

SONY®

3-239-283-42(1)

# Portable MiniDisc Recorder

Operating Instructions \_\_\_\_\_ **GB**使用説明書 \_\_\_\_\_ **CT**MDLP

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## MZ-R701/R701PC/R701DPC

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## **WARNING**

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

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

To prevent fire, do not cover the ventilation of the apparatus with news papers, table cloths, curtains, etc. And don't place lighted candles on the apparatus.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

Certain countries may regulate disposal of the battery used to power this product. Please consult with your local authority.

**CAUTION — INVISIBLE  
LASER RADIATION WHEN  
OPEN  
AVOID EXPOSURE TO  
BEAM**

## **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.



The CE mark is valid only for products marketed in the European Union.



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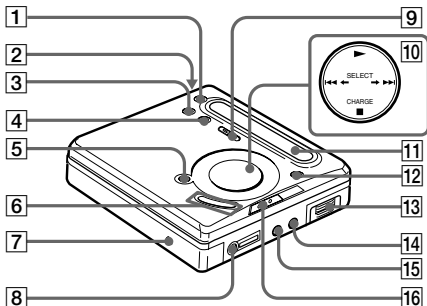
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# Looking at the controls

See pages in ( ) for more details.

## The recorder

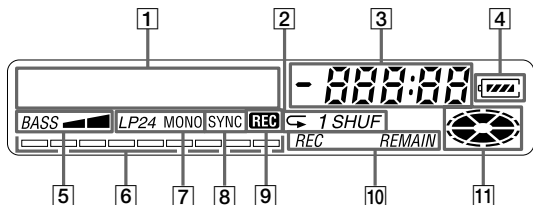


- 1 REC MODE button (21)
- 2 OPEN button (10)
- 3 T MARK button (41)
- 4 END SEARCH button (13) (47)
- 5 **||** (pause) button (13) (17) (28) (43) (47)
- 6 VOL +/- button (16) (47)  
The VOL + button has a tactile dot.
- 7 DC IN 3V jack (9) (12) (51)
- 8 (headphones/earphones) jack (10) (38)
- 9 REC (record) switch (13) (20)
- 10 **←SELECT→** button (23) (32) (41)  
**▶** (play) button (13) (16)  
The **▶** button has a tactile dot.  
**◀▶** (search/AMS) button (13) (17) (43)  
**CHARGE/■** (stop) button (9) (13) (16) (22)
- 11 Display window (29)
- 12 MENU/ENTER button (22) (32) (40)
- 13 Battery compartment (9)
- 14 LINE IN (OPTICAL) jack (12) (20)

- 15 MIC (PLUG IN POWER) jack (25)  
There is a tactile dot beside the MIC (PLUG IN POWER) jack.

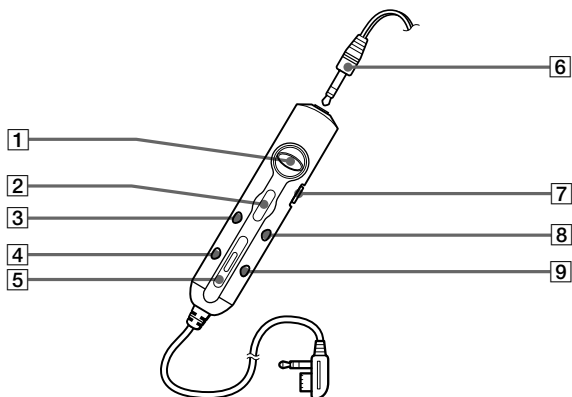
- 16 HOLD switch (10) (37)

## The display window



- 1 Character information display (31) (33)  
Displays the disc and track names, error messages, track numbers, etc.
- 2 Play mode indication (33)  
Shows the play mode of the MD.
- 3 Time display
- 4 Battery indication (50)  
Shows approximate battery condition.
- 5 Mega bass indication (34)
- 6 Level meter (29)  
Shows the volume of the MD being played or recorded.
- 7 Recording mode (LP2/LP4/ MONO) indication
- 8 SYNC (synchro-recording) indication
- 9 REC indication (13)  
Lights up while recording. When flashing, the recorder is in record standby mode.
- 10 REC REMAIN/ REMAIN (remaining time/ tracks) indication (31) (35)  
Lights up along with the remaining time of the track, the remaining time of the MD, or the remaining number of tracks.
- 11 Disc indication  
Shows that the disc is rotating for recording, playing or editing an MD.

## The remote control



**1** ◀◀/▶▶/▶ (search/AMS/play) •  
◀/▶ button (16) (30)  
(32) (41) (47)

**2** ■ (stop) • ENTER button  
(16) (30) (32) (41)

**3** || (pause) • CAPS button  
(17) (43) (47)

**4** EDIT button (32) (40) (47)

**5** VOL +/--buttons (16) (47)

**6** Headphones/earphones  
Can be replaced with  
optional headphones/  
earphones.

**7** HOLD switch (37)  
Slide to lock the controls of  
the remote control.

**8** T MARK button (41) (47)

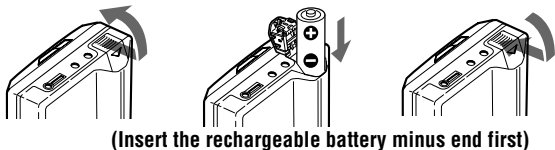
**9** DELETE button (47)



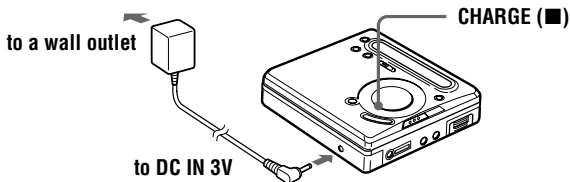
# Getting started!

Charge the rechargeable battery before using. Even if the rechargeable battery is not charged, you can use the recorder as long as the AC power adaptor is connected.

## 1 Insert the rechargeable battery.




## 2 Charging the rechargeable battery.



① Connect the supplied AC power adaptor.

② Press CHARGE (■).

“Charging” flashes,  appears in the display, and charging starts. When charging is completed, the battery indication disappears.

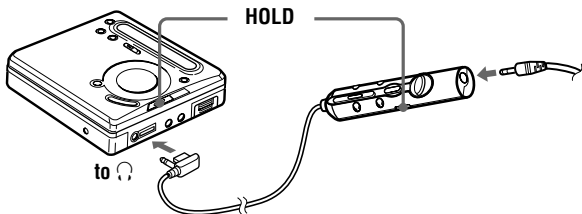
Full charging of a completely discharged rechargeable battery takes about 3 hours. To cancel charging, press CHARGE (■).



③ Disconnect the supplied AC power adaptor.



### 3

## Make connections and unlock the control.

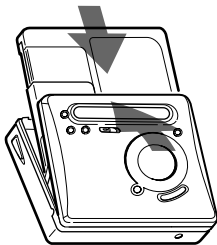
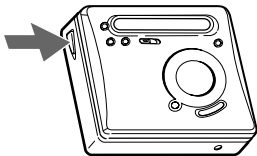


- 1 Connect the supplied headphones/earphones with the remote control to .
- 2 Slide HOLD in the opposite direction of the arrow () to unlock the controls.

### 4

## Insert an MD.

(Use a recordable MD for recording.)



- 1 Press OPEN to open the lid.
- 2 Insert an MD with the label side facing front, and press the lid down to close.

## Using on a dry battery

Insert one LR6 (SG) alkaline dry battery (not supplied) instead of the rechargeable battery.

### Notes

- If you press CHARGE (■) immediately after charging has completed, charging will begin again. If this happens, press CHARGE (■) again to stop the charging operation since the battery is already fully charged.
- Charging stops when you try to operate the recorder during charging.
- Be sure to use the supplied AC power adaptor.
- Charging time may vary depending on the battery condition.
- When a rechargeable battery is charged for the first time or charged after a long period of disuse, battery life may be shorter than usual. Repeat discharging and recharging a few times. The battery life should return to normal.
- When the battery life of a fully charged rechargeable battery becomes about half the normal life, replace it.
- When carrying the rechargeable battery, keep it in the supplied battery carrying case. It is dangerous to carry the battery out of the case in your pocket or a bag together with metallic objects such as key rings, as this may cause a short circuit.
- Remove the rechargeable battery from the recorder when it is not to be used for a long time.

# Recording an MD right away!

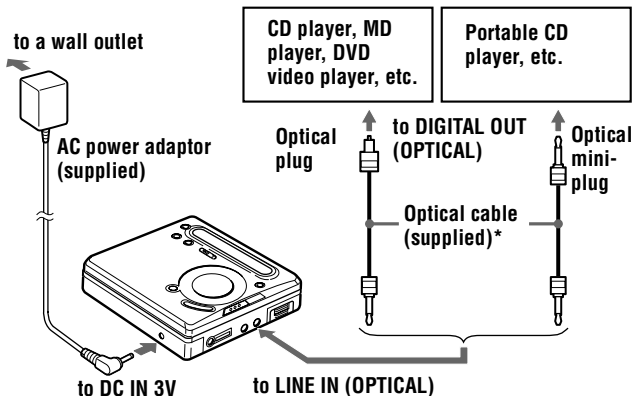
Connect to a digital source using an optical cable (supplied) to make digital recordings. Digital recording is possible even from digital equipment with different sampling rates, such as a DAT deck or a BS tuner, using the built-in sampling rate converter. To record from an analog source, see “Recording with analog input (line cable required)” (page 20). To record from an MD, see “Note on digital recording” (page 54).

**Using the AC power adaptor (supplied) is recommended for recording.**

1

## Make connections.

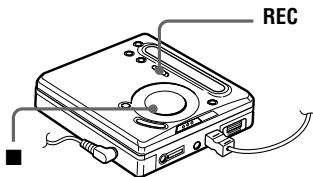
(Insert the cables firmly and completely into the appropriate jacks.)



\* The supplied cable consists of one or the other of these cables. The shape of the plugs on the supplied cable may differ, depending on where the recorder was purchased.

## 2

## Record an MD.



- ① **Press and slide REC to the right.**

REC indication lights up in the display and recording starts.

- ② **Play the source you want to record.**

### To stop recording, press ■.

After you press ■, the recorder will automatically turn off after:

- about 5 minutes when using AC power adaptor.
- about 10 seconds when using batteries.

### Notes

- “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.
- The lid does not open until “TOC Edit” disappears in the display.

To	Press
Record from the end of the previous recording <sup>1)</sup>	END SEARCH and then press and slide REC.
Record partway through the previous recording <sup>1)</sup>	▶, ▶▶ or ◀◀ to find the start point of recording and press ■ to stop. Then press and slide REC.
Pause	<sup>2)</sup> Press    again to resume recording.

To	Press
Remove the MD	■ and open the lid. <sup>3)</sup> (The lid does not open while “TOC Edit” flashing in the display.)

- <sup>1)</sup> By setting “REC-Posi” to “From End,” recording operations will always start from the end of the previously recorded material (page 24).
- <sup>2)</sup> A track mark is added at the point where you press ■ again to resume recording while pausing; thus the remainder of the track will be counted as a new track.
- <sup>3)</sup> If you open the lid while “REC-Posi” is set to “From Here,” recording will begin with the first track the next time you record. Check the point to start recording on the display.

### ***If the recording does not start***

- Make sure the recorder is not locked (page 37).
- Make sure the MD is not record-protected (page 54).
- 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.

### ***About the DSP TYPE-R for ATRAC***


“TYPE-R” is a high-level Sony specification used in the Digital Signal Processor (DSP), which is heart of the MiniDisc sound. This technology gives the MiniDisc recorder twice the signal processing capability as previous MiniDisc Walkman models, producing a sound quality close to that of MiniDisc decks. This unit supports the “TYPE-R” function only during recording or playback in normal stereo mode. It does not support this function in MDLP mode.

### ***Notes***

- If the power supply is disrupted (i.e. the battery is removed or becomes exhausted or the AC power adaptor is disconnected) during a recording or editing operation, or while “TOC Edit” appears in the display, then it will not be possible to open the lid until power is restored.
- You can make a digital recording only from an optical type output.
- When recording from a portable CD player, set the CD player to pause, and then do the recording procedure on the recorder.

- Note the following when recording from a portable CD player:
    - Some portable CD players may not be capable of digital out unless powered by the AC power.
    - Connect the AC power adaptor to the portable CD player and use it on AC power as the power source.
    - Disable any anti-skip function (such as ESP\*) on the portable CD player.
- \* Electronic Shock Protection



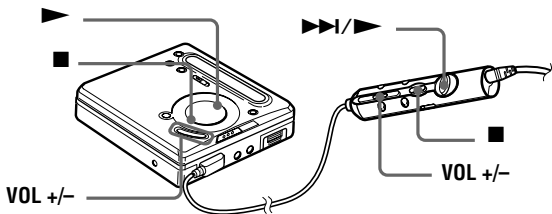
- LINE IN (OPTICAL) jack is for both digital and analog input. The recorder automatically recognizes the type of line cable and switches to digital or analog input.
- The level of the recorded sound is adjusted automatically.
- You can monitor the sound during recording. Connect the supplied headphones/earphones with remote control to  and adjust the volume by pressing VOL +/- . This does not affect the recording level.

# Playing an MD right away!

To use the recorder on a rechargeable battery or dry battery, see “Power sources” (page 50).

When you operate the recorder with the supplied remote control, use the buttons and control shown in parentheses.

## 1 Play an MD.



- 1 Press ▶ (flip the lever towards ▶▶/▶).
- A short beep sounds in the headphones/earphones when you operate on the remote control.

- 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/earphones when you operate on the remote control.

Playback starts from the point you last stopped playing.

After you press ■, the recorder will automatically turn off after:

- about 5 minutes when using AC power adaptor.
- about 10 seconds when using batteries.



To	Press (Beeps in the headphones/earphones <sup>2)</sup> )
Find the beginning of the current track	⏮ once (flip the lever towards ⏮). (Three short beeps)
Find the beginning of the next track	⏭ once (flip the lever towards ⏭/▶). (Two short beeps)
Pause	⏸ (Continuous short beeps) Press ⏸ again to resume play.
Go backwards while playing <sup>1)</sup>	hold down ⏮ (flip and hold the lever towards ⏮).
Go forward while playing <sup>1)</sup>	hold down ⏭ (flip and hold the lever towards ⏭/▶).
Remove the MD	■ (a long beep) and open the lid. <sup>3)</sup>

1) To go backward or forward quickly without listening, press ⏸ and hold down ⏮ or ⏭ (flip and hold the lever towards ⏮ or ⏭/▶ on the remote control).

2) You can turn off the beep sound (page 38).

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

### **Suppressing the skips of the sound (G-PROTECTION)**

The G-PROTECTION function was developed to provide a higher level of shock resistance than that of existing players.

#### **Note**

The playback sound may skip if:

- the recorder receives stronger continuous shock.
- a dirty or scratched MiniDisc is played.

### **If play does not start**

Make sure the recorder is not locked (page 37).



Playback will switch automatically to match the recording mode of the material (stereo, LP2, LP4, or monaural).

#### **Note**

To prevent recorder malfunction, do not use a remote control that was supplied with another Sony portable MD model.

### Two ways of connecting to a sound source

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 an MD right away!” (page 12) to record using digital (optical) input, and “Recording with analog input (line cable required)” (page 20) to record using analog (line) input.

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

Difference	Digital (optical) input	Analog (line) input
Connectable source	Equipment with a digital (optical) output jack	Equipment with an analog (line) output jack
Usable cord	Optical cable (with an optical or an optical-mini plug) (page 12)	Line cable (with 2 phono plugs or a stereo-mini plug) (page 20)
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.

Difference	Digital (optical) input	Analog (line) input
Recorded track numbers	<p>Marked (copied) automatically</p> <ul style="list-style-type: none"> <li>• at the same positions as the source (when the sound source is a CD or an MD).</li> <li>• after more than 2 seconds of blank or low-level segment (with a sound source other than CD or MD).</li> <li>• when the recorder is paused during synchro-recording (the recorder pauses automatically when it encounters a section with no audio signal for 3 seconds or more).</li> </ul> <p>You can erase unnecessary marks after recording. (“Erasing a track mark”, page 43).</p>	<p>Marked automatically</p> <ul style="list-style-type: none"> <li>• after more than 2 seconds of blank or low-level segment.</li> <li>• when the recorder is paused while recording.</li> </ul> <p>You can erase unnecessary marks after recording (“Erasing a track mark”, page 43).</p>
Recorded sound level	<p>Same as the source. Can also be adjusted manually (Digital REC level control) (“Adjusting the recording level manually (Manual recording)”, page 28).</p>	<p>Adjusted automatically. Can also be adjusted manually (“Adjusting the recording level manually (Manual recording)”, page 28).</p>

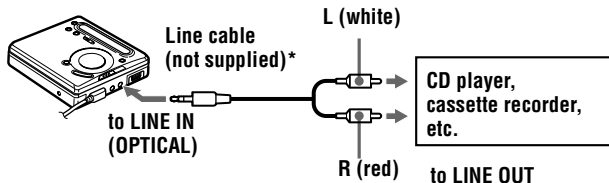
### Note

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 programs with audio that is digitally broadcast (e.g., digital TV) are recorded through the digital (optical) input.

## Recording with analog input (line cable required)

The sound will be sent from the connected equipment as analog signal but will be 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 a connecting cord with a stereo-mini plug on both ends (not supplied).

