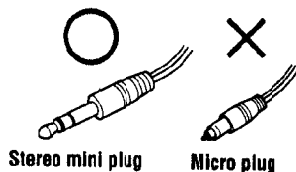
Make sure the recorder is not locked (page 25).

To locate a point quickly

Use the EASY SEARCH +/- buttons (page 22).

When using optional headphones/earphones

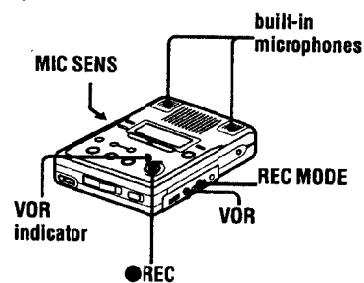
Use only headphones/earphones with stereo mini plugs. You cannot use headphones/earphones with micro plugs.



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

VOR (Voice Operated Recording)

VOR causes the recorder to automatically record when there is sound, and to pause when there is no sound. This allows you to record without troublesome button operations.



1 Slide MIC SENS to H (high) or L (low).

2 Slide REC MODE to STEREO.

When you set the REC MODE switch to MONO, the recording will be in monaural, but the recording time will be two times longer than in stereo.

3 Insert a recordable MD and press \bullet REC.

4 Press VOR.

VOR turns on.

"VOR" appears in the display and the VOR indicator lights up when the recorder is recording. Both "VOR" and the VOR indicator flash when the recorder is not recording.

To cancel VOR while recording, press VOR again.

"VOR" and the VOR indicator goes off and the recorder changes to normal recording mode.



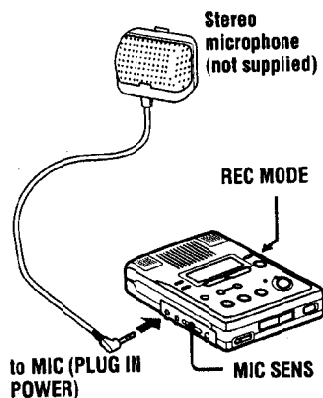
VOR automatically turns off when you press the \blacksquare STOP button to stop recording.

Notes

- You cannot record with the built-in microphones while an optional microphone is connected to the MIC (PLUG IN POWER) jack or an optical cable (not supplied) is connected to the LINE IN (OPTICAL) jack.
- VOR is sensitive to the surrounding sound conditions. Set the MIC SENS switch to H or L to suit the conditions. If you cannot get the desired recording results, cancel VOR and record in manual mode.
- Power from the batteries is consumed as long as VOR is on, even when recording is not taking place (i.e., when "VOR" and the VOR indicator flash.)

Recording from a microphone

Connect a stereo microphone (ECM-717, etc.; not supplied) to the MIC (PLUG IN POWER) jack. The recorder input automatically switches to the externally connected microphone input.



- 1 Slide MIC SENS to H (high) or L (low).
- 2 Slide REC MODE to STEREO.
- 3 Insert a recordable MD and press ●REC.

For other operations on recording, see "Recording an MD right away!" (page 8).



- When you record in monaural, you can record twice as much as in stereo (page 19).
- When using a plug-in-power microphone, no battery is needed for the microphone since power is supplied by the recorder. If you are using the optional stereo microphone ECM-717, set the switch on the microphone to OFF to allow the recorder to provide power to the microphone.

Notes

- You cannot record through the externally connected microphone while an optical cable is connected to the LINE IN (OPTICAL) jack. The recorder automatically selects the recorder input in the following order of priority; optical input, externally connected microphone input, analog (line) input, and built-in microphones input.
- The microphone may pick up the operating sound of the recorder itself. Use the microphone away from the recorder in such cases.

Recording from externally connected equipment

The input jack of this recorder works as both digital and analog input jacks. Connect the recorder to a CD player or a cassette recorder using either digital (optical) input or analog (line) input. To record, see "Recording with digital (optical) input (optical cable required)" (page 16) to record using digital (optical) input and "Recording with analog (line) input (line cable required)" (page 17) to record using analog (line) input.

LINE IN (OPTICAL) Jack is for both digital and analog input.

The recorder automatically recognizes the type of line cable and switches to digital or analog input.

Difference between digital (optical) and analog (line) inputs

Difference	Digital (optical) input	Analog (line) input
Connectable source	Equipment with an digital (optical) output jack	Equipment with an analog (line) output jack
Usable cord	Optical cable (with an optical or an optical-mini plug)(page 16)	Line cable (with 2 phono plugs or a stereo-mini plug)(page 17)
Signal from the source	Digital	Analog Even when a digital source (such as a CD) is connected, the signal sent to the recorder is analog.
Recorded track numbers	Marked (copied) automatically • at the same positions as the source. • after more than 2 seconds of blank or low-level segment ¹⁾ . • when the recorder is paused while recording. You can erase unnecessary marks after recording. ("Erasing a track mark", page 27).	Marked automatically • after more than 2 seconds of blank or low-level segment • when the recorder is paused while recording. You can erase unnecessary marks after recording. ("Erasing a track mark", page 27).
Recorded sound level	Same as the source.	Adjusted automatically.

¹⁾ When during synchro-recording only (page 18).

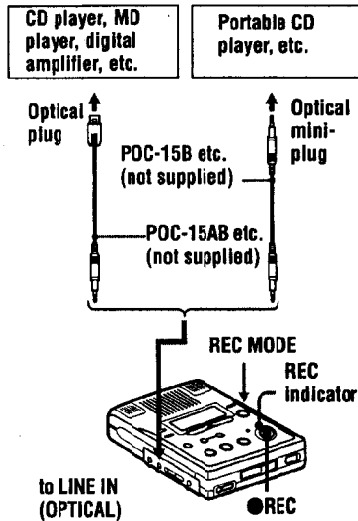
Note

Track marks may be copied incorrectly:

- when you record from some CD players or multi disc players using digital (optical) input.
- when the source is in shuffle or program play mode while recording using digital (optical) input. In this case, play the source in normal play mode.
- when recording BS or CS programs through digital (optical) input.

Recording with digital (optical) input (optical cable required)

Connect to a digital source using an optical cable (not supplied) to make digital recordings. Digital recording is possible even from digital equipment with different sampling rates, such as a DAT deck or a BS tuner, using the built-in sampling rate converter.



- 1** Slide REC MODE to STEREO.
- 2** Insert a recordable MD and press ●REC.
“REC” appears in the display, the REC indicator lights up, and the recording starts.
- 3** Play the source sound.
For other operations on recording, see “Recording an MD right away!” (page 8).

16-GB



- When you record in monaural, you can record twice as much as in stereo (page 19).
- When recording from digital media, track marks in the original are copied automatically to the MD.

