Micro Hi-Fi Component System

Operating Instructions















CMT-SE9

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.

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



This appliance is classified as a CLASS 1 LASER product. This marking is located on the side exterior.



Don't throw away the battery with general house waste, dispose of it correctly as chemical waste. This system incorporates Dolby* Digital, Dolby Pro Logic (II) adaptive matrix surround decoder, and the DTS** Digital Surround System.

- Manufactured under license from Dolby Laboratories.
 - "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.
- ** Manufactured under license from Digital Theater Systems, Inc. "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

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(JPEG only)

How to use this manual

- This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the unit having the same or similar names.
- The following symbols are used in this manual.

Symbol	Meaning
DVD	Functions that can be used with DVD VIDEOs
VIDEO	Functions that can be used with VIDEO CDs
SA-CD CD	Functions that can be used with Audio CDs or Super Audio CDs
MP3	Functions that can be used with MP3 audio tracks
JPEG	Functions available for JPEG files

Playable discs

You can play back the following discs on this system. Other discs cannot be played back.

List of playable discs

List of playable discs	
Format of discs	Disc logo
DVD VIDEOs	DVD
	VIDEO
VIDEO CDs	CIGITAL VIDEO
Audio CDs	DIGITAL AUDID TEXT
Super Audio CDs	SUPER AUDIO CD
MD	(5.5 0.0)

Format of discs

CD-R/CD-RW (audio data/MP3/JPEG files)









The "DVD VIDEO" logo is a trademark.

Region code of DVDs you can play on this system

Your system has a region code printed on the back of the unit and will only play DVDs labelled with identical region code.

DVDs labelled will also be played on this system.

If you try to play any other DVD, the message "Playback prohibited by area limitations." will appear on the TV screen. Depending on the DVD, no region code indication may be labelled even though playing the DVD is prohibited by area restrictions.

Discs that this system cannot play

- CD-ROMs (except for extension ".MP3", ".JPG", or ".JPEG")
- CD-Rs/CD-RWs other than those recorded in the following formats:
 - music CD format
 - video CD format
 - MP3/JPEG format that conforms to ISO9660*1 level 1/level 2, Joliet or Multi Session*2
- · Data part of CD-EXTRAs
- EXTRA data part of Super Audio CDs
- DVD-RWs in VR mode (DVD-RWs created in VR (Video Recording) mode allow the contents to be programmed or edited.)
- DVD-ROMs, DVD-RAMs
- · DVD Audio discs
- · A DVD with a different region code
- A disc that has a non-standard shape (e.g., card, heart)
- · A disc with paper or stickers on it

- A disc that has the adhesive, cellophane tape, or a sticker still left on it
- A disc that has commercially available stickers, rings or other accessories attached
- An 8 cm disc converted to a standard disc using an adaptor

*1 ISO9660 Format

The most common international standard for the logical format of files and folders on a CD-ROM. There are several specification levels. In level 1, file names must be in the 8.3 format (no more than eight characters in the name, no more than three characters in the extension ".MP3" or ".JPG") and in capital letters. Folder names can be no longer than eight characters. There can be no more than eight nested folder levels. Level 2 specifications allow file names and folder names up to 31 characters long. Each folder can have up to 8 trees.

For Joliet in the expansion format (file and folder names can have up to 64 characters) make sure of the contents of the writing software, etc.

*2 Multi Session

Conventional CDs begin at a CD control area called the Lead-in and end at an area called Lead-out. A Multi Session CD is a CD having multiple sessions, with each segment from Lead-in to Lead-out regarded as a single session.

CD-EXTRA: This format records audio (audio CD data) on the tracks in session 1 and data on the tracks in session 2.

Notes on discs

- This system can play CD-R/CD-RW/DVD-R/DVD-RW (Ver. 1.1)/DVD+R/DVD+RW discs edited by the user (For DVD-R/DVD-RW (Ver. 1.1)/DVD+R/DVD+RW discs, this system can play only in video mode.). However, note that playback of some discs may not be possible depending on the recording device used for recording or the disc condition.
- Discs recorded on CD-R/CD-RW drives may not be played back because of scratches, dirt, recording condition or the driver's characteristics.
- CD-R and CD-RW discs that have not been correctly finalized (processing to allow play by a normal CD player) cannot be played.

- CD-R and CD-RW discs recorded in multisession that have not ended by "closing the session" are not supported.
- The system may be unable to play MP3/JPEG format files that do not have the extender ".MP3", ".JPG", or ".JPEG".
- Attempting to play non-MP3/JPEG format files that have the extender ".MP3", ".JPG", or ".JPEG" may result in noise or malfunction. Playback is possible up to 8 levels.
- An album that does not include an MP3 audio track or JPEG file is skipped.
- Progressive JPEG format files cannot be played.
- JPEG images with one vertical dot cannot be displayed.
- JPEG images with 4720 or more vertical or horizontal dots cannot be displayed.
- The maximum number of albums is 99 (The maximum number of tracks that can be recorded in an MP3 or JPEG album is 250.)
- With formats other than ISO9660 level 1/ level 2, folder names or file names may not be displayed correctly.
- The following discs take a longer time to start playback.
 - a disc recorded with complicated tree structure
 - a disc recorded in Multi Session
 - a disc to which data can be added (non-finalized disc)
- Some CD-Rs, CD-RWs, DVD-Rs or DVD-RWs (in video mode) (DVD-RWs created in video mode have the same format as a DVD VIDEO) cannot be played on this system depending upon the recording quality or physical condition of the disc, or the characteristics of the recording device. Furthermore, the disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the recording device.
- A disc recorded in packet write format cannot be played.

Note on playback operations of DVDs and VIDEO CDs

Some playback operations of DVDs and VIDEO CDs may be intentionally set by software producers. Since this system plays DVDs and VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also, refer to the instructions supplied with the DVDs or VIDEO CDs.

Music discs encoded with copyright protection technologies

This product is designed to playback discs that conform to the Compact Disc (CD) standard. Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard and may not be playable by this product.

Cautions when playing a disc that is recorded in Multi Session

- This system can play Multi Session CDs when an MP3 audio track is contained in the first session. Any subsequent MP3 audio tracks recorded in later sessions can also be played back.
- This system can play Multi Session CDs when a JPEG image file is contained in the first session. Any subsequent JPEG image files recorded in later sessions can also be played back.
- If audio tracks and images in music CD format or video CD format are recorded in the first session, only the first session will be played back.

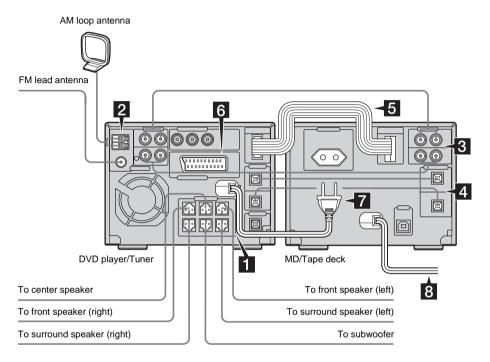
Copyrights

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Getting Started

Hooking up the system

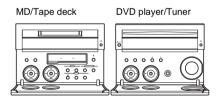
Perform the following procedures **1** to **8** to hook up your system using the supplied cords and accessories.



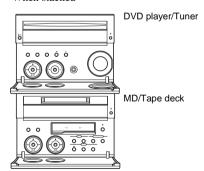
Preparation

Place the components as shown below.

- When placed side-by-side

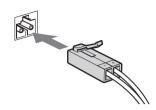


- When stacked



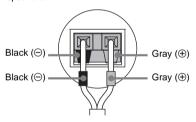
1 Connect the speakers.

Be sure to match the appropriate speaker cords from the speaker terminals to the corresponding SPEAKER terminals on the DVD player.



Connect	Terminal
Front speakers	SPEAKER FRONT
	L (white)/R (red)
Surround	SPEAKER SURR L (blue)/
speakers	R (gray)
Center speaker	SPEAKER CENTER (green)
Subwoofer	SPEAKER WOOFER
	(purple)

Speakers



Notes

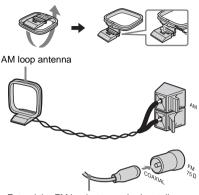
- When inserting the speaker cord plugs into the SPEAKER terminals on the DVD player, press in the plugs all the way until they click. When unplugging the speaker cords, press the protrusions on the plugs and pull out the plugs.
- Keep the speaker cords away from the antennas to prevent noise.
- Do not place the surround speakers on top of a TV.
 This may cause distortion of the colors in the TV screen.
- Be sure to connect both left and right surround speakers. Otherwise, the sound will not be heard.

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When positioning the front speakers higher than floor level, using the speaker stand WS-MC1 (not supplied) is convenient.

2 Connect the FM and AM antennas.

Set up the AM loop antenna, then connect it.



Extend the FM lead antenna horizontally

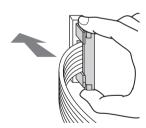
3 Connect the audio cords.

Connect to the corresponding letter jack (A, B) in the order indicated on the rear panel. Match the jack and plug colors, and insert the plugs firmly all the way.

4 Connect the digital optical cables.

Connect to the corresponding letter jack (C, D) in the order indicated on the rear panel.

Connect the system control cable to the SYSTEM CONTROL connectors on the DVD player.



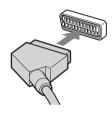
Note

The system cable is used to send signals and electricity between the DVD player and MD deck for interlinked operation.

Be sure to insert the connector until it clicks into place. Otherwise the system will not operate correctly.

6 Connect the → INPUT jack of your TV to the → LINE-TV jack on the DVD player with the SCART cord (not supplied).

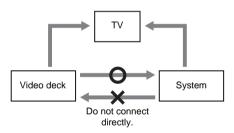
When you connect using the SCART cord, check that the TV conforms to S video or RGB signals. If the TV conforms to S video, change the input mode of the TV to RGB signals. Refer to the operating instructions supplied with the TV to be connected.



When using a TV

Turn on the TV and select the video input so that you can view the pictures from this system.

When connecting a video deck Connect the TV and the video deck using video and audio cords (not supplied) as shown below.



If you connect a video deck between this system and the TV, you may experience video leakage when watching the video signal from this system. Do not connect a video deck between this system and the TV.

Note

Do not place the TV on this system.

Tip

To listen to TV, press FUNCTION repeatedly to select "TV".

- Connect the mains lead on the DVD player to mains on the MD deck.
- 8 Connect the mains lead on the MD deck to mains.

If the plug does not fit your wall socket, detach it from the plug (only for models equipped with an adapter).

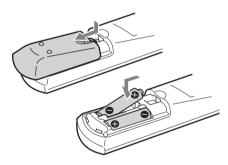
To turn on the system, press I/.

Note

When you turn on the system, the disc is not pulled into the disc slot until "No Disc" appears in the display. Do not attempt to push in the disc until "No Disc" appears, as this may cause malfunction.

To connect optional components
See page 84.

Inserting two size AA (R6) batteries into the remote



Notes

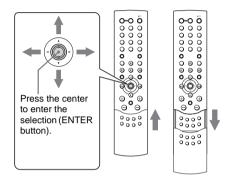
- If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.
- See page 109 for the location of the remote sensor.

Tip

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

Using the remote control

- Select the item with ▲/▼/◄/▶ and press the center to enter the selection.
 In this operation manual, the operation "press the center to enter the selection" is expressed as "press ENTER".
- Normally operate the remote with the cover closed. Open the cover only when operating the buttons inside the cover.



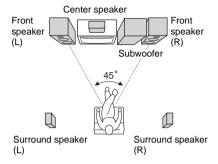
Opening the front cover

Pull down the upper right corner of the front cover on the unit.



Positioning the speakers

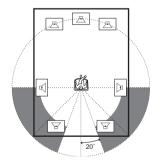
Place the front speakers at an angle of 45 degrees from your listening position.



2 Place the center speaker at about the same height as the front speakers.

Align the center speaker with the front speakers or place it slightly behind the front speakers.

3 Place the surround speakers.



Position the surround speakers within the respective gray ranges.

Positioning both surround speakers the same distance from the listening position is effective.

4 Place the subwoofer.

To obtain a better bass reproduction, we recommend you to place the subwoofer on a solid floor where resonance is unlikely to occur.

Notes

- Do not place the surround speakers on top of a TV.
 This may cause distortion of the colors in the TV screen.
- Always place the subwoofer vertically, keeping it a few centimeters away from the wall.
- If the subwoofer is placed in the center of a room, the bass could be extremely weakened. This is due to the influence of the standing wave of the room. If this happens, move the subwoofer away from the center of the room or eliminate the cause of the standing wave, by placing a bookshelf against the wall, etc.

Speaker settings

To enjoy DVDs, Super Audio CDs and other discs with multi-channel sound and Dolby surround effects, the speakers need to be adjusted. Set the distance from the listening position to the speakers, and the balance and level. Then use the test tone to adjust the volume of each speaker to the same level. For details, see "Speaker settings" on page 35.

Setting the clock

- 1 Press I/ \bigcirc to turn on the system.
- 2 Press CLOCK/TIMER SET.
- 3 Press I◄ or ▶►I repeatedly to set the day of the week.
- 4 Press ENTER or ▶▶.
- 5 Press I or ▶ repeatedly to set the hour.
- 6 Press ENTER or ▶▶.
- Press I or ► repeatedly to set the minute.
- 8 Press ENTER.

The clock starts working.

To adjust the clock

- 1 Press CLOCK/TIMER SET.
- 2 Press ► or ► repeatedly to select "CLOCK SET?", then press ENTER.
- **3** Do the same procedures as step 3 to 8 above.

Note

The clock settings are cancelled when you disconnect the mains lead or if a power failure occurs.

Selecting a language

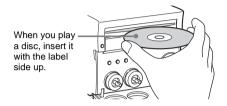
You can change the on-screen display language.

- Turn on your TV and select the video input.
- 2 Press I/ \circlearrowleft to turn on the system.
- 3 Press FUNCTION to switch the function to DVD.
- 4 Press DVD SETUP in stop mode.
- 5 Press ▲ or ▼ repeatedly to select "LANGUAGE SETUP", then press ENTER.
- 6 Press ▲ or ▼ repeatedly to select "OSD", then press ENTER.
- 7 Press ▲ or ▼ repeatedly to select a language from the displayed list, then press ENTER.

DVD/VIDEO CD/CD/Super Audio CD/ MP3/JPEG – Play

Loading a disc

Insert a disc in the disc slot with the label side up.



Notes

- When you turn on the system, the disc is not pulled into the disc slot until "No Disc" appears in the display. Do not attempt to push in the disc until "No Disc" appears.
- When pressing the DVD (eject) on the DVD player and then re-inserting the disc that appears in the disc slot, do not simply push in the disc. Remove the disc from the disc slot and then re-insert it.
- Do not use a disc with tape, seals or paste on it as this may cause malfunction.
- Do not load an 8 cm disc with an adaptor. Doing so may cause the system to malfunction.
- When you eject a disc, handle the disc by its edge. Do not touch the surface.
- If you load a disc that is not playable by this system, it will be ejected automatically.

Playing a disc

— Normal Play/Shuffle Play



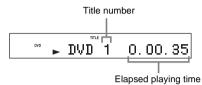




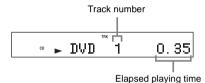


Before playing a DVD or VIDEO CD, turn on your TV and select the video input. Depending on the DVD or VIDEO CD, some operations may be different or restricted. Refer to the operating instructions supplied with the disc.

Example: When playing a DVD



Example: When playing a CD or VIDEO CD



1 Press FUNCTION repeatedly to switch the function to DVD.

Press PLAY MODE in stop mode repeatedly until the mode you want appears in the display.

	<u> </u>
Select	To play
No display	The tracks on the disc in
(Normal Play)	original order.
ALBM	All MP3 audio tracks in the
(Normal Play)	album on the disc in original
	order.
	When playing a non-MP3
	disc, Album Play performs
	the same operation as
	Normal Play (No display).
SHUF	All tracks on the disc in
(Shuffle Play)*	random order.
ALBM SHUF	The MP3 audio tracks in the
(Shuffle Play)	album on the disc in random
	order.
	When playing a non-MP3
	disc, Album Shuffle Play
	performs the same operation
	as Shuffle Play (SHUF).
PGM	The tracks on the disc in the
(Program Play)*	order you want them to be
	played (see "Creating your
	own program" on page 21).