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

**2** Play the source you want to record.  
For recording operations, see “Recording an MD right away!” (page 12). To record from a portable CD player, set the CD player to pause and then start recording.

### ***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.

#### **Note**

If you temporarily stop a recording operation by pressing **II**, a track mark will be added at that point when you press **II** again to resume recording. The recording continues from a new track.

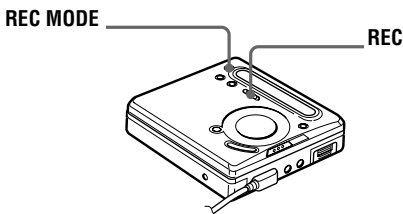
## Long-time recording (MDLP)

Select each recording mode according to the recording time that you want.

Stereo recording is possible at 2 times (LP2) or 4 times (LP4) the normal recording time.

MDs recorded in monaural, LP2, or LP4 mode can be played back only on MD players or recorders with a monaural, LP2, or LP4 playback mode.

Audio components that support the LP2 or LP4 modes are indicated by the **MDLP** or **MDLP** logo marks.



- 1 Press REC MODE repeatedly to select the desired recording mode.

Each time you press REC MODE, the display changes as follows.

Recording mode <sup>1)</sup>	Display	Recording time <sup>3)</sup>
Stereo (normal)	(none)	Approx. 80 min.
LP2 stereo	LP2	Approx. 160 min.
LP4 stereo	LP4	Approx. 320 min.
Monaural <sup>2)</sup>	MONO	Approx. 160 min.

<sup>1)</sup> For better sound quality, record in normal stereo or LP2 mode.

<sup>2)</sup> If you record a stereo source in monaural, the sounds from left and right will be mixed.

<sup>3)</sup> When using an 80-minute recordable MD.

- 2 Press and slide REC to the right.

**continued**

### 3 Play the sound source.

#### To stop recording, press ■.

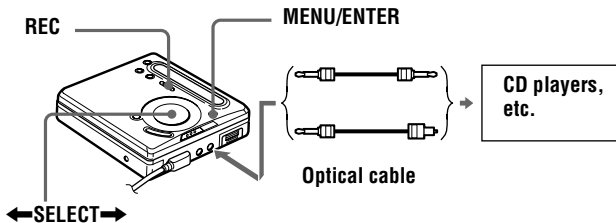
The recorder remains the previous setting of the recording mode when you record the next time.

#### Notes

- It is recommended that you use the supplied AC power adaptor for long recordings.
- If you try to play an MD recorded in LP2 or LP4 on MD players or recorders that do not support these modes, playback will not start and “LP:” will appear on the display.
- Sound recorded through digital (optical) input can be monitored in stereo through headphones/earphones, etc.
- When you record in LP4 mode, momentary noise may be produced on very rare occasions with certain sound sources. This is because of the special digital audio compression technology that enables a recording time 4 times longer than normal. If noise is produced, it is recommended that you record in normal stereo or LP2 mode to obtain better sound quality.

## 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 While the recorder is stopped, press MENU.

- 2** Press **←SELECT→** repeatedly until “SYNC REC” flashes in the display, and then press ENTER.



**SYNC indicator**

“SYNC” does not appear if optical cable is not connected to the recorder.

- 3** Press **←SELECT→** repeatedly until “SYNC ON” flashes in the display, and then press ENTER.

- 4** Press and slide REC to the right.

The recorder stands by for recording.

- 5** 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.
- For longer recording, follow step 1 of “Long-time recording (MDLP)” (page 21) to select the recording mode, and then do the procedure of synchro-recording.

### **Notes**

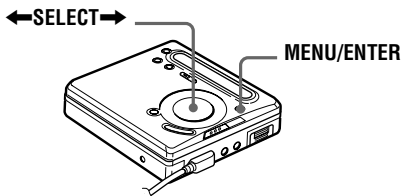
- Do not change SYNC REC setting while recording. Recording may not be done properly.
- Even when there is no recorded sound on the sound source, there may be cases when recording does not pause automatically during synchro-recording due to the noise level emitted from the sound source.
- If a silent portion is encountered for 2 seconds or more during synchro-recording from a sound source other than a CD or an MD, 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.
- You cannot manually change the recording mode or the recording level during synchro-recording.

---

## Recording without overwriting existing material

If you wish to avoid overwriting the current contents of an MD, do the following procedure. All new material will then be recorded from the end of the current contents.



- 1** While the recorder is stopped, press MENU.
- 2** Press **←SELECT→** repeatedly until “REC-Posi” flashes in the display, and then press ENTER.
- 3** Press **←SELECT→** repeatedly until “From End” flashes in the display, and then press ENTER.

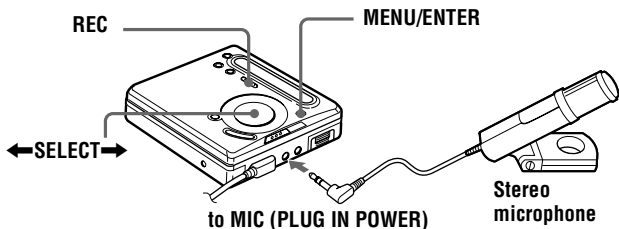
### To start recording from the current point

Select “From Here” in step 3.



## Recording from a microphone

Connect a stereo microphone (ECM-717, ECM-MS907, ECM-MS957, etc.; not supplied) to the MIC (PLUG IN POWER) jack.



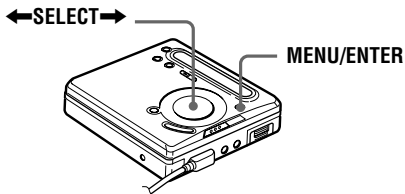
- 1 Insert a recordable MD and then press and slide REC to the right. For other operations, see “Recording an MD right away!” (page 12).

### Notes

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

## Adding track marks automatically (Auto Time Stamp)

Use this feature to add track marks automatically at specified intervals when recording through the analog input connector or a microphone.



- 1** While the recorder is recording or in recording pause, press MENU.
- 2** Press **←SELECT→** until “TIME MARK” flashes in the display, and then press ENTER.
- 3** Press **←SELECT→** until the desired time interval flashes in the display, and then press ENTER.

Select one of the following intervals:

Display	Time
OFF	—
5min. ON	Approx. 5 min.
10min. ON	Approx. 10 min.
15min. ON	Approx. 15 min.

### To cancel Auto Time Stamp

Select “OFF” in step 3, and then press ENTER, or stop recording.

## **Using Auto Time Stamp to add track marks while recording**

### **When the elapsed recording time exceeds the time interval for Auto Time Stamp:**

The recorder adds track marks at the point you set the time interval and from that point the recorder adds a track mark whenever the time interval has elapsed.

Example: Eight minutes of recording has been completed when the Auto Time Stamp time interval is set to 5 minutes.

A track mark will be added at the 8-minute point (after the start of recording) and after each 5-minute interval thereafter.

### **When the time interval set for Auto Time Stamp exceeds the elapsed recording time:**

The recorder adds track marks when the set Auto Time Stamp time interval has elapsed.

Example: Three minutes of recording has been completed when the Auto Time Stamp time interval is set to 5 minutes.

A track mark will be added at the 5-minute point (after the start of recording) and after each 5-minute interval thereafter.



“T” appears before the time display on the recorder for track marks added by Auto Time Stamp.

### **Notes**

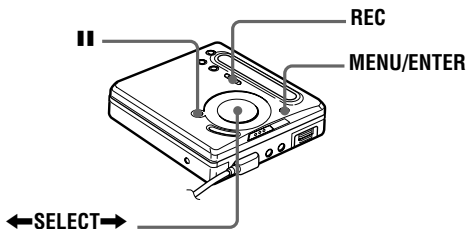
- Automatic track marking by Auto Time Stamp starts when you add a normal track mark to the disc (i.e., by pressing T MARK or **■**, etc.).
- The setting will be lost when the recording stopped.

## Adjusting the recording level manually (Manual recording)

When you record, the sound level is adjusted automatically. If necessary, you can set the level manually.

### Note

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



- 1** While holding down **II**, press and slide **REC** to the right. The recorder stands by for recording.
- 2** Press **MENU**, press **←SELECT→** repeatedly until “RecVolume” flashes in the display, and then press **ENTER**.
- 3** Press **←SELECT→** repeatedly until “ManualREC” flashes in the display, and then press **ENTER**.



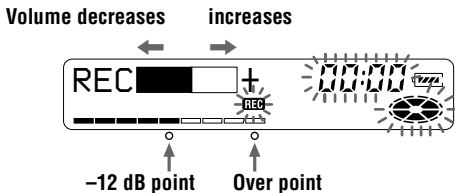
To switch back to the automatic control, Press **←SELECT→** repeatedly until “Auto REC” flashes in the display, and then press **ENTER**.

- 4** Play the source.

- 5** While observing the level meter in the display, adjust the recording level by pressing **←SELECT→**.

Set the level so that the level meter reaches around  $-12$  dB point (marked under the display window).

If the sound is too high and the level meter reaches to the Over point (marked under the display window), lower the recording level.



Recording does not start in this step.

If your source is an externally connected component, be sure to cue the source to the beginning of the material to be recorded before you start playback.

- 6** Press **||** again to start recording.

### **To stop recording, press ■.**

The recording level control is switched back to automatic control when you record the next time.

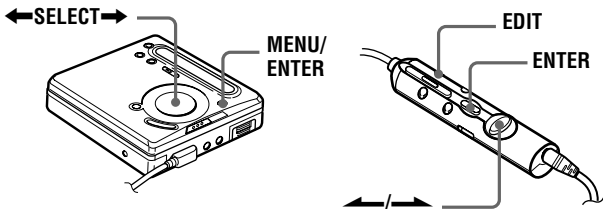
### **Notes**

- The recording level cannot be adjusted while recording is in progress. If you want to adjust the recording level after you have started the recording, press **||** to pause the recorder. Then do the procedure from step 5.
- You cannot adjust the recording level manually during synchro-recording.

## Checking the remaining time or the recording position

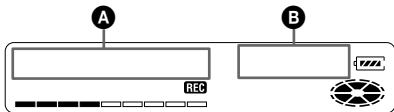
You can check the remaining time, track number, etc. when recording or during stop.

When you operate the recorder with the supplied remote control, use the buttons and controls shown in parentheses.



- 1** While the recorder is recording or stopped, press MENU (EDIT for 2 seconds or more), press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “DISPLAY” flashes in the display, and then press ENTER (ENTER).
- 2** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until the information you want flashes in the display. Each time you press **SELECT→** (flip the lever towards **→**), the display changes as follows.

## Display window



On **A**

### LapTime

The elapsed time of the current track.

### RecRemain<sup>1)</sup>

The remaining recordable time.

### AllRemain<sup>2)</sup>

The remaining time after the current location.

1) "REC REMAIN" begins flashing in the display when the remaining time on the disc reaches 3 minutes or less.

2) Appears only when the recorder is stopped.

## 3 Press ENTER (ENTER).

The information selected in step 2 appears in **A** and **B**.

**A** — track number, track name<sup>3)</sup>, or disc name<sup>4)</sup>.

**B** — the information selected in step 2.

3) Appears only when "RecRemain" is selected while the recorder is in stop mode and the track is labeled.

4) Appears only when "AllRemain" is selected while the recorder is in stop mode, and the disc is labeled.



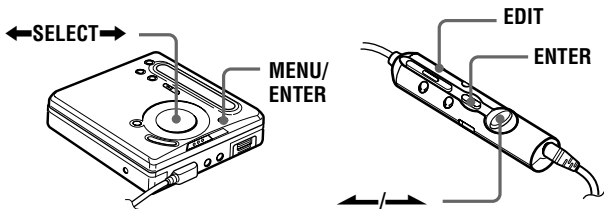
If you want to check the playing position or track name while playing, see page 35.

## Various ways of playback

When you operate the recorder with the supplied remote control, use the buttons and controls shown in parentheses.

### Playing tracks repeatedly

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



**1** While the recorder is playing or stopped, press MENU (EDIT for 2 seconds or more), press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “PLAY MODE” flashes in the display, and then press ENTER (ENTER).

**2** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly to select the play mode, and then press ENTER (ENTER).

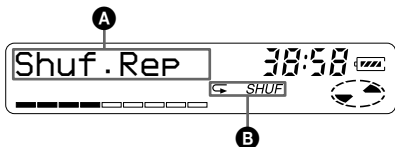
Each time you press **SELECT→** (flip the lever towards **→**), the display item indicated by **A** changes as follows.

Pressing ENTER (ENTER) while **A** is flashing causes the play mode to change.

The new mode then appears in the window indicated by **B**.



## Display window



On **A/B**

**Normal**/(none)

All the tracks are played once.

↓  
**AllRepeat**/↶

All the tracks are played repeatedly.

↓  
**1 Repeat**/↶ **1**

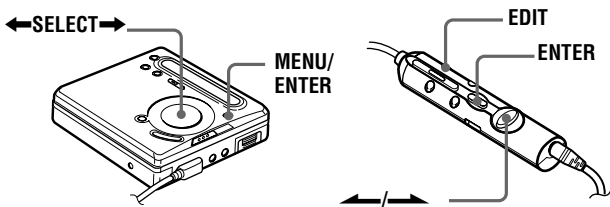
A single track is played repeatedly.

↓  
**Shuf.Rep**/↶ **SHUF**

After the currently selected track finishes playing, the remaining tracks are played repeatedly in random order.

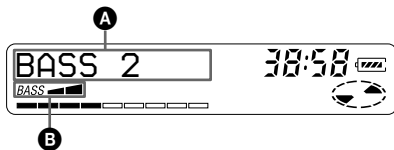
## Emphasizing bass (DIGITAL MEGA BASS)

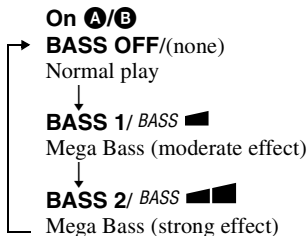
The Mega Bass function intensifies low frequency sound for richer quality audio reproduction. It affects only the sound from the headphones/earphones.



- 1** Press MENU (EDIT for 2 seconds or more), press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “BASS” flashes in the display, and then press ENTER (ENTER).
- 2** Press **←SELECT→** (flip the lever towards **←** or **→**) to select the item, and then press ENTER (ENTER).  
Each time you press **SELECT→** (flip the lever towards **→**), **A** and **B** change as follows.

### Display window





### Notes

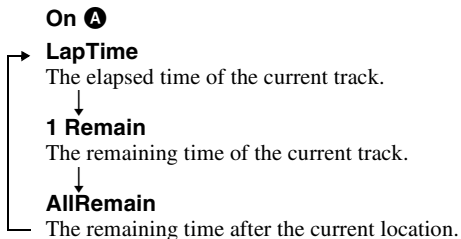
- If the sound becomes distorted when emphasizing bass, turn down the volume.
- The Mega Bass function does not affect the sound that is being recorded.

---

## Checking the remaining time or the playing position

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

- 1 While the recorder is playing, follow steps 1 and 2 of “Checking the remaining time or the recording position” (page 30).  
The display changes as follows.



**continued**

## 2 Press ENTER (ENTER).

The display changes as follows.

The information selected in step 2 appears in **A** and **B**.

**A** — track number, track name<sup>1)</sup>, or disc name<sup>2)</sup>.

**B** — the information selected in step 2.

<sup>1)</sup>Appears only when “1 Remain” is selected and the track is labeled.

<sup>2)</sup>Appears only when “AllRemain” is selected while the recorder is in stop mode, and the disc is labeled.

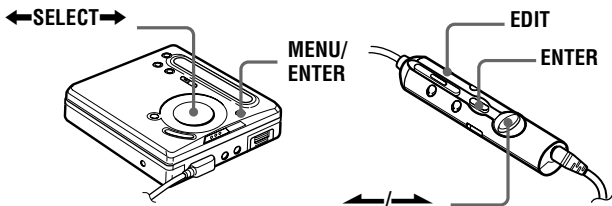


If you want to check the remaining time or the recording position while recording or in stop mode, see page 30.

---

## Protecting your hearing (AVLS)

The AVLS (Automatic Volume Limiter System) function keeps down the maximum volume to protect your ears.



**1** Press MENU (EDIT for 2 seconds or more), press ←SELECT→ (flip the lever towards ← or →) repeatedly until “AVLS” flashes in the display, and then press ENTER (ENTER).

**2** Press ←SELECT→ (flip the lever towards ← or →) repeatedly until “AVLS ON” flashes in the display, and then press ENTER (ENTER).

When you try to turn the volume too high, “AVLS” flashes in the display. The volume is kept to a moderate level.

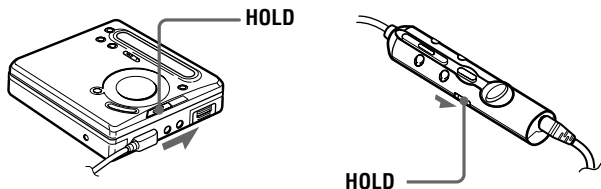
## To cancel AVLS


Select “AVLS OFF” in step 2.