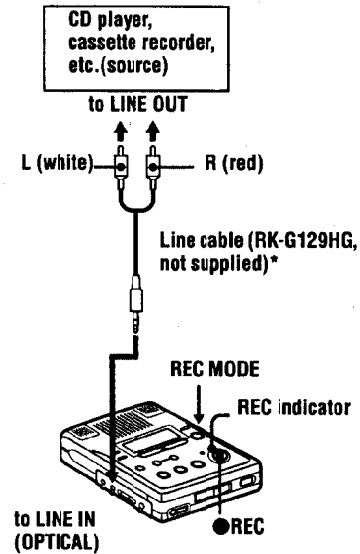
Notes

- You can make a digital recording only from an optical type output.
- When recording from a portable CD player, play it on AC power and disable the anti-skip function (such as ESP*).
- When recording from a portable CD player, pause the CD player before doing the recording procedure.
- Digital output may be disabled on some portable CD players when the player is not run on AC power.
- A track mark is added at the point where you press the ■PAUSE button again to resume recording while pausing recording; thus the remainder of the track will be counted as a new track.

* Electronic Shock Protection

Recording with analog (line) input (line cable required)

Connect the recorder with a line cable (not supplied) to make analog recording. The sound will be sent from the connected equipment as analog signal but will be sent recorded digitally on the disc.



* Use the connecting cords without an attenuator. To connect to a portable CD player having a stereo mini-jack, use the RK-G136HG connecting cord (not supplied).

- 1** Slide REC MODE to STEREO.
- 2** Insert a recordable MD and press ●REC.
“REC” appears in the display, the REC indicator lights up, and the recording starts.

- 3** Play the source sound.
For other operations on recording, see “Recording an MD right away!” (page 8).



When you record in monaural, you can record twice as much as in stereo (page 19).

Note

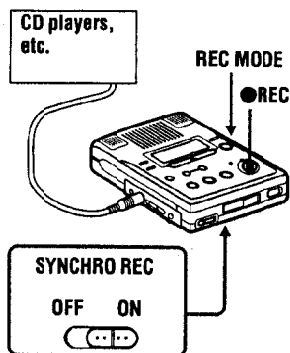
A track mark is added at the point where you press the ■PAUSE button again to resume recording while pausing recording; thus the remainder of the track will be counted as a new track.

17-GB

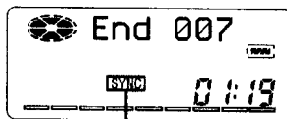
To start/stop recording in sync with the source player (Synchro-recording)

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 Slide REC MODE to STEREO.
- 2 Slide SYNCHRO REC to ON. "SYNC" appears in the display.



Synchro-recording indication

"SYNC" doesn't appear if optical cable is not connected to the LINE IN (OPTICAL) jack on the recorder.

- 3 Press ●REC.
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 ■STOP.

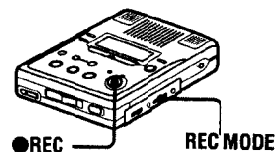
- When you record in monaural, you can record twice as much as in stereo (page 19).
- You cannot pause manually during synchro-recording.
- When there is no sound from the player for more than 3 seconds during synchro-recording, the recorder goes into the standby mode automatically. When the sound comes 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 the SYNCHRO REC switch after step 4. Recording may not be done properly.
- The REC MODE setting cannot be changed during synchro-recording.
- Even when there is no recorded sound on the sound source, there may be cases when recording does not pause automatically during synchro-recording due to the noise level emitted from the sound source.
- If a silent portion is encountered for 2 seconds or more during synchro-recording, a new track mark is automatically added at the point where the silent portion ends.
- Synchro-recording cannot be done if the connecting cord is not an optical cable, or if the cable is connected to the MIC (PLUG IN POWER) jack.

Recording in monaural for double the normal recording time

For longer recordings, choose to record in monaural. The recording time becomes double the normal.



- 1 Slide REC MODE to MONO.
- 2 Insert a recordable MD and press ●REC.
For other operations on recording, see "Recording an MD right away!" (page 8)

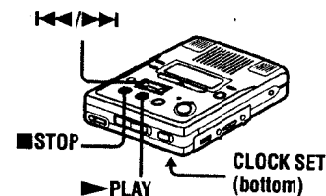
To stop recording, press ■STOP.

Notes

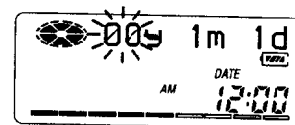
- If you record a stereo source in monaural, the sounds from left and right will be mixed.
- You may not be able to record in monaural if the SYNCHRO REC switch is slid to ON. If you are recording digital input, make sure to slide the SYNCHRO REC switch to OFF before you begin recording.
- The MDs recorded in monaural can be played back only with an MD player/recorder that has the monaural playing function.
- Sound recorded through digital (optical) input can be monitored in stereo through headphones/earphones, etc.

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.



- 1 Light up the display by pressing ■STOP, and then press CLOCK SET at the button of the recorder. Use a pointed object. The digits of the year flash.



If you do not light up the display first, you will not be able to set the time even when you press CLOCK SET.

- 2 Change the current year by pressing ◀◀ or ▶▶.
To change the digits rapidly, keep pressing ◀◀ or ▶▶.
- 3 Press ▶▶PLAY to enter the year. The digit of the month flashes.
- 4 Repeat step 2 and 3 to enter the current month, date, hour, and minute.
When you press ▶▶PLAY to enter the minute, the clock starts operating.

If you make a mistake while setting the clock

Press ■STOP, and set the clock again from step 1. You can skip a step by pressing ►PLAY.

To display the current time

When the recorder is not operating or while recording, press DISPLAY repeatedly until the current time appears in the display.

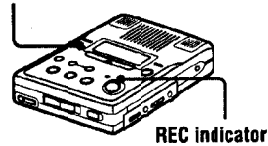
To display the time in the 24-hour system

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

Checking the remaining time or the recording position

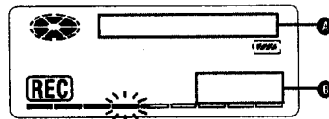
You can check the remaining time, track number, etc. when recording or during stop.

DISPLAY



REC indicator

- 1 Press DISPLAY while the recorder is recording or stopped. Each time you press the button, the display changes as follows.



While recording

A	B
Track number	Elapsed time
Track number	Remaining time for recording
Current date ¹⁾	Current time ¹⁾

¹⁾ Appears only when the clock is set. If you want to date and time stamp the recording, set the clock in advance.