^{*} You cannot perform Shuffle Play and Program Play with DVDs.

3 Press SA-CD/DVD ►.

Tip

You can change the play mode using the on-screen display as follows:

- **1** Press DVD DISPLAY in stop mode. The Control Menu appears.
- 2 Press ▲ or ▼ to select "PLAY MODE", then press ENTER.
- 3 Press ▲ or ▼ to select desired play mode, then press ENTER.

Other operations

То	Do this
Stop play	Press ■.
Pause	Press II. Press II again to resume play.
Select a track or chapter	Press
Select an album of MP3	Press ALBUM $+$ or $-$ repeatedly after step 2.
Find a point in a track (Search)*1 (except for MP3 audio tracks)	Keep moving SA-CD/DVD lever on the DVD player to I◀◀ or ▶►I during playback and release it at the desired point.
Locate a point quickly in fast forward or fast reverse (Lock Search)*1*2 (except for MP3 audio tracks)	Press ◀ or ▶ during play. Each time you press the button, searching speed changes as follows: 1 (slow) ↔ 2 (faster than 1) For CD or Super Audio CD, searching speed does not change (1 (slow) play). To return to Normal Play, press SA-CD/DVD ▶.
Watch frame by frame (Slow-motion Play)*2 (DVD and VIDEO CD only)	During pause, press ◀ or ▶. Each time you press the button, the playback speed changes as follows: Playback direction 2 ▶▶*3 ↔ 1 ▶▶*3 Opposite direction (DVD only) 2 ◀¶*3 ↔ 1 ◀¶*3 To return to Normal Play, press SA-CD/DVD ▶.
Switch to DVD function from another source*4	Press SA-CD/DVD ► (Automatic Source selection).

^{*1} During Search or Scan Play, no sound is output.

Remove a disc

Press ≜ DVD on the DVD player.

^{*2} Depending on the DVD or VIDEO CD, some operations may be restricted. The playback speeds that can be selected differ depending on the disc. Slow-motion reverse play for DVD only.

^{*3 2} \triangleright /2 \triangleleft playback speed is slower than 1 \triangleright /1 \triangleleft 1.

^{*4} While the Net MD function is on, you cannot switch the function.

Notes

- If DVD playback is paused for approximately one hour, the system automatically turns off.
- 2 channel sound is heard when using headphones.
- You cannot change the play mode during play.
- When you change the function, DVD indicator may appear even if you do not load the disc.
- Some time may be needed to start playback of discs recorded in complex configurations such as many layers.
- This system can play Multi Session CDs when an MP3 audio track is located in the first session. Any subsequent MP3 audio tracks, recorded in the later sessions, can also be played back.
- Maximum number of albums on a disc: 99 (The maximum number of MP3 audio tracks that can be contained on an album is 250.)
- An album that does not include an MP3 audio track is skipped.
- If you put the extension ".MP3" to data not in MP3 format, the system cannot recognize the data properly and will generate a loud noise which could damage your speaker system.
- The system can play to a depth of 8 directories.
- When playing a VBR (Variable Bit Rate) MP3 disc, the displayed playing time may differ from the actual time.

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When playing the data disc (CD-ROM/CD-R/CD-RW) contained MP3 audio tracks and JPEG image files, set to "MP3" in "DATA CD PRIORITY" (page 27).

Resuming playback from the point you stopped the disc

- Resume Play

This system memorizes the point where you stopped the disc so you can resume from that point. Resume Play is not cancelled when you set Power Saving Mode.

1 While playing a disc, press ■ to stop playback.

"RESUME" appears in the display. If "RESUME" does not appear, Resume Play is not available.

2 Press SA-CD/DVD ►.

The player starts playback from the point you stopped the disc in step 1.

Notes

- You cannot perform Resume Play during Shuffle Play or Program Play.
- Depending on where you stopped the disc, the system may resume playback from a different point.
- · Resume play is cancelled when:
 - you press in stop mode.
- you disconnect the mains lead.
- you remove a disc.
- you change the play mode.
- you change the settings using the DVD SETUP button.

Playing a track by entering the track number

Press the number button(s) to enter the track number of the track you want to play during Normal Play, then press ENTER to play the track. (To enter the MP3 audio track number, press ALBUM + or – repeatedly to select the desired album before entering the number.)

To enter a track number over 10

- **1** Enter the corresponding digits. To enter 0, press 10/0.
- 2 Press ENTER.

Example:

To play track number 30, press 3 and 10/0, then press ENTER.

To play MP3 track number 100, press 1, 10/0 and 10/0, then press ENTER.

Playing DVDs using the menu



Some DVDs have menus to help you enjoy the DVDs. You can play DVDs using these menus on TV screen.

Using the DVD top menu

A DVD is divided into long sections of a picture or a music feature called "titles". When you play a DVD which contains several titles, you can select the title you want using the menu.

· Using the DVD menu

Some DVDs allow you to select the disc contents using a menu. When you play these DVDs, you can select items such as the language for the subtitles and the language for the sound using the DVD menu.

Press TOP MENU or DVD MENU.

The menu appears on the TV screen. The contents of the menu vary from disc to disc.

- Press ▲/▼/◄/▶ or the number buttons to select the title or item you want to play.
- 3 Press ENTER.

Note

If the DVD top menu or a DVD menu is displayed during DVD playback for approximately one hour, the system automatically turns off.

Playing VIDEO CDs with PBC functions (Ver. 2.0)



You can use PBC* menus on your TV screen to enjoy the disc's interactive software. The menu format and structure may differ depending on each disc.

* PBC: Playback Control

Press SA-CD/DVD ➤ to start playing a VIDEO CD with PBC functions (Ver. 2.0).

The PBC menu appears on the TV screen.

- Press ▲/▼ or the number buttons to select the item number you want.
- 3 Press ENTER.
- 4 Continue playback according to the instructions on the menus to enjoy interactive playback.

Refer to the operating instructions supplied with the disc, as the operating procedure may differ according to the VIDEO CD.

To go back to a previous menu Press RETURN .

Notes

- Depending on the VIDEO CD, "Press ENTER" in step 3 may appear as "Press SELECT" in the operating instructions supplied with the disc. In this case, press SA-CD/DVD ►.
- You cannot perform Repeat Play during PBC playback of VIDEO CDs.

Tip

You can cancel playback with PBC functions.

- In stop mode, press I◀◀ /▶▶ or the number buttons to select a track.
- 2 Press SA-CD/DVD or ENTER. "Play without PBC" appears on the TV screen and playback starts from the selected track. Still images, such as the menu screens, will not be shown.

To return to PBC playback, press ■ twice, then press SA-CD/DVD ▶.

Playing JPEG Image Files



You can play JPEG image files on CD-ROMs, CD-Rs, or CD-RWs. However, the discs must be recorded according to ISO9660 level 1/level 2 or Joliet format for the system to recognize the files. You can also play discs recorded in Multi Session. See the instructions of the CD-R/RW device or recording software (not supplied) for details on the recording format.

Load a data disc recorded in JPEG into the system.

2 Press SA-CD/DVD ►.

The system starts to play the first JPEG image file in the first album on the disc.

Notes

- The system can play the extension ".JPG" or ".JPEG".
- Progressive JPEG format files cannot be played on this system.
- Some CD-Rs or CD-RWs cannot be played on this system depending on file format.
- · Maximum album number: 99 (including root folder)
- The maximum file number that can be contained on a single album is 250.
- Playback is possible up to 8 levels.
- An album that does not include a JPEG format file is skipped.

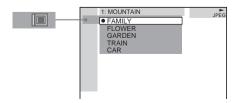
Selecting an album and file

1 Press DVD DISPLAY.

The Control Menu and the JPEG data disc name appears.

Press ▲ or ▼ to select "ALBUM", then press ENTER.

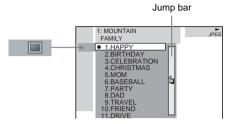
The list of albums contained in the disc appears.



3 Select an album you want to play using ▲ or ▼ and press ENTER.

4 Select "FILE" using ▲ or ▼ and press ENTER.

The list of files contained in the current album appears.



When the list of all files or albums cannot be displayed on the window, the jump bar appears. Press ▶ to select the jump bar icon, and then scroll the jump bar to display the rest of the list using ▲ or ▼.

5 Select a file using ▲ or ▼ and press ENTER.

The selected file starts playing.

To return the previous display

Press or RETURN (*)

To turn off the display

Note

Only the letters in the alphabet and numbers can be used for album or file names. Anything else is displayed as "".

Tip

When a JPEG data disc is inserted, you can select an album using ALBUM + or -.

Enjoying the Slide show

Press ▶ while displaying a JPEG image.

Slide show starts from the current image.

Press SA-CD/DVD ► when you want to return to Normal Play.

To change the interval time of Slide show

Each time you press bridge show, the interval time changes as follows:

$$\rightarrow$$
 FF1 $\blacktriangleright \rightarrow$ FF2 $\blacktriangleright \rightarrow$ FF3 $\blacktriangleright \rightarrow$

The FF3 interval time is faster than FF2▶▶.

Rotating the current image

Rotate the current image using ◀ or ▶.

Each time you press ▶, the image turns clockwise by 90°.

Each time you press ◀, the image turns counterclockwise by 90°.

Notes

- · Slide show can play in only one direction.
- You cannot rotate the image during Slide show. Press SA-CD/DVD ► to return to Normal Play before this operation.

Playing repeatedly

— Repeat Play











You can play repeatedly all the titles/tracks/files or a single title/chapter/track on a disc.

Using the front panel display

Press REPEAT repeatedly during play until "REP" or "REP1" appears.

REP: For all the tracks on the disc, or all the tracks in the album*1 up to five times.

REP1: For a VIDEO CD, CD, Super Audio CD or MP3, only the current track. For a DVD, only the current title*2 or chapter*2.

- *1 When "ALBM" is selected for MP3 or JPEG.
- *2 You can check whether a title or chapter is being repeatedly played on the TV screen.

To cancel Repeat Play

Press REPEAT repeatedly until both "REP" and "REP1" disappear.

Notes

- · Depending on the DVD, you cannot perform Repeat Play.
- · You cannot perform Repeat Play during PBC playback of VIDEO CDs (page 17).
- · You cannot select "REP1" during Program Play.
- · When you select "REP1", that title/chapter/track is repeated endlessly until "REP1" is cancelled.

Using the on-screen display

1 Press DVD DISPLAY during play. The Control Menu appears.

Press A or V repeatedly to sale

2 Press ▲ or ▼ repeatedly to select "REPEAT", then press ENTER.

If you do not select "OFF", the " \(\sigma\) " indicator lights up in green.

3 Press ▲ or ▼ repeatedly to select the Repeat Play setting.

The default settings are underlined.

■ When playing a DVD

- · OFF: does not play repeatedly.
- · ALL: repeats all the titles.
- TITLE: repeats the current title on a disc.
- · CHAPTER: repeats the current chapter.

■ When playing a VIDEO CD/CD/Super Audio CD/MP3 when Program Play is set to OFF

- OFF: does not play repeatedly.
- ALL: repeats all the tracks on a disc, or all the tracks in the current album (MP3 only).
- TRACK: repeats the current track.

■ When playing a JPEG

- OFF: does not play repeatedly.
- ALL: repeats all the files on the disc, or repeats the current album only during Slide Show.

■ When Program Play is set to ON

- OFF: does not play repeatedly.
- · ALL: repeats Program Play.

4 Press ENTER.

Repeat Play starts.

To cancel Repeat Play Select "OFF" in step 3, or press CLEAR.

To turn off the Control Menu Press DVD DISPLAY.

Notes

- · When you remove the disc, Repeat Play is cancelled.
- Depending on the DVD, you cannot perform Repeat Play.
- You cannot perform Repeat Play during PBC playback of VIDEO CDs (page 17).
- If you select "ALL", the program repeats up to five times.

Zips

- You can set Repeat Play when the playback is stopped. Press REPEAT repeatedly to select the setting, then press SA-CD/DVD
 to start Repeat Play.
- You can quickly display the "REPEAT" status. Press REPEAT.

Creating your own program

– Program Plav





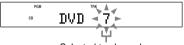


You can make a program of up to 25 steps. You can synchro record the programmed tracks onto an MD or a cassette tape (pages 43 and 67).

Using the front panel display

- Press FUNCTION to switch the function to DVD.
- Press PLAY MODE in stop mode repeatedly until "PGM" appears.
- Press I or ▶ repeatedly until the desired title or track number appears.

When programming an MP3, press ALBUM + or - to select album, then pressor repeatedly until the desired track number appears.



Selected track number

Press ENTER.

The track is programmed.

The program step number appears, followed by the last programmed track number.

- To program additional tracks, repeat steps 3 and 4.
- 6 Press SA-CD/DVD ►.

Program Play starts.

Other operations

То	Do this
Cancel Program Play	Press PLAY MODE in stop mode repeatedly until "SHUF", "PGM" and "ALBM" disappear.
Add a track to the end of program	Perform steps 1 to 4 in stop mode.
Clear a track from the end of program	Press CLEAR after step 4.

Notes

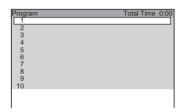
- When you switch the play mode to "PGM" while "REP1" is selected, "REP1" is automatically cancelled.
- · Program Play is cancelled when the disc is removed.

The program you made remains after Program Play finishes. To play the same program again, press SA-CD/DVD . However, the program is cancelled when you remove the disc.

Using the on-screen display

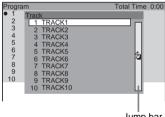
Press PLAY MODE in stop mode repeatedly until "PGM" appears in the display.

The Program Display appears on the screen.



2 Press ▶.

"Program 1" is selected.



Jump bar

When the list of all tracks cannot be displayed on the window, the jump bar appears. Press ▶ to select the jump bar icon, and then scroll the jump bar to display the rest of the list using ▲ or ▼. Press ◀ or RETURN To return to the track list.

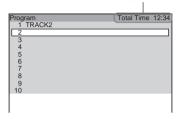
3 Select the album, or track you want to program.

■ When programming a VIDEO CD/CD/ Super Audio CD

For example, select track "2".

Press ▲/▼ or the number buttons to select "2", then press ENTER.

Total time of the programmed tracks (except for MP3)*



* "- -:- -" appears when an MP3 audio track is selected.

■ When programming an MP3

For example, select track "3" of album "2".

Press \blacktriangle or \blacktriangledown to select "2", then press \blacktriangleright .

Next, press **△**/**▼** or the number buttons to select "3", then press ENTER.

Press ◀ or RETURN ♂ to return to the album list before pressing ENTER.

4 To program other albums or tracks, repeat step 3.

5 Press SA-CD/DVD ►.

Program Play starts.

When the program ends, you can restart the same program again by pressing SA-CD/DVD ►.

Other operations

То	Do this
Return to Normal Play	Press PLAY MODE in stop mode repeatedly until "CONTINUE" appears.
Clear a track from the end of program	Press CLEAR after step 3.

Notes

- Program Play function is not available for DVD and JPEG.
- When you switch the play mode to "PGM" while "REP1" is selected, "REP1" is automatically cancelled.
- · Program Play is cancelled when the disc is removed.

Tip

You can also perform Repeat Play of the programmed tracks. Press REPEAT during Program Play, or set "REPEAT" to "ALL" at the Control Menu screen (page 20).

Searching for a title/ chapter/track/index/ album/file











You can search a title (DVD), chapter (DVD), track (CD, VIDEO CD, Super Audio CD, MP3), index (VIDEO CD, Super Audio CD), album (MP3, JPEG) and file (JPEG). As titles, tracks, albums and files are assigned unique numbers on the disc, you can select the desired one from the Control Menu. Also chapters and indexes are assigned unique numbers on the disc, so you can select the desired one by entering its number. Or, you can search for a particular point using the time code (Time Search).

Searching for a title/track/ album/file

- Press DVD DISPLAY.
 - The Control Menu appears.
- Press ▲ or ▼ repeatedly to select the search method.
 - When playing a DVD
 - "TITLE"
 - When playing a VIDEO CD without **PBC** function
 - "TRACK"
 - When playing a CD/Super Audio CD "TRACK"
 - When playing an MP3
 - "ALBUM" or "TRACK"
 - When playing a JPEG
 - "ALBUM" or "FILE"

Press FNTFR

The list of contents in the disc appears.