---

## Locking the controls (HOLD)

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




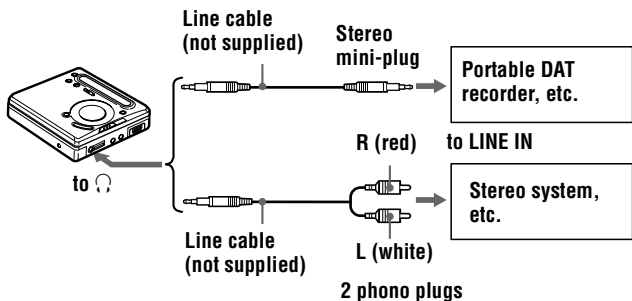
**1** Move HOLD in the direction of the .

## To unlock the controls

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





## Connecting to a stereo system

Connect the  jack of the recorder to the LINE IN jacks of an amplifier or a tape recorder with a line cable (not supplied). The output is analog. The recorder plays the MD digitally and sends analog signals to the externally connected equipment.



### When the recorder is connected to another audio component through the supplied remote control.

When connecting a line cable (not supplied) to the headphones/earphones jack of the remote control, be sure to set the “BEEP” setting to “BEEP OFF.” This keeps the beep sound out of the recorded signal or the output from the externally connected equipment.

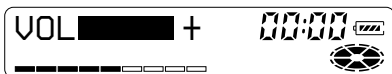
- 1 Press MENU, press  SELECT  repeatedly until “BEEP” flashes in the display, and then press ENTER.
- 2 Press  SELECT  repeatedly until “BEEP OFF” flashes in the display, and then press ENTER.

### To turn on the beep sound

Select “BEEP ON” in step 2.

## Notes

- Even when connecting to the externally connected equipment, the Mega Bass function is operative. If you do not want the effect of the Mega Bass function on your recording or the output from the externally connected equipment, set “BASS” to “BASS OFF” (page 34).
- When recording to an externally connected equipment, press VOL + repeatedly to raise the volume level to maximum, which is optimum for recording to an externally connected equipment. If, however, this level produces distortion in the recording, press VOL – several times to lower the level (to that shown in the illustration below).



## 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

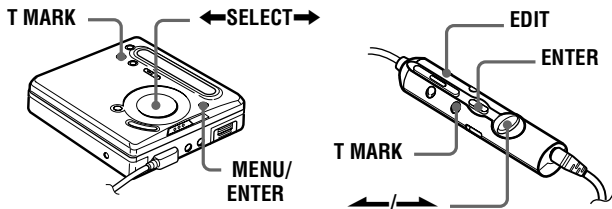
- Do not move or jog the recorder while "TOC Edit"\* is flashing in the display.
- You cannot edit tracks on an MD that is record-protected. Before editing tracks, close the tab on the side of the MD (page 54).
- If you perform an editing operation while playing, be sure not to turn the power off until "TOC Edit" disappears in the display.
- The lid does not open until "TOC Edit" disappears in the display after editing.

\* TOC = Table of Contents

When you operate the recorder with the supplied remote control, use the buttons and controls shown in parentheses.

---

## Erasing tracks



---


## To erase a track


Note that once a recording has been erased, you cannot retrieve it. Make sure of the track you are erasing.

- 1** While playing the track you want to erase, press MENU (EDIT for 2 seconds or more).



**2** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “EDIT” flashes in the display, and then press ENTER (ENTER).

“: Name” flashes in the display, and the recorder plays the selected track repeatedly.

**3** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “: Erase” flashes in the display, and then press ENTER (ENTER).

“Erase OK?” and “PushENTER” appear alternately in the display.

To cancel erasing, press T MARK (T MARK).

**4** Press ENTER (ENTER).

The track is erased and the next track starts to play. All the tracks after the one erased are automatically renumbered.

### **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 (page 42).

---


### **To erase the whole disc**

You can quickly erase all the tracks and data of the MD at the same time.

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


**1** While the recorder is stopped, press MENU (EDIT for 2 seconds or more).

**2** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “EDIT” flashes in the display, and then press ENTER (ENTER).

“: Name” flashes in the display.

**continued**

---

**3** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “: Erase” flashes in the display, and then press **ENTER** (**ENTER**).

“All Erase?” and “Push**ENTER**” appear alternately in the display.

To cancel erasing, press **T MARK** (**T MARK**).

**4** Press **ENTER** (**ENTER**).

“TOC Edit” flashes in the display, and all the tracks will be erased.

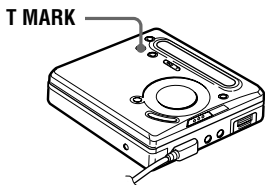
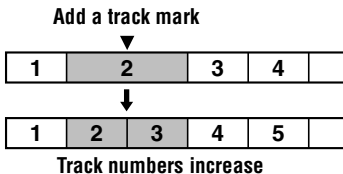
When erasing is complete, “BLANKDISC” appears in the display.

---

## Adding a track mark

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 **T MARK** on the recorder 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.

## To add track marks while recording

Press **T MARK** on the recorder at the point you want to add a track mark.

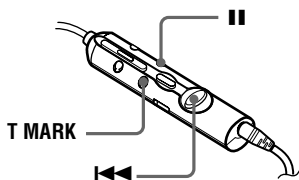
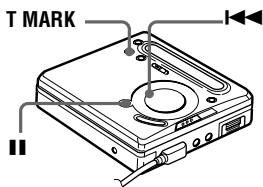
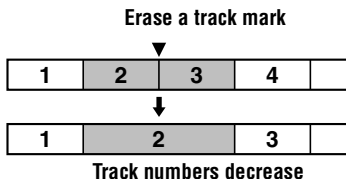
## Notes

- You cannot add track marks during synchro-recording.
- T MARK on the remote control does not function during playback.

---

## Erasing a track mark

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 **⏮** 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.

**continued**

**3** Press T 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, name assigned to the mark is also erased.

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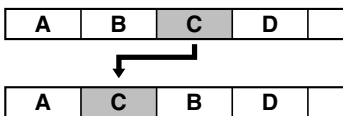
## Moving recorded tracks

You can change the order of the recorded tracks.

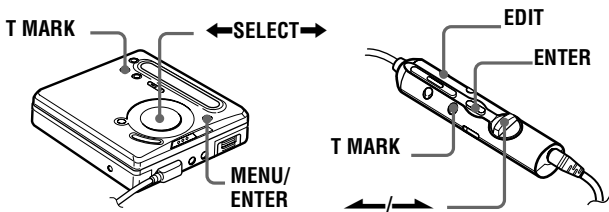
### Example

Move track C from the third to the second track.



Before moving



After moving



**1** While playing the track you want to move, press MENU (EDIT for 2 seconds or more).

- 2** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “EDIT” flashes in the display, and then press ENTER (ENTER).  
“: Name” flashes in the display and the recorder plays the selected track repeatedly.
- 3** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “: Move” flashes in the display, and then press ENTER (ENTER).  
For the example above, “MV 003 → 003” appears in the display.
- 4** Press **←SELECT→** (flip the lever towards **←** or **→**) to select the destination track number.  
For the example above, “MV 003 → 002” appears in the display.  
To cancel moving, press T MARK (T MARK).
- 5** Press ENTER (ENTER).  
The track moves to the selected destination track.

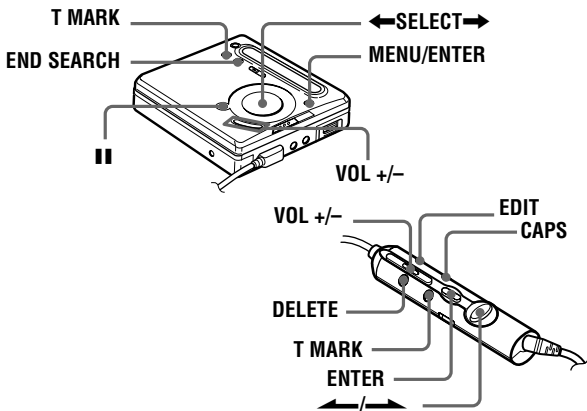
## Labeling recordings

You can name discs while the recorder is stopped, tracks while the recorder is playing, and both while the recorder is recording. Each name can be as long as 200 letters.

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


### Available characters

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



### Labeling a disc during stop

- 1 Press MENU (EDIT for 2 seconds or more), press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until “EDIT” flashes in the display, and then press ENTER (ENTER).

“: Name” flashes in the display.

**2** Press ENTER (ENTER).  
The disc is ready to be labeled.

**3** Press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly to select a letter and press ENTER (ENTER).  
The selected letter stops flashing and the cursor moves to the next input position.

Press	To
<b>II</b> (CAPS)	Switch between capital letters, small letters and marks / numbers.
VOL +/- (VOL +/-)	Move the cursor to the left or right.
<b>←SELECT→</b> ( <b>←</b> or <b>→</b> )	Change the letter to the one before / next one.
END SEARCH/VOL + (EDIT)	Insert a blank space to type in a new letter pressing both buttons together.
END SEARCH/VOL - (DELETE)	Delete a letter and move back all following letters to the left pressing both buttons together.
T MARK (T MARK)	Cancel labeling.

**4** Repeat step 3 and enter all characters of the label name.  
To cancel labeling, press T MARK (T MARK).

**5** Press ENTER (ENTER) for 2 seconds or more.  
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 MENU (EDIT for 2 seconds or more), press **←SELECT→** (flip the lever towards **←** or **→**) repeatedly until "EDIT" flashes in the display, and then press ENTER (ENTER).

"🎵: Name" flashes in the display.

**continued**

**3** Press ENTER (ENTER).

The track is ready to be labeled.

**4** Follow steps 3 to 5 of “Labeling a disc during stop”.

### **Labeling a track or a disc during recording**

**1** While recording, press MENU (EDIT for 2 seconds or more).

**2** Press ◀SELECT▶ (flip the lever towards ◀ or ▶) repeatedly until “EDIT” flashes in the display, and then press ENTER (ENTER).

“🎵: Name” flashes in the display.

**3** To label a track, press ENTER (ENTER).

To label a disc, press ◀SELECT▶ (flip the lever towards ◀ or ▶) repeatedly until “🌀: Name” flashes in the display, then press ENTER (ENTER).

The track or disc is ready to be labeled.

**4** Follow steps 3 to 5 of “Labeling a disc during stop”.

### **To cancel labeling**

Press T MARK (T MARK).

#### **Notes**

- When the recording is stopped while labeling a track or a disc during recording, or when the recording moves on to the next track while labeling a track, the input at that point is entered automatically.
- “LP:” is automatically added at the beginning of track names for tracks recorded in LP2 or LP4 mode.

### **Relabeling 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 ENTER (ENTER) for 2 seconds or more.



## **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.
- The recorder cannot rewrite a disc or track name of more than 200 letters that was created by another device.

## Power sources

You can use the recorder on house current or as follows.

In the recorder ...

- a Nickel Cadmium rechargeable battery NC-WMAA (supplied)
- an LR6 (SG) alkaline dry battery (not supplied)

It is preferable to use the recorder on house current when recording for a long time.

### Battery life<sup>1)</sup>

(Unit: approx.hours) (JEITA<sup>2)</sup>)

Batteries		Stereo	LP2	LP4
NC-WMAA Nickel Cadmium rechargeable battery <sup>3)</sup>	Recording	4	6	7.5
	Playback	13	14.5	18
LR6 (SG) Sony alkaline dry battery <sup>4)</sup>	Recording	9	13	16
	Playback	40	46	53


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

<sup>2)</sup> Measured value by the standard of JEITA (Japan Electronics and Information Technology Industries Association).

<sup>3)</sup> When using a 100% fully charged rechargeable battery.

<sup>4)</sup> When using a Sony LR6 (SG) "STAMINA" alkaline dry battery (produced in Japan).

### When to replace the battery

When the dry battery or rechargeable battery is weak, flashing , "LOW BATT," etc. appears in the display. Replace the dry battery or charge the rechargeable battery.

Note that the battery level indicated by the battery indication is only approximate and varies with the recorder condition.

#### Note

Stop the recorder before replacing battery.

### Precautions

#### On safety

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

#### On power sources

- Use house current, Nickel Cadmium rechargeable battery, LR6 (SG) battery, or car battery.
- For use in your house: Use the AC power adaptor supplied with this recorder. Do not use any other AC power adaptor since it may cause the recorder 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 battery, rechargeable battery, or car battery cord). To remove the AC power adaptor 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. Heat build-up in the recorder may cause malfunction or damage.

## **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 on 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.
- To obtain the best sound quality, use a dry cloth to wipe the plugs of the headphones/earphones or the remote control. Dirty plugs may cause sound distortion or intermittent breaks in the sound.

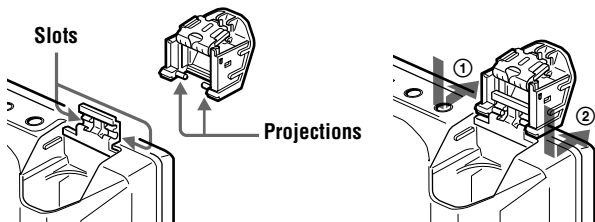
## Notes on batteries

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 try to recharge dry battery.
- 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.

## On the lid of the battery compartment

The lid of the battery compartment is designed to detach from the main unit when handled with great force. To reattach the lid to the main unit, follow the steps below:



- 1 Place the lid so that the projections on the lid aligned with the slots on the main unit.
- 2 Fit the projection one by one into the slot as shown in the illustration.

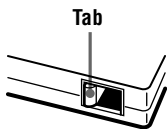
## Note on mechanical noise

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.

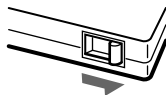
## To protect a recorded MD

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

### Back of the MD



**Recorded material is protected.**



**Recorded material is not 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 connections.

**Premastered software such as CDs or MDs.**



**Digital recording**



**Home-recorded MD**



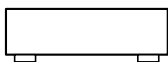
**No digital recording**



**Recordable MD**

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.)

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



**Analog recording**



**Home-recorded MD**

**Digital recording**



**Recordable  
MD**



**No  
digital  
recording**



**Recordable  
MD**

## 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 (recorded in stereo), 24 seconds long (recorded in monaural or LP2 mode), or 48 seconds long (recorded in LP4 mode) cannot be erased. You cannot combine a track recorded in different recording mode, e.g., 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. Tracks of under 12 seconds, 24 seconds, or 48 seconds in length are not counted and so erasing them may not lead to an increase in the recording time.



<b>Symptom</b>	<b>Cause</b>
<p>The total recorded time and the remaining time on the disc may not total the maximum recording time (60, 74, or 80 minutes).</p>	<p>Normally, recording is done in minimum units of approximately 2 seconds (in stereo), 4 seconds (in monaural or LP2 mode), or 8 seconds (in LP4 mode). When recording is stopped, the last unit of recording always uses this unit of 2 seconds, 4 seconds, or 8 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, 4 seconds, or 8 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 by a maximum of 6 seconds, 12 seconds, or 24 seconds.</p>
<p>The edited tracks may exhibit sound dropout during search operations.</p>	<p>The fragmentation of data may cause sound dropout while searching because the tracks are played in higher speed than normal playback.</p>

# Troubleshooting

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

## The recorder does not work or works poorly.

- Audio sources may not be firmly connected.
  - Disconnect the audio sources once and connect them again (pages 12, 20).
- The HOLD function is turned on (“HOLD” appears in the display when you press an operation button on the recorder).
  - Disable HOLD by moving the HOLD switch in the opposite direction of the arrow (pages 10, 37).
- Moisture has condensed inside the recorder.
  - Take the MD out and leave the recorder in a warm place with the lid open for several hours until the moisture evaporates.
- The rechargeable battery or dry battery is weak (☐ or “LOW BATT” flashes).
  - Charge the rechargeable battery or replace the dry battery (page 50).
- The rechargeable battery or dry battery have been inserted incorrectly.
  - Insert the battery correctly (page 9).
- You pressed a button while the disc indication was rotating quickly.
  - Wait until the indication rotates slowly.
- The analog recording was made using a connecting cord with an attenuator.
  - Use a connecting cord without an attenuator (page 20).
- While operating, the recorder received a mechanical shock, too much static, abnormal power voltage caused by lightning, etc.
  - Restart the operation as follows.
    - 1 Disconnect all the power sources.
    - 2 Leave the recorder for about 30 seconds.
    - 3 Connect the power source.
- The disc is damaged or does not contain proper recording or editing data.
  - Reinsert the disc. If this fails, rerecord.

**“NO SIGNAL” appears in the display when recording from a portable CD player.**

- There is no digital signal from the portable CD player.
  - When recording digitally from a portable CD player, use AC power adaptor and disable the anti-skip function (such as ESP) on the CD player (page 15).


**There is no recording after a recording operation.**

- The AC power adaptor was unplugged or a power outage occurred during recording.

**The lid does not open.**

- The power sources have been disconnected during recording or editing, or the battery have been exhausted.
  - Set the power sources again, or replace the exhausted battery with new ones.


**No sound comes through the headphones/earphones.**

- The headphones/earphones plug is not firmly connected.
  - Plug in the plug of the headphones/earphones firmly to the remote control. Plug in the plug of the remote control firmly to .
- Volume is too low.
  - Adjust the volume by pressing VOL +/-.

**Volume cannot be turned up.**

- AVLS is on.
  - Set AVLS to “AVLS OFF” (page 36).

**An MD is not played from the first track.**

- Disc playing stopped before it came to the last track.
  - Press  repeatedly to go back to the beginning of the disc, and restart playing after checking the track number in the display.