In stop mode

A	B
Track number	Elapsed time
Track name ¹⁾	Remaining time for recording
Disc name ¹⁾	Remaining time after the current location
Current date ²⁾	Current time ²⁾

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

To know the recording condition

The REC indicator lights up or flashes according to the recording condition.

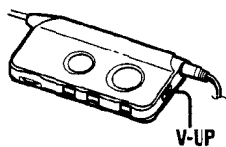
Recording condition	REC indicator
While recording	lights up
Recording standby	flashes
Less than 3 minutes' recording time available	flashes slowly
A track mark has been added (when controlling by the recorder only)	goes off momentarily



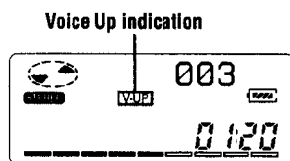
If you want to check the playing position or track name while playing, see page 24.

Enhancing voice clarity during playback (Voice Up)

During stereo playback, the Voice Up function emphasizes the left-right orientation of individual voices, making them easier to distinguish and hear. This function is effective when using the supplied headphones/earphones to listen to stereo recordings made at meetings and conferences, etc.



- 1 Press V-UP on the remote. "V-UP" appears in the display.



To cancel the Voice Up function, press V-UP again.

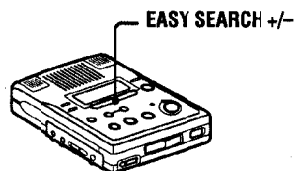
"V-UP" disappears from the display.

Notes

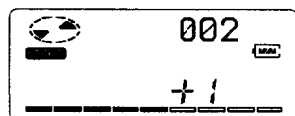
- The use of the Voice Up function is not recommended when playing a music disc.
- The Voice Up function automatically turns off whenever a monaural track is played.

Finding a point quickly (Easy Search)

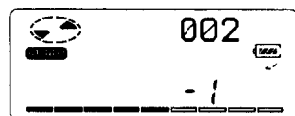
Use the Easy Search function to find a particular point quickly.



- 1 Press EASY SEARCH + or - while the recorder is playing or stopped. Each press of the + button moves the playback point ahead by about one minute. Each press of the - button moves the playback point back about one minute.



When the + button was pressed once. (Playback position moves one minute ahead.)



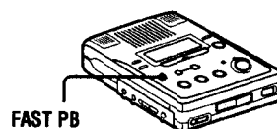
When the - button was pressed once. (Playback position moves one minute behind.)

- The + and - buttons can be pressed up to 20 times each.

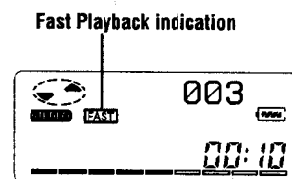
- If you reach the beginning of the disc while using the Easy Search function, the recorder will start playing automatically. If you reach the end of the disc while using the Easy Search function, "END" will appear in the display. If this happens, press the ■STOP button to stop the recorder.

Listening at a fast speed (Fast Playback)

You can reduce the listening time by using the Fast Playback function. The playback speed can be set to 1.6 times as fast as the normal playback.



- 1 Press FAST PB. "FAST" appears in the display and the recorder starts playback at a speed of 1.6 times faster than normal.

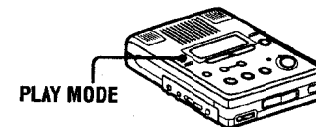


To switch to normal playback, press ►PLAY.

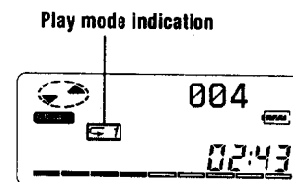
- You can pause or find track marks pressing the ■PAUSE, ◀◀REVIEW/AMS or ▶▶CUE/AMS button during Fast Playback.

Playing tracks repeatedly

You can play tracks repeatedly in two ways — all repeat and single repeat.



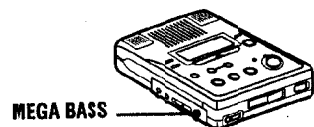
- 1 Press PLAY MODE while the recorder is playing or stopped. Each time you press the button, the play mode indication changes as follows.



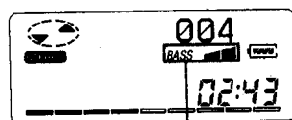
Indication	Play mode
—	All the tracks are played once.
↺	All the tracks are played repeatedly.
↺ 1	A single track is played repeatedly.

Emphasizing bass (DIGITAL MEGA BASS)

The mega bass function intensifies low frequency sound for richer quality audio reproduction. It affects only the sound from the headphones/earphones



- 1 Press MEGA BASS while the recorder is playing.
Each time you press the button, the indication changes as follows.



Mega Bass Indication

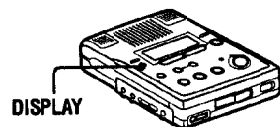
Indication	Play mode
—	Normal play
BASS ■	Mega Bass (moderate effect)
BASS ■■	Mega Bass (strong effect)

Notes

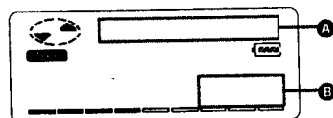
- If sound distortion occurs when you turn the volume up while the bass is being emphasized, turn the volume down again or press the MEGA BASS button to switch to another play mode.
- The Mega Bass function does not affect the sound being recorded.

Checking the remaining time or the playing position

You can check the track name, disc name, etc. during playback.



- 1 Press DISPLAY while the recorder is playing.
Each time you press the button, the display changes as follows.



A	B
Track number	Elapsed time
Track name ¹⁾	Remaining time of the current track
Disc name ¹⁾	Remaining time after the current location
Recorded date ²⁾	Recorded time ²⁾

¹⁾ Appears only if the track has been labeled.

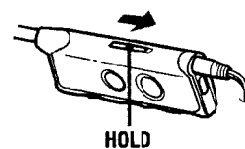
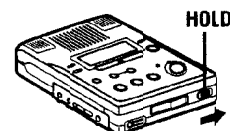
²⁾ Appears only when the recording date and time have been stamped.



If you want to check the remaining time or the recording position while recording or in stop mode, see page 2).

Locking the controls (HOLD)

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



- 1 Slide HOLD to 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.

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

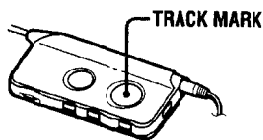
Notes on editing

- Do not move or jog the recorder while "TOC Edit" is flashing in the display. If you do, the editing results will not be saved to the disc.
- The lid will not open during an editing operation or while "TOC Edit" appears 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 (page 42).
- If you perform an editing operation while playing, be sure not to turn the power off until "TOC Edit" disappears in the display.