When the list of all tracks or albums cannot be displayed on the window, the jump bar appears. Press ▶ to select the jump bar icon. and then scroll the jump bar to display the rest of the list using ▲ or ▼. Press ◀ or RETURN of to return to the track or the album list.

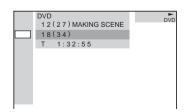
Press ▲ or ▼ to select the desired title. track, album or file, then press ENTER.

The system starts playback from the selected track, etc.

Searching for a chapter/index

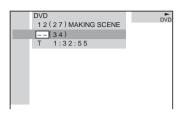
- Press DVD DISPLAY.
 - The Control Menu appears.
- Press ▲ or ▼ repeatedly to select the search method.
 - When playing a DVD
 - "CHAPTER"
 - When playing a VIDEO CD
 - "INDEX"
 - "** (**)" is selected (** refers to a number).

The number in parentheses indicates the total number of chapters or indexes.



3 Press ENTER.

"** (**)" changes to "-- (**)".



4 Press ▲ or ▼ repeatedly, or press the number buttons to select the chapter or index number you want to search.

If you make a mistake, press CLEAR to cancel the number, then select another number.

5 Press ENTER.

The playback starts from the selected number.

To turn off the Control Menu Press DVD DISPLAY.

To cancel searching

Press ◀ or RETURN ♠.

To search for a particular point using the time code

- Time Search

- 1 In step 2, select "TIME".

 "T **:**:**" (playing time of the current title) is selected.
- 2 Press ENTER.

"T - -:- -:- -" appears above "T **:**:**".

3 Input the time code using the number buttons, then press ENTER. For example, to find the scene at 2 hours, 10 minutes, and 20 seconds after the beginning, enter "2:10:20".

Notes

- The title, chapter or track number displayed on the TV screen is recorded data on the disc.
- · You cannot search a scene of a VIDEO CD.
- If you play a DVD, input the playing time of the current title using the time code. If you play a VIDEO CD, CD, Super Audio CD or MP3, input the playing time of the current track using the time code.

Tip

You can change the display to show playing time or remaining time. For details, see "Viewing information about the disc in the on-screen display" (page 78).

DVD - Various functions

Changing the sound/ subtitle/language











Changing the sound (except for JPEG)

You can select the audio language and the audio recording format while playing a DVD. In addition, you can output the sound for either the right or left channel from both the right and left speakers while playing a CD, VIDEO CD or an MP3 file. You can also listen to only the accompaniment of a karaoke VIDEO CD, etc. Super Audio CDs have a number of recording formats such as Super Audio CDs that support multi-channel playback and Super Audio CDs recorded with both the Super Audio signal and a normal CD signal. You can select the desired signal for playback.

- Press DVD DISPLAY during play. The Control Menu appears.
- Press ▲ or ▼ repeatedly to select "AUDIO", then press ENTER.

The options for "AUDIO" appear.

Press ▲ or ▼ repeatedly to select the audio signal you want.

The default settings are underlined.

■ When playing a DVD

The choice of the language and audio format varies.

When 4 digits are displayed, they represent the language code (see "Language code list" on page 102). When the same language is displayed twice or more times, the DVD is recorded in multiple audio formats.

■ When playing a VIDEO CD/CD/MP3

- STEREO: Normal stereo playback
- 1/L: Left channel sound (monaural)
- 2/R: Right channel sound (monaural)

■ When playing a Super Audio CD

Make this setting in stop mode. The selectable items differ according to the disc.

- MULTI: Multi-channel area playback
- 2CH: 2-channel area playback
- CD: Normal CD layer playback

4 Press ENTER.

To turn off the Control Menu Press DVD DISPLAY.

To preset the desired audio track

You can preset the system to the desired audio track with the operations described under "Changing the screen display language, DVD menu language and audio track auto selection mode" (page 27).

Notes

- · For discs not recorded in multiple audio format, you cannot change the sound.
- Depending on the DVD, you may not be able to change the sound even if multiple audio format are recorded on the DVD.
- · For VIDEO CDs, CDs and MP3 audio tracks, the setting returns to "STEREO" when you turn off the system or remove the disc.
- · During DVD playback, the sound may change automatically.

Tip

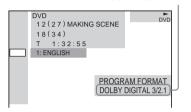
You can select the audio setting by pressing AUDIO. Each time you press the button, the setting changes.

Displaying the audio information of the disc (DVD only)

When you select "AUDIO", the channels being played are displayed on the screen.

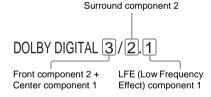
For example, in Dolby Digital format, multiple signals ranging from monaural to 5.1 channel signals can be recorded on a DVD. Depending on the DVD, the number of recorded channels may differ.

Current audio format*



* "PCM", "DTS", or "DOLBY DIGITAL" is displayed. For "DOLBY DIGITAL", the channels in the playing track are displayed numerically as follows:

For Dolby Digital 5.1 ch:



The display examples are as follows:

· PCM (stereo)

PROGRAM FORMAT PCM 48kHz 24bit

· Dolby Surround

PROGRAM FORMAT DOLBY DIGITAL 2/0 DOLBY SURROUND

· Dolby Digital 5.1ch

PROGRAM FORMAT DOLBY DIGITAL 3/2.1

DTS

PROGRAM FORMAT DTS 3/2.1

Displaying the subtitles (DVD only)

With DVDs on which multilingual subtitles are recorded, you can change the subtitle language while playing a DVD, or turn the subtitles on or off whenever you want.

For example, you can select the language you want to master and turn the subtitles on for better understanding.

- Press DVD DISPLAY during play.
 The Control Menu appears.
- 2 Press ▲ or ▼ repeatedly to select "SUBTITLE", then press ENTER.

The options for "SUBTITLE" appear.

3 Press ▲ or ▼ repeatedly to select the language you want, then press ENTER.

The subtitles are displayed in the selected language.

When 4 digits are displayed, they represent the language code (see "Language code list" on page 102).

To cancel the subtitle setting Select "OFF" in step 3.

To turn off the Control Menu Press DVD DISPLAY

To preset the desired subtitle

You can preset the system to the desired subtitle with the operations described under "Changing the screen display language, DVD menu language and audio track auto selection mode" (page 27).

Note

Depending on the DVD, you may not be able to change the subtitles even if multilingual subtitles are recorded on the DVD.

Tip

You can select the subtitle language by pressing SUBTITLE. Each time you press the button, the language changes.

Changing the screen display language, DVD menu language and audio track auto selection mode

— LANGUAGE SETUP/CUSTOM SETUP

- 1 Press DVD SETUP in stop mode.
 The Setup Display appears.
- 2 Press ▲ or ▼ repeatedly to select "LANGUAGE SETUP" or "CUSTOM SETUP", then press ENTER.

Select	Setup item
LANGUAGE SETUP	OSD
	DVD MENU
	AUDIO
	SUBTITLE
CUSTOM SETUP	PARENTAL
	CONTROL (page 32)
	TRACK SELECTION
	AUDIO DRC
	DATA CD PRIORITY
	JPEG DATE

- 3 Press ▲ or ▼ repeatedly to select an item, then press ENTER.
- 4 Press ▲ or ▼ repeatedly to select a setting, then press ENTER.

Note

When the selected language is not recorded on the DVD, one of the recorded languages is automatically selected (except for "OSD").

Tips

- You can reset all the DVD settings except for Parental Control by performing the operations described under "To return the DVD setup to the default settings*, perform reset as follows:" (page 92).
- If you select "OTHERS—" in "DVD MENU",
 "AUDIO" or "SUBTITLE", select and enter the
 language code from the language code list using the
 number buttons (page 102). The selected language
 code (4 digits) is displayed the next time you select
 "OTHERS—".
- * Except for Parental Control settings

■ OSD (on-screen display)

Switches the display language on the screen. Select the language from the displayed list.

■ DVD MENU (DVD only)

Switches the language of the DVD menu. Select the language from the displayed list.

■ AUDIO (DVD only)

Switches the language of the sound track. Select the language from the displayed list.

■ SUBTITLE (DVD only)

Switches the language of the subtitle. Select the language from the displayed list.

■ TRACK SELECTION (DVD only)

Gives the priority to the sound track which contains the highest number of channels when you play a DVD on which multiple audio formats (PCM, MPEG audio, DTS, or Dolby Digital format) are recorded.

The default setting is underlined.

OFF	No priority given.
AUTO	Priority given.

Notes

- When you set to "AUTO", the language setting may change. The "TRACK SELECTION" setting has higher priority than the "AUDIO" setting in "LANGUAGE SETUP".
- If PCM, MPEG audio, DTS, and Dolby Digital sound tracks have the same number of channels, the system selects PCM, DTS, Dolby Digital, and MPEG audio sound tracks in this order.
- Depending on the DVD, the audio channel with priority may be predetermined. In this case, you cannot give priority to the DTS, or Dolby Digital or MPEG audio format by selecting "AUTO".

■ AUDIO DRC (Dynamic Range Compression)

Narrows the DYNAMIC range of the soundtrack. Useful for watching movies at low volume late at night.

The default setting is underlined.

OFF	No compression of DYNAMIC range.
STANDARD	Reproduces the sound track with the kind of DYNAMIC range that the recording engineer intended.
MAX	Narrows the DYNAMIC range fully.

Note

AUDIO DRC only works in Dolby Digital.

■ DATA CD PRIORITY (MP3, JPEG only)

Set priority data you want to play, when you play the data disc (CD-ROM/CD-R/CD-RW) contained MP3 audio tracks and JPEG image files.

The default setting is underlined.

<u>MP3</u>	If an MP3 file exists on the disc, the system recognises the disc as an "MP3 Disc". If only JPEG files exist on the disc, the system recognises the disc as a "JPEG Disc".
JPEG	If a JPEG file exists on the disc, the system recognises the disc as a "JPEG Disc". If only MP3 files exist on the disc, the system recognises the disc as an "MP3 Disc".

Notes

- When you play a Multi Session data CD, the last session and any sessions linked from the last session are played.
- · When you change the setting, re-insert the disc.

■ JPEG DATE

Change the date information order of a JPEG image in the Control Menu.

The default setting is underlined.

MM/DD/YYYY
YYYY/MM/DD
DD/MM/YYYY
YYYY/DD/MM

YYYY: Year MM: Month DD: Day

Adjusting the angle/image











Changing the angles (DVD only)

When playing a DVD on which various angles (multi-angles) for a scene are recorded, the "ANGLE" indicator lights up in green on the screen. This means that you can change the viewing angle.

For example, while playing a scene of a train in motion, you can display the view from either the front of the train, the left window of the train or from the right window without having the train's movement interrupted.

- Press DVD DISPLAY during play.
 The Control Menu appears.
- 2 Press ▲ or ▼ repeatedly to select "ANGLE".

The angle number appears. The number in parentheses indicates the total number of angles. The "ANGLE" indicator lights up in green when angles are recorded on the disc.

3 Press ▶ or ENTER.

The angle number changes to "-".

4 Select the angle you want using the number buttons or ▲/▼, then press ENTER.

The angle is changed to the selected angle.

To turn off the Control Menu Press DVD DISPLAY.

Note

Depending on the DVD, you may not be able to change the angles even if multi-angles are recorded on the DVD.

Tip

You can select the angle by pressing ANGLE. Each time you press the button, the angle changes.

Adjusting the TV screen

- SCREEN SETUP

- Press DVD SETUP in stop mode.
 The Setup Display appears.
- Press ▲ or ▼ repeatedly to select "SCREEN SETUP", then press ENTER.
 - TV TYPE
 - SCREEN SAVER
 - BACKGROUND
 - LINE
- 3 Press ▲ or ▼ repeatedly to select an item, then press ENTER.
- 4 Press ▲ or ▼ repeatedly to select a setting, then press ENTER.

■ TV TYPE (DVD only)

Select the aspect ratio of the connected TV. The default setting is underlined.

16:9	Select this when you connect a wide-screen TV or a TV with a wide mode function.
4:3 LETTER BOX	Select this when you connect a 4:3 screen TV. This setting displays a wide picture with bands displayed on the upper and lower portions of the screen.
4:3 PAN SCAN	Select this when you connect a 4:3 screen TV. This setting displays the wide picture on the entire screen and cuts off the portions that do not fit.

16:9



• 4:3 LETTER BOX



4:3 PAN SCAN



Note

Depending on the DVD, "4:3 LETTER BOX" may be selected automatically instead of "4:3 PAN SCAN" or vice versa.

■ SCREEN SAVER

Turn on and off the screen saver. If you turn on the screen saver, the screen saver image appears when you leave the player in pause or stop mode for 15 minutes or when you play a CD, Super Audio CD, disc with MP3 audio tracks or JPEG image files (except for during Slide show) for more than 15 minutes. The screen saver will help prevent your display device from becoming damaged (ghosting). Press SA-CD/DVD ▶ to turn off the screen saver.

The default setting is underlined.

ON	Turns on the screen saver.
OFF	Turns off the screen saver.

■ BACKGROUND

Select the background color or picture on the TV screen when the playback is stopped or while playing a CD.

The default setting is underlined.

system appears in the background BLUE The background color is blue.	JACKET PICTURE	The jacket picture (still picture) appears in the background, but only when the jacket picture is already recorded on the disc (CD-EXTRA, etc.). If the disc does not contain a jacket picture, the "GRAPHICS" picture appears.
	GRAPHICS	The preset picture stored in the system appears in the background.
BLACK The background color is black	BLUE	The background color is blue.
DELICIT THE GROUNG COTOL IS CHICK	BLACK	The background color is black.

■ LINE

Select the output method for video signals from the \hookrightarrow LINE-TV jack on the rear panel of the system.

The default setting is underlined.

VIDEO	Outputs video signals.
RGB	Outputs RGB signals.

Note

If your TV does not accept RGB signals, no picture appears on the TV screen even if you select "RGB". Refer to the instructions supplied with your TV.

Tip

You can reset all the DVD settings except for Parental Control by performing the operations described under "To return the DVD setup to the default settings*, perform reset as follows:" (page 92).

* Except for Parental Control settings

Restricting disc playback

- CUSTOM PARENTAL CONTROL/ PARENTAL CONTROL











Preventing playback of specific discs

- CUSTOM PARENTAL CONTROL

You can set the playback restrictions so that the system will not play inappropriate discs. You can set the same Custom Parental Control password for up to 25 discs. When you set the twenty-sixth disc, the playback restriction for the first disc is cancelled.

- Insert the disc you want to lock. If the disc is playing, press \blacksquare to stop play.
- 2 Press DVD DISPLAY in stop mode. The Control Menu appears.
- Press ▲ or ▼ repeatedly to select "CUSTOM PARENTAL CONTROL". then press ENTER.

The "CUSTOM PARENTAL CONTROL" is selected.

- 4 Press ▲ or ▼ repeatedly to select "ON→", then press ENTER.
 - If you have not entered a password

The display for registering a new password appears.



Enter a 4-digit password using the number buttons, then press ENTER.

The display for confirming the password appears.

■ When you have already registered a password

The display for entering the password appears.



5 Enter or re-enter your 4-digit password using the number buttons, then press ENTER.

"Custom parental control is set." appears and the screen returns to the Control Menu.

If you make a mistake entering your password

Press ◀ before you press ENTER and input the correct number.

If you make a mistake

Press ◀ or RETURN ♂, then start from step 3 again.

To turn off the Control Menu Press DVD DISPLAY.

To turn off the Custom Parental Control function

- 1 In step 4, select "OFF→", then press ENTER.
- 2 Enter your 4-digit password using the number buttons, then press ENTER.

To change the password

- 1 In step 4, select "PASSWORD→", then press ENTER. The display for entering the password appears.
- 2 Enter your 4-digit password using the number buttons, then press ENTER.
- 3 Enter a new 4-digit password using the number buttons, then press ENTER.
- 4 To confirm your password, re-enter it using the number buttons, then press ENTER.

Playing the disc for which Custom Parental Control is set

1 Insert the disc for which Custom Parental Control is set.

The "CUSTOM PARENTAL CONTROL" display appears.

2 Enter your 4-digit password using the number buttons, then press ENTER.

The system is ready for playback.

Notes

- When Custom Parental Control is set for a Super Audio CD, the display for entering the password appears each time the layer is switched.
- When Custom Parental Control is set for a hybrid Super Audio CD, the setting is valid only for the current layer.

