

# *MiniDisc Deck*

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Operating Instructions



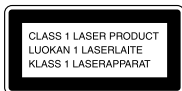
*MDS-JE780*

## WARNING

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

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.



This appliance is classified as a CLASS 1 LASER product.

This label is located on the rear exterior.

The following caution label is located inside the apparatus.



Don't throw away the battery with general house waste, dispose of it correctly as chemical wastes.

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.

### Except for European models

ENERGY STAR® is a U.S. registered mark.

As an ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.



## About this manual

### Conventions

Controls in these instructions are those on the deck; these may, however, be substituted by controls on the supplied remote that are similarly named, or, when different, appear in the instructions within parentheses.

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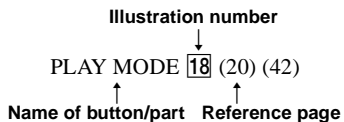
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# List of Button Locations and Reference Pages

How to use this page

Use this page to find the location of buttons and other parts of the system that are mentioned in the text.



## Main unit

### ALPHABETICAL ORDER

#### A - M

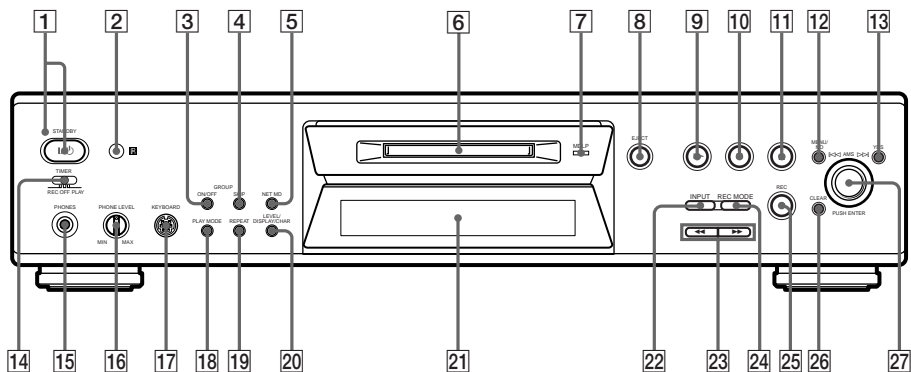
- AMS **27** (14) (21) (27) (39) (43)
- CLEAR **26** (24) (33) (43)
- Display window **21**
- EJECT **8** (10) (21) (26)
- GROUP ON/OFF **3** (11) (23) (34)
- GROUP SKIP **4** (12) (23) (34)
- INPUT **22** (10)
- KEYBOARD jack **17** (43)
- LEVEL/DISPLAY/CHAR **20** (10) (16) (21) (32)
- MD insertion slot **6** (10) (20)
- MDLP indicator **7** (14) (21)
- MENU/NO **12** (14) (21) (26) (39) (43)

#### N - Y

- NET MD **5** (9)
- PHONE LEVEL **16** (21)
- PHONES jack **15** (17) (21) (40)
- PLAY MODE **18** (20) (42)
- REC MODE **24** (13)
- REC **25** (10) (14) (17)
- Remote sensor **2** (8)
- REPEAT **19** (20)
- STANDBY indicator **1** (10) (20)
- TIMER **14** (42)
- YES **13** (14) (25) (27) (39) (43)

### BUTTON DESCRIPTIONS

- I/⏻ **1** (10) (20) (26)
- ▷ **9** (10) (20) (42) (44)
- ▬ **10** (10) (21) (44)
- **11** (10) (21) (26) (42) (44)
- ◀◀/▶▶ **23** (21) (28) (44)



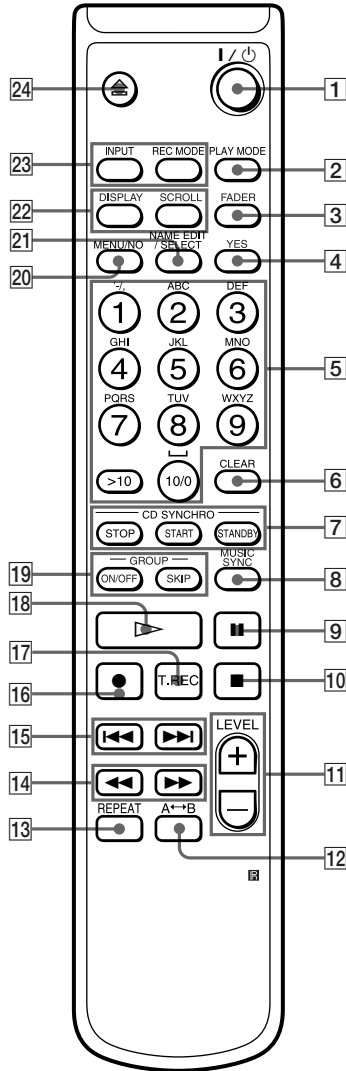
# Remote control

## ALPHABETICAL ORDER

- A↔B **12** (20)
- CD SYNCHRO STANDBY **7** (18)
- CD SYNCHRO START **7** (18)
- CD SYNCHRO STOP **7** (19)
- CLEAR **6** (24) (33) (43)
- DISPLAY **22** (10) (21)
- FADER **3** (40)
- GROUP ON/OFF **19** (11) (23) (34)
- GROUP SKIP **19** (12) (23) (34)
- INPUT **23** (10)
- Letter/number buttons **5** (21) (33)
- LEVEL +/- **11** (16) (21)
- MENU/NO **20** (14) (21) (26) (39) (43)
- MUSIC SYNC **8** (18)
- NAME EDIT/SELECT **21** (32)
- PLAY MODE **2** (20) (42)
- REC MODE **23** (13)
- REPEAT **13** (20)
- SCROLL **22** (22)
- T.REC **17** (17)
- YES **4** (14) (25) (27) (39) (43)

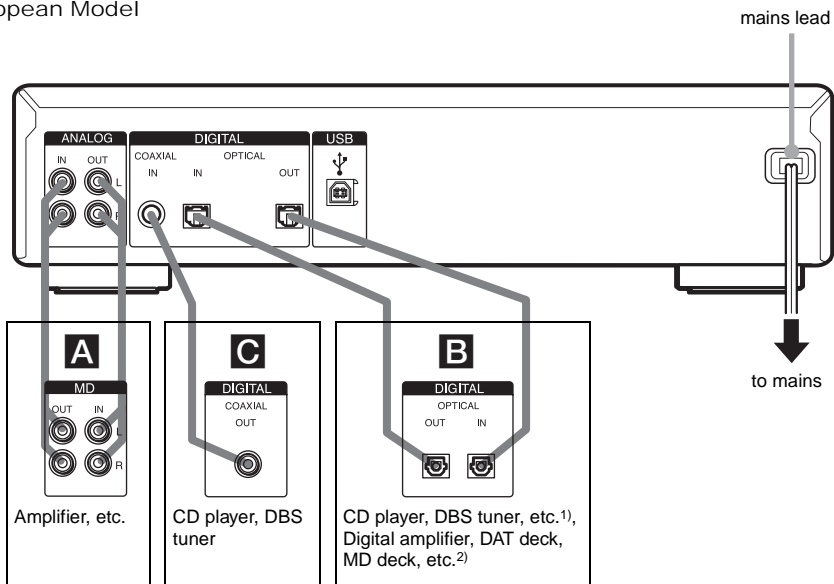
## BUTTON DESCRIPTIONS

- I/⏻ **1** (10) (20) (26)
- ⏮ **9** (10) (21) (44)
- **10** (10) (21) (26) (42) (44)
- ◀▶ **14** (21) (28) (44)
- ◀▶/▶▶ **15** (14) (21) (27) (39) (43)
- **16** (10) (14) (17)
- ▷ **18** (10) (20) (42) (44)
- ⊞ **24** (10) (21) (26)

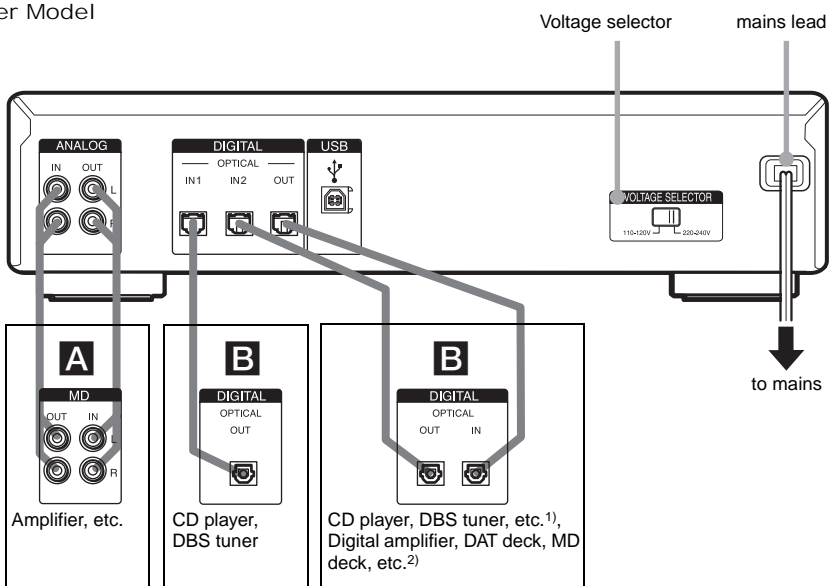


## Hooking up the audio components

European Model



Other Model

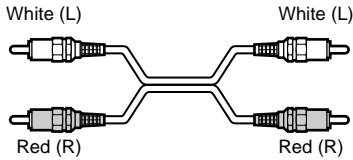


- 1) Digital equipment with a DIGITAL OUT connector only
- 2) Digital equipment with both DIGITAL IN and OUT connectors

## Required cords

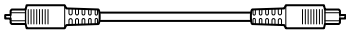
### A Audio connecting cords (2) (supplied)

When connecting an audio connecting cord, be sure to match the colour-coded pins to the appropriate jacks: white (left) to white and red (right) to red.

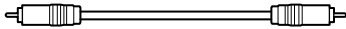


### B Optical cables (2 for European model/3 for other model) (only one supplied)

- When connecting an optical cable, insert the cable plugs straight in until they click into place.
- Do not bend or tie the optical cables.



### C Coaxial digital connecting cable (for European model only) (1) (not supplied)



## Hookup considerations

- Turn off the power of all components before making any connections.
- Do not connect any mains lead until all the connections are completed.
- Be sure the connections are firm to prevent hum and noise.

## Jacks (connectors) for connecting audio components

For European model

Connect	To the
Amplifiers	ANALOG IN/OUT jacks
CD players or DBS tuners	DIGITAL COAXIAL IN jack or DIGITAL OPTICAL IN connector
Digital amplifiers, DAT decks, or another MD deck	DIGITAL OPTICAL IN/OUT connectors

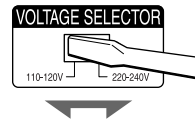
For other model

Connect	To the
Amplifiers	ANALOG IN/OUT jacks
CD players or DBS tuners	DIGITAL OPTICAL IN <sup>1)</sup> connector
Digital amplifiers, DAT decks, or another MD deck	DIGITAL OPTICAL IN <sup>1)/</sup> OUT connectors

- 1) There is no distinction of IN1 and IN2 connectors.

## Setting the voltage selector (only on the model supplied with a voltage selector)

Check that the voltage selector on the rear panel of the deck is set to the local power line voltage. If not, set the selector to the correct position using a screwdriver before connecting the mains lead to mains.



continued

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## To connect the mains lead


Connect the mains lead of the deck to mains.

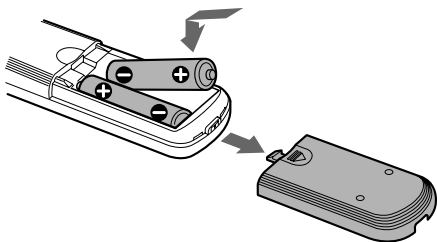
### Note

If you use a timer, connect the mains lead to the socket of the timer.

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## Inserting batteries into the remote

Insert two R6 (size-AA) batteries into the battery compartment with the + and – properly oriented to the markings. When using the remote, point it at the remote sensor  on the deck.



### Tip

When the remote no longer operates the deck, replace both batteries with new ones.

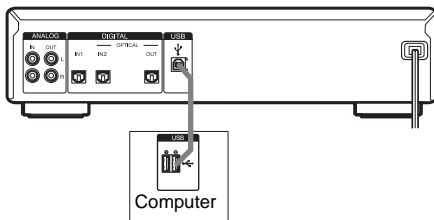
### Notes

- Do not leave the remote in an extremely hot or humid place.
- Do not drop any foreign object into the remote casing, particularly when replacing the batteries.
- Do not use a new battery with an old one.
- Do not expose the remote sensor to direct sunlight or lighting apparatus. Doing so may cause a malfunction.
- If you don't use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

## Connecting a personal computer to the deck (Net MD)

By installing the supplied software OpenMG Jukebox onto your computer, you can transfer digital music contents saved on the hard disc of your computer to (Check Out) and from (Check In) an MD. For details on the installation and operation of OpenMG Jukebox, refer to the instruction manual or the online help for OpenMG Jukebox.