* TOC = Table of Contents

Adding a track mark

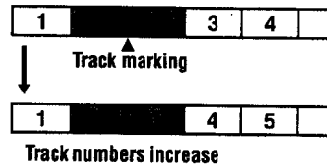
You can add two kinds of track marks: regular track marks and special track marks. A total of 254 track marks can be added on one disc.



Track marking to divide a recording

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.

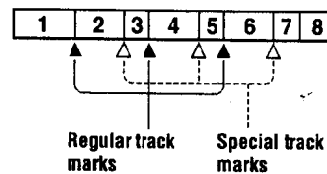


- 1 While recording, playing or pausing an MD, press TRACK MARK at the point you want to mark.

"MARK ON" appears in the display, and a track mark is added. The track number will increase by one.

Track marking important points

While recording, not only can you add regular track marks, you can also add special track marks ("TT"), to mark the position of important points.



- 1 Press TRACK MARK on the remote for 2 seconds or more at the desired point while recording.

A special track mark is added and the track number will increase by one. "MARK ON!" appears in the display and "TT" is automatically added at the beginning of a track name.

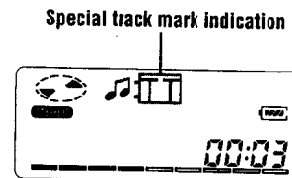
Note

Make sure to press the TRACK MARK button for 2 seconds or more, if not, a regular track mark will be added.

To locate special track marks during playback

While pressing down VOR, momentarily press ◀◀ REVIEW/AMS or ▶▶ CUE/AMS.

The track number appears after the special track mark indication ("TT").



Press ◀◀ REVIEW/AMS repeatedly to go to previous special track marks. Press ▶▶ CUE/AMS repeatedly to go to succeeding special track marks.

To change a regular track mark to a special track mark

After the completion of recording, add "TT" at the beginning of the name of the track you want to change.

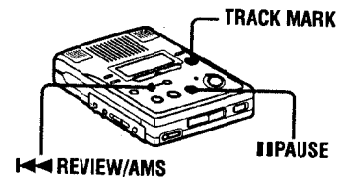
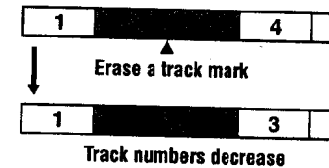
To change a special track mark to a regular track mark

After the completion of recording, erase "TT" at the beginning of the track name or change the name of the track.

Erasing a track mark

When you erase a regular track mark or a special track mark, the track numbers will change as follows.

Example



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

- 2 Find the track mark by pressing ◀◀ REVIEW/AMS slightly.

For example, to erase the third track mark, find the beginning of the third track. "00:00" appears in the display. "MARK" appears in the display for 2 seconds.

- 3 Press TRACK MARK to erase the mark.

"MARK OFF" appears in the display. The track mark is erased and the two tracks are combined.



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

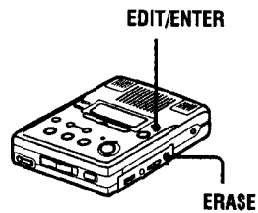
Notes

- You cannot erase a track mark that has been written between a track recorded in stereo and a track recorded in monaural. If you try to erase such a track mark, "SORRY" appears in the display.
- You cannot erase a track mark that has been written between a track recorded through a digital connection and a track recorded through an analog connection. If you try to erase such a track mark, "SORRY" appears in the display.

Erasing tracks

To erase a track

Note that once a recording has been erased, you cannot retrieve it. Be sure to verify the contents of the track you want to erase.



- 1 While playing the track you want to erase, press ERASE.
"Erase OK?" and "PushENTER" appear alternately in the display and the recorder plays the selected track repeatedly.
- 2 Press EDIT/ENTER.
The track is erased and the next track starts to play. All the tracks after the one erased are automatically renumbered.

To cancel erasing, press ■STOP or TRACK MARK.

To erase a small section of a track

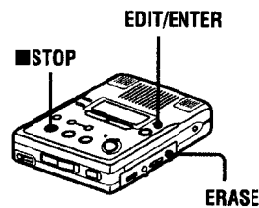
Pause playback at the point where you want to start erasing. Then do steps 1 and 2.

To erase a part of a track

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

To erase the whole disc

Note that once a recording has been erased, you cannot retrieve it. Be sure to verify the contents of the disc you want to erase.



- 1 Play the disc you want to erase, verify its contents, and then press ■STOP.
- 2 While the recorder is stopped, press ERASE.
"All Erase?" and "PushENTER" appear alternately in the display.
- 3 Press EDIT/ENTER.
"TOC Edit" flashes in the display, and all the tracks will be erased. When erasing is complete, "BLANKDISC" appears in the display.

To cancel erasing, press ■STOP or TRACK MARK.

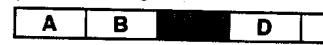
Moving recorded tracks

You can change the order of the recorded tracks.

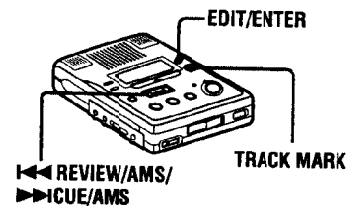
Example

Move track C from the third to the second track.

Before moving



After moving



- 1 While playing the track you want to move, press EDIT/ENTER.
"♪: Name" flashes in the display and the recorder plays the selected track repeatedly.
- 2 Press ◀◀REVIEW/AMS or ▶▶CUE/AMS until "♪: Move" flashes in the display.
- 3 Press EDIT/ENTER again.
For the example above, "MV 003 → 003" appears in the display.
- 4 Press ◀◀REVIEW/AMS or ▶▶CUE/AMS repeatedly to select the destination track number.
For the example above, "MV 003 → 002" appears in the display.

- 5 Press EDIT/ENTER again.

The track moves to the selected destination track.

To cancel moving, press ■STOP or TRACK MARK.

Labeling recordings

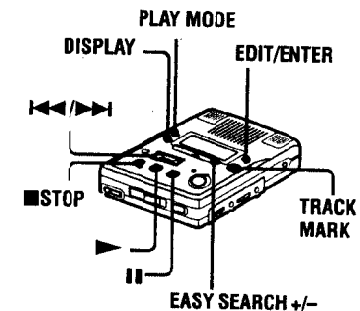
You can name tracks during playback, discs during stop, and both during recording. Each name can be as long as 200 letters.

Each disc can hold up to 1700 alphanumeric letters during playback or stop.

You can enter about 500 alphanumeric characters and symbols during the recording of each track.