Tip

If you forgot your password, enter the 6 digits "199703" using the number buttons when the "CUSTOM PARENTAL CONTROL" display asks you for your password, then press ENTER. The display will ask you to enter a new 4-digit password.

Limiting playback by children (DVD only)

- PARENTAL CONTROL

You can limit the playback of some DVDs according to a predetermined level such as the age of the users. The same password is used for both Custom Parental Control and Parental Control

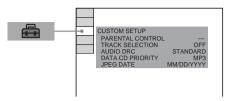
When a limited scene is played back, that scene is cut or replaced with a preset other scene.

1 Press DVD SETUP in stop mode.

The Setup Display appears.

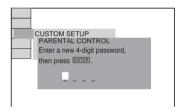
2 Press ▲ or ▼ repeatedly to select "CUSTOM SETUP", then press ENTER.

The "CUSTOM SETUP" display appears.



- 3 Press ▲ or ▼ repeatedly to select "PARENTAL CONTROL→", then press ENTER.
 - If you have not entered a password

The display for registering a new password appears.



Enter a 4-digit password using the number buttons, then press ENTER.

The display for confirming the password appears.

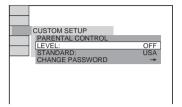
■ When you have already registered a password

The display for entering the password appears.



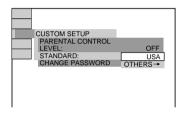
4 Enter or re-enter your 4-digit password using the number buttons, then press ENTER.

The display for setting the playback limitation level and changing the password appears.



Press ▲ or ▼ repeatedly to select "STANDARD", then press ENTER.

The options for "STANDARD" appear.



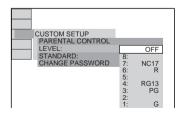
6 Press ▲ or ▼ repeatedly to select a geographic area as the playback limitation level, then press ENTER.

The area is selected.

When you select "OTHERS—", select and enter the standard code in the table on page 35 using the number buttons.

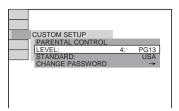
7 Press ▲ or ▼ repeatedly to select "LEVEL", then press ENTER.

The options for "LEVEL" appear.



Press ▲ or ▼ repeatedly to select the level you want, then press ENTER.

The Parental Control setting is completed.



The lower the value, the more strict the limitation

If you make a mistake

Press ◀ or RETURN o to go back to the previous screen.

To turn off the Control Menu Press DVD SETUP.

To turn off the Parental Control function and play the DVD after entering your password
Set "LEVEL" to "OFF" in step 8.

To change the password

- 1 In step 5, select "CHANGE PASSWORD—", then press ENTER. The display for entering the password appears.
- 2 Follow step 3 to enter a new password.

Playing the disc for which Parental Control is set

1 Insert the disc and press SA-CD/DVD

The "PARENTAL CONTROL" display appears.

2 Enter your 4-digit password using the number buttons, then press ENTER.

Playback starts.

Notes

- When you play DVDs which do not have the Parental Control function, playback cannot be limited on this system.
- Depending on the DVD, you may be asked to change the parental control level while playing the disc. In this case, enter your password, then change the level.
 If the Resume Play mode is cancelled, the level returns to the original level.

Tip

If you forgot your password, remove the disc and repeat steps 1 to 3 of "Limiting playback by children (DVD only)" (page 32). When you are asked to enter your password, enter "199703" using the number buttons, then press ENTER. The display will ask you to enter a new 4-digit password. After you enter a new 4-digit password, replace the disc in the system and press SA-CD/DVD . When the "PARENTAL CONTROL" display appears, enter your new password.

Area code

Area Code	
Standard	Code number
Argentina	2044
Australia	2047
Austria	2046
Belgium	2057
Brazil	2070
Canada	2079
Chile	2090
China	2092
Denmark	2115
Finland	2165
France	2174
Germany	2109
Hong Kong	2219
India	2248
Indonesia	2238
Italy	2254
Japan	2276
Korea	2304
Malaysia	2363
Mexico	2362
Netherlands	2376
New Zealand	2390
Norway	2379
Pakistan	2427
Philippines	2424
Portugal	2436
Russia	2489
Singapore	2501
Spain	2149
Sweden	2499
Switzerland	2086
Taiwan	2543
Thailand	2528
United Kingdom	2184

Speaker settings

- SPEAKER SETUP

To obtain the best possible surround sound, set the speakers you have connected and their distance from your listening position. Then use the test tone to adjust the volume and

the balance of the speakers to the same level.

Setting the speakers

- Press DVD SETUP in stop mode. The Setup Display appears.
- Press ▲ or ▼ repeatedly to select "SPEAKER SETUP", then press ENTER.
- Press ▲ or ▼ repeatedly to select "SIZE" or "DISTANCE", then press ENTER.
- 4 Press ▲ or ▼ repeatedly to select the setup item, then press ENTER.
- Press ▲ or ▼ repeatedly to select or set a setting, then press ENTER.

To return to the default settings Select the item to be returned to the default setting and press CLEAR. However, the "SIZE" setting cannot be returned.

Note

When the speaker output is set to "2CH" or "2.1CH", you cannot select "SIZE" or "DISTANCE" in step 3. Set the speaker output to "5.1CH" (page 69), then set the speakers.

■ SIZE

When you move the surround speakers, set the parameters for SURROUND. When you do not connect center and surround speakers, press SPEAKER OUT MODE repeatedly to select "2CH" or "2.1CH" in step 5. The front, center speakers and subwoofer setting is fixed, you cannot change them.

The default settings are underlined.

	0
FRONT	YES
CENTER	YES
SURROUND	BEHIND (LOW), BEHIND (HIGH), SIDE (LOW), SIDE (HIGH): Specify the position and height to implement the Digital Cinema Surround modes.
SLIBWOOEER	VES

SUBWOOFER YES

Notes

- When adjusting speakers, the sound may cut off for a moment.
- Depending on the settings of other speakers, the subwoofer may output excessive sound.

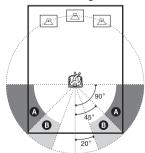
Specifying the surround speaker position and height

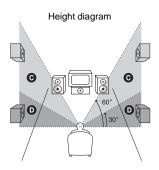
When setting the surround speakers, refer to the diagram and select "SURROUND".

The default setting is underlined.

BEHIND (LOW)	Select this if the surround
	speakers are located in section 3 and 4 .
BEHIND (HIGH)	Select this if the surround
	speakers are located in section 3 and 6 .
SIDE (LOW)	Select this if the surround
	speakers are located in section
	A and D.
SIDE (HIGH)	Select this if the surround
	speakers are located in section
	A and G .

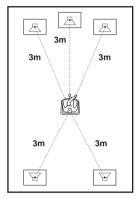
Position diagram





■ DISTANCE

The default distance setting for the speakers in relation to the listening position is shown below.



Be sure to change the value in the Setup Display when you move the speakers.

The default settings are underlined.

FRONT	Front speaker distance from the
3.0 m	listening position can be set in
	0.2 meter increments from 1.0 to
	7.0 meters.
CENTER	Center speaker distance can be moved
3.0 m	up to 1.6 meters closer to the listening
	position, from the front speakers in
	0.2 meter increments.
SURROUND	Surround speaker distance can be
3.0 m	moved up to 4.6 meters closer to the
	listening position, from the front
	speakers in 0.2 meter increments.

Notes

- When adjusting speakers, the sound may cut off for a moment.
- If each of the front and surround speakers are not placed at an equal distance from your listening position, set the distance of the closest speaker.
- Do not place the surround speakers farther away from your listening position than the front speakers.

Adjusting the speaker volume and level

- Press DVD SETUP in stop mode.
 The Setup Display appears.
- 2 Press ▲ or ▼ repeatedly to select "SPEAKER SETUP", then press ENTER.
- 3 Press ▲ or ▼ repeatedly to select "TEST TONE", then press ENTER.
- 4 Press ▲ or ▼ repeatedly to select "ON", then press ENTER.

You will hear the test tone from each speaker in sequence.

From your listening position, adjust the value of "BALANCE" and "LEVEL" using ▲/▼/◄/▶.

The test tone is emitted from the selected speaker.

- 6 Press ENTER when you finish adjusting.
- 7 Press ▲ or ▼ repeatedly to select "TEST TONE", then press ENTER.
- 8 Press ▲ or ▼ repeatedly to select "OFF", then press ENTER.

To return to the default settings Select the item to be returned to the default setting and press CLEAR.

To change the volume of all speakers at once

Adjust using VOLUME + or -.

Tip

To adjust the balance or the level without listening to the test tone, select "BALANCE" or "LEVEL" in step 3 and press ENTER, then adjust the balance or level using \blacktriangle or \blacktriangledown and press ENTER.

■ LEVEL

You can vary the level of each speaker as follows. Be sure to set "TEST TONE" to "ON" for easy adjustment.

The default settings are underlined.

CENTER 0 dB	Adjust the level of the center speaker (-6 dB to +6 dB, 1 dB increments).
SURROUND LEFT	Adjust the level of the surround
0 dB	speaker (-6 dB to +6 dB, 1 dB increments).
SURROUND	,
RIGHT 0 dB	
SUBWOOFER	Adjust the level of the subwoofer
0 dB	(-6 dB to +6 dB, 1 dB
	increments).

■ BALANCE

You can vary the balance of the left and right speakers as follows. Be sure to set "TEST TONE" to "ON" for easy adjustment. The default setting is underlined.

FRONT	Adjust the balance between the
(<u>CENTER</u>)	front left and right speakers
	(6 steps left or right).

■ TEST TONE

The speakers will emit a test tone to adjust "BALANCE" and "LEVEL".

The default setting is underlined.

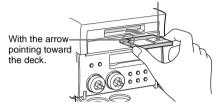
<u>OFF</u>	The test tone is not emitted from the
	speakers.
ON	The test tone is emitted from each
	speaker in sequence while adjusting
	balance or level. When you select one
	of the "SPEAKER SETUP (LEVEL or
	BALANCE)" items, the test tone is
	emitted from the selected speaker.

MD - Play

Loading an MD

Insert an MD.

With the label side up, and the shutter on the righthand side.



Playing an MD

— Normal Play/Shuffle Play/Repeat Play

This system lets you play the MD in different play modes.

- 1 Press FUNCTION repeatedly to switch the function to MD.
- Press PLAY MODE in stop mode repeatedly until the mode you want appears.

Select	To play
No display (Normal Play)	The tracks on the MD in original order.
SHUF (Shuffle Play)	All tracks on the MD in random order.
PGM (Program Play)	The tracks on the MD in the order you want them to be played (see "Programming MD tracks" on page 39).

3 Press MD ►.

Note

You cannot change the play mode during playback.

Other operations

То	Do this
Stop play	Press ■.
Pause	Press II. Press again to resume play.
Select a track	Press ► or ► repeatedly until you find the desired track.
Find a point in a track	Keep pressing ◀◀ or ▶▶ (or keep moving MD lever on the MD deck to ┃◀◀ or ▶▶) during playback and release it at the desired point.
Switch to MD function from another source*	Press MD ► (Automatic Source selection).
Remove the MD	Press ▲ MD on the MD deck.

^{*} While the Net MD function is on, you cannot switch the function.

To play a track by entering the track number

You can also select the track you want using the remote during Normal Play.

Press the number button (s).

To enter a track number over 10

- 1 Press >10.
- 2 Enter the corresponding digits for the same number of "—" flashing in the display. To enter 0, press 10/0.

Example:

To enter track number 30, press >10, then press 3 and 10/0.

Playing repeatedly

- Repeat play

Press REPEAT repeatedly until "REP" or "REP1" appears.

REP: For all the tracks on the MD up to five times.

REP1: For a single track only.

To cancel Repeat Play

Press REPEAT repeatedly until both "REP" and "REP1" disappear.

Programming MD tracks

— Program Play

You can make a program of up to 25 steps.

- Press FUNCTION repeatedly to switch the function to MD.
- 2 Press PLAY MODE in stop mode repeatedly until "PGM" appears.
- 3 Press I or ► repeatedly until the desired track number appears.



4 Press ENTER.

The track is programmed.

The step number appears, followed by the track number in the programmed sequence and the total playing time of the program.



- 5 To program additional tracks, repeat steps 3 and 4.
- 6 Press MD ►.

Program Play starts.

Other operations

То	Do this
Cancel Program Play	Press PLAY MODE in stop mode repeatedly until both "PGM" and "SHUF" disappear.
Check the program order	Press ► or ► repeatedly during Program Play.
Check the total number of programmed tracks	Press DISPLAY on the MD deck in stop mode. The total number of programmed steps appears.
Add a track to the end of the program	Perform steps 3 and 4 in stop mode.
Clear a track from the end of program	Press CLEAR in stop mode or after step 4.

Zips

- The program you made remains after Program Play finishes. To play the same program again, press MD . However, the program is cleared when you remove the MD or press MD GROUP.
- "----" appears when the total program time exceeds 1,000 minutes.

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. For details of the Group Function, see "Registering tracks in groups" on page 50.

- 1 Press FUNCTION repeatedly to switch the function to MD.
- Press MD GROUP in stop mode repeatedly until "GROUP ON" appears.
- 3 Press GROUP SKIP repeatedly until the desired group appears.
- 4 To start playing from a specific track in the group, press I◄◄ or ►►I repeatedly until the desired track appears.

Proceed to step 5 when you start playing from the first track in the group.

5 Press MD ►.

Playback starts.

When the playing of the last track in the group finishes, the MD deck stops automatically.

Note

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

Tip

You can change play mode (Normal Play/Shuffle Play/Repeat Play/Program Play) only for the tracks in the group. To select the desired play mode, select the play mode before step 3.

MD - Recording

Before you start recording

MDs (MiniDisc) let you digitally record and play music with high quality sound. Another feature of MDs is track marking. The track marking feature lets you quickly locate a specific point or easily edit the recorded tracks. However, depending on the source you record, the recording method and the way the track numbers are recorded differ.

When the source you record from is:

- CDs loaded in this system's DVD player
- The MD deck performs digital recording.*1
 However, the MD deck performs analog recording in manual recording.
- Track numbers are automatically marked as on the original CD. However, track numbers are not marked depending on the track (page 98).
- DVDs, VIDEO CDs, Super Audio CDs or MP3 loaded in this system's DVD player
- The MD deck performs analog recording. However, digital recording is performed for the CD layer of a Super Audio CD hybrid disc in the same manner as a CD. Also, when the source is a Super Audio CD with multichannel sound, only the sound from the front L/R speakers is recorded.
- A track number is marked at the beginning of a recording only, but when you turn on the Level Synchro Recording Function (page 47), track numbers are automatically marked on sync with the level of the input signal.

- Other digital components connected to the VIDEO/SAT DIGITAL IN OPTICAL jack
- The MD deck performs digital recording.*1*2
- Track numbers are marked differently depending on the source you record.
- This system's tuner or tape, or other analog components connected to the VIDEO/SAT IN jacks
- The MD deck performs analog recording.*3
- A track number is marked at the beginning of a recording only, but when you turn on the Level Synchro Recording Function (page 47), track numbers are automatically marked in sync with the level of the input signal.
- · A personal computer
- Only tracks that have been checked out using the Net MD function can be recorded from a personal computer. For details, see supplied accessories "M-crew/SonicStage for Net MD CD-ROM".

When you use a partially recorded MD

You cannot record while overwriting the recorded tracks.

Recording starts after the recorded tracks. If you want to erase the recorded tracks, erase the tracks using Erase Function (page 55).

Note on MD track numbers

On an MD, the track numbers (track sequence), track start and end point information, etc., are recorded in the TOC*4 area independent of the sound information. You can edit recorded tracks quickly by modifying the TOC information.

About recording errors

- With the following kinds of discs, you may experience a reading failure or noise when recorded on an MD:
 - Discs with adhesive labels attached to them
 - Irregularly shaped discs (for example, heart- or star-shaped)
 - Discs with printed text concentrated on one side only
 - Scratched discs
 - Dirty discs
 - Warped discs
- If the following occurs during CD playback or recording, a reading error may occur or noise may be produced in the recorded results:
 - The system is bumped.
 - The system is placed on an uneven or soft surface.
 - The system is located near a speaker, door, or other source of vibration.
- If the above reading errors occur, an extra soundless track may be created. You can erase these extra tracks using Erase Function (page 55).
- *1 For details on the limitations of digital recording, see "Guide to the Serial Copy Management System" on page 99. If you do not connect the DVD player to MD deck with the supplied digital optical cable, the MD deck only performs analog recording.
- *2 You cannot make a digital recording of sound encoded by other than PCM mode. Set optional digital components to PCM output.
- *3 Even if you connect a digital component, the MD deck performs analog recording.
- *4 TOC: Table Of Contents

After recording

Press \triangleq MD on the MD deck to remove the MD or press I/ \bigcirc (power) to turn off the system.