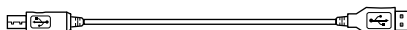
**Be sure to install the OpenMG Jukebox software to your computer before you connect the MD deck and your computer.**



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## Required cord

### USB cable (supplied)





## Notes

- Do not use a USB hub or USB extension cable between the MD deck and the computer. Be sure to connect the MD deck directly to the computer with the supplied USB cable.
- Make sure the USB connector is straight when you insert it. Inserting it at an angle may damage the connector parts.
- Be sure to install the OpenMG Jukebox software to the computer before you connect the MD deck and the computer by the USB cable. Otherwise, the computer may select an inappropriate driver for the MD deck when you connect them, and the MD deck may not work correctly.  
The [Add New hardware wizard] may appear when you connect the MD deck to the computer. If this happens, click [Cancel].
- Sound output is not supported when you connect the MD deck to the computer by the supplied USB cable alone. To output sound from the MD deck to the speakers of the connected computer, use the supplied audio connecting cord (a stereo mini-plug is provided on both ends) or a resistance-free, equivalent commercially available product to connect the ANALOG OUT jack on the MD deck with the analogue input jack on the computer.
- Do not disconnect the USB cable while the Net MD function is on. Be sure to turn off the Net MD function before disconnecting the USB cable.
- Disconnecting the USB cable is recommended other than when connecting and operating the MD deck from your computer.

## Using the Net MD function

- 1 Turn on the computer.**
- 2 Press I/⏻ to turn on the deck.**  
The STANDBY indicator turns off.
- 3 Load an MD into the slot.**
- 4 Press NET MD.**  
The Net MD function is activated and “Net MD” appears.



- 5 Start up and operate OpenMG Jukebox on the computer.**
- 6 Quit OpenMG Jukebox after use.**
- 7 Press NET MD to turn off the Net MD function.**

## Notes

- When the Net MD function is on, only the following buttons on the MD deck can be operated.
  - EJECT ⏏
  - NET MD
  - I/⏻
 However, note that these buttons may not function when the deck is in certain statuses.
- When the Net MD function is turned on, the following functions are cancelled or the settings are cleared:
  - Repeat Play, Shuffle Play, Programme Play
  - Group function
  - Sleep Timer
  - Auto Space, Auto Pause
  - Pitch Control
- When “Check USB” appears in the display, check the USB connection of the deck and the computer.
- You cannot perform editing operations on the checked out tracks other than “Moving recorded tracks” on page 31 and “Naming a track or an MD” on page 31 using this deck.

### Recording to an MD

If the MD has been partially recorded, recording starts after the recorded tracks.

- 1 **Turn on the amplifier and programme source, and select the source on the amplifier.**
- 2 **Press I/⏻ to turn on the deck.**  
The STANDBY indicator turns off.
- 3 **Load a recordable MD into the slot (page 20).**
- 4 **Press INPUT repeatedly to select the input jacks (connector) connected to the programme source.**

When the source is connected to the	Set INPUT to
DIGITAL OPTICAL IN connector <sup>1)</sup>	OPT
DIGITAL OPTICAL IN1 or IN2 connector <sup>2)</sup>	OPT1 or OPT2
DIGITAL COAXIAL IN jack <sup>1)</sup>	COAX
ANALOG IN jacks	ANALOG

- 1) European model only
- 2) Other model only

- 5 **Press REC ●.**  
The deck changes to recording pause.
- 6 **If necessary, adjust the recording level.**  
For details, see “Adjusting the recording level” on page 16.
- 7 **Press ▷ or ||, then start playing the desired source to record.**

Operations you may want to do during recording

To	Press
Stop recording	■
Pause recording	
Resume recording after pausing <sup>3)</sup>	▷ or
Eject the MD	EJECT ≡ after stopping recording

- 3) The track number increases by one.

To change the display while recording

Press LEVEL/DISPLAY/CHAR (or DISPLAY) repeatedly to change the display.

Each press of the button changes the display cyclically as follows:

Note

Note that, depending on the status of the deck, the display may not conform with the cycle shown below.

Track number and recorded time of the current track → Track number and remaining recordable time<sup>4)</sup> on the MD → Level of the input signal (setting value of the recording level) → Sampling frequency indication<sup>5)</sup>

- 4) Time shown in the display differs depending on the setting of REC MODE.
- 5) “FS -- kHz” appears while the analogue signal is input.

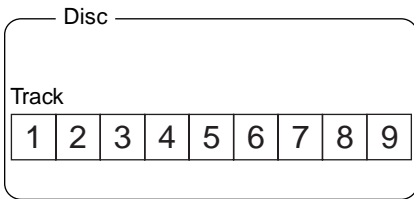
## Recording tracks in groups

### — Group Function

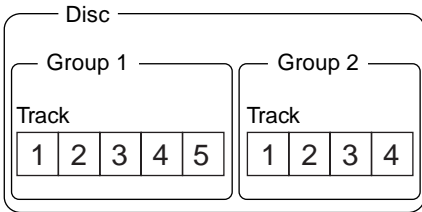
#### What is the Group function?

The Group function allows you to play, record and edit the tracks on an MD in groups. This is convenient for managing multiple CD albums recorded in MDLP mode onto a single MD. The Group function is turned on and off by pressing GROUP ON/OFF.

Group Function: Off



Group Function: On



#### Operations using the Group function

- Playing only the tracks in the desired group (page 23)
- Naming a group (page 34)
- Creating a new group and registering tracks (page 35)
- Releasing group registrations (page 36)

#### Note

MDs recorded using the Group function of this deck can be used with other system that supports the Group function. However, note that the Group function operations of other system may differ from the operations for this deck.

#### How is group information recorded?

When recording using the Group function, the group management information is automatically recorded on the MD as the disc name.

Specifically, a character string such as the following is written in the disc name recording area.

Disc name recording area

0 ; Favorites // 1 - 5 ; Rock // 6 - 9 ; Pops // ...

①                      ②                      ③

- ① The disc name is "Favorites."
- ② Tracks 1 to 5 are registered in the "Rock" group.
- ③ Tracks 6 to 9 are registered in the "Pops" group.

Therefore, when an MD recorded using the Group function is loaded on a system that does not support the Group function or on this deck with the Group function turned off, the above character string is displayed in its entirety as the disc name.

**Note that if you perform the procedure for "Renaming a track or an MD" on page 33 and rewrite this character string by mistake, you may be unable to use the Group function of that MD.<sup>1)</sup>**

- 1) The GROUP ON/OFF button flashes. To use the Group function again, first perform the procedure for "Releasing the registrations of all tracks on an MD" on page 37 and release the registrations of all tracks on the MD.

#### Notes

- The Group function setting is stored even if you eject the MD or turn off the deck.
- When the Group function is activated, tracks which are not registered to a group are not displayed and cannot be played.
- You cannot change the group order.
- If you load a disc with group management information written in other than the proper format, the GROUP ON/OFF button flashes. In this case you cannot use the Group function.

continued

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## Recording into a new group

You can create new groups by CD album or artist, etc.

- 1 Do steps 1 to 4 of “Recording to an MD” on page 10.**
- 2 Press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 3 Press REC ●.**  
“New Group” flashes and the deck changes to recording pause.
- 4 Do steps 6 to 7 of “Recording to an MD” on page 10.**  
To continue and record into another new group, press ■ repeatedly after the recording to display the disc name and the total number of groups, then do steps 3 and 4.

If “Group Full!” appears when you press REC ● to start recording

You cannot start recording because there is insufficient character space for group management.

Delete unnecessary characters (disc name or track names) until group recording is possible (see “Erasing a track or disc name” on page 33).

### Notes

- The new group is added after any existing groups with tracks registered into them.
- Up to 99 groups can be registered on a single MD.
- If “Group Full!” appears while recording, track numbers are not marked.

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## Recording into an existing group

You can add tracks to an existing group.

- 1 Do steps 1 to 4 of “Recording to an MD” on page 10.**
- 2 Press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 3 Press GROUP SKIP repeatedly until the group you want to record in appears.**
- 4 Press REC ●.**  
“New Track” flashes and the deck changes to recording pause.
- 5 Do steps 6 to 7 of “Recording to an MD” on page 10.**

If “Group Full!” appears when you press REC ● to start recording

You cannot start recording because there is insufficient character space for group management.

Delete unnecessary characters (disc name or track names) until group recording is possible (see “Erasing a track or disc name” on page 33).

### Notes

- The recorded track is added to the end of the group.
- When you newly record a track into an existing group, the track numbers following the newly recorded track may change when the Group function is turned off.
- If “Group Full!” appears while recording, track numbers are not marked.

## Notes on recording

After recording

Press EJECT  $\square$  to remove the MD or press I/⏻ to turn off the deck.

“TOC” or “TOC Writing” starts flashing. The TOC is updated and recording is completed.

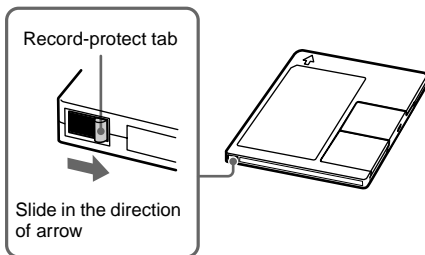
Before disconnecting the mains lead MD recording is completed when the MD Table of Contents (TOC) is updated. The TOC is updated when you eject the MD or press I/⏻ to turn off the deck. Do not disconnect the mains lead before updating the TOC (while “TOC” is lit) or while updating the TOC (while “TOC Writing” is flashing) to ensure a complete recording.

Automatic conversion of digital sampling rates

A built-in sampling rate converter automatically converts the sampling frequency of various digital sources to the 44.1 kHz sampling rate of the MD deck. This allows you to monitor and record sources such as 32- or 48-kHz DAT tape or satellite broadcasts, as well as the CDs and MDs.

To prevent accidental erasure of the recorded material

To protect an MD recording, slide the record-protect tab in the direction of the arrow (see illustration below) to open the slot. To enable re-recording, close the slot.



## Recording tips

— *Recording for long times/Marking track numbers/Smart Space/Adjusting the recording level/Checking the remaining recordable time/Input monitor*

All of the functions described here can be used even when the Group function is on. For a detailed description of the Group function, see page 11.

### Recording for long times

This deck has two long time recording modes: LP2 and LP4 (MDLP recording). When recording in LP2 Stereo mode, you can record 2 times the normal recordable time, and in LP4 Stereo mode, you can record 4 times the normal recordable time. In addition, the recordable time for monaural recording is approximately double the stereo recording time.

LP4 Stereo mode (4× long time recording mode) achieves a long stereo recording time by use of a special compression system. When placing emphasis on sound quality, Stereo recording or LP2 Stereo recording (2× long time recording mode) is recommended.

- 1 Do steps 1 to 4 of “Recording to an MD” on page 10.
- 2 Press REC MODE repeatedly to select the recording mode.

To record in	Set REC MODE to
Stereo	Blank (No indicator)
LP2 Stereo	LP2
LP4 Stereo	LP4
Monaural	MONO

- 3 Do steps 5 to 7 of “Recording to an MD” on page 10.

continued

## Tips

- The MDLP indicator lights up when you select LP2 or LP4 in step 2 above.
- The deck is set at the factory to add “LP:” at the beginning of a track name automatically. This indication is displayed when the track is played on a deck that does not support long-time recording. To turn off this function, do the following procedure.

- 1 While the deck is stopped, playing, or paused, press MENU/NO.
- 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Setup?” appears, then press AMS or YES.
- 3 Turn AMS (or press ◀◀/▶▶ repeatedly) until “LPstamp On” (factory setting) appears, then press AMS or YES.
- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to select “LPstamp Off”, and then press AMS or YES.
- 5 Press MENU/NO.

To add “LP:” automatically again, select “LPstamp On” in step 4 above.

## Notes

- The recorded “LP:” is a stamp which appears to indicate that the track cannot be played back when you try to play the track on a system that does not support MDLP mode. It does not appear for systems that support MDLP mode.
- When set to “On”, “LP:” is recorded as the track name, so the number of characters that can be input to an MD is reduced. If you divide an “LP:” track using the Divide function, “LP:” is also added to the latter track.
- The selected recording mode is kept even after recording has finished, so be sure to check the recording mode before recording.
- Tracks recorded in MDLP (LP2 or LP4) Stereo mode cannot be played back on a system that does not support MDLP mode.
- Even if you press REC MODE during recording, you cannot change the recording mode.
- Even if you press REC MODE repeatedly to select MONO, the monitor signal during recording does not become monaural.
- You cannot use S.F Edit and some other MD edit functions for tracks recorded in MDLP mode.