Available characters

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



Labeling a disc during stop

- 1 Insert a disc.
When a disc is already inserted, make sure the recorder is stopped.
- 2 Press EDIT/ENTER.
“⊙ : Name” flashes in the display.
- 3 Press EDIT/ENTER again.
The disc is ready to be labeled.
- 4 Press ◀◀ or ▶▶ repeatedly to select a letter and press ▶ to enter. The selected letter stops flashing and the cursor moves to the next input position.

Press	To
	Switch between capital letters, small letters, and marks / numbers.
◀◀/▶▶	Change the letter to the one before / next one.
EASY SEARCH +/-	Move the cursor to the left or right.
DISPLAY	Insert a blank space to type in a new letter.
PLAY MODE	Delete a letter and move back all following letters to the left.
■STOP	Cancel labeling.
TRACK MARK	Cancel labeling.

- 5 Repeat step 4 and enter all characters of the label name.
To cancel labeling, press ■STOP or TRACK MARK.
- 6 Press EDIT/ENTER.
The track or disc is labeled.

Labeling a track during playback

- 1 Insert a disc and play the track you want to label.
- 2 Press EDIT/ENTER.
“♪ : Name” flashes in the display and the recorder plays the selected track repeatedly.
- 3 Press EDIT/ENTER again.
The track is ready to be labeled.
- 4 Follow steps 4 to 6 of “Labeling a disc during stop”.

Labeling a track or a disc during recording

- 1 While recording, press EDIT/ENTER.
“♪ : Name” flashes in the display.
- 2 To label a track, press EDIT/ENTER again.
To label a disc, press ◀◀ or ▶▶ repeatedly until “⊙ : Name” flashes in the display, then press EDIT/ENTER.
The track or disc is ready to be labeled.
- 3 Follow steps 4 to 6 of “Labeling a disc during stop”.

To cancel labeling, press ■STOP or TRACK MARK.

To relabel recordings

Follow the steps corresponding to the labeling method until the disc or track is ready to be labeled. Enter a new character over the one you want to change, then press the EDIT/ENTER button.




Notes

- When the recording is stopped while labeling a track or a disc during recording, or when the playback moves on to the next track while labeling a track, the input at that point is entered automatically.
- When recording through the built-in microphones, the sound of the recorder operations, such as the pressing of buttons, will also be recorded. To avoid this, you should label a disc or a track after completing the recording.
- You cannot relabel parametrized MDs or label MDs that have not been recorded.
- The recorder is able to display, but cannot label using Japanese “Katakana” characters.
- The recorder cannot rewrite a disc or track name of more than 200 letters that was created by another device.

You can power the recorder not only with alkaline dry batteries (not supplied) but also with house current. You cannot, however, use manganese dry batteries.

When to replace the batteries

You can check the battery condition with the battery indication which is displayed while using the player. The battery indicator changes as the table below due to the battery condition. The battery level indicator is approximate.

Battery indicator	Condition
	Battery power decreasing.
 (flashing)	Weak battery.
 (flashing)	The battery has gone out. "LOW BATT" flashes in the display on the remote control, and the power goes off.

Battery life¹⁾ (EIAJ²⁾)

Batteries	Recording ⁴⁾	Playback ⁵⁾
Two LR6 (size AA) Sony alkaline dry batteries ³⁾	Approx. 6 hours	Approx. 18 hours

¹⁾ The battery life may be shorter due to operating conditions, the temperature of the location, and varieties of batteries.

²⁾ Measured in accordance with the EIAJ (Electronic Industries Association of Japan) standard.

³⁾ When using LR6 (5G) Sony "STAMINA" alkaline dry batteries (produced in Japan).

⁴⁾ To prevent interrupted recording due to drained batteries, use new batteries for recording operations.

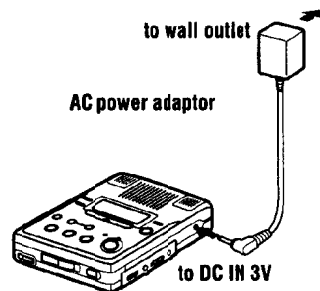
⁵⁾ When played using the built-in speaker.

Notes

- Do not use a new dry battery mixed with an used one. Do not mix different types of dry batteries.
- Stop the recorder before replacing batteries.
- When replacing the dry batteries, replace both batteries with new ones.
- An optional AC power adaptor is recommended for long recording.

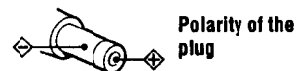
Using house current

- 1 Connect the AC power adaptor AC-E30HG (not supplied) to DC IN 3V.
- 2 Connect the AC power adaptor (not supplied) to the wall outlet.



Notes

- For use in your house: Use the AC power adaptor AC-E30HG (not supplied). Do not use any other AC power adaptor since it may cause the recorder to malfunction.



- There are regional differences in AC-E30HG specifications. For this reason, you should verify that the power requirements and plug configuration are appropriate for your area before you purchase the recorder.

Precautions

On safety

Do not put any foreign objects in the DC IN 3V jack.

On power sources

- Use LR6 (size AA) batteries, house current, or car battery.
- 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 (an optional AC power adaptor, dry batteries, or car battery cord). To remove the AC power adaptor (not supplied) from the wall outlet, grasp the adaptor 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 (not supplied). Heat build-up in the recorder may cause malfunction or damage.
- Never carry the recorder together with a hard object within the supplied carrying pouch. Friction with the object may cause flaking or scratching on the recorder's painted surface.

On the headphones/earphones

Road safety

Do not use headphones/earphones 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/earphones 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 of the people around you.

On the MiniDisc cartridge

- When carrying or storing the MiniDisc, keep it in its case.
- Do not break open the shutter.
- Do not place the cartridge where it will be subject to light, extreme temperatures, moisture or dust.
- Attach the supplied MD label only in the space designated for it or the disc. Do not stick it on any other disc surface.

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:

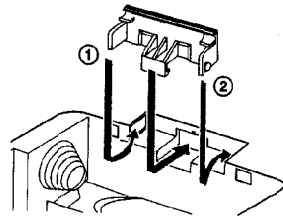
- Insert the + and - poles of the batteries correctly.
- Do not try to recharge dry batteries.
- When the recorder is not to be used for a long time, be sure to remove the batteries.
- If a battery leak should develop, carefully and thoroughly wipe away battery fluid from the battery compartment before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

Note on mechanical noise

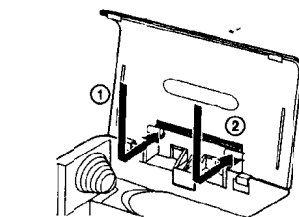
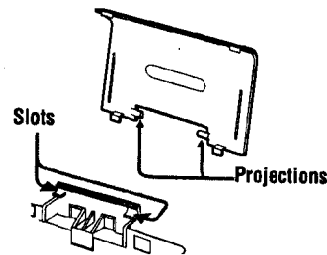
The recorder gives off mechanical noise while operating, which is caused by the power-saving system of the recorder and it is not a problem.