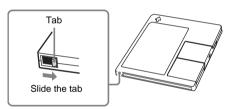
"TOC" starts flashing. The TOC is updated and recording is completed.

Before pulling out 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/Ú to turn off the system. Do not pull out the mains lead before updating the TOC or while updating the TOC (while "TOC" lights up or flashes) to ensure a complete recording.

Protecting a recorded MD

 To protect a recorded MD, slide the tab on the side of the MD to open the slot. In this position, the MD cannot be recorded. To record on the MD, slide the tab to close the slot.



• If the MD is record protected, "C11" and "Protected" appear alternately and the MD cannot be recorded. Remove the MD, then slide the record protection tab to the closed position.

Recording tips

Recording for long times

This system has two long time recording modes: LP2 and LP4 (MDLP recording).

Press REC MODE on the MD deck to select the recording mode. Refer to the pages about recording (pages 43, 45 and 46).

MDs recorded in MDLP Stereo mode are played back only on the system with the following marks.

MDLP MDLP

MDs recorded in MDLP Stereo mode cannot be played back on the system that does not support MDLP mode.

Notes

- Even if the recording mode is set to "MONO", the sound from the speakers are output as recorded in the source (in stereo when recording the stereo source).
- Some MDs recorded in MDLP Stereo mode are edited so that "LP:" is displayed to indicate that playback is not possible when an attempt is made to play back these MDs on a system that does not support MDLP mode. However, this system supports MDLP mode, so "LP:" is not displayed when these MDs are played back.
- When playing back these MDs on a system that does not support MDLP mode, set the transfer mode during SonicStage check-out to "Stereo Transfer". If transfer is performed in LP2 or LP4 mode, you will be unable to play back these MDs on a system that does not support MDLP mode.

Tips

- 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.
- · You can mix the recording mode in an MD.
- The selected recording mode is kept even after recording has finished. To change the recording mode, press REC MODE on the MD deck repeatedly.

Recording a CD on an MD

- CD-MD Synchro Recording

You can record a whole CD on an MD. You can select the recording time by switching the recording mode.

Use buttons on the MD deck for the operation.

- 1 Load a recordable MD.
- 2 Load a CD you want to record.
- 3 Press REC MODE repeatedly to select the recording mode.

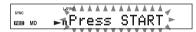
Select the desired recording time.

	•
Recording time	Select (Recording mode)
Standard	no indication (stereo)
Double	LP2 (LP2 stereo)
Quadruple	LP4 (LP4 stereo)
Double	MONO (monaural)
(change the stereo	
signal to monaural)	

- 4 Press MODE repeatedly until "CD→MD SYNC" appears.
- 5 Press ENTER/START.

"Press START" flashes.

The MD deck stands by for recording and the DVD player pauses for play.



6 Press ENTER/START while "Press START" flashes.

Recording starts.

When the recording is completed, the DVD player and the MD deck stop automatically.

To stop recording

Move MD lever to \blacksquare .

To record using the Group Function

Press MD GROUP on the remote repeatedly until "GROUP ON" appears after step 2. Press GROUP SKIP on the remote repeatedly until "New Group" or the desired group appears after step 5.

To record only your favorite CD tracks

You can record only your favorite CD tracks using the Program Play. Between steps 2 and 3, perform steps 1 to 5 of "Creating your own program" (page 21).

Notes

- · You cannot use this recording function with DVDs.
- The MD deck performs analog recording for VIDEO CDs, Super Audio CDs (except the CD layer) and discs with MP3 audio tracks. Also, when "T.Mark Lsync" is selected for Level Synchro Recording (page 47), more track marks may be marked than the actual number of tracks.
- · You cannot pause the recording.
- If the MD play mode is set to the Repeat Play or Shuffle Play, the play mode switches to Normal Play in step 5.
- Playback with PBC function of VIDEO CD is automatically cancelled.
- The following items are either inoperative or cannot be used during recording a CD or CD layer part of Super Audio CD in CD-MD Synchro Recording:
 - The Auto Cut Function
 - The Track Mark Function
- The tracks are recorded with a recording level of 0.0 dB regardless of the recording level value set in the Setup Menu.

Tips

- For details about LP2/LP4 recording, see "Recording for long times" on page 43.
- Depending on the disc, CD-TEXT information may also be recorded.

Recording a tape on an MD

- TAPE-MD Synchro Recording

You can make an analog recording of a tape on an MD. You can use TYPE I (normal) tape.

Use buttons on the MD deck for the operation.

- 1 Load a recordable MD.
- 2 Load a tape you want to record.
- 3 Press MODE repeatedly until "TAPE→MD SYNC" appears.
- 4 Press ENTER/START.

"Press START" flashes.

The MD deck stands by for recording and the tape deck pauses for play.



Tape playback side*

- 6 Press ENTER/START while "Press START" flashes.

Recording starts.

When the recording is completed, the tape deck and the MD deck stop automatically.

To stop recording

Move MD lever to ■.

To record using the Group Function

Press MD GROUP on the remote repeatedly until "GROUP ON" appears after step 2. Press GROUP SKIP on the remote repeatedly until "New Group" or the desired group appears after step 5.

Recording on an MD manually

- Manual Recording

You can record just the portions you like from a disc, tape, tuner or other connected component.

- 1 Load a recordable MD.
- 2 Press FUNCTION repeatedly to select the desired source to record.
 - DVD: To record from this system's DVD player.
 - TAPE: To record from this system's tape deck.
 - TUNER: To record from this system's tuner.
 - · TV: To record from the connected TV.
 - VIDEO (SAT): To record from the connected optional component.
- 3 Press REC MODE on the MD deck repeatedly to select the recording mode.

Select the desired recording time.

Recording time	Select (Recording mode)
Standard	no indication (stereo)
Double	LP2 (LP2 stereo)
Quadruple	LP4 (LP4 stereo)
Double	MONO (monaural)
(change the stereo	
signal to monaural)	

4 Press REC/REC IT on the MD deck.

The MD deck stands by for recording.

5 Press MD ►, then start playing the desired source to record.

To stop recording

Press .

To record using the Group Function

Press MD GROUP repeatedly until "GROUP ON" appears after step 2. Press GROUP SKIP repeatedly until "New Group" or the desired group appears after step 4.

Note

When you manually record a CD, the MD deck performs analog recording only.

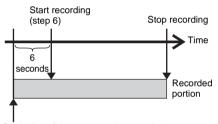
Tips

- If you want to record manually in the middle of a track loaded in this system, press
 ■ before step 4 to pause the playback, then press SA-CD/DVD
 in step 5 to start playback.
- You can check the remaining recordable time on the MD during recording by pressing DISPLAY on the MD deck.
- If cyclical static noise is heard while recording an AM radio program, move the AM loop aerial to reduce the noise.
- For details about LP2/LP4 recording, see "Recording for long times" on page 43.
- You can adjust the recording level (page 49).

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:



Beginning of the source to be recorded

- 1 Load a recordable MD.
- 2 Press FUNCTION repeatedly to select the desired source to record.
- 3 Press REC MODE on the MD deck repeatedly to select the recording mode.

Select the desired recording time.

Recording time	Select (Recording mode)
Standard	no indication (stereo)
Double	LP2 (LP2 stereo)
Quadruple	LP4 (LP4 stereo)
Double (change the stereo	MONO (monaural)
signal to monaural)	

4 Press REC/REC IT on the MD deck.

The MD deck stands by for recording.

- 5 Start playing the desired source to record.
- 6 Press ENTER at the desired point to start recording.

To stop Time Machine Recording Press ■.

To record using the Group Function

Press MD GROUP repeatedly until "GROUP ON" appears after step 2. Press GROUP SKIP repeatedly until "New Group" or the desired group appears after step 4.

Notes

- You cannot record from a disc (DVD, CD, etc.) with this system to an MD using this recording function.
- The MD deck starts storing audio data when the deck stands by for recording in step 4 and you start playing the source. If less than 6 seconds have passed when you press ENTER, Time Machine Recording starts with less than 6 seconds of audio data.

Tip

For details about LP2/LP4 recording, see "Recording for long times" on page 43.

Marking track numbers

After recording

Use the Divide Function (page 59).

At any point during recording

- Track Mark

You can mark track numbers during manual recording of any source.

Press REC/REC IT on the MD deck during manual recording at the point you want to add a track mark.

Presetting to automatically mark track numbers before recording

- Level-Synchro Recording

The Level Synchro Recording Function is factory set to on, so the track numbers are automatically marked. Track numbers are automatically marked when the input signal is continuously below a certain level for more than two seconds and then exceeds that level. If "L-SYNC" does not appear during recording, turn on the Level Synchro Recording as follows.

- 1 Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO.
- 3 Press I◀◀ or ▶►I repeatedly until "Setup?" appears, then press ENTER.
- 4 Press I or I repeatedly until "T.Mark Off" (or "T.Mark LSync") appears, then press ENTER.
- Fress I◄◄ or ▶►I repeatedly until "T.Mark LSync" appears, then press ENTER.

"L-SYNC" lights up.

6 Press MENU/NO.

To continue recording, follow the procedures described for each type of recording.

Other operations

То	Do this
Turn off the Level	In step 5, press ◄ or ►►
Synchro Recording	repeatedly until "T.Mark Off"
Function	appears, then press ENTER.
Change the trigger	After step 3, press
lever for Level	repeatedly until "LS(T)"
Synchro	appears, then press ENTER.
Recording*	Press ◄ or ▶▶ repeatedly to
	select the level between -72 dB
	and 0 dB (in 2 dB steps), press ENTER, then press MENU/NO.

* When the recording source is tape or radio program and the track numbers are not marked properly because of noise, set this level higher so that track numbers are marked easily. The factory setting is "-50 dB".

Notes

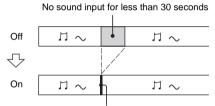
- Track numbers are not marked depending on the track.
- Track numbers are not marked automatically if the source sound to be recorded is noisy (e.g., tapes or radio programs).
- When recording a CD, track numbers are marked where you paused recording. In addition, the tracks might be recorded as the same single track with a single track number when the same single track of the same CD is recorded repeatedly.

Making a space between tracks 3 seconds long automatically

- Smart Space

Smart Space: Lets you make the blank spaces between tracks 3 seconds long automatically while making a digital recording from a CD. For other types of recording, 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 MD deck replaces this silence with a blank of about 3 seconds and continues recording.

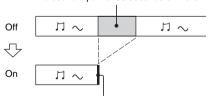
The Smart Space Function is factory set to on.



Replaced with a blank of 3 seconds and recording continues

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

No sound input for 30 seconds or more



Replaced with a blank of 3 seconds and recording pauses

- Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO.
- 3 Press I or I repeatedly until "Setup?" appears, then press ENTER.
- 4 Press I◄◄ or ▶►I repeatedly until "S.Space Off" (or "S.Space On") appears, then press ENTER.
- Press I or ► repeatedly until "S.Space On" appears, then press ENTER.
- 6 Press MENU/NO.

To continue recording, follow the procedures described for each type of recording.

To turn off the Smart Space Function

In step 5, press ◄ or ▶ repeatedly until "S.Space Off" appears, then press ENTER.

Adjusting the recording level

When recording on an MD, you can adjust the recording level to the desired volume. You can adjust the recording level not only when making an analog recording, but also when making a digital recording from a CD, etc.

- 1 Press FUNCTION repeatedly to select the desired source to record.
- 2 Press REC/REC IT on the MD deck. The MD deck stands by for recording.
- 3 Start playing the desired source to record.
- 4 Press MENU/NO to display "Setup?", then press ENTER.
- Fress I◄◄ or ►►I repeatedly until "LevelAdjust?" appears, then press ENTER.
- 6 Press I or I repeatedly to adjust the recording level.

Adjust to the optimum level while making sure that "OVER" does not appear in the display at the loudest portion.



Adjust the level so as not to light up "OVER".

- 7 Press ENTER.
- 8 Press MENU/NO.
- 9 Stop playing the sound source.

The MD deck stops.

To continue recording, follow the procedures described for each type of recording.

Tips

- You can also adjust the recording level during recording.
- Once adjusted, the recording level is maintained until you adjust it again.
- You cannot adjust the recording level during CD-MD Synchro Recording.

MD - Editing

Editing tips

Before you start editing

You can edit an MD only when:

- · The MD is recordable.
- The MD play mode is Normal Play. Check the following, before editing.
- 1 Check the tab of the MD to be edited.

 Slide the tab to close the slot.

 If the MD is protected, you cannot edit the MD.
- Press PLAY MODE repeatedly until both "SHUF" and "PGM" disappear.

You can edit the MD only in Normal Play mode. You cannot edit the MD in Shuffle or Program Play mode.

To quit while editing Press MENU/NO.

After editing

Press \triangleq MD on the MD deck to remove the MD or press I/ \circlearrowleft (power) to turn off the system.

"TOC" starts flashing. The TOC is updated and editing is completed.

Before pulling out 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/b to turn off the system. Do not pull out the mains lead before updating the TOC or while updating the TOC (while "TOC" lights up or flashes) to ensure a complete editing.

Notes

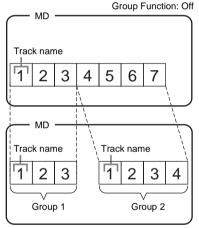
- You cannot edit the MD during MD-TAPE Synchro Recording.
- If you edit an MD while manually recording the MD to a tape, the sound (rehearsal sound, etc.) produced during the editing is recorded on the tape.

Registering 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. For example, you can register tracks 1 to 5 on an MD to the "Rock" group, and tracks 6 to 9 to the "Pops" group. Then you can listen to the tracks in only the desired group, add new tracks to a group, and perform other operations. In addition, the Group Function can be easily turned on and off simply by pressing MD GROUP.



Group Function: On

When the group function is turned on, track numbers within groups are renumbered, starting from track 1. In the above figure, for example, tracks 4 to 7 are renumbered to 1 to 4 when the group function is turned on.

Operations using the Group Function

- Playing only the tracks in the desired group (page 40)
- Recording a CD (page 43)
- Recording a tape (page 44)
- Recording on an MD manually (page 45)
- Starting recording with 6 seconds of prestored audio data (page 46)
- Labelling a group (page 52)
- Creating a new group (page 53)
- Releasing group registrations (page 54)

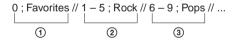
Note

MDs recorded using the Group Function of this system 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 system.

How is group information recorded?

When recording using the Group Function, the group management information is automatically recorded on the MD as the disc title. Specifically, a character string such as the following is written in the disc title recording area.

Disc title recording area



- 1) The disc title is "Favorites".
- ②Tracks 1 to 5 are registered in the "Rock" group.
- 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 system with the Group Function turned off, the above character string is displayed in its entirety as the disc title.

Note that if you rewrite this character string by mistake using the Name Function, you may be unable to use the Group Function of that MD.*

* "GROUP ON" flashes. To use the Group Function again, first perform the procedure for "Releasing all groups on an MD" (page 55) and release the registrations of all tracks on the MD.

If "Group Full!" appears during operation

You cannot start recording because there is insufficient character space for group management. Delete unnecessary characters (disc title or track titles) until group recording is possible (page 53).

Notes

- The Group Function setting is stored even if you eject the MD or turn off the system.
- When the Group Function is on, tracks which are not registered to a group are not displayed and cannot be played.
- You cannot change the group order.
- The new group is added after any existing groups with tracks registered.
- When you newly record a track into an existing group, the new track is added after any existing tracks in the group.
- Up to 99 groups can be registered on a single MD.
- 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 you load a disc with group management information written in other than the proper format, "GROUP ON" flashes. In this case you cannot use the Group Function.

Labelling an MD/group/ track

— Name Function

You can create titles for your recorded MDs, tracks, and groups as follows.

After recording

Use Name Function.

You can input a total of approximately 1,700 characters for the disc title, track titles and group titles on a single MD.