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## Marking track numbers while recording

### — Manual/Automatic Track Marking

You can mark track numbers either manually or automatically while recording. By marking track numbers at specific points, you can quickly locate the points later or edit the MD easily.

Marking track numbers manually (Manual Track Marking)

**While recording, press REC ● at the point where you want to add a track number.**

Marking track numbers automatically (Automatic Track Marking)

When recording from a CD player or MD deck connected to a DIGITAL IN connector, the deck marks track numbers in the same sequence as the source.

When recording from other sources connected to the DIGITAL IN connector or a source connected to the ANALOG IN jacks, do the procedure below to mark track numbers automatically. However, you cannot mark track numbers automatically if the sound source to be recorded is noisy (e.g., tapes or radio programmes).

- 1 While the deck is stopped, press MENU/NO.
- 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Setup?” appears, then press AMS or YES.
- 3 Turn AMS (or press ◀◀/▶▶ repeatedly) until “T.Mark LSyn(c)” appears, then press AMS or YES.
- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to select the setting, then press AMS or YES.

---

To	Select
Turn on Automatic Track Marking	T.Mark LSyn(c) (factory setting)
Turn off Automatic Track Marking	T.Mark Off

---

When you select “T.Mark LSyn(c)”, “L.SYNC” lights up.

- 5 Press MENU/NO.

To change the trigger level for Automatic Track Marking

Do the procedure below to change the signal level that triggers Automatic Track Marking.

- 1 While the deck is stopped, press **MENU/NO**.
- 2 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until **"Setup?"** appears, then press **AMS** or **YES**.
- 3 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until **"LS(T)"** appears, then press **AMS** or **YES**.
- 4 Turn **AMS** (or press **◀◀/▶▶** repeatedly) to select the level, then press **AMS** or **YES**.

You can set the level at any value between -72 dB and 0 dB, in 2 dB increments (-50 dB is the factory setting).

## 5 Press **MENU/NO**.

Tips for automatic track marking

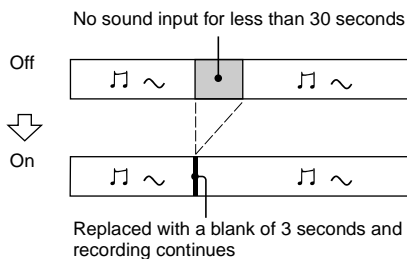
- When recording from a CD player or an MD deck connected to the **DIGITAL IN** connector, the entire material might be recorded as a single track in the following cases:
  - When you consecutively record the same track two or more times using single-track repeat play.
  - When you consecutively record two or more tracks with the same track number but from different CDs or MDs.
  - When you record tracks from certain CD or multi-disc players.
- A track number might not be marked for tracks less than 4 seconds long (in Stereo mode, Monoaural mode, and LP2 Stereo mode) or 8 seconds long (in LP4 Stereo mode) during recording.
- When recording from a component connected to the **ANALOG IN** jacks with **"T.Mark Off"** selected or when recording from a DAT deck or DBS tuner connected to the **DIGITAL IN** connector, the entire material may be recorded as a single track.
- When recording from a DAT deck or DBS tuner connected to the **DIGITAL IN** connector, the deck will mark a track number whenever the sampling frequency of the input signal changes, regardless of the track marking parameter setting (**"T.Mark LSync(c)"** or **"T.Mark Off"**).

Tip

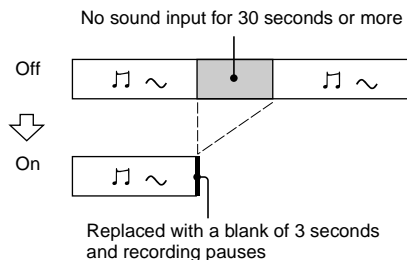
You can mark track numbers even after recording has finished. See "Dividing recorded tracks" on page 29.

## Erasing blank portions automatically (Smart Space/ Auto Cut)

The Smart Space function lets you make the blank spaces between tracks 3 seconds long automatically. If the Smart Space function is on and there is no sound input for about 3 seconds or more (but less than 30 seconds) while recording, the deck replaces this silence with a blank of about 3 seconds and continues recording.



**Auto Cut:** When the Smart Space function is on, if there is no sound input for 30 seconds or more, the deck replaces this silence with a blank of about 3 seconds and enters recording pause.



- 1 While the deck is stopped, press **MENU/NO**.
- 2 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until **"Setup?"** appears, then press **AMS** or **YES**.
- 3 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until **"S.Space On"** appears, then press **AMS** or **YES**.

continued

- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to select the setting, then press AMS or YES.**

To	Select
Turn on Smart Space and Auto Cut	S.Space On (factory setting)
Turn off Smart Space and Auto Cut	S.Space Off

**5 Press MENU/NO.**

Notes

- Smart Space does not affect the order of the track numbers being recorded, even if the blank space occurs in the middle of a track.
- Auto Cut is automatically turned on or off in tandem with Smart Space.
- If the deck continues recording pause for about 10 minutes after the Auto Cut activated, recording stops automatically.

## Adjusting the recording level

You can adjust the recording level for both analogue and digital recordings.

- 1 Do steps 1 to 5 of “Recording to an MD” on page 10.**
- 2 Play the portion of the programme source with the strongest output.**
- 3 Press LEVEL/DISPLAY/CHAR (or DISPLAY) repeatedly until the level of the input signal appears.**
- 4 While monitoring the sound, turn AMS (or press LEVEL +/- repeatedly) to raise the recording level to its highest level without turning on the two rightmost indicators on the peak level meters.**



Avoid turning on these indicators

- 5 Stop playing the programme source.**
- 6 To start recording, continue from step 7 of “Recording to an MD” on page 10.**

Tips

- You can adjust the recording level by pressing LEVEL +/- on the remote repeatedly during recording or recording pause.
- You can use Setup Menu to adjust the recording level.

- 1 During recording or recording pause, press MENU/NO.**
- 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Setup?” appears, then press AMS or YES.**
- 3 Turn AMS (or press ◀◀/▶▶ repeatedly) to select the desired source<sup>1)</sup>, then press AMS or YES.**
  - 1) For European model: “Ain”, “Coax” or “Opt”  
For other model: “Ain”, “Opt1” or “Opt2”
- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to adjust the recording level, then press AMS or YES.**
- 5 Press MENU/NO.**

- Peak hold function freezes the peak level meters at the highest level reached by the input signal.

- 1 While the deck is stopped, press MENU/NO.**
- 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Setup?” appears, then press AMS or YES.**
- 3 Turn AMS (or press ◀◀/▶▶ repeatedly) until “P.Hold Off” (factory setting) appears, then press AMS or YES.**
- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to select “P.Hold On”, then press AMS or YES.**
- 5 Press MENU/NO.**

To turn off the Peak Hold Function, select “P.Hold Off” in step 4 above.

Note

The recording level can only be increased up to +12.0 dB (for analogue recording) or +18.0 dB (for digital recording) (0.0 dB is the factory setting). Therefore, if the output level of the connected component is low, it may not be possible to set the recording level to maximum.



## Monitoring the input signal (Input Monitor)

You can monitor the selected input signal even when you are not recording it.

- 1 Press **EJECT**  $\triangle$  to eject the MD.
- 2 Press **INPUT** repeatedly to select the jacks (connector) where the signal you want to monitor is being input.
- 3 Press **REC**  $\bullet$ .

### When an analogue input is selected

The analogue signal input from the ANALOG IN jacks is output to the DIGITAL OUT connector after A/D conversion, and then to the ANALOG OUT jacks and PHONES jack after D/A conversion. “AD – DA” appears in the display during this time.

### When a digital input is selected

The digital signal input from the DIGITAL IN connector is output to the DIGITAL OUT connector after passing through the sampling rate converter, and then to the ANALOG OUT jacks and PHONES jack after D/A conversion. “– DA” appears in the display during this time.

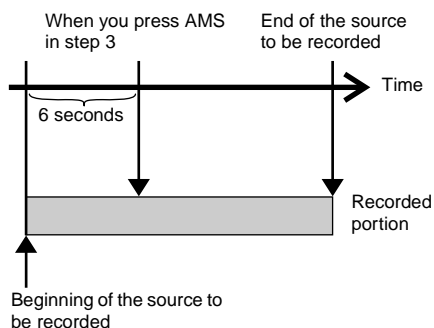
To stop Input Monitor

Press  $\blacksquare$ .

## Starting recording with 6 seconds of prestored audio data

### — Time Machine Recording

When recording from an FM or satellite broadcast, the first few seconds of material are often lost due to the time it takes you to ascertain the contents and press the record button. To prevent the loss of this material, the Time Machine Recording feature constantly stores the most recent audio data in a buffer memory. This lets you record the sound from 6 seconds before starting recording, as shown in the illustration below:



- 1 Do steps 1 to 5 of “Recording to an MD” on page 10.

The deck changes to recording pause.

- 2 Start playing the programme source.

- 3 Press **AMS** (or **T.REC**) at the point where you want to start recording.

Recording starts with the six seconds of prestored data in the buffer memory, then continues recording via the buffer memory thereafter.

### Note

In step 3 above, recording starts using the audio data accumulated in the buffer memory. Therefore, when the recording pause mode or sound source playback has lasted for less than 6 seconds, less than 6 seconds of audio data are stored in the buffer memory, so the sound from 6 seconds before cannot be recorded.

## Synchro-recording with the audio component of your choice

### — Music Synchro-recording

The Music Synchro-recording allows you to automatically synchronize recording to the MD deck with the playing of the selected programme source. The Track Marking Function, however, will differ according to the programme source. For details, see “Marking track numbers while recording” on page 14.

- 1 Do steps 1 to 4 of “Recording to an MD” on page 10.**
- 2 Press MUSIC SYNC on the remote.**  
The deck changes to recording pause.
- 3 Start playing the programme source.**  
Recording starts automatically.

#### Note

During Music Synchro-recording, Smart Space and Auto Cut will operate regardless of their setting (“S.Space On” or “S.Space Off”).

## Synchro-recording with a Sony CD player

### — CD Synchro-recording

When the deck is connected to a Sony CD player or Hi-Fi component system, you can easily copy the contents of CDs to the MD using the deck’s remote. Because the MD remote operates both the MD deck and the CD player or CD player section of the component system, make sure to place the MD deck and the CD player as close together as possible.

- 1 Turn on the amplifier and the CD player, and select CD on the amplifier.**
- 2 Do steps 2 to 4 of “Recording to an MD” on page 10.**
- 3 Insert a CD into the CD player and select the playing mode (Shuffle Play, Programme Play, etc.) on the CD player.**
- 4 Press CD SYNCHRO STANDBY on the remote.**  
The CD player changes to play standby and the MD deck changes to recording standby.
- 5 Press CD SYNCHRO START on the remote.**  
The deck starts recording and the CD player starts to play.  
The track number and elapsed recording time of the track appear in the display.

If the CD player does not start playing

Some CD players may not respond when you press CD SYNCHRO START on the remote.

Press **II** on the CD player's remote instead to start play on the CD player.

Operations you may want to do during CD Synchro-recording

To	Press
Stop recording	CD SYNCHRO STOP on the remote
Pause recording	CD SYNCHRO STANDBY on the remote
Resume recording after pausing	CD SYNCHRO START on the remote

Tips

- You can use the remote of the CD player during CD Synchro-recording.

Press	To change the deck to	And change the CD player to
▷	Recording	Play
■	Recording pause	Stop
II	Recording pause	Pause

- During CD Synchro-recording, track numbers are marked in the following ways:
  - When the CD player is connected to the DIGITAL IN connector, track numbers are automatically marked as they appear on the CD.
  - When the CD player is connected to the ANALOG IN jacks, track numbers are automatically marked when "T.Mark LSyn(c)" has been selected (page 14).
  - When you resume recording after recording pause, a new track number is automatically marked, regardless of the track marking parameter setting ("T.Mark LSyn(c)" or "T.Mark Off").

- You can change the CD during CD Synchro-recording.

**1** Press **■** on the CD player's remote.

**2** Change the CD.

**3** Press ▷ on the CD player's remote.

The MD deck resume recording.

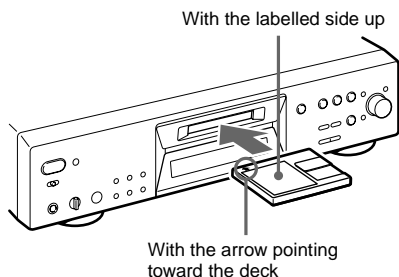
- By reprogramming the MD's remote, you can use the procedure above to perform synchro-recording with a Sony video CD player. Press number button 2 on the remote while pressing down I/⏏ on the remote. You can now operate the MD deck and the video CD player with the remote. To control the CD player again, press number button 1 on the remote while pressing down I/⏏ on the remote.