**Playback sound skips.**

- The recorder is placed where it receives continuous vibration.
  - Put the recorder on a stable place.
- A very short track may cause sound to skip.

**Sound has a lot of static.**

- Strong magnetism from a television or such device is interfering with operation.
  - Move the recorder away from the source of strong magnetism.

### **Cannot find the track marks.**

- You pressed **II** after pressing **I◀◀** or **▶▶I**.
  - Press **II** before or pressing **I◀◀** or **▶▶I** (page 43).

### **The rechargeable battery does not start charging.**

- The rechargeable battery has been inserted incorrectly or the AC power adaptor has been connected incorrectly.
  - Insert the battery correctly or connect the AC power adaptor correctly.

### **Momentary noise is heard.**

- Due to the special digital audio compression technology used in LP4 mode, momentary noise may occur on very rare occasions with certain sound sources.
  - Record in normal stereo or LP2 mode.

---

## **Messages**

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

### **BLANKDISC**

- An MD with no recording on it is inserted.

### **DISC ERR**

- The disc is damaged or does not contain proper recording or editing data.
  - Reinsert the disc. If this fails, rerecord.

### **DISC FULL**

- There is no more space to record on the disc.
  - Replace the disc.

### **Data Save**

- The MD player is recording information (sounds) from the memory to the disc.
  - Wait until this process is completed. Do not expose the player to any physical shock, nor disrupt power supply.

## **TOC Edit**

- The MD player is recording information (track start and end position) from the memory to the disc.
  - Wait until this process is completed. Do not expose the player to physical shock, nor disrupt power supply.

## **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).

## **NAME FULL**

- 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.
  - Enter the characters within the limit.

## **Hi DC in**

- Voltage of the power supply is too high (The supplied AC power adaptor is not used).
  - Use the supplied AC power adaptor.

## **HOLD**

- The recorder is locked.
  - Move HOLD against the arrow to unlock the recorder (pages 10, 37).

## **LOW BATT**

- Battery is weak.
  - Charge the rechargeable battery or replace the dry battery (page 9).

## **MEM OVER**

- You tried to record with the recorder placed where it receives continuous vibration.
  - Put the recorder on a stable place, and start recording again.

## **NO COPY**

- 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 20).

## **NO DISC**

- You tried to play or record with no disc in the recorder.  
— Insert an MD.

## **NO SIGNAL**

- The recorder could not detect digital input signals.  
— Make sure that the source is connected firmly (page 12).

## **P/B ONLY**

- You tried to record or edit on a premastered MD (P/B stands for “playback”).  
— Insert a recordable MD.

## **PROTECTED**

- You tried to record or edit on a MD with the tab in the record-protect position.  
— Slide the tab back (page 54).

## **SORRY**

- 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 different recording mode, or a track recorded through a digital connection and an analog connection, for example).
- You tried to press **||**, T MARK, or REC MODE during synchro-recording.

## **TEMP OVER**

- Heat has built up in the recorder.  
— Let the recorder cool down.

## **TR FULL**

- There is no more space for new data when you are editing the MD.  
— Erase unnecessary tracks (page 40).

## **TrPROTECT**

- You tried to record or edit on a track that is protected from erasing.  
— Record or edit on other tracks.
- You tried to edit a track that has been checked out from a computer.  
— You cannot use this model to rename or edit a track which has been checked out from a computer.

# Specifications

## MD Recorder

### Audio playing system

MiniDisc digital audio system

### Laser diode properties

Material: GaAlAs MQW

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

When using MDW-80

Maximum 160 min. in monaural

Maximum 320 min. in stereo

### Revolutions

350 rpm to 2,800 rpm (CLV)

### Error correction

ACIRC (Advanced Cross Interleave Reed Solomon Code)

### Sampling frequency

44.1 kHz

### Sampling rate converter

Input: 32 kHz/44.1 kHz/48 kHz

### Coding

ATRAC (Adaptive TRansform Acoustic Coding)

ATRAC3 — LP2

ATRAC3 — LP4

### Modulation system

EFM (Eight to Fourteen Modulation)

### Number of channels

2 stereo channels

1 monaural channel

### Frequency response

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

### Wow and Flutter

Below measurable limit

## Inputs

Microphone: stereo mini-jack, minimum input level 0.35 mV

Line in: stereo mini-jack, minimum input level 49 mV

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

## Outputs

$\odot$ : stereo mini-jack, maximum output level 5 mW + 5 mW, load impedance 16 ohm

## General

### Power requirements

Sony AC Power Adaptor (supplied) connected at the DC IN 3 V jack:

120 V AC, 60 Hz (U.S.A., Canadian and Taiwan models)

230 V AC, 50/60 Hz (Europe continental model)

240 V AC, 50 Hz (Australian model)

220 V AC, 50 Hz (Chinese model)

230 - 240 V AC, 50 Hz (U.K. and Hong Kong models)

220 V AC, 50 Hz (Argentina model)

110/220 V AC, 60 Hz (Korean model)

100 - 240 V AC, 50/60 Hz (Other models)

Nickel Cadmium rechargeable battery NC-WMAA (supplied)  
LR6 (SG) alkaline battery (not supplied)

### Battery operation time

See "Battery life" (page 50)

## Dimensions

Approx.  $81 \times 28.6 \times 74.4$  mm (w/h/d) ( $3^{1/4} \times 1^{3/16} \times 3$  in.) without projections.

## Mass

Approx. 118 g (4.2 oz) the recorder only

## Supplied accessories

NC-WMAA Nickel Cadmium rechargeable battery (1)

AC power adaptor (1)

Headphones/earphones with a remote control (1)

Optical cable (1)

Rechargeable battery carrying case (1)

Carrying pouch/Carrying case with a belt clip (1)

US and foreign patents licensed from Dolby Laboratories.

Design and specifications are subject to change without notice.

## Optional accessories

Optical Cable

POC-15B, POC-15AB, POC-DA12SP


Stereo Microphones ECM-717, ECM-MS907, ECM-MS957

Stereo Headphones\* MDR-EX70LP, MDR-G72LP, MDR-A34L

Active Speakers SRS-Z500

Recordable MDs MDW-series

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

\* Whether you should plug the headphones/earphones directly to  jack on the main unit or to a remote control, use only headphones/earphones with stereo mini plugs. You cannot use headphones/earphones with micro plugs.



# Explanations

## 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.

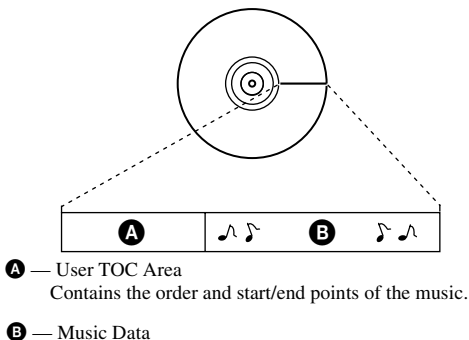
## The meaning of “no sound”

“No sound” describes a recorder condition in which the input level is about 4.8 mV during analog input or less than -89 dB during optical (digital) input (with 0 dB as full bit (the maximum recordable level for a MiniDisc)).

## 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.



## 警告

為防止發生火災或電擊的危險，請勿將本機暴露於雨中或受潮。

請勿將本系統安放在書櫥或壁櫥等狹窄封閉處。

為防止發生火災，請勿用報紙、桌布、窗簾等蓋住通風孔。另請勿將點燃的蠟燭置於本設備上。

為防止發生火災或電擊的危險，請勿將裝滿液體的物件（例如花瓶）置於本設備上。

某些國家或地區對於本產品供電電池的處理方式可能會有所限制。請向您當地的有關單位洽詢。

注意 — 在開啓時有無形的雷射輻射

請勿直接接觸光束

## 資訊

銷售商對於因使用有缺陷的產品或使用其他產品而產生的任何直接的、偶發的、重大的損壞或開支概不負責。



CE 標誌僅對在歐盟行銷的產品有效。



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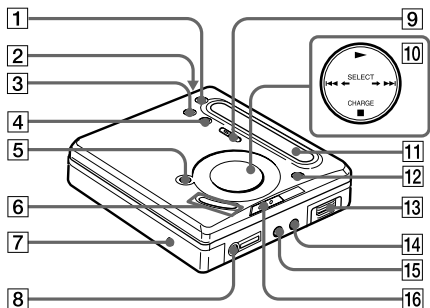
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# 各部份名稱

要獲得更多的詳細資訊，請參閱 ( ) 中所列頁碼的內容。

## 錄音機

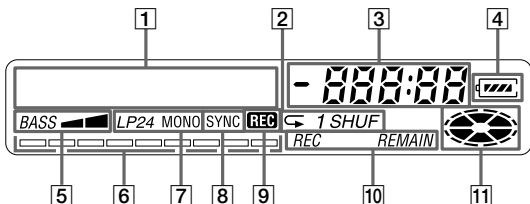


- 1 REC MODE 按鈕 (21)
- 2 OPEN 按鈕 (10)
- 3 T MARK 按鈕 (41)
- 4 END SEARCH 按鈕 (13) (47)
- 5 **||** (暫停) 按鈕 (13) (17) (28) (43) (47)
- 6 VOL +/- 按鈕 (16) (47)  
VOL + 按鈕具有觸摸點。
- 7 DC IN 3V 插孔 (9) (12) (51)
- 8 (耳機) 插孔 (10) (38)
- 9 REC (錄音) 開關 (13) (20)
- 10 **←SELECT→** 按鈕 (23) (32) (41)  
**▶** (播放) 按鈕 (13) (16)  
▶ 按鈕具有觸摸點。  
**◀▶** (搜索/AMS) 按鈕 (13) (17) (43)  
CHARGE/■ (停止) 按鈕 (9) (13) (16) (22)
- 11 顯示屏 (29)
- 12 MENU/ENTER 按鈕 (22) (32) (40)
- 13 電池室 (9)
- 14 LINE IN (OPTICAL) 插孔 (12) (20)

- 15 MIC (PLUG IN POWER) 插孔 (25)  
MIC (PLUG IN POWER) 插孔的旁邊具有觸摸點。

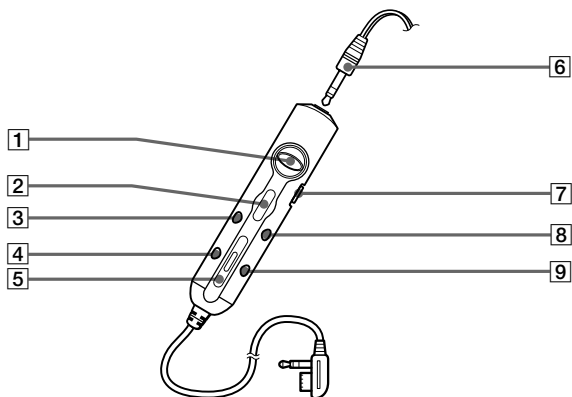
- 16 HOLD 開關 (10) (37)

## 顯示屏



- 1 字元資訊顯示屏 (31) (33)  
顯示碟名與曲名、錯誤訊息、曲目編號等。
- 2 播放模式指示 (33)  
顯示 MD 的播放模式。
- 3 時間指示
- 4 電池指示 (50)  
顯示概略的電池使用狀態。
- 5 重低音指示 (34)
- 6 音量表 (29)  
顯示播放或錄製 MD 的音量。
- 7 錄音模式 (LP2/LP4/MONO) 指示
- 8 SYNC (同步錄音) 指示
- 9 REC 指示 (13)  
在錄音時顯示。在閃爍時，表示錄音機處於錄音待機模式。
- 10 REC REMAIN/REMAIN (剩餘時間/曲目) 指示 (31) (35)  
與曲目的剩餘時間、MD 的剩餘時間或剩餘曲目數一起顯示。
- 11 唱碟指示  
顯示唱碟在錄製、播放或編輯 MD 時正在旋轉。

## 遙控器



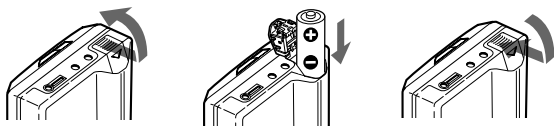
- |   |  |
|---|--|
| <b>1</b> <b>◀◀/▶▶/▶</b> (搜尋/AMS/播放) •<br><b>◀/▶</b> 按鈕 (16) (30) (32) (41) (47) | <b>5</b> VOL +/- 按鈕 (16) (47)          |
| <b>2</b> <b>■</b> (停止) • ENTER 按鈕 (16) (30) (32) (41)                           | <b>6</b> 耳機<br>可以使用其他的耳機來取代。           |
| <b>3</b> <b>  </b> (暫停) • CAPS 按鈕 (17) (43) (47)                                | <b>7</b> HOLD 開關 (37)<br>滑動它以鎖定遙控器控制鈕。 |
| <b>4</b> EDIT 按鈕 (32) (40) (47)   | <b>8</b> T MARK 按鈕 (41) (47)           |
|   | <b>9</b> DELETE 按鈕 (47)                |



# 準備操作！

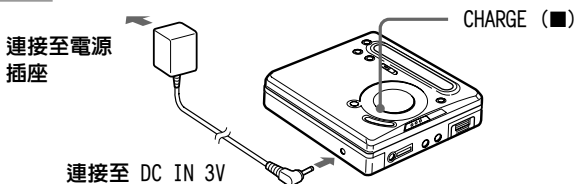
在使用之前為充電式電池充電。只要已連接 AC 電源轉接器，即使沒有為充電式電池充電，您亦可使用錄音機。

## 1 裝入充電式電池。




(先裝入充電式電池的負極端)

## 2 為充電式電池充電。



① 連接提供的 AC 電源轉接器。

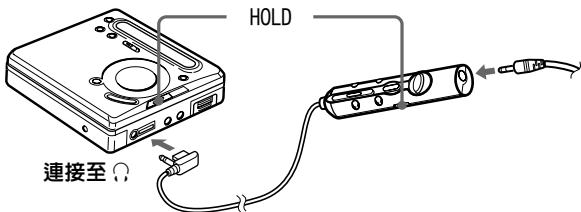
② 按下 CHARGE (■)。

“Charging” 會閃爍， 會在顯示屏中顯示，且開始充電。在充電結束時，電池指示會消失。為完全放電的充電式電池完全充電大約需要 3 個小時。要取消充電，請按下 CHARGE (■)。

③ 中斷連接提供的 AC 電源轉接器。



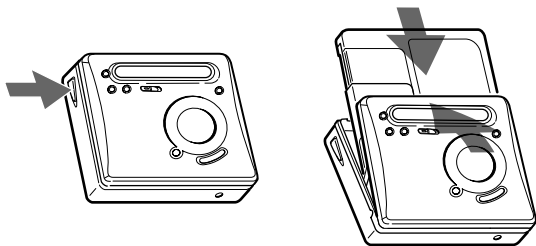
### 3 連接並解除鎖定控制鈕。



- ① 將所提供的配備遙控器之耳機連接至。
- ② 朝箭頭 (→) 的反方向滑動 HOLD 以解除鎖定控制鈕。

### 4 插入 MD。

(使用可錄音 MD 進行錄音。)



## 使用乾電池

裝入一顆 LR6 (SG) 鹼性乾電池 (並未提供) 以取代充電式電池。

### 註

- 如果您在充電結束後立即按下 CHARGE (■)，則會再次開始充電。此時，請再次按下 CHARGE (■) 以停止充電操作，因為電池已完全充電。
- 如果您在充電時嘗試操作錄音機，則會停止充電。
- 請務必使用所提供的 AC 電源轉接器。
- 充電時間視電池的使用狀態而異。
- 當充電式電池第一次充電或在長時間未使用後重新充電時，電池的可使用時間會比正常情況下要短一些。請重複放電與重新充電數次，電池的使用時間就可恢復正常。
- 在完全充電的充電式電池之使用時間只有正常使用時間的一半時，請更換它。
- 在攜帶充電式電池時，應將其置於所提供的電池攜帶盒內。若不將電池置於盒內，而隨意將其與金屬物件 (例如鑰匙圈) 一起置於口袋或背袋中是危險的，因為這可能會引起電池短路。
- 如果長時間不使用錄音機，請將充電式電池取出。

# 立即錄製 MD！

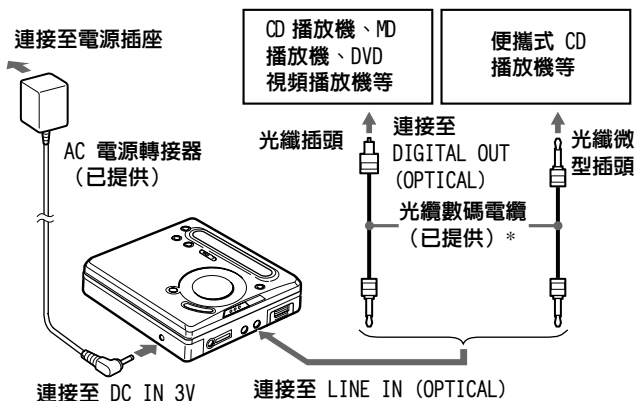
使用光纖數碼電纜（已提供）連接至數碼音源以進行數碼錄音。您可以使用內置式取樣頻率變換器，從不同取樣頻率的數碼設備（例如 DAT 機座或 BS 調頻器）進行數碼錄音。要從類比音源進行錄音，請參閱「使用類比輸入錄音（需要線路電纜）」（第 20 頁）。要從 MD 進行錄音，請參閱「有關數碼錄音的注意事項」（第 54 頁）。