On the battery compartment lid

The battery compartment lid is designed to detach from the recorder when it is handled with great force. Do the following steps to reattach the lid.



- 1 Insert the projections on the PUSH OPEN tab firmly into the slots on the recorder one at a time.



- 2 Insert the projections on the lid firmly into the slots on the PUSH OPEN tab one at a time.

Troubleshooting

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

Symptom	Cause/Solution
The recorder does not work or works poorly.	<ul style="list-style-type: none">• Audio sources may not be securely connected.<ul style="list-style-type: none">➔ Disconnect the audio sources once and connect them again (pages 16, 17).• The HOLD function is turned on ("HOLD" appears in the display when you press an operation button on the recorder).<ul style="list-style-type: none">➔ Disable HOLD by sliding the HOLD switch in the opposite direction of the arrow (page 25).• Moisture has condensed inside the recorder.<ul style="list-style-type: none">➔ Take the MD out and leave the recorder in a warm place for several hours until the moisture evaporates.• The dry batteries are weak (□ or "LOW BATT" flashes).<ul style="list-style-type: none">➔ Replace the dry batteries (pages 6, 32).• The dry batteries have been inserted incorrectly.<ul style="list-style-type: none">➔ Insert the batteries correctly (page 6).• You pressed a button while the disc indication was rotating quickly.<ul style="list-style-type: none">➔ Wait until the indication rotates slowly.• When recording digitally from a portable CD player, you did not use AC power or did not disable the anti-skip function such as ESP (page 16).• The analog recording was made using a connecting cord with an attenuator.<ul style="list-style-type: none">➔ Use a connecting cord without an attenuator (page 17).• The AC power adaptor (not supplied) was unplugged during recording or a power outage occurred.• While operating, the recorder received a mechanical shock, too much static, abnormal power voltage caused by lightning, etc.<ul style="list-style-type: none">➔ Restart the operation as follows.<ol style="list-style-type: none">1 Take out the batteries or disconnect all the power sources.2 Leave the recorder for about 30 seconds.3 Insert the batteries or connect the power source.• The disc is damaged or does not contain proper recording or editing data.<ul style="list-style-type: none">➔ Reinsert the disc. If this fails, rerecord.• The lid is not firmly closed.<ul style="list-style-type: none">➔ Open the lid and close it again, pressing hard so that it closes firmly.
The lid does not open.	<ul style="list-style-type: none">• The batteries have been exhausted or the power sources have been disconnected during recording or editing.<ul style="list-style-type: none">➔ Replace the exhausted batteries with new ones or connect the power source again.

Symptom	Cause/Solution
No sound comes through the headphones/earphones.	<ul style="list-style-type: none"> The headphones/earphones plug is not firmly connected. <ul style="list-style-type: none"> ➔ Plug in the plug of the headphones/earphones firmly to the remote control. Plug in the plug of the remote control firmly to the recorder. Volume is too low. <ul style="list-style-type: none"> ➔ Adjust the volume by turning VOL. Dirty plugs. <ul style="list-style-type: none"> ➔ Clean the plug on the end of the headphones/earphones cord and the plug on the end of the remote control cord.
An MD is not played from the first track.	<ul style="list-style-type: none"> Disc playing stopped before it came to the last track. <ul style="list-style-type: none"> ➔ Press REVIEW/AMS repeatedly or open and close the lid once to go back to the beginning of the disc, and restart playing after checking the track number in the display.
The recorder does not play normally.	<ul style="list-style-type: none"> Repeat play is selected. <ul style="list-style-type: none"> ➔ Press PLAY MODE repeatedly until the ⏮ indication disappears from the display.
Playback sound skips.	<ul style="list-style-type: none"> The recorder is placed where it receives continuous vibration. <ul style="list-style-type: none"> ➔ Put the recorder on a stable place. A very short track may cause sound to skip.
Sound has a lot of static.	<ul style="list-style-type: none"> Strong magnetism from a television or such device is interfering with operation. <ul style="list-style-type: none"> ➔ Move the recorder away from the source of strong magnetism.
Cannot find the track marks.	<ul style="list-style-type: none"> You pressed PAUSE after pressing REVIEW/AMS or CUE/AMS. <ul style="list-style-type: none"> ➔ Press PAUSE before pressing REVIEW/AMS or CUE/AMS.
The clock loses time or the display flashes. The recording date was not stamped onto the disc.	<ul style="list-style-type: none"> The built-in battery for the clock is weak. Note that the clock may gain or lose up to about 2 minutes per month under normal condition. <ul style="list-style-type: none"> ➔ Insert new dry batteries and leave them for about more than two hours to charge the built-in battery. After charging, set the clock again (page 19). The clock is not set. <ul style="list-style-type: none"> ➔ Set the clock (page 19).

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
"TR FULL" appears even before the disc has reached the maximum recording time (60, 74, or 80 minutes).	When 254 tracks have been recorded on the disc, "TR FULL" appears regardless of the total recorded time. More than 254 tracks cannot be recorded on the disc. To continue recording, erase unnecessary tracks.
"TR 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. The remaining recording time does not increase even after erasing numerous short tracks.	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 monoaural; nor can you combine a track recorded with digital connection and a track recorded with analog connection. 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, 74, or 80 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.

Messages

If the following error messages flash in the display window, check the chart below.

Error message	Meaning/Remedy
BLANKDISC	<ul style="list-style-type: none"> An MD with no recording on it is inserted. ➔ Insert a recorded MD.
BUSY	<ul style="list-style-type: none"> 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).
Data Save	<ul style="list-style-type: none"> The MD player is recording information (sounds) from the memory to the disk. ➔ Wait until this process is completed. Do not expose the player to any physical shock, nor disrupt power supply.
DISC ERR	<ul style="list-style-type: none"> The disc is damaged or does not contain proper recording or editing data. ➔ Reinsert the disc. If this fails, rerecord.
DISC FULL	<ul style="list-style-type: none"> There is no more space to record on the disc (less than 12 seconds available). ➔ Replace the disc.
EDITING	<ul style="list-style-type: none"> You pressed a key on the recorder while editing on the remote control.
Hi DC in	<ul style="list-style-type: none"> Voltage of the power supply is too high (The recommended AC power adaptor or the recommended car battery cord is not used). ➔ Use the recommended AC power adaptor (not supplied) or the car battery cord (not supplied).
HOLD	<ul style="list-style-type: none"> The recorder is locked. ➔ Slide HOLD against the arrow to unlock the recorder (page 25).
LOW BATT	<ul style="list-style-type: none"> Batteries are weak. ➔ Replace the dry batteries (pages 6, 32).
MEM OVER	<ul style="list-style-type: none"> You tried to record with the recorder placed where it receives continuous vibration. ➔ Put the recorder on a stable place, and start recording again.
MENU	<ul style="list-style-type: none"> You pressed a key on the remote control while selecting a menu on the recorder.
NAME FULL	<ul style="list-style-type: none"> You tried to enter more than 200 letters to label a single track or disc. You tried to enter a total of more than 1700 letters for track or disc names during playback or stop. ➔ Enter the characters within the limit.