Notes

- When performing CD Synchro-recording with a CD player with a mode selector, be sure to set the selector to CD1.
- When you record tracks from certain CD or multi-disc players, the entire material may be recorded as a single track.

### Loading an MD

Load an MD as illustrated below.



### Playing an MD

— *Normal Play/Shuffle Play/Repeat Play*

- 1 Turn on the amplifier and select MD on the amplifier.
- 2 Press I/⏻ to turn on the deck.  
The STANDBY indicator turns off.
- 3 Load an MD.
- 4 Press PLAY MODE repeatedly until the mode you want appears in the display.

Select	To play
Blank (no PLAY MODE indication)	The MD in the original order
SHUF	The tracks in random order
PGM	The tracks in the order you want (see "Creating your own programme" on page 24)

- 5 Press ▷.  
The deck starts to play.

- 6 Adjust the volume on the amplifier.

Repeat Play Operations

To	Do the following:
Repeat only one track	Press REPEAT repeatedly until "REPI" lights up in the display.
Repeat all tracks	Press REPEAT repeatedly until "REP" lights up in the display.
Cancel Repeat Play	Press REPEAT repeatedly until "REPI" or "REP" disappears.
Repeat a specific portion within a track (Repeat A-B Play)	<ol style="list-style-type: none"> <li>1 While the deck is playing, press A↔B on the remote at the starting point (point A) of the portion to be played repeatedly. "REP A-" lights up and "B" flashes in the display.</li> <li>2 Continue playing the track or press ◀▶ to locate the ending point (point B), then press A↔B on the remote. "REP A-B" lights up and Repeat A-B Play starts.</li> </ol>
Cancel Repeat A-B Play	Press REPEAT or CLEAR.

## Other Operations

To	Do the following:
Stop play	Press ■.
Pause play	Press ■■.
Resume play after pausing	Press ▷ or ■■.
Go to the next or a succeeding track during play	Turn AMS <sup>1)</sup> clockwise (or press ►► repeatedly).
Go to a preceding track during play	Turn AMS counterclockwise (or press ◀◀ repeatedly).
Go to the beginning of the current track during play	Turn AMS counterclockwise (or press ◀◀ once).
Go to a specific track while the deck is stopped	Turn AMS (or press ◀◀/►► repeatedly) until the track number you want to go to flashes in the display, then press AMS or ▷.
Find a point in a track	Press down ◀◀/►► during play <sup>2)</sup> or play pause <sup>3)</sup> . Release it when you reach the desired point.
Eject the MD	Press EJECT ⏏ after stopping play.

- 1) Automatic Music Sensor
- 2) When you locate a point while monitoring the sound.
- 3) When you locate by observing the time indication.

### Tips

- The MDLP indicator lights up when you select a track recorded in LP2 or LP4 Stereo mode.
- To use headphones, connect them to the PHONES jack. Turn PHONE LEVEL to adjust the headphones level.
- When “– Over –” appears in the display, the MD has reached the end while you’re pressing ►►. Turn AMS counterclockwise (or press ◀◀) or press ◀◀ to go back.

- You can adjust the analogue signal level output to the PHONES jack and the ANALOG OUT jacks.
  - 1 While the deck is playing, press LEVEL/DISPLAY/CHAR (or DISPLAY) repeatedly until the line output adjustment display appears.
  - 2 Turn AMS (or press LEVEL +/- repeatedly) to adjust the output signal level.
- You can use Setup Menu to adjust the analogue output level.
  - 1 While the deck is playing, press MENU/NO.
  - 2 Turn AMS (or press ◀◀/►► repeatedly) until “Setup?” appears, then press AMS or YES.
  - 3 Turn AMS (or press ◀◀/►► repeatedly) until “Aout” appears, then press AMS or YES.
  - 4 Turn AMS (or press LEVEL +/- repeatedly) to adjust the output signal level, then press AMS or YES.
  - 5 Press MENU/NO.

### Note

When you eject the MD or turn off the deck, the output level is reset to the factory setting (0.0 dB).

Playing a track by entering the track number

**Press the number button(s) on the remote to enter the track number of the track you want to play.**

To enter a track number over 10

#### 1 Press >10.

“.” equal to the number of digits for the number of tracks recorded on the MD flashes.

#### 2 Enter the corresponding digits.

To enter 0, press 10/0 instead.

### Examples:

- To select track number 30 on an MD recorded with 50 tracks, press >10, then 3 and 10/0.
- To select track number 30 on an MD recorded with 200 tracks, press >10, then 10/0, 3 and 10/0.

**continued**

---

## Using the MD display

### Press LEVEL/DISPLAY/CHAR (or DISPLAY) repeatedly.

The display changes cyclically as follows:

#### Note

Note that, depending on the status of the deck, the display may not conform with the cycle shown below.

#### During playing

Track name, track number and elapsed time of the current track → Track name, track number and remaining time of the current track →

Track name and remaining time of all recorded tracks<sup>1)</sup> → Disc name and track name<sup>2)</sup> →

Level of the output signal → Pitch, track number and elapsed time of the current track

- 1) When the Group function is on, the remaining time of all tracks within the group is displayed.
- 2) “No Name” appears when the disc or track has no name. When the Group function is on, the group name and track name are displayed.

#### Turning off indications in the display

You can use Setup Menu to turn off the display during playing. The display turns back on if you press ■ or ■■.

- 1 While the deck is stopped or playing, press MENU/NO.
- 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Setup?” appears, then press AMS or YES.
- 3 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Display On” (factory setting) appears, then press AMS or YES.
- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to select “Display Off”, then press AMS or YES.
- 5 Press MENU/NO.

To turn on the display, select “Display On” in step 4 above.

#### Tip

To check the track name during playing (only when the track name is recorded), press SCROLL on the remote. The track name appears and scrolls. While the track name is scrolling, press the button again to pause scrolling, and again to continue scrolling.

#### In stop mode

Disc name<sup>1)</sup>, total number of tracks and total recorded time → Disc name<sup>1)</sup>, total number of tracks and remaining recordable time<sup>2)</sup> on the MD (recordable MDs only) → Level of the input signal (setting value of the recording level) → Pitch, total number of tracks and total recorded time

- 1) “No Name” appears when the disc or track has no name. When the Group function is on, the disc name and the total number of groups (when no group is selected) or the group name and the total number of tracks and recorded time within the group (when a group is selected) are displayed.
- 2) Time shown in the display differs depending on the setting of REC MODE.

## Playing only the tracks in the desired group

This function allows you to listen only to your favorite tracks which you have registered into a group.

**1 Do steps 1 to 3 of “Playing an MD” on page 20.**

**2 Press GROUP ON/OFF.**

The GROUP ON/OFF button lights up. The disc name and the total number of groups appears.

**3 Press PLAY MODE repeatedly until the mode you want appears.**

Select	To play
Blank (no PLAY MODE indication)	The tracks in the group in the original order.
SHUF	The tracks in the group in random order.
PGM	The tracks in the group in the order you want (see “Creating your own programme” on page 24).

**4 Press GROUP SKIP repeatedly until the group you want to play appears.**

**5 Press ▷.**

**6 Adjust the volume on the amplifier.**

The deck stops when playback of the last track in the group ends.

### Tip

You can perform the operations described under Repeat Play (page 20), Other Operations (page 21) and Programme Play (page 24) only for the tracks in the group.

### Note

If you select and play a group that does not have any tracks registered, play starts from the first track of the first group on the MD.

Notes when using a remote (RM-TP501, RM-TP502, RM-TP503, RM-TP504) supplied with a Sony amplifier or tuner

- When the Group function is on, if you select and play a track using any of the above remotes, the Group function automatically turns off.
- When the Group function is on, the remote display for the track number being played may differ from the deck display.

## Creating your own programme

### — Programme Play

You can pick out the tracks that you like and specify the playing order in a programme containing up to 25 tracks.

---

### Programming the tracks

**1 While the deck is stopped, press PLAY MODE repeatedly until “PGM” lights up in the display.**

**2 Turn AMS (or press ◀◀/▶▶ repeatedly) until the track number you want to add to the programme appears, then press AMS or YES.**

The total number of programmed steps appears, followed by the last programmed track number and the total playing time of the programme.

#### Tip

You can use the number button(s) on the remote to enter the track directly. To enter a track number over 10, use >10. For details, see page 21.

**3 Repeat step 2 to enter other tracks.**

**4 Press ▷.**

Programme Play starts.

To stop Programme Play

Press ■.

To check the total number of programmed tracks

While the deck is stopped and “PGM” lights up, press LEVEL/DISPLAY/CHAR (or DISPLAY) repeatedly.

To check the programme order

Turn AMS (or press ◀◀/▶▶ repeatedly) during Programme Play.

To erase a programmed track

While the deck is stopped, press CLEAR. Each time you press CLEAR, the last programmed track is erased.

To cancel Programme Play

While the deck is stopped, press PLAY MODE repeatedly until “PGM” disappears.

#### Tip

The programme you made remains after Programme Play finishes.

To play the same programme again, press ▷.

#### Notes

- If you perform any of the following operations, the programme will be lost:
  - Eject the MD
  - Press GROUP ON/OFF
  - Turn the Net MD function on
- The display shows “- - - -” when the total playing time of the programme exceeds 999 minutes.
- “Step Full!” appears when you try to programme the 26th track.



## Tips for recording from MDs to tape

### Inserting blanks between tracks during play (Auto Space)

The MD deck can be set to automatically insert a three-second blank between tracks during play. This function is useful when you are recording from an MD to an analogue tape. The three-second blank enables you to use the Multi-AMS function later to locate the beginning of tracks on the tape.

- 1 While the deck is stopped, press MENU/NO.
- 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until "Setup?" appears, then press AMS or YES.
- 3 Turn AMS (or press ◀◀/▶▶ repeatedly) until "Auto Off" appears, then press AMS or YES.
- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to select the setting, then press AMS or YES.

To	Select
Turn on Auto Space	Auto Space
Turn off Auto Space	Auto Off (factory setting)

### 5 Press MENU/NO.

Tip

When you turn on Auto Space, "Auto Space" appears when the deck is inserting a blank between tracks.

Note

If you select "Auto Space" and record a selection containing multiple track numbers (for example, a medley or symphony), blank spaces will be created on the tape between the various sections.

### Pausing after each track (Auto Pause)

You can set the MD deck so that it pauses after each track to give you time to locate the next track to be recorded.

- 1 While the deck is stopped, press MENU/NO.
- 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until "Setup?" appears, then press AMS or YES.
- 3 Turn AMS (or press ◀◀/▶▶ repeatedly) until "Auto Off" appears, then press AMS or YES.
- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to select the setting, then press AMS or YES.

To	Select
Turn on Auto Pause	Auto Pause
Turn off Auto Pause	Auto Off (factory setting)

### 5 Press MENU/NO.

To resume play after pausing

Press ▷.

Tip

When you turn on Auto Pause, "Auto Pause" appears during pause and disappears when the deck resumes play.

### Before you start editing

#### Before editing

You can edit an MD only when:

- The MD is recordable.
- The MD play mode is normal play.

#### Note

When the Group function is on, editing can be performed only for the tracks registered into the selected group.

To cancel the last edit

Use Undo Function to cancel the last edit and restore the contents of the MD to the condition before the edit.

To quit while editing

Press MENU/NO or ■.

#### About indications which appear while editing

When "C11/Protected" appears in the display

The MD is record-protected. Slide the record-protect tab and close the slot. For details, see "To prevent accidental erasure of the recorded material" on page 13.



When "TrProtected" appears in the display

You cannot perform editing operations on protected tracks (tracks checked out from a USB connected computer, etc.) other than "Moving recorded tracks" on page 31 and "Naming a track or an MD" on page 31 using this deck.


When "Cannot Edit" appears in the display

You cannot edit the MD in Shuffle or Programme Play mode. Press PLAY MODE repeatedly until both "PGM" and "SHUF" disappear.

#### After editing

Press EJECT  to remove the MD or press I/ to turn off the deck.

"TOC" or "TOC Writing" starts flashing. The TOC is updated and recording is completed.

Before disconnecting the mains lead MD editing is completed when the MD Table of Contents (TOC) is updated. The TOC is updated when you eject the MD or press I/ to turn off the deck. Do not disconnect the mains lead before updating the TOC (while "TOC" is lit) or while updating the TOC (while "TOC Writing" is flashing) to ensure a complete editing.

## Erasing recordings

### — Erase Function

The MD deck lets you erase unwanted tracks quickly and easily.

The three options for erasing recordings are:

- Erasing a single track (Track Erase Function)
- Erasing all tracks (All Erase Function)
- Erasing a portion of a track (A-B Erase Function)

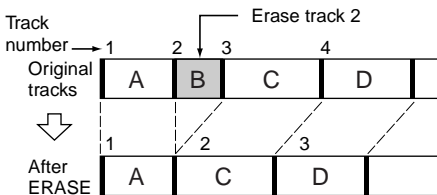
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### Erasing a single track

#### — Track Erase Function

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

Example: Erasing track 2.