建議在錄音時使用 AC 電源轉接器（已提供）。

## 1

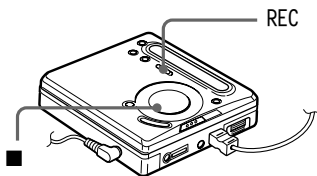
### 連接。

（將電纜平穩且完全插入適當的插孔）。



\* 提供的電纜包括這些電纜中的一條或數條。提供的電纜之插頭形狀可能會因購買錄音機的地點而異。

## 2 錄製 MD。



- ① 按下 REC 並將其向右滑動。  
REC 指示會在顯示屏中顯示，且開始錄音。
- ② 播放您要錄製的音源。

要停止錄音，請按下 ■。

在您按下 ■ 之後，錄音機將在以下時間之後自動關閉電源：

- 大約 5 分鐘（使用 AC 電源轉接器時）。
- 大約 10 秒鐘（使用電池時）。

### 註

- 在錄製錄音資料（曲目的起始處與結尾處等）時，“Data Save”或“TOC Edit”會閃爍。請勿在顯示屏中的指示閃爍時移動或衝擊錄音機，或者中斷電源連接。
- 在顯示屏中的“TOC Edit”消失後方可打開蓋子。

若要	請按下
從之前錄音的結尾處開始錄音 <sup>1)</sup>	按下 END SEARCH，然後按下並滑動 REC。
在之前錄音的中間開始錄音 <sup>1)</sup>	▶、▶▶ 或 ◀◀ 以搜索錄音的起始處，並按下 ■ 以停止，然後按下並滑動 REC。
暫停	<sup>2)</sup> 再次按下    以繼續錄音。

若要	請按下
取出 MD	■ 並打開蓋子。 <sup>3)</sup> (如果 “TOC Edit” 在顯示屏中閃爍, 則蓋子無法打開。)

- 1) 透過將 “REC-Posi” 設定為 “From End”, 錄音操作將始終從之前的錄音材料之結尾處開始錄音 (第 24 頁)。
- 2) 曲目標記會加在您暫停時再次按下 ■ 以繼續錄音的位置; 因此該曲目的剩餘部份將被視為新的曲目。
- 3) 如果您在 “REC-Posi” 設定為 “From Here” 時打開蓋子, 則在您下次錄音時, 錄音將從第一首曲目開始。請查看顯示屏上顯示的開始錄音位置。

### 如果未開始錄音

- 請確保沒有鎖定錄音機 (第 37 頁)。
- 請確保 MD 不是處於錄音保護狀態 (第 54 頁)。
- 收音專用 MD 不能被覆寫錄音。

### 對於提供 AC 插頭轉接器的機型

如果 AC 電源轉接器與電源插座不相符, 請使用 AC 插頭轉接器。

### 關於用於 ATRAC 的 DSP TYPE-R

“TYPE-R” 是用於數碼訊號處理器 (DSP, 其為微型雷射唱碟聲音的核心) 的高等級 Sony 規格。此技術為微型雷射唱碟錄音機提供的訊號處理功能是之前微型雷射唱碟 Walkman 機型的兩倍, 可產生與微型雷射唱碟機座接近的聲音品質。此裝置僅在以一般立體聲模式錄音或播放時支援 “TYPE-R” 功能。在 MDLP 模式下, 它不支援此功能。

### 註

- 如果在進行錄音或編輯操作時, 或者在顯示屏中出現 “TOC Edit” 時電源中斷 (例如取出電池或電量已耗盡, 或者是拔下 AC 電源轉接器), 則蓋子只能在重新供電之後方可打開。
- 您僅能從光纖類型輸出進行數碼錄音。
- 在從便攜式 CD 播放機進行錄音時, 請先將 CD 播放機設定為暫停, 然後才在錄音機上進行錄音步驟。

- 在從便攜式 CD 播放機進行錄音時，請注意以下事項：
    - 某些便攜式 CD 播放機只有在使用 AC 電源時才能提供數碼輸出。
    - 將 AC 電源轉接器連接至便攜式 CD 播放機，並使用 AC 電源作為播放機的供電電源。
    - 關閉便攜式 CD 播放機的防止跳音功能（例如 ESP\*）。
- \* Electronic Shock Protection（電子防震系統）



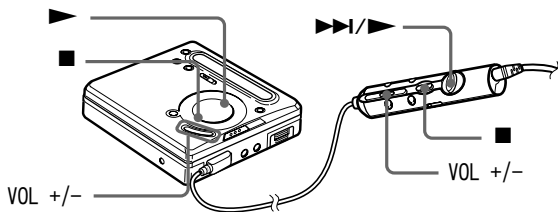
- LINE IN (OPTICAL) 插孔可用於數碼輸入與類比輸入。錄音機可自動識別線路電纜的類型，然後切換至數碼輸入或類比輸入。
- 錄音的音量會自動調節。
- 您可以在錄音時監聽錄製的聲音。請將所提供的配備遙控器之耳機連接至  $\Omega$ ，然後按下 VOL +/- 以調節音量。這並不影響錄音音量。

# 立即播放 MD！

要使用充電式電池或乾電池為錄音機供電，請參閱「電源」（第 50 頁）。

在您使用提供的遙控器操作錄音機時，請使用括號中所示的按鈕與控制鈕。

## 1 播放 MD。



- ① 按下 ▶▶ (將控制桿轉至 ▶▶|▶▶)。

在您使用遙控器進行操作時，耳機會發出一聲短的「嗶」聲。

- ② 按下 VOL +/- 以調節音量。顯示屏會顯示音量大小。

要停止播放，請按下 ■。

在您使用遙控器進行操作時，耳機會發出一聲長的「嗶」聲。播放會從您上次停止播放的位置開始。

在您按下 ■ 之後，錄音機將在以下時間之後自動關機：

- 大約 5 分鐘（使用 AC 電源轉接器時）。
- 大約 10 秒鐘（使用電池時）。



若要	請按下（耳機發出的「嗶」聲） <sup>2)</sup>
搜索目前曲目的起始處	◀◀ 一次（將控制桿旋轉至 ◀◀）。 （三聲短的「嗶」聲）
搜索下一首曲目的起始處	▶▶ 一次（將控制桿旋轉至 ▶▶/▶）。 （兩聲短的「嗶」聲）
暫停	（連續的短「嗶」聲）。 再次按下    以繼續播放。
一邊播放一邊快倒 <sup>1)</sup>	按住 ◀◀（將控制桿旋轉至 ◀◀ 並按住）。
一邊播放一邊快轉 <sup>1)</sup>	按住 ▶▶（將控制桿旋轉至 ▶▶/▶ 並按住）。
取出 MD	■（一聲長「嗶」聲）並打開蓋子。 <sup>3)</sup>

1) 要在無需聆聽聲音的情況下進行快倒或快進，請按下 ||，然後按下並按住 ◀◀ 或 ▶▶（在遙控器上則將控制桿旋轉至 ◀◀ 或 ▶▶/▶）。

2) 您可以關閉「嗶」聲（第 38 頁）。

3) 一旦您打開蓋子，開始播放的位置將會變為第一首曲目的起始處。

## 抑制跳音 (G-PROTECTION)

開發 G-PROTECTION 功能是為提供比現有播放機更佳的防震保護。

### 註

在以下情況可能會產生跳音現象：

- 錄音機受到強烈的持續震動。
- 播放髒了或有刮痕的微型雷射唱碟。

## 如果未開始播放

請確保沒有鎖定錄音機（第 37 頁）。



錄音機將會在播放時自動進行切換，以配合錄音的錄製模式（立體聲、LP2、LP4 或單音）。

### 註

為避免錄音機發生故障，請勿使用另一款 Sony 便攜式 MD 機型隨附的遙控器。

# 各種不同的錄音方法

## 連接音源的兩種方法

本錄音機的輸入插孔可用作數碼與類比輸入插孔。使用數碼（光纖）輸入或類比（線路）輸入將錄音機連接至 CD 播放機或卡式錄音機。要進行錄音，請參閱「立即錄製 MD！」（第 12 頁）以使用數碼（光纖）輸入錄音，及「使用類比輸入錄音（需要線路電纜）」（第 20 頁）以使用類比（線路）輸入錄音。

### 數碼（光纖）與類比（線路）輸入之間的差異

差異	數碼（光纖）輸入	類比（線路）輸入
可連接的音源	配備數碼（光纖）輸出插孔的設備	配備類比（線路）輸出插孔的設備
可使用的導線	光纖數碼電纜（配備光纖或光纖微型插頭）（第 12 頁）	線路電纜（配備兩個音波插頭或一個立體聲微型插頭）（第 20 頁）
音源訊號	數碼	類比 即使連接的是數碼音源（例如 CD），傳送至錄音機的仍是類比訊號。

差異	數碼（光纖）輸入	類比（線路）輸入
錄製的曲目編號	<p>自動標記（複製）</p> <ul style="list-style-type: none"> <li>在與音源相同的位置（音源是 CD 或 MD 時）。</li> <li>在超過 2 秒鐘的空白或低音量內容之後（音源非 CD 或 MD 時）。</li> <li>在同步錄音期間暫停錄音機時（錄音機在遇到 3 秒鐘或更長時間的無音頻訊號之片段時會自動暫停）。</li> </ul> <p>您可以在錄音之後拭除不必要的標記（「拭除曲目標記」，第 43 頁）。</p>	<p>自動標記</p> <ul style="list-style-type: none"> <li>在超過 2 秒鐘的空白或低音量內容之後。</li> <li>在錄音的過程中暫停使用錄音機時。</li> </ul> <p>您可以在錄音之後拭除不必要的標記（「拭除曲目標記」，第 43 頁）。</p>
錄音音量	<p>與音源相同。</p> <p>您也可以手動調節（數碼 REC 音量控制）（「手動調節錄音音量（手動錄音）」，第 28 頁）。</p>	<p>自動調節。您也可以手動調節（「手動調節錄音音量（手動錄音）」，第 28 頁）。</p>

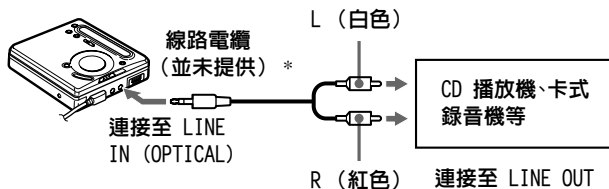
## 註

在以下情況可能錯誤複製曲目標記：

- 在您使用數碼（光纖）輸入從某些 CD 播放機或多碟式播放機進行錄音時。
- 在使用數碼（光纖）輸入錄音期間，音源處於隨機或編排播放模式時。這時，請按照一般播放模式播放音源。
- 在透過數碼（光纖）輸入錄製以數碼播放音頻（例如數碼電視）的節目時。

## 使用類比輸入錄音（需要線路電纜）

所連接的設備發出的聲音以類比訊號傳送，但會以數碼訊號錄製在唱碟上。



\* 請使用沒有衰減器的連接導線。要連接至具有立體聲微型插孔的便攜式 CD 播放機，請使用兩端均具有立體聲微型插孔的連接導線（並未提供）。

**1** 按下 REC 並將其向右滑動。  
REC 指示會在顯示屏中顯示，錄音開始。

**2** 播放您要錄製的音源。  
要獲得有關錄音操作的資訊，請參閱「立即錄製 MD！」  
（第 12 頁）。要從便攜式 CD 播放機進行錄音，請暫停  
CD 播放機，然後開始錄音。

LINE IN (OPTICAL) 插孔可用於數碼輸入與類比輸入

錄音機可自動識別線路電纜的類型，然後切換至數碼輸入或類比輸入。

### 註

如果您按下 **||** 以暫時停止錄音操作，則曲目標記會加在您再次按下 **||** 以繼續錄音的位置。錄音會從新的曲目繼續。

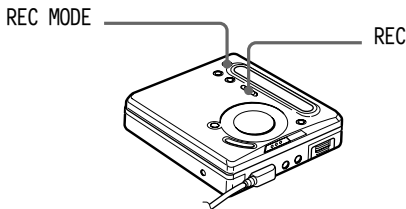
## 長時間錄音 (MDLP)

根據您需要的錄音時間選擇每種錄音模式。

立體聲錄音的時間可能是一般錄音時間的 2 倍 (LP2) 或 4 倍 (LP4)。

在單音、LP2 或 LP4 模式下錄製的 MD 僅可以在具有單音、LP2 或 LP4 播放模式的 MD 播放機或錄音機上播放。

支援 LP2 或 LP4 模式的音頻裝置以 **MDLP** 或 **MDLP** 徽標標記。



**1** 重複按下 REC MODE 以選擇所要的錄音模式。

在您每次按下 REC MODE 時，顯示屏會按以下方式變更。

錄音模式 <sup>1)</sup>	顯示	錄音時間 <sup>3)</sup>
立體聲 (一般)	(無)	約為 80 分鐘
LP2 立體聲	LP2	約為 160 分鐘
LP4 立體聲	LP4	約為 320 分鐘
單音 <sup>2)</sup>	MONO	約為 160 分鐘

<sup>1)</sup> 要獲得更佳的音效品質，請以一般立體聲或 LP2 模式錄音。

<sup>2)</sup> 如果您使用單音錄製立體聲音源，則左聲道與右聲道的聲音將會混合。

<sup>3)</sup> 在使用 80 分鐘的可錄音 MD 時。

**2** 按下 REC 並將其向右滑動。

續

### 3 播放音源。

要停止錄音，請按下 **■**。

在您下次進行錄音時，錄音機會保留先前錄音模式的設定值。

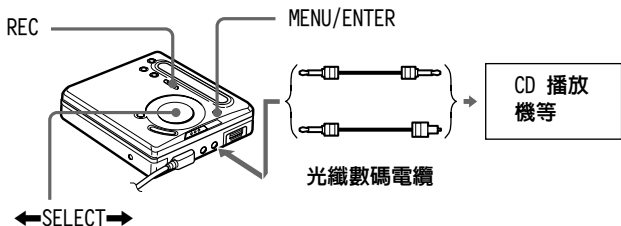
#### 註

- 要進行長時間錄音，建議您使用提供的 AC 電源轉接器。
- 如果您嘗試在不支援 LP2 或 LP4 模式的 MD 播放機或錄音機上播放以這些模式錄製的 MD，則播放不會開始，並且顯示屏上將會出現“LP:”。
- 透過數碼（光纖）輸入錄製的聲音，可以透過耳機等以立體聲進行監聽。
- 在您以 LP4 模式錄製某些音源時，偶爾可能會產生短促的雜音。這是由於錄音時間比正常多出 4 倍的特殊數碼音頻壓縮技術所造成。如果產生雜音，建議您以一般立體聲或 LP2 模式錄音，以獲得最佳的音效品質。

## 與音源播放機同步開始 / 停止錄音（同步錄音）

您可以輕易地對 MD 中的數碼音源進行數碼錄音。

在進行同步錄音之前，請使用數碼電纜連接至數碼音源，並插入可錄音 MD。



**1** 在錄音機停止時，按下 MENU。

- 2** 重複按下 **←SELECT→**，直到 “SYNC REC” 在顯示屏中閃爍，然後按下 ENTER。



SYNC 指示

若沒有將光纖數碼電纜連接至錄音機，顯示屏不會顯示“SYNC”。

- 3** 重複按下 **←SELECT→**，直到 “SYNC ON” 在顯示屏中閃爍，然後按下 ENTER。

- 4** 按下 REC 並將其向右滑動。  
錄音機等候錄音。

- 5** 播放音源。  
錄音機會在接收到播放音源時開始錄音。

要停止錄音，請按下 **■**。



- 您無法在同步錄音時手動暫停。
- 在同步錄音期間播放機持續 3 秒鐘以上無聲音時，錄音機將會自動進入待機模式。在播放機再次播放聲音時，錄音機會繼續進行同步錄音。如果錄音機處於待機模式達 5 分鐘或更長時間，錄音機將會自動停止錄音。
- 對於長時間錄音，請執行「長時間錄音 (MDLP)」(第 21 頁)的步驟 1 以選擇錄音模式，然後執行同步錄音的步驟。

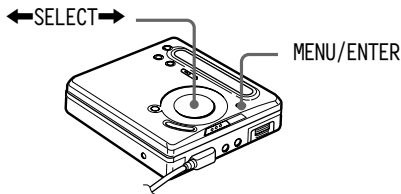
#### 註

- 請勿在錄音時變更 SYNC REC 設定值。否則，錄音可能無法正常進行。
- 即使音源上沒有可錄製的聲音，錄音操作也可能在同步錄音時因為音源所發出的噪音而不會自動暫停。
- 在從非 CD 或 MD 音源進行同步錄音時，如果出現 2 秒鐘或更長時間的無聲部份，新的曲目標記會自動加在無聲部份結束的位置。
- 如果連接導線不是光纖數碼電纜，或已將電纜連接至 MIC (PLUG IN POWER) 插孔，則將無法進行同步錄音。

- 在進行同步錄音時，您無法手動變更錄音模式或錄音音量。

## 在不覆寫現有材料的情況下錄音

如果您要避免覆寫 MD 的目前內容，請執行以下步驟。所有的新材料隨後將會從目前內容的結尾處開始錄製。



- 1** 在錄音機停止時，按下 MENU。
- 2** 重複按下 ←SELECT→，直到 “REC-Posi” 在顯示屏中閃爍，然後按下 ENTER。
- 3** 重複按下 ←SELECT→，直到 “From End” 在顯示屏中閃爍，然後按下 ENTER。