When labelling an MD recorded using the Group Function, be sure to label 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 "How is group information recorded?" on page 51.

- 1 Press FUNCTION repeatedly to switch the function to MD.
- Perform the following procedure depending on what you want to label:

To label a track

Press ◄ or ► repeatedly until the desired track number appears, then press NAME EDIT/SELECT.

To label an MD

Press NAME EDIT/SELECT while the total number of tracks (or groups when the Group Function is on) is displayed.

To label a group

Press MD GROUP repeatedly until "GROUP ON" appears, then press GROUP SKIP repeatedly until the desired group appears. Press NAME EDIT/SELECT while the total number of tracks within the desired group is displayed.



The cursor starts flashing.

3 Press NAME EDIT/SELECT to select the desired type of character.

Character type	Select
Alphabet (upper cases)/ blank space/symbols	Selected AB
Alphabet (lower cases)/ blank space/symbols	Selected ab
Numbers	Selected 12

4 Enter a character.

Character type	Do this
Alphabet	Press the corresponding
	letter button repeatedly until
	the character to be entered
	flashes, then press ►►.
Numbers	Press the corresponding
	number buttons.
Blank space	Press 10/0.
´-/,.():!?	Press 1 repeatedly.
& + < > _ = "; #\$	Press 1, then press
% @ * `	repeatedly.

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

6 Press ENTER.

To change the character

In step 3 or 4, press ◀◀ or ▶▶ repeatedly until the character to be changed flashes, press CLEAR to erase the character, then repeat steps 3 and 4.

To add a character

After steps 1 and 2, press ◄ or ► repeatedly until the cursor comes to the point you want to add a character, then proceed to step 3.

Note

If you enter the symbol "//" between the characters in disc titles such as "abc//def", you may be unable to use the Group Function.

Tip

You can label a track title during playback. The playback repeats until you finish labelling.

Checking the titles

To check the disc titles, press SCROLL in stop mode. To check the track title, press SCROLL during playback. The title appears scrolling in the display.

To check the group titles, press MD GROUP repeatedly in stop mode until "GROUP ON" appears, press GROUP SKIP repeatedly until the desired group appears, then press SCROLL. To stop scrolling, press SCROLL. Press the button again to resume scrolling.

Erasing the titles

- To erase group titles, press MD GROUP repeatedly in stop mode until "GROUP ON" appears.
- 2 Press MENU/NO in stop mode.
- 3 Press I or ► repeatedly until "Nm Erase?" appears, then press ENTER.

To erase disc titles

Press ► or ► repeatedly until "Nm Ers Disc" appears, then press ENTER.

To erase track titles

Press I or I repeatedly until the desired track number appears, then press ENTER.

To erase group titles

Press GROUP SKIP repeatedly until the desired group number appears, then press ENTER.

"Complete!" appears.

Note

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

Creating a new group

- Create Function

The Create Function allows you to create a new group without registering any tracks, or to create a new group and register one or more consecutive tracks into that group. Only tracks that have not yet been registered into any group can be registered.

For details on the Group Function, see "Registering tracks in groups" on page 50.

- Press FUNCTION repeatedly to switch the function to MD.
- Press MD GROUP repeatedly until "GROUP ON" appears.
- 3 Press MENU/NO.
- 4 Press I or ▶ repeatedly until "Gp Create?" appears, then press ENTER.
- Perform steps 3 to 6 of "Labelling an MD/group/track" (page 52).
- 6 Press I◄◄ or ▶►I repeatedly until "Assign None" appears, then press ENTER.

Note

When creating a group without registering any tracks, you must enter the group title.

To register tracks into a group

In step 6, press I ◄ or ► repeatedly to select the number of the first track you want to register, then press ENTER.

When registering only one track, press ENTER again.

When registering two or more tracks, press ► or ► repeatedly to select the number of the last track you want to register, then press ENTER.

Notes

- You cannot register the same track to more than one group.
- If you do not enter a group title in step 5, "Group ** (group number)" appears as the group title.

qiT

You can also register tracks that were recorded on a system that does not support the Group Function.

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 registrations of all groups on an MD at once.

For details on the group management information, see "Registering tracks in groups" on page 50.

Releasing a single group

- Group Release Function

You can release a specified group and erase that group. (However, note that the tracks are not erased.)

- 1 Press FUNCTION repeatedly to switch the function to MD.
- Press MD GROUP repeatedly until "GROUP ON" appears.
- 3 Press GROUP SKIP repeatedly until the desired group appears.
- 4 Press MENU/NO.
- 5 Press I or ► repeatedly until "Gp Release?" appears, then press ENTER.
 - "REL Gp** (selected group number)??" appears.
- 6 Press ENTER.

Releasing all groups on an MD

- All Release Function

You can release all groups on an MD at once.

- 1 Press MD GROUP repeatedly in stop mode until "GROUP ON" appears.
- 2 Press MENU/NO.
- 3 Press I◄ or ►►I repeatedly until "Gp All REL?" appears, then press ENTER. "All REL??" appears.
- 4 Press ENTER.

Erasing recordings

- Erase Function

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

You can restore the erased contents using the Undo function immediately after the erasing (page 60). However, you cannot restore the erased contents after performing other editing. Before erasing, make sure if it is all right to erase the content.

The three options for erasing recordings are:

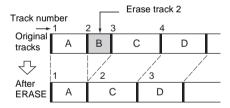
- Erasing a single track (Track Erase Function)
- Erasing all tracks (All Erase Function)
- Erasing a portion of a track (A-B Erase Function)

Erasing a single track

- Track Erase Function

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

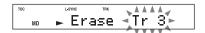


As the track numbers are renumbered as above, it is recommended to erase from the latter tracks when erasing several tracks, so as not to change the track numbering of unerased tracks.

- 1 Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO.
- 3 Press I or I repeatedly until "Tr Erase?" appears, then press ENTER.

Playback of the selected track starts.

4 Press I or I repeatedly until the desired track number appears.



5 Press ENTER.

"Complete!" appears. The track selected in step 4 is erased and playback of the following track starts. When you erase the last track, the playback of the previous track starts.

Note

If you erase all the tracks within a group, the group itself is also erased.

Erasing all tracks

- All Erase Function

You can erase all the contents recorded on an MD (the disc title, group titles, all recorded tracks and their titles) at once.

- 1 Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO.
- 3 Press I or I repeatedly until "All Erase?" appears, then press ENTER. "All Erase??" appears.
- 4 Press ENTER again.

Note

If you perform the above operation when the Group Function is on, not only the tracks within the group, but all the tracks on the MD are erased.

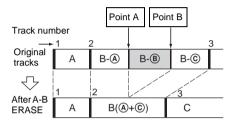
Erasing a portion of a track

— 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*, minute or second intervals.

This function is convenient to erase the unnecessary parts recorded from satellite broadcast or radio programs.

Example: Erasing a portion of track 2



- 1 Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO.
- 3 Press I or ► repeatedly until "A-B Erase?" appears, then press ENTER. Playback starts.
- 4 Press I or ► repeatedly until the desired track number appears, then press ENTER.
- While monitoring the sound, press ENTER at the starting point of the portion to be erased (point A).
 - "—Rehearsal—" and "Point A ok?" appear alternately while the deck repeats a few seconds of a portion before point A.

^{* 1} frame is 1/86 second.

6 Press ENTER if point A is correct.

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

If the point A is incorrect, press I or ▶ repeatedly to find the starting point of the portion to be erased (point A) while monitoring the sound, then press ENTER. You can shift the point by 1/86 second (1 frame) intervals.*

* You can shift the point by 2-frame intervals (in Monaural mode and LP2 stereo mode) or by 4-frame intervals (in LP4 stereo mode).

7 Continue playback until the deck reaches point B, then press ENTER.

"A-B Ers" and "Point B ok?" appear alternately and the deck repeats a portion of the few seconds before point A and after point B successively.

8 Press ENTER if point B is correct.

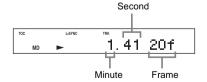
"Complete!" appears for a few seconds and the portion between point A and B is erased. Playback starts from the beginning of the track.

If the point B is incorrect, press ◄ or ► I repeatedly to find the ending point of the portion to be erased (point B) while monitoring the sound, then press ENTER. You can shift the point by 1/86 second (1 frame) intervals.*

* You can shift the point by 2-frame intervals (in Monaural mode and LP2 stereo mode) or by 4-frame intervals (in LP4 stereo mode).

Tip

To shift the point by minute or second intervals in steps 6 and 8, press ◀ or ▶ repeatedly to flash minute, second, or frame indication, then press ▶ or ▶ .



Moving recorded tracks

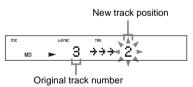
— Move Function

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

Track number — 1 2 3 4 Original tracks A B C D After MOVE A C B D

- Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO.
- 3 Press I or ▶ repeatedly until "Move?" appears, then press ENTER. Playback starts.
- 4 Press I◀ or ▶►I repeatedly until the desired track number to move appears, then press ENTER.
- 5 Press I or ► repeatedly until the new track position appears.



6 Press ENTER.

"Complete!" appears for a few seconds and the moved track starts playing.

Note

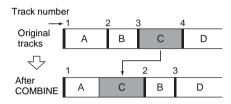
When you move a track to a track number that is registered into a group, the moved track is re-registered into the group. In addition, if you move a track that is registered into a group to a track number that is not registered into a group, the group registration of the moved track is released. However,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

Combining recorded tracks

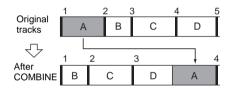
— Combine Function

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.

Example: Combining track 3 to track 1



Example: Combining track 1 to track 4



- 1 Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO.
- 3 Press I◄ or ►►I repeatedly until "Combine?" appears, then press ENTER.

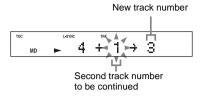
Playback starts.

4.

4 Press I or ► repeatedly until the first track number of the two to be combined appears, then press ENTER. For example, to combine track 1 to 4, select



Press I or ► repeatedly until the second track number of the two to be combined appears.



6 Press ENTER.

"Complete!" appears for a few seconds. Playback of the track starts.

Notes

- When you combine two tracks that are registered into different groups, the second track is reregistered 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 recording modes (stereo, LP2, LP4 or MONO) cannot be combined.
- If both of the combined tracks have track titles, the title of the second track is erased.

Dividing recorded tracks

Divide Function

You can use this function to mark track numbers after recording. You can also use this function when recording from tapes or radio programs and track numbers are not marked automatically, and want to mark tracks. 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

Track number

→	1	2	3	3	
Original tracks	А	В	С	D	
\bigcirc		_	track	e track 2 int B and C	to
	1	2 '	ł3	4	
After DIVIDE	Α	В	С	D	

- 1 Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO.
- 3 Press I or I repeatedly until "Divide?" appears, then press ENTER.
 Playback starts.
- 4 Press I or ► repeatedly until the desired track number to divide appears.
- While monitoring the sound, press ENTER at the point to be divided.

"—Rehearsal—" appears and the portion to be divided is played repeatedly.

6 Press ENTER again if the point to be divided is correct.

"Complete!" appears for a few seconds and the newly created track starts playing.

If the point to be divided is incorrect, press I or ▶ I to find the point to be divided, then press ENTER.

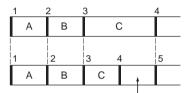
You can shift the point by 1/86 second (1 frame) intervals.*

* You can shift the point by 2-frame intervals (in Monaural mode and LP2 stereo mode) or by 4-frame intervals (in LP4 stereo mode).

Note

If you divide a labelled track (page 52) into two tracks, only the first track retains the track title.

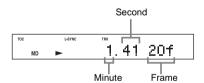
Example:



The new track is not labelled.

Tip

To shift the point by minute or second intervals in step 6, press $\blacktriangleleft \blacktriangleleft$ or $\blacktriangleright \blacktriangleright$ repeatedly to flash minute, second, or frame indication, then press $\blacktriangleright \blacktriangleleft \blacktriangleleft$ or $\blacktriangleright \blacktriangleright \blacktriangleright$ 1.



Undoing the last edit

— Undo Function

You can use this function to cancel the last edit and restore the contents of the MD to the condition before the edit.

Note, however, that you cannot undo the edit if you do any of the following after the edit:

- · Do another edit.
- · Do the recording procedure.
- · Activate the Net MD function.
- Update the TOC by turning off the system or ejecting the MD.
- Disconnect the mains lead.
- 1 Press MENU/NO in stop mode.
- Press I or ►►I repeatedly until "Undo?" appears.

"Undo?" does not appear when there is no editing function that can be cancelled.

3 Press ENTER.

Following message appears depending on the last edit.

Editing	Message	
Labelling discs or tracks	Name Undo?	
Erasing the titles	Name Undo?	
Creating a new group	Group Undo?	
Releasing a group		
Releasing all groups		
Deleting a portion of a		
track	Erase Undo?	
Deleting a track		
Deleting all the tracks		
Moving tracks	Move Undo?	
Dividing a track	Divide Undo?	
Combining tracks	Combine Undo?	

4 Press ENTER again.

Note

You cannot undo the S.F Edit Function.

Changing the recorded level after recording

- S.F Edit Function

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 the recording.

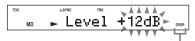
Changing the overall recording level

- 1 Press FUNCTION repeatedly to switch the function to MD.
- Press PLAY MODE in stop mode repeatedly until both "SHUF" and "PGM" disappear.
- 3 Press MENU/NO.
- Press I or ► repeatedly until "S.F Edit?" appears, then press ENTER.
- 5 Press I or ► repeatedly until "Tr Level?" appears, then press ENTER. Playback starts.
- 6 Press I◄◄ or ►►I repeatedly until the track number you want to change the recording level appears, then press ENTER.

"Level 0dB" appears.

While monitoring the sound, press I◄◄ or ▶►I repeatedly to change the recorded level.

The recording level can be changed from $-12 \, dB$ to $+12 \, dB$, in 2 dB steps. Change to the optimum level while making sure that "OVER" does not appear in the display at the loudest portion.



Adjust the level so as not to light up "OVER".

8 Press ENTER.

"S.F Edit OK?" appears.

9 Press ENTER again.

The system 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

- Press FUNCTION repeatedly to switch the function to MD.
- Press PLAY MODE in stop mode repeatedly until both "SHUF" and "PGM" disappear.
- 3 Press MENU/NO.
- 4 Press I◄◄ or ▶►I repeatedly until "S.F Edit?" appears, then press ENTER.
- 5 Press I◄◄ or ►►I repeatedly until "Fade In?" or "Fade Out?" appears, then press ENTER.

Playback starts.

6 Press I◄◄ or ►►I repeatedly until the track number you want to change the recording level appears, then press ENTER.

"Time5.0s" appears.

While monitoring the sound, press I◄◄ or ►►I repeatedly to change the Fadein or Fade-out recording time.

The system plays the portion that will be recorded over using Fade-in or Fade-out Recording. You can set the time at any value between 1.0 second and 15.0 seconds, in 0.1 second steps. You cannot set the time longer than the track.

8 Press ENTER.

"S.F Edit OK?" appears.

9 Press ENTER again.

The system 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 during step 4 through 8. After pressing ENTER in step 9 to start recording, you cannot interrupt the operation.

Notes

- Do not disconnect the mains lead or move the system while recording is in progress. This may damage the recording data preventing recording from being performed properly.
- You cannot change the recording level of the tracks recorded in MDLP mode.
- 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.
- The recording level cannot be changed while the timer is activated.
- You cannot undo the S.F Edit Function even if you use the Undo Function.

Tuner

Presetting radio stations

You can preset up to 20 FM stations and 10 AM stations. You can then tune in any of those stations simply by selecting the corresponding preset number.

Automatic tuning preset

You can automatically tune in all of the stations that can be received in your area and then manually store the radio frequency of the desired stations.

- 1 Press TUNER BAND repeatedly (or move TUNER lever on the DVD player to FM or AM) to select "FM" or "AM".
- 2 Press TUNING MODE repeatedly until "AUTO" appears.
- 3 Press + or on the remote repeatedly until the frequency indication starts to change, then release it.

The frequency changes as the system scans for a station. Scanning stops automatically when a station is tuned in. At that time, "TUNED" and "ST" (for an FM stereo program) appear.



If "TUNED" does not appear and the scanning does not stop

Set the frequency of the desired radio station as described in steps 2 and 3 of "Manual tuning preset".