**1 While the deck is stopped, playing, or paused, press MENU/NO.**

“Edit Menu” appears in the display.

**2 Turn AMS (or press ◀▶/▶▶ repeatedly) until “Tr Erase?” appears, then press AMS or YES.**

The deck starts to play the track indicated by the number in the display.

**3 Turn AMS (or press ◀▶/▶▶ repeatedly) until the track number you want to erase appears.**

**4 Press AMS or YES.**

“Complete!” appears. The track following the erased track starts to play. If the erased track is the last one on the MD, the track preceding the erased track starts to play.

Tips

- To avoid confusion when erasing more than one track, start erasing from the highest numbered track. This way you will avoid renumbering the tracks that you plan to erase.
- If you erase all the tracks within a group, the group is also erased at the same time as all the tracks within that group.

---

### Erasing all the tracks

#### — All Erase Function

Do the procedure below to erase all the tracks, track names, and disc name at once.

**1 While the deck is stopped, playing, or paused, press MENU/NO.**

“Edit Menu” appears in the display.

**2 Turn AMS (or press ◀▶/▶▶ repeatedly) until “All Erase?” appears, then press AMS or YES.**

“All Erase??” appears in the display.

**3 Press AMS or YES.**

“Complete!” appears.

Note

If you perform the above operations when the Group function is on, not only the tracks within the group, but all the tracks on the MD will be erased.

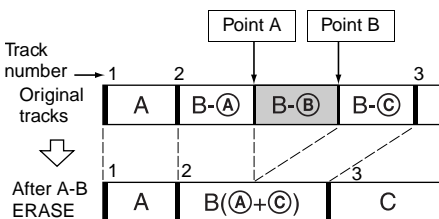
## Erasing a portion of a track

### — A-B Erase Function

You can specify a portion within a track and erase the portion with ease. You can shift the desired portion by frame<sup>1)</sup>, minute or second intervals.

1) 1 frame is 1/86 second.

Example: Erasing a portion of track 2.



- 1 While the deck is stopped, playing, or paused, press **MENU/NO**.  
“Edit Menu” appears in the display.
- 2 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until “A-B Erase?” appears, then press **AMS** or **YES**.  
Play starts.
- 3 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until the number of the track containing the portion to be erased appears.
- 4 While monitoring the sound, press **AMS** or **YES** at the starting point of the portion to be erased (point A).  
“-Rehearsal-” and “Point A ok?” alternate in the display and the deck repeatedly plays a few seconds of the track before the point A.

- 5 Press **AMS** or **YES** again if point A is correct.

“Point B set” appears in the display and playback for setting the ending point of the portion to be erased (point B) starts.

#### If point A is not correct

Adjust point A by turning **AMS** (or by pressing **◀◀/▶▶** repeatedly) while monitoring the sound, and then press **AMS** or **YES** when you locate the desired starting point. You can shift the point by 1-frame<sup>2)</sup> intervals (1 frame = 1/86 second).

- 6 Continue playing the track or press **◀◀/▶▶** to locate the ending point of the portion to be erased (point B), then press **AMS** or **YES**.

“A-B Ers” and “Point B ok?” alternate in the display and a few seconds of the track before point A and after point B playback repeatedly.

- 7 Press **AMS** or **YES** again if point B is correct.

“Complete!” appears in the display for a few seconds, the portion between point A and point B is erased, and then playback begins at the start of the track.

#### If point B is not correct

Adjust point B by turning **AMS** (or by pressing **◀◀/▶▶** repeatedly) while monitoring the sound, and then press **AMS** or **YES** when you locate the desired ending point. You can shift the point by 1-frame<sup>2)</sup> intervals (1 frame = 1/86 second).

- 2) You can shift the point by 2-frame intervals on the track recorded in Monaural mode or LP2 Stereo mode, and by 4-frame intervals on the track recorded in LP4 Stereo mode.

#### Tip

In steps 5 and 7, if you want to shift point A or point B by a certain number of seconds or minutes, press **◀◀/▶▶** repeatedly. You can change the unit by which the counter advances when you turn **AMS** (or press **◀◀/▶▶** repeatedly).

#### Note

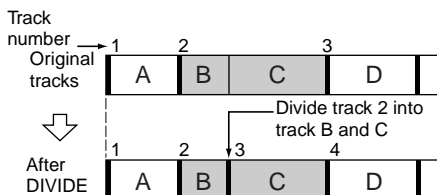
If “Impossible” appears in the display, you cannot erase a portion of a track. This happens when you have edited the same track many times. This is due to a technical limitation of the MD system and is not a mechanical error.

## Dividing recorded tracks

### — Divide Function

You can use this function to mark track numbers after recording. The total number of tracks increases by one and all the tracks following the divided ones are renumbered.

Example: Dividing track 2 into two tracks.



Dividing a track after selecting the track

- 1 **While the deck is stopped, playing, or paused, press MENU/NO.**  
“Edit Menu” appears in the display.
- 2 **Turn AMS (or press I◀◀/▶▶I repeatedly) until “Divide?” appears, then press AMS or YES.**  
Play starts.
- 3 **Turn AMS (or press I◀◀/▶▶I repeatedly) until the number of the track you want to divide appears.**
- 4 **While monitoring the sound, press AMS or YES at the dividing point.**  
“-Rehearsal-” appears in the display and the deck repeatedly plays a few seconds of the track from the point AMS or YES was pressed.
- 5 **Press AMS or YES again if the dividing point is correct.**  
“Complete!” appears and the deck starts to play the newly created track. Note that new track has no name.

#### If the point is not correct

Adjust the point by turning AMS (or by pressing I◀◀/▶▶I repeatedly) while monitoring the sound, and then press AMS or YES when you locate the desired point. You can shift the point by 1-frame<sup>1)</sup> intervals (1 frame = 1/86 second).

- 1) You can shift the point by 2-frame intervals on the track recorded in Monaural mode or LP2 Stereo mode, and by 4-frame intervals on the track recorded in LP4 Stereo mode.

#### Tips

- In step 5, if you want to shift the dividing point by a certain number of seconds or minutes, press ◀◀/▶▶I repeatedly. You can change the unit by which the counter advances when you turn AMS (or press I◀◀/▶▶I repeatedly).
- You can divide tracks while recording. For details, see “Marking track numbers while recording” on page 14.

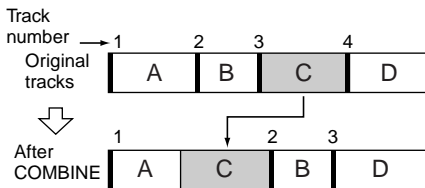
# Combining recorded tracks

## — Combine Function

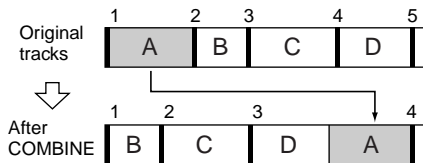
You can use this function to combine 2 tracks into a single track. The total number of tracks decreases by one and all tracks following the combined ones are renumbered.

You can also use this function to erase unnecessary track numbers.

Example: Combining track 3 to track 1.



Example: Combining track 1 to track 4.



- 1 While the deck is stopped, playing, or paused, press **MENU/NO**.  
“Edit Menu” appears in the display.
- 2 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until “Combine?” appears, then press **AMS** or **YES**.
- 3 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until the number of the first track of the two to be combined appears, then press **AMS** or **YES**.  
The display for selecting a second track appears and the deck plays the portion where joining will occur (the end of the first track and the beginning of the second track following it) repeatedly.
- 4 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until the number of the second track of the two to be combined appears, then press **AMS** or **YES**.  
“Complete!” appears and the deck starts to play the combined track.

### Notes

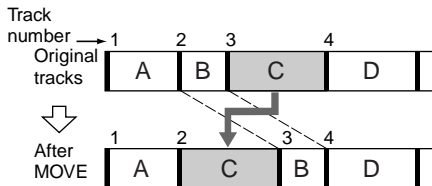
- When you combine two tracks that are registered into different groups, the second track is re-registered into the group containing the first track. In addition, if you combine a track that is registered to a group with a track that is not registered to a group, the second track takes the same registration setting as the first track. However, when the Group function is on, you can only combine tracks within the selected group.
- Tracks recorded in different modes (stereo, MONO, LP2 or LP4) cannot be combined.
- If both of the combined tracks have a track name, the name of the second track is erased.
- If “Impossible” appears in the display, the tracks cannot be combined because repeated editing has been done to the track(s). This is a technical limitation of the MD system and is not a mechanical error.

## Moving recorded tracks

### — Move Function

You can use this function to change the order of any track on the disc. When you move tracks, the tracks are automatically renumbered.

Example: Moving track 3 to position 2.



- 1 While the deck is stopped, playing, or paused, press **MENU/NO**.  
“Edit Menu” appears in the display.
- 2 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until “Move?” appears, then press **AMS** or **YES**.
- 3 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until the number of the track to be moved appears, then press **AMS** or **YES**.
- 4 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until the new track position appears, then press **AMS** or **YES**.  
“Complete!” appears and the deck starts to play the moved track.

#### Note

When you move a track to a track number that is registered into a group, the moved track is re-registered into the group containing the move destination track number. In addition, if you move a track that is registered into a group to a track number that is not registered into a group, the group registration of the moved track is released. However, when the Group function is on, you can only move tracks within the selected group.

## Naming a track or an MD

### — Name Function

You can enter a name for a recorded MD as well as for individual tracks. Names can consist of uppercase and lowercase letters, numbers, and symbols. A total number of about 1,700 characters can be stored for all the names on the MD.

The following procedure is for entering names when the Group function is off. To name a group, see “Naming a group” on page 34.

**However, when naming an MD recorded using the Group function, be sure to name the disc with the Group function on so as not to rewrite the group management information by mistake.**

For details on the group management information, see page 11.

#### Notes

- If you name a track while it is being recorded, be sure to finish the naming operation before the track ends. If the track ends before you finish, the entered character data will be discarded and the track will remain unnamed.
- If you enter the symbol “/” between the characters in disc names such as “abc//def”, you may be unable to use the Group function.

---

## Naming a track or an MD using the controls on the deck

**1 While the deck is stopped, playing, recording, or paused, press MENU/NO.**  
“Edit Menu” appears in the display.

**2 Turn AMS until “Nm In?” appears, then press AMS or YES.**

While the deck is recording, a flashing cursor appears in the display and you can enter a name for the track being recorded. In this case, go to step 4.

**3 Turn AMS until the track number (when naming a track) or “Disc” (when naming the MD) flashes, then press AMS or YES.**

A flashing cursor appears.

The deck starts playing and you can name a track while monitoring the sound.

**4 Press LEVEL/DISPLAY/CHAR repeatedly to select the character type.**

Each time you press the button, the display changes cyclically as follows:

■ (Blank space) → A (Upper cases) → a (Lower cases) → 0 (Numbers) → ‘ (Symbols)

### To enter a space

Press ►► while the cursor is flashing. You cannot enter a space as the first character.

**5 Turn AMS to select the character.**

The selected character flashes.

### To enter a symbol

You can use the following symbols in titles:  
’ - / , . ( ) : ! ? & + < > \_ = ” ; # \$ % @ \* ` `

### To change a selected character

Repeat steps 4 and 5.

**6 Press AMS.**

The selected character is entered and lights continuously. The cursor shifts to the right, flashes, and waits for the input of the next character.

**7 Repeat steps 4 to 6 to enter the rest of the name.**

### To change a character

Press ◀◀/▶▶ repeatedly until the character to be changed flashes, then repeat steps 4 to 6.

### To erase a character

Press ◀◀/▶▶ repeatedly until the character to be erased flashes, then press CLEAR.

**8 Press YES.**

The whole name appears in the display, followed by “Complete!”

---

## Naming a track or an MD using the remote

**1 Press NAME EDIT/SELECT depending on what you want to name:**

To name	Press while
A track	The track number is displayed
The MD	The deck is stopped with total number of tracks (or groups when the Group function is on) displayed

A flashing cursor appears in the display.

**2 Press NAME EDIT/SELECT repeatedly to select the character type.**

Each time you press the button, the display changes cyclically as follows:

“Selected AB” (Upper cases or symbols<sup>1)</sup>)  
→ “Selected ab” (Lower cases or symbols<sup>1)</sup>) → “Selected 12” (Numbers)

1) Only ’ - / , . ( ) : ! ? can be selected.



### 3 Enter a character using letter/number buttons.

**If you have selected upper cases or lower cases**

- 1 Press the corresponding letter/number button repeatedly until the character to be entered flashes.  
Or, press the button once and press **◀◀/▶▶** repeatedly.  
To select symbols, press **◀◀** repeatedly while "A" is flashing.

#### 2 Press **▶▶**.

The flashing character is entered and lights continuously and the cursor shifts to the right.