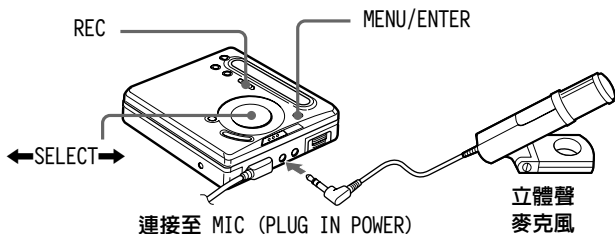
### 從目前位置開始錄音

在步驟 3 中選擇 “From Here”。



## 使用麥克風錄音

將立體聲麥克風（ECM-717、ECM-MS907 及 ECM-MS957 等，並未提供）連接至 MIC (PLUG IN POWER) 插孔。



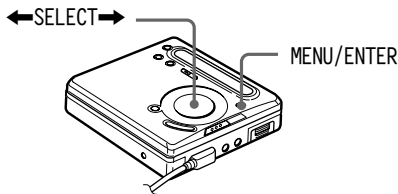
- 1 插入可錄音 MD，然後按下 REC 並將其向右滑動。  
要獲得有關其他操作的資訊，請參閱「立即錄製 MD！」（第 12 頁）。

### 註

- 在光纖數碼電纜連接至 LINE IN (OPTICAL) 插孔時，您將無法透過麥克風錄音。錄音機會按以下順序自動切換輸入：光纖輸入、麥克風輸入與類比輸入。
- 麥克風可能會收錄到錄音機本身的操作聲音。在此情況下，請在離錄音機較遠的地方使用麥克風。

## 自動增加曲目標記（自動時間印記）

在透過類比輸入連接器或麥克風錄音時，您可以使用此功能在指定的間隔時間自動增加曲目標記。



- 1** 在錄音機錄音或暫停錄音時，按下 MENU。
- 2** 按下 ←SELECT→，直到“TIME MARK”在顯示屏中閃爍，然後按下 ENTER。
- 3** 按下 ←SELECT→，直到所要的間隔時間在顯示屏中閃爍，然後按下 ENTER。

選擇以下其中一種間隔時間：

顯示	時間
OFF	—
5min. ON	約為 5 分鐘
10min. ON	約為 10 分鐘
15min. ON	約為 15 分鐘

### 取消自動時間印記

在步驟 3 中選擇“OFF”，然後按下 ENTER，或停止錄音。

## 在錄音時使用自動時間印記來增加曲目標記

**在經過的錄音時間超過自動時間印記的間隔時間時：**

錄音機會在您設定間隔時間的位置增加曲目標記，並且在該位置之後，只要經過了間隔時間，錄音機就會增加曲目標記。

範例：如果自動時間印記間隔時間設定為 5 分鐘，並且已進行了 8 分鐘的錄音，則曲目標記將會增加在第 8 分鐘的位置（開始錄音後），並且此後將每隔 5 分鐘增加一個曲目標記。

**在自動時間印記的間隔時間設定超過經過的錄音時間時：**

在達到設定的自動時間印記之間隔時間時，錄音機將會增加曲目標記。

範例：如果自動時間印記間隔時間設定為 5 分鐘，但卻只進行了 3 分鐘的錄音，則曲目標記將會增加在第 5 分鐘的位置（開始錄音後），並且此後將每隔 5 分鐘增加一個曲目標記。



對於透過自動時間印記增加的曲目標記，錄音機的顯示屏會在時間之前顯示“T”。

### 註

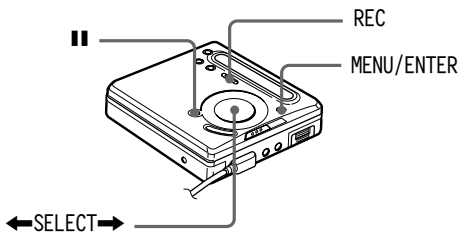
- 在您將一般曲目標記增加至唱碟時（例如，按下 T MARK 或 **II** 等），自動時間印記標記的自動曲目會開始。
- 此設定將會在錄音停止時遺失。

## 手動調節錄音音量（手動錄音）

在您錄音時，音量會自動調節。如有必要，您可以手動設定音量。

### 註

請在錄音機處於待機模式時調節錄音音量。您無法在錄音時調節它。



- 1** 在按住 **||** 時，按下 **REC** 並將其向右滑動。  
錄音機等候錄音。
- 2** 按下 **MENU**，重複按下 **←SELECT→** 直到 “RecVolume” 在顯示屏中閃爍，然後按下 **ENTER**。
- 3** 重複按下 **←SELECT→**，直到 “ManualREC” 在顯示屏中閃爍，然後按下 **ENTER**。

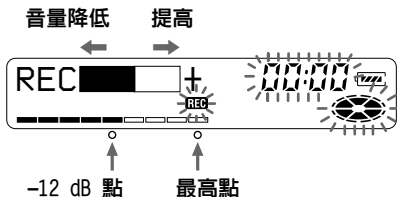


要切換回自動控制狀態，請重複按下 **←SELECT→**，直到 “Auto REC” 在顯示屏中閃爍，然後按下 **ENTER**。

- 4** 播放音源。

- 5** 在觀察顯示屏中的音量表時，請按下 **←SELECT→** 以調節錄音音量。

設定音量以使音量表接近  $-12$  dB 點（標記在顯示屏下方）。如果音量太高且音量表達到最高點（標記在顯示屏下方），請降低錄音音量。



在此步驟中錄音尚未開始。

如果您的音源來自外接式裝置，在開始播放之前，請確保將音源設定在要錄製材料的起始處。

- 6** 再次按下 **||** 以開始錄音。

**要停止錄音，請按下 **■**。**

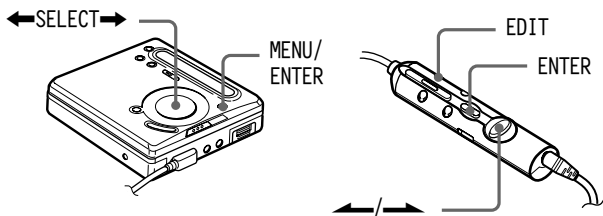
在您下次進行錄音時，錄音音量控制鈕會切換回自動控制狀態。

#### 註

- 您無法在進行錄音的過程中調節錄音音量。如果您要在開始錄音之後調節錄音音量，請按下 **||** 以使錄音機暫停。然後執行從步驟 5 開始的程序。
- 您無法在同步錄音時手動調節錄音音量。

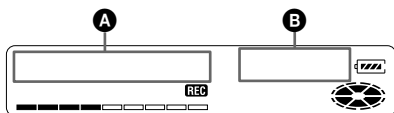
## 查看剩餘時間或錄音的位置

您可以在錄音或停止時，查看剩餘時間、曲目編號等。  
在您使用提供的遙控器操作錄音機時，請使用括號中所示的按鈕與控制鈕。



- 1** 在錄音機錄音或停止時，按下 MENU（按住 EDIT 2 秒鐘或更長時間），然後重複按下 ←SELECT→（將控制桿轉至 ← 或 →），直到“DISPLAY”在顯示屏中閃爍，然後按下 ENTER (ENTER)。
- 2** 重複按下 ←SELECT→（將控制桿轉至 ← 或 →），直到您要的資訊在顯示屏中閃爍。  
在您每次按下 SELECT→（將控制桿轉至 →）時，顯示屏會按以下方式變更。

## 顯示屏



### 在 A 中

LapTime

目前曲目的經過時間。

↓  
RecRemain<sup>1)</sup>

剩餘的可錄音時間。

↓  
AllRemain<sup>2)</sup>

目前位置之後的剩餘時間。

- 1) 當“REC REMAIN”在唱碟上的剩餘時間為 3 分鐘或更少時，就會在顯示屏中開始閃爍。
- 2) 僅在錄音機停止時顯示。

### 3 按下 ENTER (ENTER)。

在步驟 2 中選定的資訊會顯示在 A 與 B 中。

**A** – 曲目編號、曲名<sup>3)</sup> 或碟名<sup>4)</sup>。

**B** – 在步驟 2 中選定的資訊。

- 3) 僅在錄音機處於停止模式且已標識曲目的情況下選擇“RecRemain”時顯示。
- 4) 僅在錄音機處於停止模式且已標識唱碟的情況下選擇“AllRemain”時顯示。



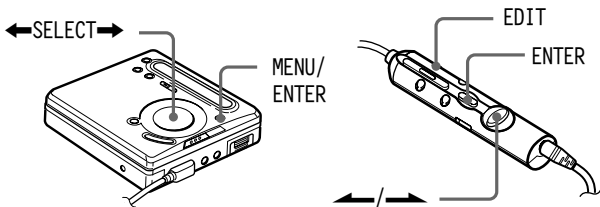
如果要在播放時查看播放位置或曲名，請參閱第 35 頁。

## 各種不同的播放方法

在您使用提供的遙控器操作錄音機時，請使用括號中所示的按鈕與控制鈕。

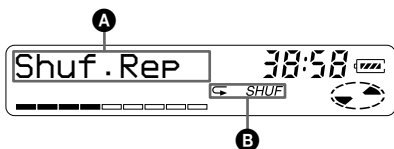
### 重複播放曲目

您可以按三種方式重複播放曲目 – 重複所有曲目、重複單一曲目及隨機順序重複曲目。



- 1** 在錄音機播放或停止時，按下 MENU（按住 EDIT 2 秒鐘或更長時間），然後重複按下 ←SELECT→（將控制桿轉至 ← 或 →），直到“PLAY MODE”在顯示屏中閃爍，然後按下 ENTER (ENTER)。
- 2** 重複按下 ←SELECT→（將控制桿轉至 ← 或 →）以選擇播放模式，然後按下 ENTER (ENTER)。  
在您每次按下 SELECT→（將控制桿轉至 →）時，**A** 指示的顯示項目會按以下方式變更。  
在 **A** 閃爍時按下 ENTER (ENTER) 會導致播放模式變更。  
新的模式隨後會顯示在 **B** 所表示的視窗中。





在 **A/B** 中

Normal/(none)

所有曲目播放一次。



AllRepeat/↺

所有曲目重複播放。



1 Repeat/↺1

一首曲目重複播放。

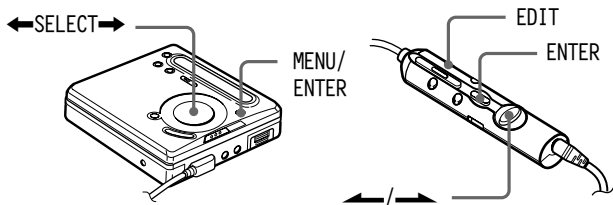


Shuf.Rep/↺ SHUF

在播放完目前選定的曲目之後，剩餘曲目將以隨機順序重複播放。

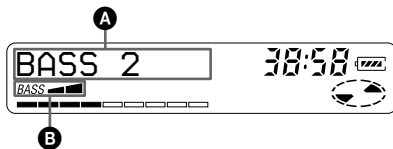
## 強化低音 (DIGITAL MEGA BASS)

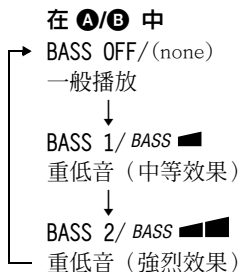
重低音功能可強化低頻聲音以再現高品質的音頻。它僅影響耳機所發出的聲音。



- 1** 按下 MENU (按住 EDIT 2 秒鐘或更長時間)，重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到 “BASS” 在顯示屏中閃爍，然後按下 ENTER (ENTER)。
- 2** 按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**) 以選擇項目，然後按下 ENTER (ENTER)。  
在您每次按下 **SELECT→** (將控制桿轉至 **→**) 時，**A** 與 **B** 會按以下方式變更。

### 顯示屏





### 註

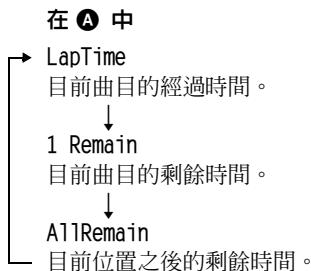
- 如果在強化低音時聲音失真，請調低音量。
- 重低音功能不會影響正在錄製的聲音。

## 查看剩餘時間或播放位置

您可以在播放時查看曲名與碟名等。

- 1 在錄音機播放時，請執行「查看剩餘時間或錄音的位置」（第 30 頁）中的步驟 1 與 2。

顯示屏會按以下方式變更。



續

## 2 按下 ENTER (ENTER)。

顯示屏會按以下方式變更。

在步驟 2 中選定的資訊會顯示在 **A** 與 **B** 中。

**A** - 曲目編號、曲名<sup>1)</sup> 或碟名<sup>2)</sup>。

**B** - 在步驟 2 中選定的資訊。

1) 僅在選擇了“1 Remain”並已標識曲目時顯示。

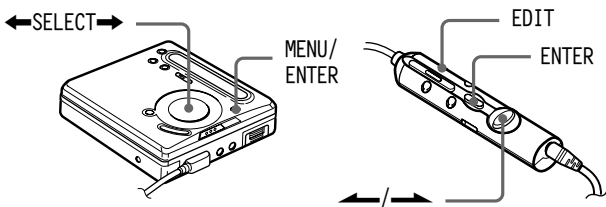
2) 僅在錄音機處於停止模式且已標識唱碟的情況下選擇“AllRemain”時顯示。



如果要在錄音或停止模式下查看剩餘時間或錄音的位置，請參閱第 30 頁。

## 保護您的聽覺 (AVLS)

AVLS (自動音量限制系統) 功能會降低最大音量以保護您的聽覺。



**1** 按下 MENU (按住 EDIT 2 秒鐘或更長時間)，重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到“AVLS”在顯示屏中閃爍，然後按下 ENTER (ENTER)。

**2** 重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到“AVLS ON”在顯示屏中閃爍，然後按下 ENTER (ENTER)。在您嘗試將音量調得太高時，“AVLS”會在顯示屏中閃爍。音量將保持在適當的水平。

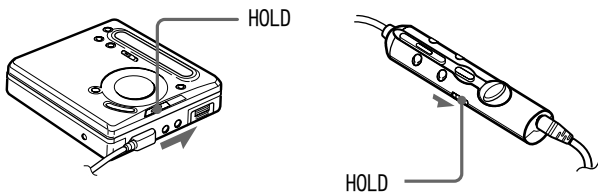
## 取消 AVLS


在步驟 2 中選擇 “AVLS OFF”。

---

## 鎖定控制鈕 (HOLD)

要防止在攜帶錄音機時意外操作按鈕，請使用此功能。




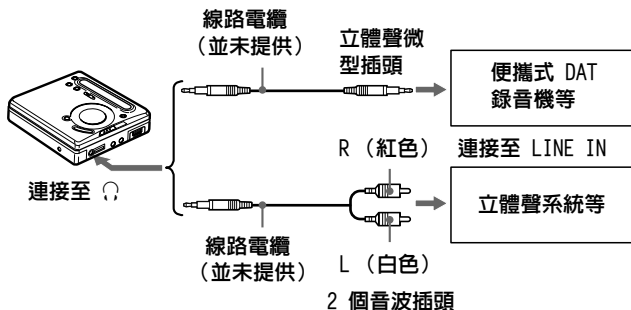
**1** 沿著  方向移動 HOLD。

### 解除鎖定控制鈕

沿著箭頭的反方向移動 HOLD 以解除鎖定控制鈕。

## 連接立體聲系統

使用線路電纜（並未提供），將錄音機的  插孔與擴音器或卡帶錄音機的 LINE IN 插孔連接在一起。輸出為類比輸出。錄音機會以數碼方式播放 MD，然後將類比訊號傳送至外接式裝置。



在錄音機透過提供的遙控器連接至另一個音頻元件時。

在將線路電纜（並未提供）連接至遙控器的耳機插孔時，請務必將“BEEP”設定值設定為“BEEP OFF”。這樣可防止錄製的訊號或外接式裝置的輸出中出現「嗶」聲。

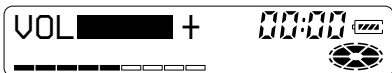
- 1 按下 MENU，重複按下  SELECT ，直到“BEEP”在顯示屏中閃爍，然後按下 ENTER。
- 2 重複按下  SELECT ，直到“BEEP OFF”在顯示屏中閃爍，然後按下 ENTER。

### 開啓嗶聲

在步驟 2 中選擇“BEEP ON”。

## 註

- 即使連接至外接式裝置，重低音功能仍然可以發揮作用。如果您不希望  
在錄音或外接式裝置的輸出上使用重低音功能，請將“BASS”設定  
為“BASS OFF”（第 34 頁）。
- 在外接式裝置上進行錄音時，請重複按下 VOL + 以將音量提高到最大  
（對於在外接式設備上錄音最佳）。但是，如果此音量在錄音時導致失  
真的情況出現，請按幾下 VOL - 以降低音量（如下圖所示）。