Error message	Meaning/Remedy
NO COPY	<ul style="list-style-type: none"> You tried to make a copy from a disc that is protected by the Serial Copy Management System. You cannot make copies from a digitally connected source which was itself recorded using digital connection. ➔ Use analog connection instead (page 17).
NO DISC	<ul style="list-style-type: none"> You tried to play or record with no disc in the recorder. ➔ Insert an MD.
NO SIGNAL	<ul style="list-style-type: none"> The recorder could not detect digital input signals. ➔ Make sure that the source is connected firmly (page 16).
P/B ONLY	<ul style="list-style-type: none"> You tried to record or edit on a premastered MD (P/B stands for "playback"). ➔ Insert a recordable MD.
PROTECTED	<ul style="list-style-type: none"> You tried to record or edit on a MD with the tab in the record-protect position (page 42). ➔ Slide the tab back.
SORRY	<ul style="list-style-type: none"> You tried to erase the track mark at the beginning of the first track. You tried to erase a track mark to combine tracks the recorder cannot combine (a track recorded in stereo and in mono, for example). You tried to press PAUSE or TRACK MARK during synchro-recording.
TEMP OVER	<ul style="list-style-type: none"> Heat has built up in the recorder. ➔ Let the recorder cool down.
TOC Edit	<ul style="list-style-type: none"> The MD player is recording information (track start and end position) from the memory to the disk. ➔ Wait until this process is completed. Do not expose the player to physical shock, nor disrupt power supply.
TR FULL	<ul style="list-style-type: none"> There is no more space for new data when you are editing the MD. ➔ Erase unnecessary tracks (page 28).
TRPROTECT	<ul style="list-style-type: none"> You tried to record or edit on a track that is protected from erasing. ➔ Record or edit on other tracks. The track that you tried to edit was recorded in LP2/LP4 stereo mode.¹⁾

¹⁾ LP2/LP4 stereo mode enables recording or playing at 2 or 4 times the normal recording or playing time. Recording, playing, or editing of tracks recorded in this mode is possible only on components that support LP2/LP4 stereo mode. This recorder does not support LP2/LP4 stereo mode.

Specifications

System

Audio playing system

MiniDisc digital audio system

Laser diode properties

Material: GaAlAs

Wavelength: $\lambda = 790 \text{ nm}$

Emission duration: continuous

Laser output: less than $44.6 \mu\text{W}$

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

Recording and playback time

Maximum 80 minutes (MDW-80, stereo recording)

Maximum 160 minutes (MDW-80, monaural recording)

Maximum 74 minutes (MDW-74, stereo recording)

Maximum 143 minutes (MDW-74, monaural recording)

Revolutions

400 rpm to 1,800 rpm (CLV)

Error correction

Advanced Cross Interleave Reed Solomon Code (ACIRC)

Sampling frequency

44.1 kHz

Sampling rate converter

Input: 32 kHz/44.1 kHz/48 kHz

Coding

Adaptive Transform Acoustic Coding (ATRAC)

Modulation system

EFM (Eight to Fourteen Modulation)

Number of channels

2 stereo channels

1 monaural channel

Speaker

28 mm ($1\frac{1}{8}$ in.) dia.

Frequency response

20 to 20,000 Hz $\pm 3 \text{ dB}$

Wow and Flutter

Below measurable limit

Inputs

Microphone: stereo mini-jack, 0.35–1.38 mV

Line in: stereo mini-jack, 69–154 mV

Optical (Digital) in: optical (digital) mini-jack

Outputs

Ⓜ: stereo mini-jack

Headphones/earphones: 5 mW + 5 mW

Speaker: 300 mW

General

Power requirements

DC 3V

Two LR6 (size AA) alkaline dry batteries (not supplied)

Battery operation time

See "Battery life (EIAJ)" (page 32)

Dimensions

Approx. $88.0 \times 28.0 \times 121.4 \text{ mm}$ (w/h/d)
($3\frac{1}{2} \times 1\frac{1}{8} \times 4\frac{7}{8}$ in.) not incl. projecting parts and controls.

Mass

Approx. 240 g (8.4 oz)

Supplied accessories

Headphones/earphones with a remote control (1)

Carrying pouch/carrying case with a belt clip (except: U.S.A. model) (1)

Hand strap (1)

Optional accessories

AC power adaptor AC-E30HG

Optical Cable POC-15B, POC-15AB

Line Cable RK-G129HG, RK-G136HG

Stereo Microphones ECM-717

Recordable MDs MDW-series

Foot control unit FS-85B50

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

US and foreign patents licensed from Dolby Laboratories.

Design and specifications are subject to change without notice.

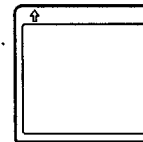
What is an MD?

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 can't be recorded on or over like cassette tapes. To record, you must use a "recordable MD".

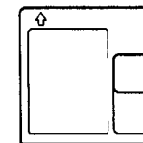
Premastered MDs

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.



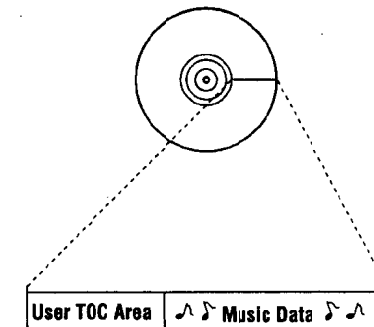
How the MiniDisc got so small

The 2.5-inch MiniDisc, encased in a plastic cartridge that looks like a 3.5-inch diskette (see illustration on the left column), 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.

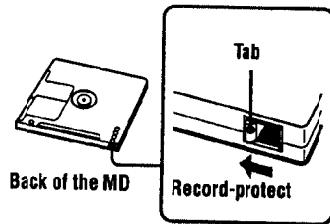
Shock-Resistant Memory

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.

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.

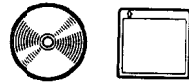
When the disc is record-protected



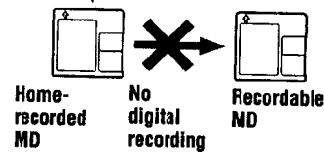
Note on digital recording

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.