**If you have selected numbers**

Press the corresponding number button.  
The number is entered and the cursor shifts to the right.

### 4 Repeat steps 2 and 3 to enter the rest of the name.

**To change a character**

Press **◀◀/▶▶** repeatedly until the character to be changed flashes, press **CLEAR** to erase the character, then repeat steps 2 and 3.

### 5 Press **YES**.

The whole name appears in the display, followed by "Complete!."

---

## Renaming a track or an MD

### 1 Press **NAME EDIT/SELECT** on the remote depending on what you want to rename:

To rename	Press while
A track	The track number is displayed
The MD	The deck is stopped with total number of tracks (or groups when the Group function is on) displayed

A track or disc name appears in the display.

### 2 Press **CLEAR** until the selected name is erased completely.

### 3 Do steps 4 to 7 of "Naming a track or an MD using the controls on the deck" on page 32 or steps 2 to 4 of "Naming a track or an MD using the remote" on page 32.

### 4 Press **YES**.

The whole name appears in the display, followed by "Complete!."

---

## Erasing a track or disc name

Use this function to erase the name of a track or disc.

### 1 While the deck is stopped, playing, recording, or paused, press **MENU/NO**.

"Edit Menu" appears in the display.

### 2 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until "Nm Erase?" appears, then press **AMS** or **YES**.

### 3 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until the number of the track (when erasing the track name) or "Disc" (when erasing the disc name) flashes, then press **AMS** or **YES**.

"Complete!" appears.

## Naming a group

### — Name Function

You can enter a name for a group. Names can consist of uppercase and lowercase letters, numbers, and symbols. A total number of about 1,700 characters can be stored for all the names on the MD.

#### Note

If you enter the symbol “//” between the characters in group names such as “abc//def”, you may be unable to use the Group function.

---

### Naming a group using the controls on the deck

- 1 While the deck is stopped, press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 2 Press GROUP SKIP repeatedly until the group you want appears.**
- 3 Press MENU/NO.**  
“Edit Menu” appears in the display.
- 4 Turn AMS until “Nm In?” appears, then press AMS or YES.**
- 5 Turn AMS until “Gp \*\* (selected group number)” flashes, then press AMS or YES.**  
A flashing cursor appears.
- 6 Do steps 4 to 8 of “Naming a track or an MD using the controls on the deck” on page 32.**

---

### Naming a group using the remote

- 1 While the deck is stopped, press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 2 Press GROUP SKIP repeatedly until the group you want appears.**
- 3 Press NAME EDIT/SELECT while the deck is stopped with total number of tracks in the selected group displayed.**  
A flashing cursor appears.
- 4 Do steps 2 to 5 of “Naming a track or an MD using the remote” on page 32.**

---

### Renaming a group

- 1 While the deck is stopped, press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 2 Press GROUP SKIP repeatedly until the group you want appears.**
- 3 Press NAME EDIT/SELECT on the remote while the deck is stopped with total number of tracks in the selected group displayed.**  
A group name appears in the display.
- 4 Do steps 2 to 4 of “Renaming a track or an MD” on page 33.**

## Erasing a group name

Use this function to erase the name of a group.

- 1 **While the deck is stopped, press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 2 **Press GROUP SKIP repeatedly until the group you want appears.**
- 3 **Press MENU/NO.**  
“Edit Menu” appears in the display.
- 4 **Turn AMS (or press ◀◀/▶▶ repeatedly) until “Nm Erase?” appears, then press AMS or YES.**
- 5 **Turn AMS (or press ◀◀/▶▶ repeatedly) until “Gp \*\* (selected group number)” flashes, then press AMS or YES.**  
“Complete!” appears.

### Note

You cannot erase the name of a group that does not have any tracks registered.

## Creating a new group and registering tracks

### — Create Function

This function allows you to create a new group and register a track or consecutive tracks which are not already registered into that group. You can also create groups without registering any tracks.

- 1 **While the deck is stopped, press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 2 **Press MENU/NO.**  
“Edit Menu” appears in the display.
- 3 **Turn AMS (or press ◀◀/▶▶ repeatedly) until “Gp Create?” appears, then press AMS or YES.**
- 4 **Do steps 4 to 8 of “Naming a track or an MD using the controls on the deck” on page 32 or steps 2 to 5 of “Naming a track or an MD using the remote” on page 32.**
- 5 **Turn AMS (or press ◀◀/▶▶ repeatedly) to select the first track you want to register, then press AMS or YES.**
- 6 **Turn AMS (or press ◀◀/▶▶ repeatedly) to select the last track you want to register, then press AMS or YES. (When registering only one track, simply press AMS or YES again without performing any other operations.)**  
“Complete!” appears for a few seconds and the tracks are registered into the new group.

continued

## Tips

- To create a group without registering any tracks, turn AMS (or press **◀◀/▶▶** repeatedly) until “None” appears, then press AMS or YES. “Complete!” appears for a few seconds and new group is created.
- You can also register tracks that were recorded on a system that does not support the Group function.

## Notes

- You cannot register the same track to multiple groups.
- If all the tracks on an MD are registered into groups, “Assign None” appears after step 4 and you cannot register tracks.
- When creating a group without registering any tracks, you must enter the group name.
- If you do not enter a group name in step 4, “Group \*\* (group number)” appears instead of the group name.

## Releasing group registrations

### — *Release Function*

These functions allow you to release group registrations simply by specifying the group for which you want to release the registrations. In addition, you can also release the group registrations of all tracks on an MD at once.

---

## Releasing a single group

### — *Group Release Function*

You can release the group registrations of all tracks within the specified group and erase that group. (However, note that the tracks are not erased.)

- 1 While the deck is stopped, press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 2 Press GROUP SKIP repeatedly until the group you want to release appears.**
- 3 Press MENU/NO.**  
“Edit Menu” appears in the display.
- 4 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Gp Release?” appears.**
- 5 Press AMS or YES.**  
“REL Gp \*\* (selected group number) ??” and the group name appears.
- 6 Press AMS or YES again.**  
“Complete!” appears.

Releasing the registrations of all tracks on an MD

— **All Release Function**

You can release the group registrations of all tracks on an MD at once.

- 1 **While the deck is stopped, press GROUP ON/OFF.**  
The GROUP ON/OFF button lights up.
- 2 **Press MENU/NO.**  
“Edit Menu” appears in the display.
- 3 **Turn AMS (or press ◀◀/▶▶ repeatedly) until “Gp All REL?” appears, then press AMS or YES.**  
“All REL??” appears.
- 4 **Press AMS or YES again.**  
“Complete!” appears.

## Changing the recorded level after recording

— **S.F EDIT**

You can change the volume of recorded tracks using S.F (Scale Factor) Edit. The original track is recorded over at the new recording level. When changing the recording level, you can select Fade-in Recording to gradually increase the signal level at the start of recording, or Fade-out Recording to gradually decrease the signal level at the end of recording.

Changing the overall recording level

- 1 **While the deck is stopped, playing, or paused, press MENU/NO.**  
“Edit Menu” appears in the display.
- 2 **Turn AMS (or press ◀◀/▶▶ repeatedly) until “S.F Edit?” appears, then press AMS or YES.**
- 3 **Turn AMS (or press ◀◀/▶▶ repeatedly) until “Tr Level?” appears, then press AMS or YES.**
- 4 **Turn AMS (or press ◀◀/▶▶ repeatedly) until the track number you want to change the recording level appears, then press AMS or YES.**  
“Level 0dB” appears in the display.
- 5 **While monitoring the sound, turn AMS (or press ◀◀/▶▶ repeatedly) to change the recorded level without turning on the two rightmost indicators on the peak level meters.**

You can set the level at any value between -12 dB and +12 dB, in 2 dB increments.



Avoid turning on these indicators

continued

## 6 Press AMS or YES.

“(S.F) Edit OK?” appears in the display.

## 7 Press AMS or YES again.

The deck starts recording over the existing track. “S.F Edit(:) \*\* %” appears while the track is being recorded. An amount of time that is roughly equal to or longer than the playback time of the track is required when recording over the track. When the recording finishes, “Complete!” appears.

---

## Fade-in and Fade-out Recording

### 1 While the deck is stopped, playing, or paused, press MENU/NO.

“Edit Menu” appears in the display.

### 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until “S.F Edit?” appears, then press AMS or YES.

### 3 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Fade In?” or “Fade Out?” appears, then press AMS or YES.

### 4 Turn AMS (or press ◀◀/▶▶ repeatedly) until the track number you want to change the recording level appears, then press AMS or YES.

“Time \*\*s” appears in the display.

### 5 While monitoring the sound, turn AMS (or press ◀◀/▶▶ repeatedly) to change the Fade-in or Fade-out Recording time.

The deck plays the portion that will be recorded over using Fade-in or Fade-out Recording.

You can set the time at any value between 1 second and 15 seconds, in 0.1 second increments. You cannot set the time longer than the track.

## 6 Press AMS or YES.

“(S.F) Edit OK?” appears in the display.

## 7 Press AMS or YES again.

The deck starts recording over the existing track. “S.F Edit(:) \*\* %” appears while the track is being recorded. When the recording finishes, “Complete!” appears.

To cancel the operation

Press MENU/NO or ■ in steps 1 to 6. If you press AMS or YES in step 7 and recording starts, you cannot interrupt the operation.

Notes

- **Do not disconnect the mains lead or move the deck while recording is in progress. This may damage the recording data preventing recording from being performed properly.**
- You cannot change the recorded level of a track recorded in LP2 or LP4 Stereo mode.
- Do not use an MD that is damaged or dirty. This may prevent recording data from being recorded properly.
- Repeatedly changing the recording level results in poor sound quality.
- The recording level will not return to the exact original level once the recording level has been changed even if it returned to the original level.
- You cannot undo any S.F edit operation with the Undo Function.

## Undoing the last edit

### — UNDO

You can undo the last edit operation and restore the contents of the MD to the condition that existed before the operation. Note, however, that you cannot undo an edit operation if you perform any of the following operations after the edit:

- Perform recording operation by pressing REC ●, etc.
- Perform another editing operation.
- Turn the Net MD function on.
- Change the recorded level after recording (S.F Edit).
- Turn off the deck or eject the MD.
- Disconnect the mains lead.

#### 1 While the deck is stopped, playing, or paused, press MENU/NO.

“Edit Menu” appears in the display.

#### 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Undo?” appears.

“Undo?” does not appear if no editing has been done.

#### 3 Press AMS or YES.

One of the messages appears depending on the last edit operation.

#### 4 Press AMS or YES.

“Complete!” appears.

## Other Functions

## Changing the Pitch

### — Pitch Control Function

You can change the MD playback speed (pitch). The tone falls at lower pitches.

### Setting the pitch automatically in steps (Auto Step Control Function)

You can lower the pitch by up to 36 steps from the factory setting (“Off”).<sup>1)</sup>

1) One octave equals 12 steps.

#### 1 While the deck is stopped, playing, or paused, press MENU/NO.

#### 2 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Setup?” appears, then press AMS or YES.

#### 3 Turn AMS (or press ◀◀/▶▶ repeatedly) until “Pitch” appears, then press AMS or YES.

#### 4 Turn AMS (or press ◀◀/▶▶ repeatedly) to adjust the pitch, then press AMS or YES.

#### 5 Press MENU/NO.

To recall the factory setting

Press CLEAR while setting the value.

#### Notes

- When you change the step value, the playback sound drops out momentarily.
- The step value returns to “Off” (factory setting) when you turn off the deck or eject the MD.
- When a dot (.) appears to the right of the step value in the pitch display, this indicates that you have performed fine adjustment (see “Finely controlling the pitch (Fine Control Function)” on page 40) and the pitch value is between steps. (The step and fine control values are linked.)

---

## Finely controlling the pitch (Fine Control Function)

You can fine control the playback speed in 0.1% increments from the factory setting (“Off”) to –87.5%.

- 1 While the deck is stopped, playing, or paused, press **MENU/NO**.
- 2 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until “Setup?” appears, then press **AMS** or **YES**.
- 3 Turn **AMS** (or press **◀◀/▶▶** repeatedly) until “Pfine” appears, then press **AMS** or **YES**.
- 4 Turn **AMS** (or press **◀◀/▶▶** repeatedly) to adjust the pitch, then press **AMS** or **YES**.
- 5 Press **MENU/NO**.

To recall the factory setting  
Press **CLEAR** while setting the value.

### Notes

- When you change the fine control value, the playback sound drops out momentarily.
- The playback sound may be interrupted when you adjust the pitch from “Off” or return the pitch to “Off.”
- The fine control value turns to “Off” (factory setting) when you turn off the deck or eject the MD.
- The step and fine control values are linked; changing one value also changes the other.

## Fading in and fading out

You can use Fade-in Play to gradually increase the signal level to the **ANALOG OUT** jacks and the **PHONES** jack at the start of playing. Fade-out Play gradually decreases the signal level at the end of playing.