## 編輯錄製的曲目

您可以透過增加/拭除曲目標記或標識曲目與 MD 來編輯錄音，但卻無法編輯放音專用 MD。

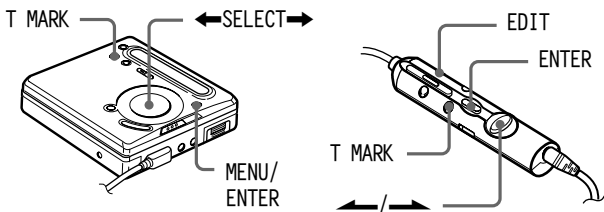
### 有關編輯的注意事項

- 當“TOC Edit”\* 在顯示屏中閃爍時，請勿移動或衝擊錄音機。
- 您無法編輯處於錄音保護狀態的 MD 中之曲目。在編輯曲目之前，請合上 MD 側面上的防寫彈片（第 54 頁）。
- 如果您在播放時執行編輯操作，請確保“TOC Edit”在顯示屏中消失之後才關閉電源。
- 在編輯之後，直到“TOC Edit”在顯示屏中消失，才可以打開蓋子。

\* TOC = Table of Contents (目錄)

在您使用提供的遙控器操作錄音機時，請使用括號中所示的按鈕與控制鈕。

### 拭除曲目





### 拭除一首曲目

請注意，一旦拭除錄音，您將無法再恢復它。請確定您要拭除的曲目。

- 1** 在播放您要拭除的曲目時，請按下 MENU（按住 EDIT 2 秒鐘或更長時間）。



- 2** 重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到“EDIT”在顯示屏中閃爍，然後按下 ENTER (ENTER)。  
“: Name”會在顯示屏中閃爍，且錄音機將重複播放選定的曲目。
- 3** 重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到“: Erase”在顯示屏中閃爍，然後按下 ENTER (ENTER)。  
“Erase OK?”與“PushENTER”會在顯示屏中交替顯示。  
要取消拭除，請按下 T MARK (T MARK)。
- 4** 按下 ENTER (ENTER)。  
該曲目已拭除，且開始播放下一首曲目。在被拭除的曲目之後的所有曲目將會自動重新編號。


### 拭除曲目的一部份

在要拭除部份的開頭與結尾處加入曲目標記，然後拭除該部份 (第 42 頁)。

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### 拭除整張唱碟

您可以同時快速拭除 MD 中的所有曲目與資料。  
請注意，一旦拭除錄音，您將無法再恢復它。請務必查看要拭除的唱碟內容。

- 1** 在錄音機停止時，請按下 MENU (按住 EDIT 2 秒鐘或更長時間)。
- 2** 重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到“EDIT”在顯示屏中閃爍，然後按下 ENTER (ENTER)。  
“: Name”會在顯示屏中閃爍。

續

**3** 重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到 “**⊖: Erase**” 在顯示屏中閃爍，然後按下 **ENTER (ENTER)**。

“All Erase?” 與 “PushENTER” 會在顯示屏中交替顯示。要取消拭除，請按下 **T MARK (T MARK)**。

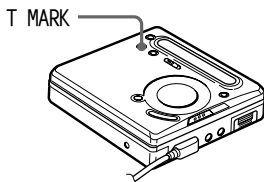
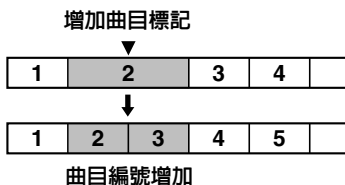
**4** 按下 **ENTER (ENTER)**。

“TOC Edit” 會在顯示屏中閃爍，所有曲目將被拭除。在完成拭除時，“BLANKDISC” 會在顯示屏中顯示。

## 增加曲目標記

您可以增加曲目標記，以將新的曲目標記之後的部份視為新的曲目。

曲目編號將按以下方式增加。



**1** 在播放或暫停播放 MD 時，請在您要標記的位置按下錄音機上的 **T MARK**。

“MARK ON” 會在顯示屏中顯示，即已增加曲目標記。曲目編號將增加一個數字。

### 在錄音時增加曲目標記

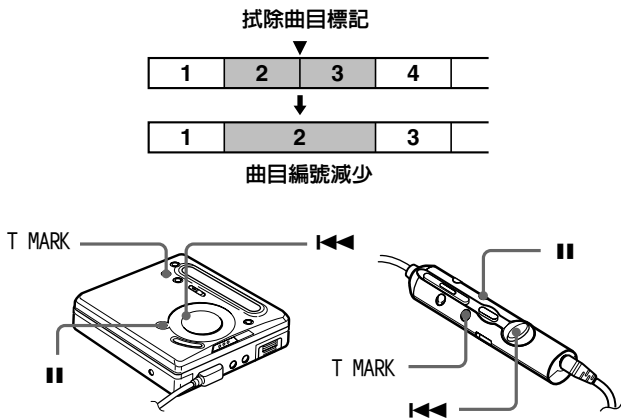
在您要增加曲目標記的位置按下錄音機上的 **T MARK**。

## 註

- 您無法在同步錄音時增加曲目標記。
- 遙控器上的 T MARK 在播放時無法運作。

## 拭除曲目標記

在您以類比（線路）輸入錄音時，如果錄音音量過低，可能會錄製到不必要的曲目標記。您可以拭除曲目標記以結合曲目標記之前與之後的曲目。曲目編號會按以下方式變更。



- 1** 在播放包含您要拭除曲目標記的曲目時，請按下 **II** 以暫停。
- 2** 輕輕地按下 **IIII** 以搜索曲目標記。  
例如，要拭除第三首曲目的標記，請搜索第三首曲目的起始處。“00:00” 會在顯示屏中顯示。  
“MARK” 會在顯示屏中顯示 2 秒鐘。

續

### 3 按下 T MARK 以拭除標記。

“MARK OFF” 會在顯示屏中顯示。曲目標記已拭除，且已結合該兩首曲目。



在您拭除曲目標記時，指定至該標記的名稱也將被拭除。

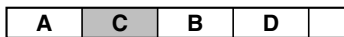
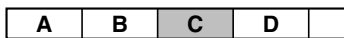
## 移動錄製的曲目

您可以變更錄製的曲目之順序。

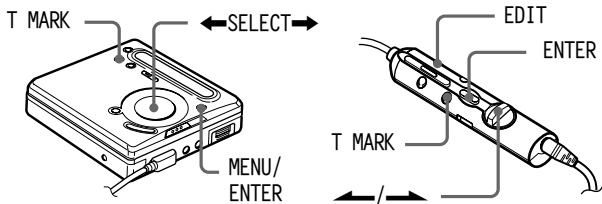
### 範例

將曲目 C 從第三首曲目的位置移至第二首曲目的位置。

移動之前



移動之後



- 1 在播放您要移動的曲目時，請按下 MENU（按住 EDIT 2 秒鐘或更長時間）。

- 2** 重複按下 ◀SELECT▶ (將控制桿轉至 ◀ 或 ▶)，直到 “EDIT” 在顯示屏中閃爍，然後按下 ENTER (ENTER)。  
“🎵: Name” 會在顯示屏中閃爍，且錄音機將重複播放選定的曲目。
- 3** 重複按下 ◀SELECT▶ (將控制桿轉至 ◀ 或 ▶)，直到 “🎵: Move” 在顯示屏中閃爍，然後按下 ENTER (ENTER)。  
對於以上範例，“MV 003 → 003” 會在顯示屏中顯示。
- 4** 按下 ◀SELECT▶ (將控制桿轉至 ◀ 或 ▶) 以選擇目標曲目編號。  
對於以上範例，“MV 003 → 002” 會在顯示屏中顯示。  
要取消移動，請按下 T MARK (T MARK)。
- 5** 按下 ENTER (ENTER)。  
曲目將移至選定的目標曲目。

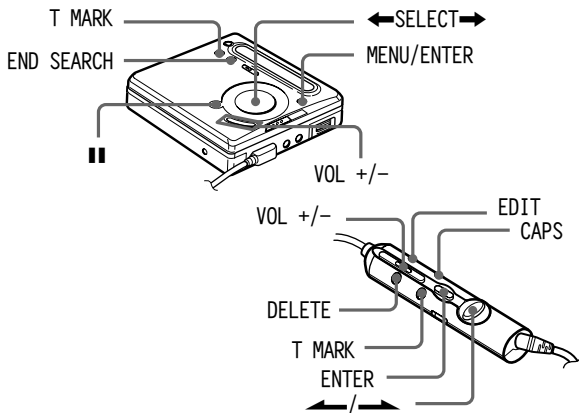
## 錄音標識

您可以在錄音機停止時為唱碟命名；在播放時為曲目命名；在錄音時，則可以為唱碟與曲目命名。每一個名稱可長達 200 個字母。

每張唱碟在播放或停止時可容納 1700 個字母數字。

### 可用的字元

- 英文字母的大小寫
- 數字 0 至 9
- ! " # \$ % & ( ) \* . ; < = > ? @ \_ ` + - ' , / : \_ (空格)



### 在停止播放時標識唱碟

- 1 按下 MENU (按住 EDIT 2 秒鐘或更長時間)，重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到 “EDIT” 在顯示屏中閃爍，然後按下 ENTER (ENTER)。

“: Name” 會在顯示屏中閃爍。

**2** 按下 ENTER (ENTER)。  
現在可以開始標識唱碟。

**3** 重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**) 以選擇字母，然後按下 ENTER (ENTER)。  
選定的字母會停止閃爍，且游標將移至下一個輸入位置。


操作	功能
<b>  </b> (CAPS)	在大寫字母、小寫字母以及標記 / 數字之間切換。
VOL +/- (VOL +/-)	向左或向右移動游標。
<b>←SELECT→</b> ( <b>←</b> 或 <b>→</b> )	將字母變更為前一個 / 下一個。
END SEARCH/VOL + (EDIT)	同時按下兩個按鈕，以便插入空白位置以鍵入新的字母。
END SEARCH/VOL - (DELETE)	同時按下兩個按鈕，以刪除某個字母並將隨後的字母移回左邊。
T MARK (T MARK)	取消標識。

**4** 重複步驟 3，然後輸入標識名稱的所有字元。  
要取消標識，請按下 T MARK (T MARK)。

**5** 按住 ENTER (ENTER) 2 秒鐘或更長時間。  
曲目或唱碟已被標識。

## 在播放時標識曲目

**1** 插入一張唱碟並播放您要標識的曲目。

**2** 按下 MENU (按住 EDIT 2 秒鐘或更長時間)，重複按下 **←SELECT→** (將控制桿轉至 **←** 或 **→**)，直到“EDIT”在顯示屏中閃爍，然後按下 ENTER (ENTER)。  
“: Name”會在顯示屏中閃爍。

續

**3** 按下 ENTER (ENTER)。  
現在可以開始標識曲目。

**4** 執行「在停止播放時標識唱碟」中的步驟 3 至 5。

### 在錄音時標識曲目或唱碟

**1** 在錄音時，按下 MENU (按住 EDIT 2 秒鐘或更長時間)。

**2** 重複按下 ◀SELECT▶ (將控制桿轉至 ◀ 或 ▶)，直到 “EDIT” 在顯示屏中閃爍，然後按下 ENTER (ENTER)。  
“🎵: Name” 會在顯示屏中閃爍。

**3** 要標識曲目，請按下 ENTER (ENTER)。

要標識唱碟，請重複按下 ◀SELECT▶ (將控制桿轉至 ◀ 或 ▶)，直到 “🎵: Name” 在顯示屏中閃爍，然後按下 ENTER (ENTER)。  
現在可以開始標識曲目或唱碟。

**4** 執行「在停止播放時標識唱碟」中的步驟 3 至 5。

### 取消標識

按下 T MARK (T MARK)。

#### 註

- 在錄音期間標識曲目或唱碟時錄音停止，或在標識曲目期間錄音移至下一首曲目，則在該位置輸入的訊息會自動輸入。
- “LP:” 會自動增加在以 LP2 或 LP4 模式錄音的曲目之曲目名稱起始處。

### 重新標識錄音

執行與標識方法對應的步驟，直到可以開始標識唱碟或曲目為止。在您要變更的標識上輸入新的文字，然後按住 ENTER (ENTER) 2 秒鐘或更長時間。



## 註

- 您無法重新標識放音專用 MD 或標識尚未錄音的 MD。
- 錄音機可以顯示日文的「片假名」文字，但卻無法用於標識。
- 錄音機無法覆寫由其他裝置建立的超過 200 個字母的唱碟或曲目名稱。

# 電源

您可以使用家用電源或以下電源來操作錄音機。  
在錄音機中 ...

- NC-WMAA 充電式鎳鎘電池（已提供）
- LR6 (SG) 鹼性乾電池（並未提供）

在錄音機長時間錄音時，最好是使用家用電源。

## 電池壽命<sup>1)</sup>

（單位：大約小時數）（JEITA<sup>2)</sup>）

電池		立體聲	LP2	LP4
NC-WMAA 充電式鎳鎘電池 <sup>3)</sup>	錄音	4	6	7.5
	播放	13	14.5	18
LR6 (SG) Sony 鹼性乾電池 <sup>4)</sup>	錄音	9	13	16
	播放	40	46	53


<sup>1)</sup>由於受操作狀態、存放地點溫度及電池種類的影響，電池壽命可能會縮短。

<sup>2)</sup>依據 JEITA (Japan Electronics and Information Technology Industries Association) 標準測量。

<sup>3)</sup>在使用 100% 完全充電的充電式電池時。

<sup>4)</sup>在使用 Sony LR6 (SG) “STAMINA” 鹼性乾電池（日本製造）時。

## 更換電池的時間

在乾電池或充電式電池的電量不足時，閃爍的 、“LOW BATT”等會在顯示屏中顯示。這時，請更換乾電池或為充電式電池充電。請注意，電池指示所顯示的電池電量僅為近似值，並且會因錄音機的狀況而異。

### 註

在更換電池之前，請停止使用錄音機。

## 注意事項

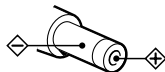
### 關於安全措施

請勿在 DC IN 3V 插孔中放置任何異物。

### 關於電源

- 請使用家用電源、充電式鎳鎘電池、LR6 (SG) 電池或汽車電池。
- 在室內使用：請使用本錄音機提供的 AC 電源轉接器。請勿使用任何其他 AC 電源轉接器，因為它可能會導致錄音機出現故障。

#### 插頭的極性



- 只要錄音機與電源插座連接，即使它本身已經關機，也不會中斷與 AC 電源（主電源）的連接。
- 如果長時間不使用本錄音機，請務必中斷與電源（AC 電源轉接器、乾電池、充電式電池或汽車電池導線）的連接。要從電源插座中拔下 AC 電源轉接器，請握住轉接器的插頭；切勿拉扯導線。

### 關於內部發熱

如果長時間使用錄音機，機體內部可能會發熱。這時，請關閉錄音機使其冷卻。

### 關於安裝

- 切勿在強光、高溫、潮濕或者震動的場所使用錄音機。
- 在與 AC 電源轉接器一起使用時，切勿以任何物件包裹錄音機。錄音機內部產生的熱量可能會引起故障或損壞。

## 關於耳機

### 交通安全

請勿在開車、騎車或駕駛任何車輛時使用耳機。這樣做可能會引發交通事故，而且這在許多地區是違法的。在步行（特別是過馬路）時，以高音量播放錄音機也會有潛在的危險。在可能有潛在危險的情況下，必須格外小心或暫停使用錄音機。

### 防止聽覺損害

避免以高音量使用耳機。聽覺專家建議不要連續、高音量及長時間播放錄音機。如果發生耳鳴現象，請調低音量或暫停使用。

### 關心他人

將音量維持在適當的水平。這樣您可以聽見外界的聲音，並且也可顧及您周圍的人。

### 關於微型雷射唱碟盒

- 在攜帶或存放微型雷射唱碟時，請存放在其專用盒中。
- 請勿強行打開唱碟盒。
- 請勿將唱碟盒置於強光、高溫、潮濕或多塵的場所。
- 僅將提供的 MD 標籤貼在唱碟上指定的位置。請勿將它貼在唱碟的任何其他表面。

### 關於清潔

- 請以清水或適度的洗滌液蘸濕之軟布清潔錄音機外殼。請勿使用任何類型的拋光劑、研磨粉或溶液（例如酒精或汽油），以免損壞外殼的光滑表面。
- 使用乾布擦拭唱碟盒上的灰塵。
- 鏡頭上的灰塵可能會阻礙本機正常運作。請務必在插入或取出 MD 之後合上唱碟匣的蓋子。
- 要獲取最佳聲音品質，請使用乾布擦去耳機插頭或遙控器的灰塵。骯髒的插頭可能會導致聲音失真或時斷時續。

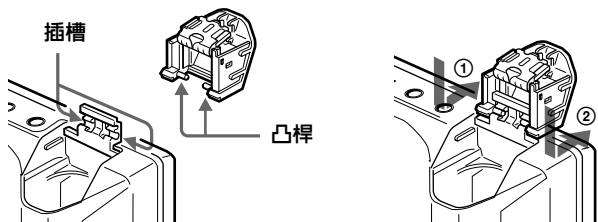
## 有關電池的注意事項

不正確地使用電池可能會導致電池液體外漏或電池爆炸。要防止這種情況發生，請注意以下防範措施：

- 正確安裝電池的 + 與 - 極。
- 請勿嘗試為乾電池重新充電。
- 在長時間不使用錄音機時，請務必將電池取出。
- 如果電池漏液，請仔細地將電池室的電池殘液完全擦淨，然後才裝入新電池。