4 Press MENU/NO.

Press I or ► repeatedly to select "Memory?", then press ENTER.

A preset number flashes. Perform steps 6 and 7 while the preset number flashes.



- 6 Press + or (or move TUNER lever on the DVD player to + or –) repeatedly to select the desired preset number.
- 7 Press ENTER.

"Complete!" appears.

8 Repeat steps 1 through 7 to store other stations.

Tip

Press TUNING MODE to stop scanning.

Manual tuning preset

You can manually tune in and store the radio frequency of the desired stations.

- 1 Press TUNER BAND repeatedly (or move TUNER lever on the DVD player to FM or AM) to select "FM" or "AM".
- Press TUNING MODE repeatedly until both "AUTO" and "PRESET" disappear.
- 3 Press + or on the remote repeatedly to tune in the desired station.
- 4 Press MENU/NO.
- 5 Press I or I repeatedly to select "Memory?", then press ENTER.

A preset number flashes. Perform steps 6 and 7 while the preset number flashes.

- 6 Press + or (or move TUNER lever on the DVD player to + or –) repeatedly to select the desired preset number.
- 7 Press ENTER.

"Complete!" appears.

8 Repeat steps 1 through 7 to store other stations.

Other operations

То	Do this
Tune in a station with a weak signal	Follow the procedure described in "Manual tuning preset".
Set another station to the existing preset number	Start over from step 1. After step 5, press + or – (or move TUNER lever on the DVD player to + or –) repeatedly to select the preset number you want to store the other station.

Tips

- The preset stations are retained for about a day even if you disconnect the mains lead or if a power failure occurs.
- You can label the preset stations "Labelling the preset stations" (page 64).
- To improve the reception, adjust the supplied antennas or connect an external antenna.

Listening to the radio

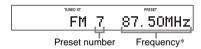
You can listen to a radio station either by selecting a preset station, or by manually tuning in the station.

Listening to a preset station

- Preset Tuning

Preset radio stations in the tuner's memory first (see "Presetting radio stations" on page 62).

- 1 Press TUNER BAND repeatedly (or move TUNER lever on the DVD player to FM or AM) to select "FM" or "AM".
- Press TUNING MODE repeatedly until "PRESET" appears.
- 3 Press + or (or move TUNER lever on the DVD player to + or -) repeatedly to select the desired preset station.



* The station name appears only if you have labelled the station (see "Labelling the preset stations" on page 64).

To select the desired preset number using the number buttons

Press number buttons instead of performing step 3. To enter preset number 10 or higher, press >10 and the corresponding number buttons. To enter 0, press 10/0. In addition, you can select a preset number even when the tuning mode is other than PRESET by selecting + or – with the TUNER lever on the DVD player.

Listening to non-preset radio station

- Manual Tuning

- 1 Press TUNER BAND repeatedly (or move TUNER lever on the DVD player to FM or AM) to select "FM" or "AM".
- Press TUNING MODE repeatedly until both "AUTO" and "PRESET" disappear.
- 3 Press + or on the remote repeatedly to tune in the desired station.

Tips

- To improve broadcast reception, adjust the supplied antennas, or connect a commercially available external antenna.
- When an FM stereo program has static noise, press FM MODE repeatedly until "MONO" appears.
 There will be no stereo effect, but the reception will improve.
- Press TUNING MODE repeatedly until "AUTO" appears in step 2 above, then press + or – on the remote. The frequency indication changes and scanning stops when the system tunes in a station (Automatic Tuning).
- To record the radio programs, use manual recording (pages 45 and 68).
- You can switch from another source to the tuner by pressing TUNER BAND (Automatic Source Selection). However, while the Net MD function is on, you cannot switch the function.

Labelling the preset stations

— Station Name

You can label each preset station with up to 10 characters (Station Name).

- Tune in the station you want to label (see "Listening to the radio" on page 63).
- 2 Press NAME EDIT/SELECT.

The cursor starts flashing.



3 Perform steps 3 to 6 of "Labelling an MD/group/track" (page 52).

To cancel labelling

Press MENU/NO.

To erase the station name

- 1 Tune in the preset station you want to erase the station name.
- 2 Press NAME EDIT/SELECT.
- 3 Press CLEAR repeatedly to erase the name.
- 4 Press ENTER.

Note

When you tune in a station that provides RDS services, the station name is overwritten.

Using the Radio Data System (RDS)

What is the Radio Data System?

Radio Data System (RDS) is a broadcasting service that allows radio stations to send additional information along with the regular program signal. This tuner offers convenient RDS features like station name display. RDS is available only on FM stations.*

Note

RDS may not work properly if the station you are tuned in is not transmitting the RDS signal properly or if the signal is weak.

* Not all FM stations provide RDS service, nor do they provide the same types of services. If you are not familiar with the RDS system, check with your local radio stations for details on RDS services in your area.

Receiving RDS broadcasts

Simply select a station from the FM band.

When you tune in a station that provides RDS services, the station name appears in the display.

To check the RDS information

Each time you press DISPLAY on the DVD player, the display changes cyclically as follows:

Station name* → Frequency → Clock display
→ Sound Field status → Volume

* If the RDS broadcast is not properly received, the station name may not appear in the display.

Tape - Play

Loading a tape

Load a recorded/recordable tape into the tape slot with the side you want to play/ record facing up.

With the side you want to play/record facing up.



Playing a tape

You can use TYPE I (normal) tape.

- 1 Press FUNCTION repeatedly to switch the function to TAPE.
- 2 Press DIRECTION on the MD deck repeatedly to select "

 "to play one side. Select "

 "or "(

 "")") to play both sides.
 - * The tape deck stops automatically after repeating the sequence five times.
- 3 Press TAPE **◄►**.

The indicator lights up and the tape starts playing the front side.

To play the reverse side, press TAPE

■ again. The ■ indicator lights up and the tape starts playing the reverse side.

Other operations

То	Do this
Stop play	Press ■.
Pause	Press II . Press again to resume play.
Fast-forward or rewind	Press ◀◀ or ▶▶.
Switch to TAPE function from another source*	Press TAPE (Automatic Source selection).
Remove a tape	Press ▲ TAPE on the MD deck.

^{*} While the Net MD function is on, you cannot switch the function.

Tape - Recording

Recording your favorite CD/MD tracks on a tape

- CD/MD-TAPE Synchro Recording

You can record a whole CD or MD on a tape. You can use TYPE I (normal) tape.

Use buttons on the MD deck for the operation.

- 1 Load a recordable tape.
- 2 Load a CD or MD you want to record.
- 3 Press MODE repeatedly until "CD→TAPE SYNC" or "MD→TAPE SYNC" appears.
- 4 Press ENTER/START.

"Press START" flashes. The tape deck stands by for recording and the DVD player or MD deck pauses for play.

- 5 Press DIRECTION repeatedly until
 "

 " appears to record on one side or
 "

 " (or "

 ") to record on both
 sides.
- 6 Move TAPE lever to **◄►** to select recording side.

If you select both sides recording or front side recording, move TAPE lever to
to light up the
indicator. If you record on the reverse side, move TAPE lever to

again to light up the
indicator.

7 Press ENTER/START while "Press START" flashes.

Recording starts.

When the recording is completed, the DVD player or MD deck, and the tape deck stop automatically.

To stop recording

Move TAPE lever to ■.

To record a CD or MD by specifying track order

You can record only your favorite CD or MD tracks using Program Play. Between steps 2 and 3, perform steps 1 to 5 of "Creating your own program" (page 21) or "Programming MD tracks" (page 39).

Notes

- CD Synchro Recording is not available with DVDs and JPEG files.
- You cannot listen to other sources while recording.
- If the CD or MD play mode is set to Repeat Play or Shuffle Play, it automatically switches to Normal Play in step 4.
- When you record from a Super Audio CD with multichannel sound, only the sound from the front L/R speakers is recorded.

Tip

If you select both sides recording and the tape reaches the end of the front side part-way through a track, the entire track is recorded again from the beginning of the reverse side.

Recording on a tape manually

- Manual Recording

You can record just the portions you like from a disc, MD or radio program on a tape. You can also record from connected components (see "Hooking up optional components" on page 84).

Use buttons on the MD deck for the operation.

- 1 Load a recordable tape.
- 2 Press FUNCTION on the remote repeatedly to select the desired source to record.
 - DVD: To record from this system's DVD player.
 - MD: To record from this system's MD deck.
 - TUNER: To record from this system's
 - · TV: To record from the connected TV.
 - VIDEO (SAT): To record from the connected optional component.
- 3 Press REC.

The tape deck stands by for recording.

- 4 Press DIRECTION repeatedly to select "

 "to record on one side. Select "

 "co" (or "(□")") to record on both sides.
- Move TAPE lever to

 repeatedly to select recording side.

If you select both sides recording or front side recording, move TAPE lever to
to light up the
indicator. If you record on the reverse side, move TAPE lever to

again to light up the
indicator.

6 Press II, then start playing the desired source to record.

Recording starts.

Other operations

То	Do this
Stop recording	Move TAPE lever to \blacksquare .
Pause recording	Press II.

Note

When you record from a Super Audio CD with multichannel sound, only the sound from the front L/R speakers is recorded.

Tip

If noise is heard while recording from the tuner, move the respective antenna to reduce the noise.

Sound Adjustment

Switching the speaker output

You can select from three different speaker output modes: the front L/R speakers, the front L/R speakers and the subwoofer, and the front L/R speakers, center speaker, surround L/R speakers and the subwoofer.

When using only the front L/R speakers or the front L/R speakers and the subwoofer, the multi channel sound is downmixed and played on two channels.

Press SPEAKER OUT MODE repeatedly until the desired speaker output appears.

Speaker output	Display
Front L/R speakers	2CH
Front L/R speakers and subwoofer	2.1CH
Front L/R, center, surround L/R speakers and subwoofer	5.1CH

Note

The speaker output is fixed to "2CH" and cannot be switched during recording.

Automatic decoding of the audio input signal

The auto decoding function automatically detects the type of audio signal being input (Dolby Digital, DTS, or standard 2 channel stereo) and performs the proper decoding if necessary. This mode presents the sound as it was recorded/encoded, without adding any effects (e.g. reverberation).

However, if there are no low frequency signals (Dolby Digital LFE, etc.), it will generate a low frequency signal for output to the subwoofer.

- 1 Press SPEAKER OUT MODE repeatedly until "5.1CH" appears.
- Press SOUND FIELD + or repeatedly until "A.F.D. AUTO" appears.

Using only the front speakers and subwoofer (2 CHANNEL STEREO)

This mode outputs the sound from the front L/R speakers (2CH), or the front L/R speakers and subwoofer (2.1CH). Standard two channel (stereo) sources completely bypass the sound field processing. Multi channel surround formats are downmixed to two channels. This allows you to play any source using only the front L/R speakers and subwoofer.

- Press SPEAKER OUT MODE repeatedly until "2CH" or "2.1CH" appears.
- Press SOUND FIELD + or repeatedly until "2CH STEREO" appears.

Selecting the surround effect









You can take advantage of surround sound simply by selecting one of system's preprogrammed sound fields. They bring the exciting and powerful sound of movie theatres into your home.

The sound fields that can be selected differ according to the speaker output selection and the sound source to be played.

- Press SPEAKER OUT MODE repeatedly to select the speaker output you desire.
- Press SOUND FIELD + or repeatedly to select the effect you desire.

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

■ When the speaker output is set to "5.1CH"

A.F.D. $AUTO^{*1} \leftrightarrow PRO\ LOGIC \leftrightarrow$ PLII MOVIE ←→ PLII MUSIC ←→ $C.ST.EX A^{*2} \longleftrightarrow C.ST.EX B^{*2} \longleftrightarrow$ C.ST.EX $C^{*2} \longleftrightarrow ROCK \longleftrightarrow POP \longleftrightarrow$ $JAZZ \longleftrightarrow CLASSIC \longleftrightarrow DANCE$

■ When the speaker output is set to "2CH" or "2.1CH", or the headphones are connected

2CH STEREO*1 \longleftrightarrow C.ST.EX A*2 \longleftrightarrow $C.ST.EX B^{*2} \longleftrightarrow C.ST.EX C^{*2} \longleftrightarrow ROCK$ \longleftrightarrow POP \longleftrightarrow JAZZ \longleftrightarrow CLASSIC \longleftrightarrow DANCE

- *1 During playing a Super Audio CD, the sound field is fixed to "A.F.D. AUTO" or "2CH STEREO".
- *2 DCS (Digital Cinema Sound) technology is used.
- A.F.D. AUTO (Auto Format Direct Auto): The sound recorded on the source is output as
- PRO LOGIC: Performs Pro Logic decoding. The source recorded in 2 channels is decoded into 4 channels.

- PL II MUSIC: Performs the Pro Logic II music mode decoding. This setting is ideal for normal stereo sources such as CDs.
- PL II MOVIE: Performs Pro Logic II movie mode decoding. This setting is ideal for movies encoded in Dolby Surround. In addition, this mode can reproduce sound in 5.1 channels when watching videos of overdubbed or old movies.
- ROCK, POP, JAZZ, CLASSIC, DANCE: Sound field effects suited to each genre can be obtained.
- 2CH STEREO: The sound recorded on the source is output as is.

About Cinema Studio EX

Cinema Studio EX is ideal for enjoying the movie software encoded with multi channel format, such as the Dolby Digital DVD. This mode reproduces the sound characteristics of Sony Pictures Entertainment's studios. Cinema Studio EX consists of the following three elements.

- · Virtual Multi Dimension Creates 5 sets of virtual speakers surrounding the listener from a single pair of actual surround speakers.
- · Screen Depth Matching In a movie theater, sound seems to come from inside the image reflected on the movie screen. This element creates the same sensation in your listening room by shifting the sound of the front speakers "into" the screen.
- Cinema Studio Reverberation Reproduces the reverberations peculiar to a movie recording studio.

Cinema Studio EX is the integrated mode which operates these elements simultaneously.

■ C.ST.EX A (Cinema Studio EX A)

Reproduces the sound characteristics of the Sony Pictures Entertainment "Cary Grant Theater" cinema production studio. This is a standard mode, great for watching most any type of movie.

■ C.ST.EX B (Cinema Studio EX B)

Reproduces the sound characteristics of the Sony Pictures Entertainment "Kim Novak Theater" cinema production studio. This mode is ideal for watching science-fiction or action movies with lots of sound effects.

■ C.ST.EX C (Cinema Studio EX C)

Reproduces the sound characteristics of the Sony Pictures Entertainment scoring stage. This mode is ideal for watching musicals or classic films where music is featured in the soundtrack.

Notes

- The effects provided by the virtual speakers may cause increased noise in the playback signal.
- When listening with sound fields that employ virtual speakers, you will not be able to hear any sound coming directly from the surround speakers.
- · When playing a soundtrack with a sampling frequency of 96 kHz, the signal is converted as 48 kHz and output.

About DCS (Digital Cinema Sound)

C.ST.EX A, EX B and EX C use DCS technology. In the collaboration with Sony Pictures Entertainment, Sony measured the sound environment of their studios and integrated the data of the measurement and Sony's own DSP (Digital Signal Processor) technology to develop "Digital Cinema Sound". "Digital Cinema Sound" simulates in a home theater an ideal movie theater sound environment based on the preference of movie director.

To cancel the surround effect Press SOUND FIELD + or - repeatedly until "A.F.D. AUTO" or "2CH STEREO" appears.

Note

During recording, the speaker output is fixed to "2CH" and the sound field is fixed to "2CH STEREO".

Adjusting the sound









You can reinforce the bass and create a more powerful sound.

Press DDSG*.

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

DDSG OFF → DDSG LOW → DDSG HIGH

* DDSG: Digital Dynamic Sound Generator

Tip

When the speaker output is set to "5.1CH" or "2.1CH", the bass level can be adjusted by adjusting the subwoofer sound level to obtain a more powerful sound. For details, see "Adjusting the speaker volume and level" on page 37.

Timer

Falling asleep to music

— Sleep Timer

You can set the system to turn off after a certain time, so that you can fall asleep to music.

Press SLEEP.

Each time you press the button, the minute display (the turn-off time) changes cyclically as follows:

AUTO*
$$\rightarrow$$
 90MIN \rightarrow 80MIN \rightarrow 70MIN
 $\rightarrow ... \rightarrow$ 10MIN \rightarrow SLEEP OFF

* The system automatically turns off in 240 minutes or after the current disc, MD or tape finishes playing.