Fade-in Recording gradually increases the signal level at the start of recording. Fade-out Recording gradually decreases the signal level at the end of recording.

### Note

The level of the signal output from the **DIGITAL OUT** connector does not change during Fade-in Play or Fade-out Play.

---

## Fade-in Play and Fade-in Recording

**During play pause (for Fade-in Play) or recording pause (for Fade-in Recording), press FADER on the remote.**

◀ flashes in the display and the deck performs Fade-in Play or Fade-in Recording for five seconds (factory setting) until the counter reaches “0.0s.”

---

## Fade-out Play and Fade-out Recording

**During play (for Fade-out Play) or recording (for Fade-out Recording), press FADER on the remote.**

▶ flashes in the display and the deck performs Fade-out Play or Fade-out Recording for five seconds (factory setting) until the counter reaches “0.0s,” then pauses.



## Tip

Do the following procedure to specify the fade-in or fade-out duration for playback or recording.

- 1 While the deck is stopped or playing, or paused, press MENU/NO.
- 2 Turn AMS (or press **◀◀/▶▶** repeatedly) until “Setup?” appears, then press AMS or YES.
- 3 Turn AMS (or press **◀◀/▶▶** repeatedly) to select the setting, then press AMS or YES.

To change the duration of	Select
Fade-in Play/Recording	F.in
Fade-out Play/Recording	F.out

- 4 Turn AMS (or press **◀◀/▶▶** repeatedly) to select the duration, then press AMS or YES.

Both the Fade-in and Fade-out durations can be set in 0.1 second steps.

- 5 Press MENU/NO.

## Falling asleep to music

### — Sleep Timer

You can set the deck so that it turns off automatically after a specified duration.

- 1 While the deck is stopped or playing, press MENU/NO.
- 2 Turn AMS (or press **◀◀/▶▶** repeatedly) until “Setup?” appears, then press AMS or YES.
- 3 Turn AMS (or press **◀◀/▶▶** repeatedly) until “Sleep Off” appears in the display, then press AMS or YES.
- 4 Turn AMS (or press **◀◀/▶▶** repeatedly) to select the setting, then press AMS or YES.

To	Select
Turn on Sleep Timer	Sleep On
Turn off Sleep Timer	Sleep Off (factory setting)

- 5 Turn AMS (or press **◀◀/▶▶** repeatedly) until “Sleep 60min” appears in the display, then press AMS or YES.
- 6 Turn AMS (or press **◀◀/▶▶** repeatedly) to select the time to be turned off (“30min,” “60min” (factory setting), “90min,” or “120min”), then press AMS or YES.
- 7 Press MENU/NO.

## Tip

You can check the remaining time until the power turns off.

- 1 With the Sleep Timer turned on, perform steps 1 and 2 of the above procedure.
- 2 Turn AMS (or press **◀◀/▶▶** repeatedly) until “Sleep \*\*min” appears.

## Note

When you turn on the Net MD function, the Sleep Timer is automatically set to “Sleep Off.”

## Using a timer

By connecting a timer (not supplied) to the deck, you can start and stop playing/recording operations at specified times. For further information on connecting the timer or setting the starting and ending times, refer to the instructions that came with the timer.

---

### Playing an MD using a timer

- 1 Do steps 1 to 3 of “Playing an MD” on page 20.**
- 2 Press PLAY MODE repeatedly to select the play mode you want.**

To play only specific tracks, create a programme (see “Creating your own programme” on page 24).  
To specify the time for the end of playing, press  $\triangleright$  to start playing, then go to step 3.
- 3 Set TIMER on the deck to PLAY.**
- 4 Set the timer as required.**
- 5 After you have finished using the timer, set TIMER on the deck to OFF.**

---

### Recording to an MD using a timer

- 1 Do steps 1 to 6 of “Recording to an MD” on page 10.**
- 2 Press ■.**

If you want to specify the time for the end of recording, do step 7 of “Recording to an MD” on page 10.
- 3 Set TIMER on the deck to REC.**
- 4 Set the timer as required.**
- 5 After you have finished using the timer, set TIMER on the deck to OFF. Then change the deck to standby mode by plugging the mains lead of the deck into mains or set the timer to continuous operation.**

If TIMER is left at REC, the deck will automatically start recording the next time you turn on the deck.

Make sure to change the deck to standby mode within a week after timer recording is completed.

The TOC on the MD is updated and recorded contents are written to the MD when you turn on the deck. If the recorded contents have disappeared, “Initialize” flashes when you turn on the deck.

#### Notes

- It may take about 30 seconds after the deck is turned on until recording starts. When recording at a specified time using the timer, be sure to take this time into account when setting the recording start time.
- Contents recorded by timer recording are recorded to the MD the next time you turn on the deck. At this time, “TOC” flashes. Do not unplug the mains lead or move the MD deck while “TOC” is flashing in order to ensure the correct recording.
- When the remaining time on the MD runs out during timer recording, the recording stops at that point and the MD deck switches to stop mode.
- During timer recording, new material is recorded from the end of the recorded portion on the MD. However, when timer recording is set with the Group function on but no group is specified, the material is recorded into a new group.

### Setting the keyboard

You can use any IBM<sup>1)</sup>-compatible keyboard<sup>2)</sup> with a PS/2 interface. You can select a keyboard with either an English or Japanese keyboard layout. When you use a keyboard with a different layout, you need to assign characters to the keys. For details, see “Assigning characters to keyboard keys” on page 45.

- 1) IBM is the registered trademark of International Business Machines Corporation.
- 2) Power consumption must be 120 mA or less.

### Connecting a keyboard to the MD deck

**Connect the keyboard connector to the KEYBOARD jack on the front panel of the deck.**

You can connect or disconnect the keyboard at any time regardless of whether the deck is turned on or off.

### Selecting keyboard type

The first time you connect a keyboard, you need to select the keyboard type.

- 1 **While the deck is stopped, press MENU/NO.**
- 2 **Turn AMS (or press ◀▶ repeatedly) until “Setup?” appears, then press AMS or YES.**
- 3 **Turn AMS (or press ◀▶ repeatedly) until “Keyboard?” appears, then press AMS or YES.**
- 4 **Turn AMS (or press ◀▶ repeatedly) until “Type” appears, then press AMS or YES.**
- 5 **Turn AMS (or press ◀▶ repeatedly) to select the setting, then press AMS or YES.**

To use the keyboard with	Select
English keyboard layout	US (factory setting <sup>1)</sup> )
Japanese keyboard layout	JP

- 1) You can also recall the factory setting by pressing CLEAR.

- 6 **Press MENU/NO.**

## Naming a track or MD using the keyboard

If you use a keyboard, you can quickly enter or edit names. While editing a name, you can move the cursor in jumps or scroll the name.

### Shortcut to the naming procedure

- 1 Press [Enter] while the deck is in one of the operating modes listed below, depending on what you want to name:

To name	Press while
A track	The track number is displayed
The MD	The deck is stopped with total number of tracks (or groups when the Group function is on) displayed

A flashing cursor appears in the display.

- 2 Enter a name.

In addition to letter keys, you can also use the keys shown in the following table.

- 3 Press [Enter].

The whole name appears in the display.

Operations you may want to do while naming a track or MD

To	Press on the keyboard
Cancel the operation	[Esc]
Switch between uppercase and lowercase letters	[Caps Lock]
Move the cursor	[←] or [→]
Scroll the name	[Page Up] or [Page Down]
Erase the character at the cursor position	[Delete]
Erase the character preceding the cursor	[Back Space]

#### Tip

You can name a group while the Group function is on. To name a group, press [Enter] while the deck is stopped with the group you want to name selected in step 1.

## Operating the deck using the keyboard

### Operations using the keyboard

As the keyboard substitutes for the following functions	Press
MENU/NO	[Esc]
▷	[F1]
	[F2]
■	[F3]
GROUP SKIP	[F8]
AMS or ◀◀	[F10]
AMS or ▶▶	[F11]
YES	[F12]
◀◀	[←]
▶▶	[→]
CLEAR	[Delete]

### Editing using the keyboard

You can edit the tracks using the following keys.

The only keys that can be used for the editing operations below are the independent keys located beside the numeric keys. (You cannot use keys that are operated while holding down the Shift key.)

Operations while the deck is stopped and a track is selected

To	Press
Move the track	[*]
Erase the track <sup>1)</sup>	[-]
Combine tracks	[+]

### Operations during play

To	Press
Divide the track	[/]

- 1) This lets you erase all tracks while the deck is stopped and no track is selected.

# Assigning characters to keyboard keys

## Assigning a character

If your keyboard layout does not match the system settings, the display may show the wrong characters or no characters at all when you press the keys. In this case, you need to assign characters to the keys.

- 1 While the deck is stopped, press [Esc].
- 2 Press [F10]/[F11] repeatedly until “Setup?” appears, then press [F12].
- 3 Press [F10]/[F11] repeatedly until “Keyboard?” appears, then press [F12].
- 4 Press [F10]/[F11] repeatedly until “Assign?” appears, then press [F12].
- 5 Press [F10]/[F11] repeatedly until the character you want to assign appears. If the character has already been assigned, “User” appears. If it has not been assigned, “Default” appears.
- 6 Press [F12]. “<Set Key>” flashes in the display.
- 7 Press the key to be assigned to on the keyboard. “Key Change” appears, and the selected character is assigned to the key.  
**If “Same Key” appears**  
The same character is already assigned to the key.  
**If “Remove old assign?” appears**  
A different character is already assigned to the key. Press [F12] to clear the current assignment and assign the new character. Press [Esc] to cancel.
- 8 Press [Esc] to complete the operation.

## Notes

- You can assign a character using [Shift] only for symbol and number keys.
- You cannot assign a character to the following keys: [Esc], [F1] – [F12], [Back Space], [Tab], [Caps Lock], [Enter], [Shift], [Ctrl], [Alt], [Windows], [Space], [Application], [Print Screen], [Scroll Lock], [Pause], [Insert], [Delete], [Home], [End], [Page Up], [Page Down], [Num Lock], [←], [→], [↑], [↓], and [/], [\*], [-], [+] (of the numeric keypads)
- “Key Change” does not appear in step 7 above if you try to assign a character to one of the keys listed above or other keys for which input is not accepted.

## Clearing key assignments

You can clear key assignments one at a time or all at once.

To clear a key assignment

- 1 Do steps 1 to 4 of “Assigning a character” on page 45.
- 2 Press [F10]/[F11] repeatedly until the character you want to clear appears, then press [F12]. “<Set Key>” flashes in the display.
- 3 Press [Delete]. “Key Clear” appears and the key assignment is cleared.

To clear all key assignments

- 1 Do steps 1 to 4 of “Assigning a character” on page 45.
- 2 Press [Ctrl], [Alt], and [Delete] simultaneously. “All Reset?” appears in the display.
- 3 Press [F12]. “Complete!” appears, and all assignments are cleared.

To cancel the operation

Press [Esc].

### Precautions

#### On safety

Should any solid object or liquid fall into the cabinet, unplug the deck and have it checked by qualified personnel before operating it any further.

#### On power sources

- Before operating the deck, check that the operating voltage of the deck is identical with your local power supply. The operating voltage is indicated on the nameplate at the rear of the deck.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the mains, even if the unit itself has been turned off.
- If you are not going to use the deck for a long time, be sure to disconnect the deck from the mains. To disconnect the mains lead, grasp the plug itself; never pull the cord.
- Mains lead must be changed only at the qualified service shop.

#### On condensation in the deck

If the deck is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the deck. Should this occur, the deck may not operate properly. In this case, remove the MD and leave the deck turned on for several hours until the moisture evaporates.

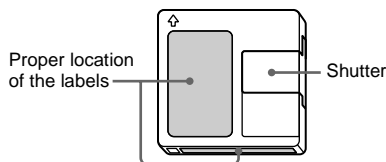
#### On cleaning

Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzene.

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

### Note on MDs

- Do not touch the internal disc directly. Forcing the shutter open may damage the internal disc.
- Be sure to stick the labels supplied with the MD to the appropriate positions. The shape of the labels may vary depending on the MD brand.



#### Where to keep the MDs

Do not place the cartridge where it may be exposed to direct sunlight or extremely high heat and humidity.

#### Regular maintenance

Wipe dust and debris from the surface of the cartridge with a dry cloth.

### System limitations

The recording system in your deck 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.

“Disc Full!” appears in the display even before the MD has reached the maximum recording time

When 255 tracks have been recorded to the MD, “Disc Full!” appears regardless of the total recorded time. More than 255 tracks cannot be recorded to the MD. To continue recording, erase unnecessary tracks or use another recordable MD.

“Disc Full!” appears before the maximum number of tracks is reached

Fluctuations in emphasis within tracks are sometimes interpreted as track intervals, incrementing the track count and causing “Disc Full!” to appear.