## 關於電池室的蓋子

電池室蓋子的設計可承受您用力將之從主機拆下。要將蓋子重新連接至主機，請執行以下步驟：



- 1 放置蓋子，使蓋子上的凸桿與主機上的插槽對齊。
- 2 將凸桿逐個裝入插槽（如圖所示）。

## 有關機械噪音的注意事項

如果錄音機在操作時發出機械噪音，這是由錄音機的節電系統所造成，而非出現問題。

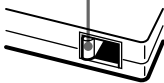
## 保護已錄製的 MD

要防止錄製 MD，請滑開 MD 側邊的防寫彈片。這時，您將無法錄製或編輯 MD。要再次錄製，請向後滑動防寫彈片，以便可以看到彈片。

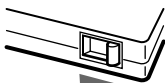
### MD 的背面



### 防寫彈片



錄製的材料  
已受保護。



錄製的材料  
未受保護。

## 有關數碼錄音的注意事項

本錄音機使用序列備份管理系統，僅容許從原版軟體製作第一代數碼備份。您僅可以使用類比連接從家庭式錄製 MD 製作備份。

原版軟體，例如 CD 或 MD。



數碼錄音



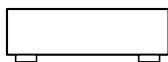
家庭式  
錄製 MD

禁止  
數碼錄音

可錄音 MD

如果您有任何有關錄音機的疑問或問題，請就近與 Sony 經銷商聯絡。(如果唱碟在錄音機內發生故障，我們建議您將唱碟留在機內，以便在您與 Sony 經銷商聯絡時，讓其更好地查明原因。)

麥克風、錄音機、調頻器等  
(配備類比輸出插孔)。



類比錄音



家庭式錄製 MD

數碼錄音



可錄音 MD



禁止  
數碼錄音



可錄音 MD

## 系統限制

微型雷射唱碟錄音機中的錄音系統與卡式和 DAT 機座中的系統有很大差異，以下所述的限制是其具有的特性。但請注意，這些限制是由於 MD 錄音系統本身固有的特性所造成，而非機械導致。

問題	原因
即使唱碟尚未達到最大錄音時間（60、74 或 80 分鐘），“TR FULL”仍會顯示。	在唱碟上錄製的曲目達到 254 首時，無論錄音總時間有多長，“TR FULL”均會顯示。唱碟上錄製的曲目不能超過 254 首。要繼續錄音，請拭除不必要的曲目。
即使在唱碟達到最大曲目編號或錄音時間之前，“TR FULL”仍會顯示。	重複錄音與拭除可能會引起資料分段與分散。雖然分散的資料可以讀取，但每個片段會被視為一首曲目。這時，曲目的數目可能達到 254 首，且不能再進行錄音。要繼續錄音，請拭除不必要的曲目。
無法拭除曲目標記。 即使在拭除許多短曲目之後，仍無法增加剩餘錄音時間。	在曲目資料分散時，12 秒鐘（以立體聲錄音）、24 秒鐘（以單音或 LP2 模式錄音）或 48 秒鐘（以 LP4 模式錄音）內的片段之曲目標記無法拭除。您無法結合以不同錄音模式錄製的曲目，例如，以立體聲錄製的曲目與以單音錄製的曲目；您也無法結合以數碼連接與類比連接錄製的曲目。無法計算長度少於 12 秒鐘、24 秒鐘或 48 秒鐘的曲目。因此，將它們拭除仍不能增加錄音時間。




問題	原因
唱碟上的總錄音時間與剩餘時間的合計可能不等於最長錄音時間（60、74 或 80 分鐘）。	一般上，錄音的最小時間單位大約為 2 秒鐘（立體聲）、4 秒鐘（單音或 LP2 模式）或 8 秒鐘（LP4 模式）。在停止錄音時，即使實際錄音時間較短，最後的錄音時間始終以 2 秒鐘、4 秒鐘或 8 秒鐘為單位。同樣，在停止錄音後再次錄音時，錄音機會自動在下一次錄音前插入 2 秒鐘、4 秒鐘或 8 秒鐘的空白位置。（這可以防止在進行新的錄音時，誤將前一首曲目拭除。）因此，只要停止錄音，實際錄音時間就會減少，且每次停止後的錄音時間最多會縮短 6 秒鐘、12 秒鐘或 24 秒鐘。
在搜索作業期間，編輯的曲目可能顯示聲音訊息遺失。	在搜索時，資料的片段可能會導致聲音訊息遺失，因為曲目以較正常播放更快的速度播放。

## 故障排除

如果您檢查了以下內容後仍然存在問題，請就近與 Sony 經銷商聯絡。

### 錄音機無法操作或效率極差。

- 音源可能沒有穩固連接。
  - 中斷音源的連接一次，並將其再次連接（第 12、20 頁）。
- HOLD 功能已開啓（在您按下錄音機上的操作按鈕時，“HOLD”會在顯示屏中顯示）。
  - 將 HOLD 開關沿著箭頭的反方向移動以關閉 HOLD（第 10、37 頁）。
- 潮氣在錄音機內凝結。
  - 取出 MD 並打開錄音機的蓋子，然後將其置於溫暖的地方數小時，直到潮氣蒸發。
- 充電式電池或乾電池電量不足（ 或 “LOW BATT” 會閃爍）。
  - 請為充電式電池充電或更換乾電池（第 50 頁）。
- 充電式電池或乾電池未正確裝入。
  - 正確裝入電池（第 9 頁）。
- 您在唱碟指示快速旋轉時按下了一個按鈕。
  - 請稍候直到該指示緩慢旋轉。
- 使用配備衰減器的連接導線進行類比錄音。
  - 請使用沒有衰減器的連接導線（第 20 頁）。
- 在操作時，錄音機受到機械衝擊、太多的靜電、閃電引起的不正常電源電壓等。
  - 按照以下步驟重新開始操作。
    - 1 中斷所有電源的連接。
    - 2 放置錄音機大約 30 秒鐘。
    - 3 連接電源。
- 唱碟受損或沒有正常錄音或編輯資料。
  - 重新插入唱碟。如果仍不正常，請重新錄音。

“NO SIGNAL” 會在顯示屏中顯示（在從便攜式 CD 播放機進行錄音時）。

- 沒有來自便攜式 CD 播放機的數碼訊號。
  - 在從便攜式 CD 播放機進行數碼錄音時，請使用 AC 電源轉接器並關閉 CD 播放機的防止跳音功能（例如 ESP）（第 15 頁）。


**錄音操作之後沒有錄音。**

- 在錄音時，拔下了 AC 電源轉接器或發生停電事故。

**蓋子無法打開。**

- 在錄音或編輯時電源中斷，或電池電量已耗盡。
  - 再次連接電源，或使用新電池更換已耗盡的電池。


**耳機中沒有聲音。**

- 耳機插頭連接不穩固。
  - 將耳機的插頭穩固地插入遙控器。將遙控器的插頭穩固地插入 。
- 音量太低。
  - 按下 VOL +/- 來調節音量。

**音量無法調高。**

- AVLS 處於開啓狀態。
  - 將 AVLS 設定為“AVLS OFF”（第 36 頁）。

**MD 不是從第一首曲目開始播放。**

- 唱碟在播放至最後一首曲目之前停止播放。
  - 重複按下  以返回唱碟起始處，然後在顯示屏中檢查曲目編號之後再重新開始播放。

**播放跳音。**

- 錄音機處於持續震動的位置。
  - 將錄音機置於平穩的地方。
- 極短的曲目可能會引起跳音。

**聲音有大量靜電。**

- 來自電視或類似設備的強烈磁場干擾操作。
  - 將錄音機移至遠離強烈磁場的地方。

無法搜索曲目標記。

- 在按下 ◀◀ 或 ▶▶ 之後，您按下了 ||。
- 在按下 ◀◀ 或 ▶▶ 之前，按下 ||（第 43 頁）。

無法為充電式電池開始充電。

- 不正確地裝入了充電式電池，或不正確地連接了 AC 電源轉接器。
- 正確裝入電池或正確連接 AC 電源轉接器。

聽到短促的雜音。

- 由於 LP4 模式使用的是特殊數碼音頻壓縮技術，在錄製某些音源時，偶爾可能會產生短促的雜音。
- 請以一般立體聲或 LP2 模式進行錄音。

---

## 訊息

如果以下訊息在顯示屏中閃爍，請檢查以下訊息。

**BLANKDISC**

- 插入了沒有錄音的 MD。

**DISC ERR**

- 唱碟受損或沒有正常錄音或編輯資料。
- 重新插入唱碟。如果仍不正常，請重新錄音。

**DISC FULL**

- 唱碟上沒有足夠的空間再錄音。
- 更換唱碟。

**Data Save**

- MD 播放機正在將記憶體中的資訊（聲音）錄製到唱碟。
- 請稍候直到處理完畢。請勿震動播放機或中斷電源。

**TOC Edit**

- MD 唱機正在將記憶體中的資訊（曲目起始與結束位置）錄製到唱碟。
- 請稍候直到處理完畢。請勿震動播放機或中斷電源。

## **BUSY**

- 在錄音機正在存取所錄製的資料時，您嘗試操作錄音機。
  - 請等待直到此訊息消失（在某些特殊情況下，此訊息可能會持續 2 至 3 分鐘）。

## **NAME FULL**

- 您嘗試輸入超過 200 個字母來標識一首曲目或一張唱碟。
- 您嘗試輸入總字數超過 1700 個字母的曲名或碟名。
  - 輸入限制範圍內的文字。

## **Hi DC in**

- 電源電壓太高（未使用提供的 AC 電源轉接器）。
  - 使用所提供的 AC 電源轉接器。

## **HOLD**

- 已鎖定錄音機。
  - 朝箭頭的反方向移動 HOLD 以解除鎖定錄音機（第 10、37 頁）。

## **LOW BATT**

- 電池電量不足。
  - 請為充電式電池充電或更換乾電池（第 9 頁）。

## **MEM OVER**

- 您嘗試使用處於持續震動位置的錄音機進行錄音。
  - 將錄音機放在平穩的地方，再開始錄音。

## **NO COPY**

- 您嘗試從受到序列備份管理系統保護的唱碟製作備份。如果唱碟本身是使用數碼連接的方式錄製的，您將無法從數碼連接音源處製作備份。
  - 請使用類比連接來進行（第 20 頁）。

## **NO DISC**

- 在錄音機內無唱碟的情況下，您嘗試播放或錄音。
  - 插入 MD。

## **NO SIGNAL**

- 錄音機無法偵測數碼輸入訊號。
  - 請確定穩固地連接音源（第 12 頁）。

## P/B ONLY

- 您嘗試對放音專用 MD 進行錄音或編輯 (P/B 表示「播放」)。  
— 插入可錄音 MD。

## PROTECTED

- 您嘗試對防寫彈片處於錄音保護位置的 MD 進行錄音或編輯。  
— 向後滑動防寫彈片 (第 54 頁)。

## SORRY

- 您嘗試在第一首曲目的起始處拭除曲目標記。
- 您嘗試拭除曲目標記以結合曲目，而錄音機無法結合 (例如在不同錄音模式下或透過數碼連線與類比連線錄製的曲目)。
- 您嘗試在同步錄音時按下 ■■、T MARK 或 REC MODE。

## TEMP OVER

- 錄音機內溫度過高。  
— 請讓錄音機冷卻。

## TR FULL

- 在您編輯 MD 時，沒有足夠的空間再錄製新的資料。  
— 拭除不必要的曲目 (第 40 頁)。

## TrPROTECT

- 您嘗試對一首具有防止拭除保護的曲目進行錄音或編輯。  
— 請對其他曲目進行錄音或編輯。
- 您嘗試編輯已從電腦中擷取的曲目。  
— 您無法使用此機型重新命名或編輯已從電腦中擷取的曲目。

# 規格

## MD 錄音機

### 音頻播放系統

微型雷射唱碟數碼式音頻系統

### 雷射二極管性能

材料：GaAlAs MQW

波長： $\lambda = 790 \text{ nm}$

發射間隔：連續

雷射輸出：小於  $44.6 \mu\text{W}$

(此輸出是距離 7 公釐孔徑的光纖拾音器物鏡頭表面 200 公釐處的測量值。)

### 錄音與播放時間

在使用 MDW-80 時

最多 160 分鐘 (單聲道)

最多 320 分鐘 (立體聲)

### 轉速

350 rpm 至 2,800 rpm (CLV)

### 錯誤糾正

ACIRC (Advanced Cross

Interleave Reed Solomon Code)

### 取樣頻率

44.1 kHz

### 取樣頻率轉換器

輸入：32 kHz/44.1 kHz/48 kHz

### 編碼

ATRAC (Adaptive TRansform

Acoustic Coding)

ATRAC3 - LP2

ATRAC3 - LP4

### 調制系統

EFM (Eight to Fourteen  
Modulation)

### 聲道數

2 立體聲聲道

1 單聲道

### 頻率響應

20 至 20,000 Hz  $\pm 3 \text{ dB}$

### 抖音與晃音

低於可測量的限制

### 輸入

麥克風：立體聲微型插孔，最小  
輸入音量為 0.35 mV

線路輸入：立體聲微型插孔，最  
小輸入音量為 49 mV

光纖 (數碼) 輸入：光纖 (數  
碼) 微型插孔

### 輸出

Ⓜ：立體聲微型插孔，最大輸出  
音量為 5 mW + 5 mW，負載阻抗  
為 16 ohm

### 一般

### 電源要求

連接於 DC IN 3V 插孔的 Sony AC  
電源轉接器 (已提供)：

120 V AC、60 Hz (美國、加拿  
大及台灣機型)

230 V AC、50/60 Hz (歐洲大  
陸機型)

240 V AC、50 Hz (澳洲機型)

220 V AC、50 Hz (中國機型)

230 - 240 V AC、50 Hz (英國  
與香港機型)

220 V AC、50 Hz (阿根廷機  
型)

110/220 V AC、60 Hz (韓國機  
型)

100 - 240 V AC、50/60 Hz  
(其他機型)

NC-WMAA 充電式鎳鎘電池（已提供）

LR6 (SG) 鹼性電池（並未提供）

### 電池操作時間

請參閱「電池壽命」（第 50 頁）

### 尺寸

約為 81 × 28.6 × 74.4 公釐（寬 / 高 / 厚）（ $3\frac{1}{4} \times 1\frac{3}{16} \times 3$  吋），不計算凸出部份。

### 質量

約為 118 克（4.2 盎司），僅指錄音機

### 提供的附件

NC-WMAA 充電式鎳鎘電池 (1)

AC 電源轉接器 (1)

配備遙控器的耳機 (1)

光纖數碼電纜 (1)

充電式電池攜帶盒 (1)

攜帶套 / 有環形夾子的攜帶盒 (1)

美國和外國之注冊專利由杜比實驗室提供。

設計與規格如有變更，恕不另行通知。

### 可選購的附件

光纖數碼電纜

POC-15B、POC-15AB、POC-DA12SP

立體聲麥克風 ECM-717、ECM-MS907、ECM-MS957

立體聲耳機 \* MDR-EX70LP、MDR-G72LP、MDR-A34L

有源揚聲器 SRS-Z500

可錄音 MD MDW 系列

您的經銷商可能不提供以上列出的某些附件。請向經銷商查詢有關您所在國家或地區中銷售的附件之詳細資訊。

\* 無論您將耳機直接插入主機上的  $\odot$  插孔，或是直接插入遙控器上的  $\odot$  插孔，請僅使用配備立體聲微型插頭的耳機。您不可以使用配備微型插頭的耳機。



## 說明

### 為何微型雷射唱碟如此小巧

2.5 吋微型雷射唱碟 – 用塑料匣子包裝, 看起來像 3.5 吋磁碟 (參見上圖)。它使用稱為 ATRAC (Adaptive Transform Acoustic Coding) 的新數碼音頻壓縮技術。為了用更少的空間儲存更多的聲音, ATRAC 抽取並只解碼那些人類的耳朵真正可聽見的頻率組成部份。

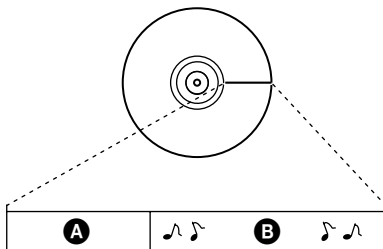
### 「無聲」的含義

「無聲」是指一種錄音機狀態。在此狀態下, 類比輸入的輸入音量約為 4.8 mV, 光纖 (數碼) 輸入的輸入音量小於 -89 dB (0 dB 為全位元 [微型雷射唱碟的最大可錄音音量])。

### 快速隨機存取

像 CD 一樣, MD 對任何曲目的起始處均可進行立即的隨機存取。收音專用 MD 以對應於每個曲目選擇的存放位置進行錄音。

可錄音 MD 用包含曲目順序的「使用者 TOC 區域」製造。TOC (目錄) 系統相似於軟碟片的「目錄管理系統」。換句話說, 錄製在唱碟上的所有曲目之起始與結束位址均儲存在此區域。這樣, 只要您輸入曲目編號 (AMS) 就可以隨機存取任何曲目的起始處, 您也可以使用曲名標識位置 (就像您處理儲存在磁碟裡檔案的方法)。



- A** — 使用者 TOC 區域  
包含順序與曲目的起始 / 結尾處。
- B** — 音樂數據







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