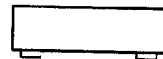
Premastered software such as CDs or MDs.



Digital recording



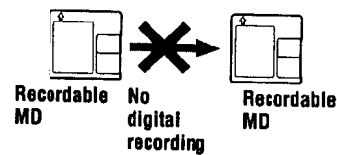
Microphone, record player, tuner, etc (with analog output jacks).



Analog recording



Digital recording

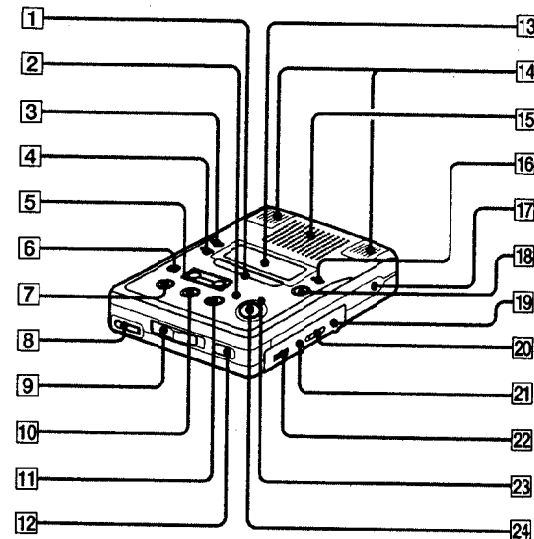


If you have any questions or problems concerning your recorder, please consult your nearest Sony dealer. (If a trouble occurred when the disc was in the recorder, we recommend that the disc be left in the recorder when you consult your Sony dealer so that the cause of trouble may be better understood.)

Looking at the controls

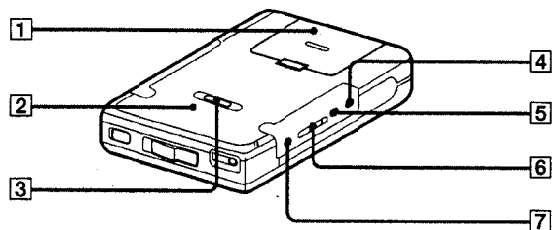
See pages in () for more details.

Front of the recorder



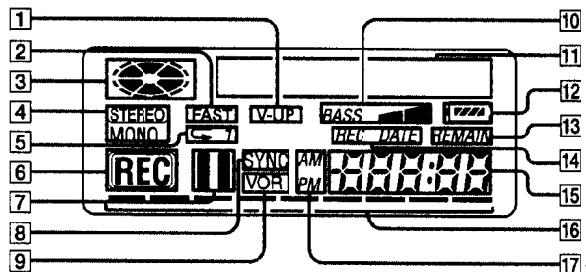
- | | |
|---|--------------------------------|
| 1 EASY SEARCH +/- buttons (22)(30) | 12 HOLD switch (6)(25) |
| 2 VOR indicator (13) | 13 Display window (18)(22)(27) |
| 3 PLAY MODE button (23)(30) | 14 Microphones (9)(13) |
| 4 DISPLAY button (20)(24)(30) | 15 Speaker (11) |
| 5 ◀◀ REVIEW/AMS/▶▶ CUE/AMS (search /AMS) button (9)(12)(19)(27)(30) | 16 EDIT/ENTER button (29) |
| 6 FAST PB button (23) | 17 DC IN 3V jack (32) |
| 7 ■ STOP button (9)(11)(18)(30) | 18 TRACK MARK button (26)(30) |
| 8 ⌋ (headphones/earphones) jack (9)(11) | 19 ERASE button (28) |
| 9 OPEN switch (8)(11) | 20 REC MODE switch (9)(14)(19) |
| 10 ▶▶ PLAY (play) button (9)(11)(19)(23)(30) | 21 VOR button (13) |
| 11 ■ PAUSE button (9)(12)(27)(30) | 22 VOL control (11) |
| | 23 REC indicator (9)(21) |
| | 24 ● REC button (9)(13) |

Back of the recorder



- | | |
|---|-----------------------------------|
| 1 Battery compartment (6) | 4 MIC (PLUG IN POWER) jack (14) |
| 2 CLOCK SET button (19) | 5 LINE IN (OPTICAL) jack (16)(17) |
| 3 SYNCHRO REC (synchro-recording) switch (18) | 6 MIC SENS switch (8) |
| | 7 MEGA BASS button (24) |

The display window

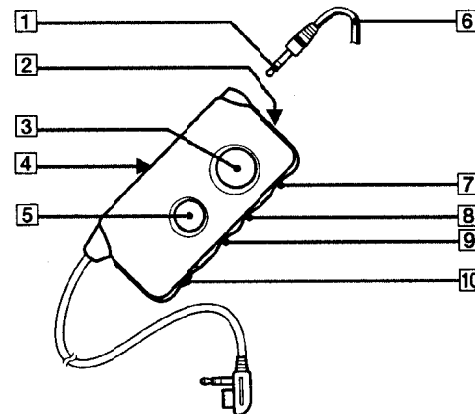


- | | |
|---|---|
| 1 V-UP indication (22) | 8 SYNC (synchro-recording) indication (18) |
| 2 Fast Playback indication (23) | 9 VOR indication |
| 3 Disc indication
Shows that the disc is rotating for recording, playing or editing an MD. | 10 Mega Bass indication (24) |
| 4 STEREO (stereo)/MONO (monaural) indication | 11 Character information display (20)(24)
Displays the disc and track names, date, error messages, track numbers, etc. |
| 5 Play mode indication (23) | 12 Battery indication (32) |
| 6 REC indication (9)
Lights up while recording. When flashing, the recorder is in record standby mode. | |
| 7 Pause indication | |

- 13 REMAIN (remaining time/tracks) indication (20)(24)
Lights up along with the remaining time of the track, the remaining time of the MD, or the remaining number of tracks.
- 14 REC DATE (recorded/current date) indication (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.

- 15 Time display (20)(24)
- 16 Level meter
Shows the volume of the MD being played or recorded.
- 17 AM/PM indication (20)

The headphones/earphones with a remote control



- 1 Stereo mini plug
- 2 V-UP button (22)
- 3 TRACK MARK button (25)(27)
- 4 HOLD switch (6)(25)
Slide to lock the controls of the remote control.
- 5 || (pause) button (12)
- 6 Headphones/earphones
- 7 ■ (stop) button (11)
- 8 ►►► buttons (12)
- 9 ◀◀◀ REVIEW/AMS (12)

- 10 VOL control (11)