“Group Full!” appears in the display

- When the Group function is on, “Group Full!” may be displayed if editing is performed. This means there are insufficient characters for group management. Delete any unnecessary disc names, group names or other characters.
- Even when the Group function is off, the group management information is updated automatically when Move, Divide and other editing operations are performed, so “Group Full!” may be displayed.

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

Tracks under 12 seconds<sup>1)</sup> in length are not counted and so erasing them may not lead to an increase in the recording time.

- 1) During stereo recording.  
In MONO or LP2 mode: about 24 seconds  
In LP4 mode: about 48 seconds

Some tracks cannot be combined with others

Tracks may not be combined if they have been edited.

The total recorded time and the remaining recordable time on the MD may not total the maximum recording time

Recording is done in minimum units of 2 seconds<sup>1)</sup> each, no matter how short the material is. The contents recorded may thus be shorter than the maximum recording capacity. Disc space may also be further reduced by scratches.

- 1) During stereo recording.  
In MONO or LP2 mode: about 4 seconds  
In LP4 mode: about 8 seconds

Tracks created through editing may exhibit sound dropout as you are searching for a point while monitoring the sound.

Track numbers are not marked correctly

Incorrect assignment or marking of track numbers may result when CD tracks are divided into several smaller tracks during digital recording. Also, when the Automatic Track Marking is activated during recording, track numbers may not be marked as in the original, depending on the programme source.

The correct recorded/playing time may not be displayed during play of MDs recorded in monaural mode.

---

## Guide to the Serial Copy Management System

Digital audio components, such as CDs, MDs, and DATs, make it easy to produce high-quality copies of music by processing music as a digital signal.

To protect copyrighted music sources, this deck uses the Serial Copy Management System, which allows you to make only a single copy of a digitally recorded source through digital-to-digital connections.

You can make only a first-generation copy<sup>1)</sup> through a digital-to-digital connection.

Examples are as follows:

- You can make a copy of a commercially available digital sound programme (for example, a CD or MD), but you cannot make a second copy from the first-generation copy.
  - You can make a copy of a digital signal from a digitally recorded analogue sound programme (for example, an analogue record or a music cassette tape) or from a digital satellite broadcast programme, but you cannot make a second copy from the first-generation copy.
- 1) A first-generation copy means the first recording of a digital audio source through the deck's digital input connector. For example, if you record from a CD player connected to the DIGITAL IN connector, that copy is a first-generation copy.

Note

The restrictions of the Serial Copy Management System do not apply when you make a recording through the analogue-to-analogue connections.

## Troubleshooting

If you experience any of the following difficulties while using the deck, use this troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest Sony dealer.

---

### The deck does not operate or operates poorly.

- The MD may be dirty or damaged. Replace the MD.
- The Net MD function is on. When not using the Net MD function, press NET MD to turn it off.

---

### The deck does not play.

- Moisture has formed inside the deck. Take the MD out and leave the deck in a warm place for several hours until the moisture evaporates.
- The deck is not on. Press I/⏻ to turn on the deck.
- The deck may not be connected to the amplifier correctly. Check the connection (page 6).
- The MD is inserted in the wrong direction. Slide the MD into the disc slot with the label side up and the arrow pointing toward the slot (page 20).
- The MD may not be recorded. Replace the disc with one that has been recorded.
- You cannot play an MD with the Group function on if there are no tracks with group registrations.

---

### The sound has a lot of static.

Strong magnetism from a television or a similar device is interfering with operations. Move the deck away from the source of strong magnetism.

---

### Sound is not produced from the headphones.

Adjust the headphones level with PHONE LEVEL (page 21).



---

**The deck does not record.**

- The MD is record-protected. Slide the record-protect tab and close the slot.
- The deck is not connected properly to the programme source. Check the connection (page 6).
- Select the correct programme source using INPUT.
- The recording level is not adjusted properly. Adjust the recording level (page 16).
- A premastered MD is inserted. Replace it with a recordable MD.
- There is not enough time left on the MD. Replace it with another recordable MD with fewer recorded tracks, or erase unnecessary tracks (page 27).
- There has been a power failure or the mains lead has been disconnected during recording. Data recorded to that point may be lost. Repeat the recording procedure.

---

**The deck does not perform Synchro-recording with a CD player or video CD player.**

The remote supplied with the MD deck is not set correctly. Reset the remote.

---

**A message and a three- or five-digit alphanumeric code alternate in the display.**

The Self-diagnosis function is on (page 49).

---

**The keyboard does not operate.**

Disconnect the keyboard, then re-connect it.

---

**Note**

If the deck does not operate properly even after you have attempted the prescribed remedies, turn off the deck, then re-insert the plug into the mains.

---

## Self-diagnosis function

The deck's self-diagnosis function automatically checks the condition of the MD deck when an error occurs, then issues a three- or five-digit code and an error message on the display. If the code and message alternate, find them in the following table and perform the indicated countermeasure. Should the problem persist, consult your nearest Sony dealer.

---

**C11/Protected**

- The inserted MD is record-protected.
  - ➔ Take out the MD and close the record-protect slot (page 13).

---

**C12/Cannot Copy**

- You tried to record a CD with a format that the external device connected to the deck does not support, such as CD-ROM or video CD.
  - ➔ Remove the disc and insert a music CD.

---

**C13/REC Error**

- The recording was not made properly.
  - ➔ Set the deck in a stable surface, and repeat the recording procedure.
- The inserted MD is dirty (with smudges, fingerprints, etc.), scratched, or substandard in quality.
  - ➔ Replace the disc and repeat the recording procedure.

---

**C13/Read Error**

- The deck could not read the TOC on the MD properly.
  - ➔ Take out the MD and insert it again.

---

#### **C14/TOC Error**

- The deck could not read the TOC on the MD properly.
  - ➔ Insert another disc.
  - ➔ If possible, erase all the tracks on the MD (page 27).

---

#### **C41/Cannot Copy**

- The sound source is a copy of commercially available music software, or you tried to record a CD-R (Recordable CD).
  - ➔ The Serial Copy Management System prevents making a digital copy (page 48). You cannot record a CD-R.

---

#### **C71/Din Unlock**

- The sporadic appearance of this message is caused by the digital signal being recorded. This will not affect the recording.
- While recording from a digital component, the digital connecting cable may have been incompletely connected and come loose or the digital component was turned off.
  - ➔ Check the connection or turn the digital component back on.

---

#### **E0001/MEMORY NG**

- There is an error in the internal data that the deck needs in order to operate.
  - ➔ Consult your nearest Sony dealer.

---

#### **E0101/LASER NG**

- There is a problem with the optical pickup.
  - ➔ The optical pickup may have failed. Consult your nearest Sony dealer.

---

#### **E0201/LOADING NG**

- There is a problem with the loading.
    - ➔ The loading may have failed. Consult your nearest Sony dealer.
- 

## **Display messages**

The following table explains the various messages that appear in the display. Messages are also displayed by the deck's Self-diagnosis function (see "Self-diagnosis function" on page 49).

---

#### **Auto Cut**

The Auto Cut Function is on (page 15).

---

#### **Blank Disc**

A new (blank) or erased MD has been inserted.

---

#### **Busy NOW!**

You pressed NET MD during Check In or Check Out. Wait until the operation is completed.

---

#### **Cannot Edit**

An attempt was made to edit the MD during Programme or Shuffle Play or to change the recording level of an MD recorded in LP2 or LP4 Stereo mode.

---

#### **Check USB**

The USB cable is not connected properly. Check the connection.

---

#### **CONNECT**

Check In or Check Out is underway. (If you attempt an invalid operation at this time, "CONNECT!" appears.)

---

#### **Disc Full!**

The MD is full (page 47).

---

#### **Group Full!**

An attempt was made to create a new group in excess of the maximum number of groups, or there are insufficient characters for updating the group management information.

---

#### **Impossible**

The deck cannot do the recording or editing operation (page 28 and page 30).

---

**Incomplete!**

The S.F Edit (changing the recording level after recording, Fade-in, Fade-out) operation was not performed properly because the deck was moved while recording was in progress or the MD is damaged or dirty.

---

**Initialize (flashing)**

The Setup Menu settings have been lost. Or the contents recorded by the timer have disappeared over time and are not be available for saving to disc, or Programme Play could not be activated since the programme has disappeared over time.

(The message flashes for about four seconds when you turn on the deck by pressing I/⏪.)

---

**Name Full!**

The naming capacity of the MD has reached its limit (about 1,700 characters).

---

**Net MD**

The Net MD function is on. (If you attempt an invalid operation at this time, "Net MD!" appears.)

---

**Net MD NOW**

You pressed the I/⏪ during Check In or Check Out execution. This may cause data damage, so be sure to wait for Check In or Check Out to finish before turning off the Net MD function and the MD deck.

---

**No Change**

While attempting to change the recording level after recording, you pressed AMS or YES without actually changing the recording level, so no change was made.

---

**No Disc**

There is no MD in the deck.

---

**No Name**

The track or disc has no name.

---

**Premastered**

An attempt was made to record or edit to a premastered MD.

---

**Push Stop!**

You pressed an invalid key during MD operation. Press ■ and perform the operation again.

---

**S.F Edit!**

You attempted to perform another operation while in S.F Edit (changing the recording level after recording, Fade-in, Fade-out) mode.

You cannot perform any other operations while in S.F Edit mode.

---

**(S.F) Edit NOW**

You pressed I/⏪ while in S.F Edit (changing the recording level after recording, Fade-in, Fade-out) mode.

If you turn off the deck while in S.F Edit mode, any changes that you have made will not be made properly. Finish the changes and leave S.F Edit mode before turning off the deck. If you accidentally turn off the deck while changes are being made, press I/⏪ while the message is displayed.

---

**Smart Space**

The Smart Space Function is on (page 15).

---

**Step Full!**

The programme contains the maximum number of tracks. You cannot add any more tracks.

---

**TOC Reading**

The deck is checking the TOC (Table Of Contents) on the MD.

---

**TrProtected**

You cannot perform editing operations on protected tracks (tracks checked out from a USB connected computer, etc.) other than "Moving recorded tracks" on page 31 and "Naming a track or an MD" on page 31 using this deck.

## Setup menu table

Menu item	Reference page
T.Mark	14
LS(T)	15
Auto	25
S.Space	15
P.Hold	16
F.in	40
F.out	40
Pitch	39
Pfine	39
A.in	16
Opt1 <sup>2)</sup> or Opt <sup>1)</sup>	16
Opt2 <sup>2)</sup> or Coax <sup>1)</sup>	16
A.out	21
Sleep	41
Display	22
Keyboard?	43
LPstamp	13

1) For European model

2) For other model

## Specifications

System	MiniDisc digital audio system
Disc	MiniDisc
Laser	Semiconductor laser ( $\lambda = 780 \text{ nm}$ ) Emission duration: continuous
Laser output	MAX 44.6 $\mu\text{W}^{1)}$
1) This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.	
Laser diode	Material: GaAlAs
Revolutions (CLV)	400 rpm to 900 rpm
Error correction	ACIRC (Advanced Cross Interleave Reed Solomon Code)
Sampling frequency	44.1 kHz
Coding	ATrac (Adaptive TRansform Acoustic Coding)/ATRAC 3
Modulation system	EFM (Eight-to-Fourteen Modulation)
Number of channels	2 stereo channels
Frequency response	5 to 20,000 Hz $\pm 0.3 \text{ dB}$
Signal-to-noise ratio	Over 98 dB during play
Wow and flutter	Below measurable limit
<b>Inputs</b>	
ANALOG IN	Jack type: phono Impedance: 47 kilohms Rated input: 500 mVrms Minimum input: 125 mVrms
DIGITAL OPTICAL IN	Connector type: square optical Impedance: 660 nm (optical wave length)
DIGITAL COAXIAL IN (European model only)	Jack type: phono Impedance: 75 ohms Rated input: 0.5 Vp-p, $\pm 20\%$

## Outputs

PHONES	Jack type: stereo phone Rated output: 28 mW Load impedance: 32 ohms
ANALOG OUT	Jack type: phono Rated output: 2 Vrms (at 50 kilohms) Load impedance: over 10 kilohms
DIGITAL OPTICAL OUT	Connector type: square optical Rated output: -18 dBm Load impedance: 660 nm (optical wave length)

## General

Power requirements	
European model:	230 V AC, 50/60 Hz
Other model:	110 – 120/220 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	15 W (0.4 W in standby mode)
Dimensions (approx.)	430 × 95 × 285 mm (w/h/d) incl. projecting parts and controls
Mass (approx.)	3.1 kg

## Supplied accessories

- Audio connecting cords (2)
- Optical cable (1)
- OpenMG Jukebox CD-ROM (1)
- Operating instructions for OpenMG Jukebox (1)
- Remote commander (remote) (1)
- R6 (size-AA) batteries (2)
- USB cable (1)

The optional accessories for this deck are subject to change without notice. For details, consult your nearest Sony dealer.

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Design and specifications are subject to change without notice.