Other operations

То	Press
Check the remaining time**	SLEEP once.
Change the time to turn off	SLEEP repeatedly to select the time you want.
Cancel the Sleep Timer Function	SLEEP repeatedly until "SLEEP OFF" appears.

^{**} You cannot check the remaining time if you select "AUTO".

Notes

- You cannot turn off the TV power using the Sleep Timer
- Do not set to "AUTO" during Synchro Recording on an MD or a tape.
- You cannot use the Sleep Timer while the Net MD function is on.
- During S.F Edit operation, the system does not turn off automatically even when the designated time has elapsed. The system turns off after the S.F Edit operation finishes.

Tip

You can use the Sleep Timer, even if you have not set the clock.

Waking up to music

- Play Timer

You can wake up to music at a preset time. Make sure you have set the clock (see "Setting the clock" on page 12).

Prepare the sound source you want to play.

- DVD: Load a disc. To start from a specific track, make a program (see "Creating your own program" on page 21).
- MD: Load a MD. To start from a specific track, make a program (see "Programming MD tracks" on page 39).
- · Tape: Load a tape.
- Tuner: Tune in the preset radio station (see "Listening to the radio" on page 63).
- Press VOLUME + or (or turn VOLUME control on the DVD player) to adjust the volume.
- 3 Press CLOCK/TIMER SET.
- 4 Press I◀◀ or ▶▶I repeatedly to select "PLAY SET?", then press ENTER.
- 5 Press I or ►►I repeatedly until the desired type of timer appears.
 - PLAY ONCE?: The timer activates only once.
 - PLAY DAILY?: The timer activates at the same time every day.
 - PLAY WEEKLY?: The timer activates at the same time on the set day of every week.

6 Press ENTER.

When you select "PLAY ONCE?" or "PLAY WEEKLY?" in step 5, the day of the week indication flashes.

Proceed to step 9 when you select "PLAY DAILY?" in step 5.

- Press I or ► repeatedly to set the day of the week that the timer activates.
- 8 Press ENTER.

The hour indication flashes.

9 Set the time to start playing.

Press

or

or

repeatedly to set the hour, then press ENTER.

The minute indication flashes.

Press ► or ► repeatedly to set the minute, then press ENTER.

10 Set the time to stop playing following the same procedure as step 7 to 9.

11 Press I◀◀ or ▶►I repeatedly until the desired sound source appears.

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

12 Press ENTER.

The timer settings appear, then the original display returns.

13 Press I/ \bigcirc to turn off the system.

Other operations

То	Do this		
Check the setting/ active the timer	1 Press CLOCK/TIMER SELECT.		
	 2 Press I or ► repeatedly until "TIMER SELECT?" appears, then press ENTER. 3 Press I or ► repeatedly until "PLAY 		
	ON?" appears, then press ENTER.		
Change the setting	Start over from step 1.		
Cancel the timer	1 Press CLOCK/TIMER SELECT.		
	2 Press ◄ or ► repeatedly until "TIMER OFF?" appears, then press ENTER.		

Notes

- If you use the Play Timer and the recording timer at the same time, the recording timer has priority.
- If you use the Play Timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- The system turns on 30 seconds before the preset time. Do not operate the system from the time the system turns on until the play starts.
- If the system is on 30 seconds before the preset time, the Play Timer will not be activated.
- You cannot use the optional component connected to VIDEO/SAT IN or VIDEO/SAT DIGITAL IN OPTICAL jacks as the sound source for Play Timer.

Timer recording radio programs

You can record a preset radio station from a specified time.

To timer record, you must first preset the radio station (see "Presetting radio stations" on page 62) and set the clock (see "Setting the clock" on page 12).

- Tune in the preset radio station (see "Listening to a preset station" on page 63).
- 2 Press CLOCK/TIMER SET.
- 3 Press I◀◀ or ▶►I repeatedly to select "REC SET?", then press ENTER.
- 4 Press I or I repeatedly until the timer number (e.g., "REC 1") you want to set appears, then press ENTER.
- 5 Press I or ► repeatedly until the desired type of timer appears.
 - · ONCE?: The timer activates only once.
 - DAILY?: The timer activates at the same time every day.
 - WEEKLY?: The timer activates at the same time on the set day of every week.
- 6 Press ENTER.

When you select "ONCE?" or "WEEKLY?" in step 5, the day of the week indication flashes.

Proceed to step 9 when you select "DAILY?" in step 5.

- 7 Press I or ▶ repeatedly to set the day of the week that the timer activates.
- 8 Press ENTER.

The hour indication flashes.

9 Set the time to start recording.

Press I or ▶ repeatedly to set the hour, then press ENTER.

The minute indication flashes.

Press ► or ► repeatedly to set the minute, then press ENTER.

- 10 Set the time to stop recording following the same procedure as step 7 to 9.
- 11 Press I or ▶ repeatedly to select "MD" or "TAPE", then press ENTER.
- 12 When you record on an MD, press I◀◀ or ▶▶I repeatedly to select the recording mode (e.g., "LP2"), then press ENTER.

The timer recording settings appear, then the original display returns.

- 13 Load a recordable MD or tape.
- 14 Press I/ to turn off the system.

Other operations

10	DO tilio
Check the setting	1 Press CLOCK/TIMER SELECT.
	2 Press ◄ or ►►I repeatedly until "TIMER SELECT?" appears, then press ENTER.
	3 Press ◀ or ▶ repeatedly until the timer number (e.g., "REC 1") you want to check appears, then press ENTER.
Change the setting	Start over from step 1.
Active/cancel the timer	 Press ◀ or ▶ repeatedly to display the timer number (e.g., "REC 1") you want to active/cancel in step 3 of "Check the setting". Press I◀ or ▶ 1 repeatedly to select the timer number (active the timer) or " - " (cancel the timer), then press ENTER. If the timer is not set, " · " appears.

Notes

- If you use the recording timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- The system turns on 30 seconds before the preset time. Do not operate the system from the time the system turns on until the play starts.
- If the system is on 30 seconds before the preset time, the recording timer will not be activated.
- The volume is reduced to minimum during recording.
- When you record on an MD, if recording timer is set with the Group Function on but no group is specified, the material is recorded into a new group.
- Note that if the recording timer is set at the same time as the Play Timer sound source is set to tape, the recording timer sound may be recorded onto the tape.

Tir

When you record from the radio, the station name (or the frequency when the station is not labelled (page 64)) is recorded on an MD together with the start time and the stop time.

Display

Turning off the display

— Power Saving Mode

The clock display can be turned off to minimize the amount of power consumed during standby (Power Saving Mode).

Press DISPLAY on the DVD player repeatedly while the system is off until the clock display disappears.

To cancel Power Saving Mode

Press DISPLAY on the DVD player while the system is off. Each time you press the button, the display switches cyclically as follows:
Clock display* → No display (Power Saving Mode)

* "--:--" appears if you have not set the clock.

Tip

The timer continues to operate in Power Saving Mode.

Viewing information about the disc in the display

You can check the playing time and remaining time of the current track or that of the disc. When a DVD/CD-TEXT disc or a disc with MP3 audio tracks or JPEG image file is loaded, you can also check the information recorded on disc, such as the titles.

Checking the remaining time and titles (DVD/VIDEO CD/CD/ Super Audio CD/MP3/JPEG)

Press DISPLAY on the DVD player during Normal Play.

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

■ When playing a DVD

Current title number and elapsed playing time

→ Current title number and remaining time*1

→ Current chapter number and elapsed playing time*1 → Current chapter number and remaining time*1 → Title*2 → Clock display*3 → Sound field status*3 → Volume*3

■ When playing a CD/Super Audio CD/ VIDEO CD without PBC function

Current track number and elapsed playing time*4

→ Current track number and remaining time*4

→ Elapsed playing time of the disc*5 →

Remaining time of the disc*5 → Track title*2 →

Clock display*3 → Sound field status*3 →

Volume*3

■ When playing an MP3

Current track number and elapsed playing time \rightarrow Current track number and remaining time \rightarrow Track title (file name)*2 \rightarrow Album (folder) name*2*6 \rightarrow Clock display*3 \rightarrow Sound field status*3 \rightarrow Volume*3

Notes

- ID3 tags support only version 1.
- When an ID3 tag is recorded on the current MP3 file, the ID3 information appears in place of the track title (file name).
- The ID3 tag character code conforms to ASCII and ISO9660. Joliet format discs display only in ASCII. Characters that do not support ASCII or ISO9660 are not displayed correctly.
- When the MP3 bit rate is VBR (Variable Bit Rate), the MP3 elapsed playing time and remaining time may not be displayed correctly.

■ When playing a JPEG

Current file number \rightarrow File name*2 \rightarrow Album (folder) name*2*6 \rightarrow Clock display*3 \rightarrow Sound field status*3 \rightarrow Volume*3

- *1 Depending on the disc or play mode, the disc information may not be displayed.
- *2 Only alphabet letters and numbers can be displayed. The disc that does not include the alphabet information is skipped.
- *3 After a short time, the display returns to the top item
- *4 When playing VIDEO CDs with PBC functions, only the playing time of the scene is displayed.
- *5 These are not displayed during Shuffle Play or Program Play.
- *6 When the text information finishes scrolling, the display returns to the top item.

Checking the remaining time and titles (MD)

Press DISPLAY on the MD deck during Normal Play.

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

Current track number and elapsed playing time \rightarrow Current track number and remaining time \rightarrow Remaining time of the MD*1 \rightarrow Track title*2

- *1 When the Group Function is on, the remaining time of all tracks in the group is displayed.
- *2 Only when the track is labelled.

Checking the total playing time and titles (DVD/VIDEO CD/CD/Super Audio CD/MP3/ JPEG)

Press DISPLAY on the DVD player in stop mode.

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

■ When a DVD/VIDEO CD/CD/Super Audio CD is in stop mode

Total number of titles*¹ or total number of tracks and the total playing time*² → Disc title*³ → Clock display*⁴ → Sound Field status*⁴ → Volume*⁴

■ When an MP3/JPEG is in stop mode

Total number of albums (folders)*1 \rightarrow Disc title*2 \rightarrow Clock display*3 \rightarrow Sound Field status*3 \rightarrow Volume*3

Checking the total playing time and titles (MD)

Press DISPLAY on the MD deck in stop mode.

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

Total number of tracks and the total playing time*1 → Remaining recordable time (recordable MD only) → Disc title*2

- *1 When the Group Function is on, the total number of groups (when no group is selected) or the total number of tracks and the total playing time within the group (when a group is selected) are displayed. "----" appears when the total playing time of the MD exceeds 1,000 minutes.
- *2 Only when the disc is labelled. When the Group Function is on, the group title is displayed.

Checking the station name (TUNER)

Press DISPLAY on the DVD player while listening to the radio. Each time you press the button, the display

changes cyclically as follows: Station name*1 \rightarrow Preset number and frequency*2 \rightarrow Clock display*3 \rightarrow Sound Field status*3 \rightarrow Volume*3

^{*1} For discs with DVD

^{*2} For discs with VIDEO CD/CD/Super Audio CD

^{*3} The disc that does not include the alphabet information is skipped.

^{*4} After a short time, the display returns to the top item.

^{*1} When play mode is "ALBM" or "ALBM SHUF", total track number (MP3) or total file number (JPEG) of the selected album is displayed.

^{*2} When "ALBM" or "ALBM SHUF" is selected, album (folder) name is displayed.

^{*3} After a short time, the display returns to the top item.

^{*1} Only when the preset station is labelled.

^{*2} When a radio station name is labelled, it appears for a short time and then the display returns to the top item.

^{*3} After a short time, the display returns to the top item.

To scroll a long name Press SCROLL.

Note

Depending on the DVD, the disc information may not be displayed or the display may not be changed.

Tips

- You can check the current track title during playback. If you press SCROLL, a track title appears scrolling in the display.
- To label a disc, tracks, and groups, see "Labelling an MD/group/track" on page 52.
- To label the preset stations, see "Labelling the preset stations" on page 64.
- You can check the playing time of the disc using the Control Menu (see "Viewing information about the disc in the on-screen display" on page 78).

Viewing information about the disc in the on-screen display

You can check the playing time and remaining time of the current title, chapter, or track, and the total playing time of the disc.

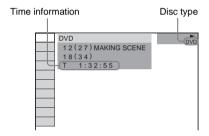
You can also check the DVD/CD text and file/album name recorded on the disc.

1 Press DVD DISPLAY during play.

The Control Menu appears.

2 Press DISPLAY on the DVD player to change the time information.

The display and the kinds of time that you can change depend on the disc you are playing.



■ When playing a DVD

• T **:**:**

Elapsed playing time of the current title

• T-**:**

Remaining time of the current title

• C **:**:**

Elapsed playing time of the current chapter

• C-**:**

Remaining time of the current chapter

• **:**:**

Elapsed playing time of the current title without menu or chapter

■ When playing a VIDEO CD (with PBC function)

. **.**

Elapsed playing time of the current scene

■ When playing a VIDEO CD (without PBC function)/CD/Super Audio CD

• T **:**

Elapsed playing time of the current track

• T-****

Remaining time of the current track

• D **:**

Elapsed playing time of the current disc

• D_**·**

Remaining time of the current disc

■ When playing an MP3

• T **·**

Elapsed playing time of the current track

T-**:**

Remaining time of the current track

To turn off the Control Menu Press DVD DISPLAY

Notes

- Only alphabet letters and numbers can be displayed.
 Anything else is displayed "".
- Depending on the disc being played, the system can only display a limited number of characters. Also, depending on the disc, all text characters are not displayed.

Checking the date information

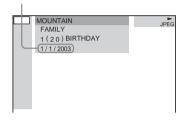
(JPEG only)

You can check the date information during play when the Exif* tag is recorded in the JPEG image data.

Press DVD DISPLAY during play.

The Control Menu appears.

Date information



* "Exchangeable Image File Format" is a digital camera image format defined by the Japan Electronics & Information technology Industries Association.

Note

If there is no date information or data is damaged on the disc, the system cannot display the date information.

Tip

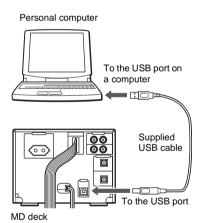
You can change the date information order by selecting "JPEG DATE" setting in "CUSTOM SETUP" (see page 27).

Optional Personal Computer

Connecting a personal computer to the system

When you connect a personal computer for the first time, use the supplied CD-ROM and install the software in the computer before connecting the supplied USB cable. Refer to the notes on the CD-ROM case regarding installation. Next, remove the label affixed over the USB jack on the system, and connect the computer to the system using the supplied USB cable. Finally, turn on the system.

You can listen to the audio recorded in the computer's hard disk or on a CD-ROM loaded on the CD-ROM drive through the systems speakers. And also you can operate the system from the connected personal computer installed the supplied software (M-crew or SonicStage for Sony Net MDs).



Notes

- Be sure to use the dedicated software (M-crew or SonicStage for Sony Net MDs) supplied with this system.
- When you connect the supplied USB cable to your computer, a driver installation may start automatically. If a "File required" dialog box or other dialog box appears, reinstall the device driver.
- Disconnecting the USB cable is recommended while it is not in use.
- Even if you adjust the volume on the computer side, the system volume cannot be adjusted.
- When you connect the USB cable, the sound output
 destination switches from the computer to the
 system. To return the output destination to the
 computer, stop the track being played by the
 computer and disconnect the USB cable. To listen to
 a track stored on your computer with the system, the
 system must be set to the PC function.
- Operation is not guaranteed when using other than the supplied USB cable or when extending the cable with an extension connector, etc.

About the supplied M-crew

M-crew is software that allows you to operate the system from a computer installed with the software and connected to the system through a USB cable. The operations you can perform are disc (DVD, etc.), MD and tuner playback, recording and editing, etc.

For details on the installation and operation of M-crew, refer to the online help and the supplied M-crew instruction manual.

Note

Be sure to install the M-crew software to your computer before connecting the system to your computer. If you are reinstalling the software, be sure to disconnect the USB cable before starting the installation.

Listening to audio files on a personal computer

The supplied M-crew software allows you to play back music data in your personal computer that has been registered to M-crew, tune in Internet radio stations, and perform other operations using the system remote (PC LIBRARY CONTROL). Music data in your personal computer is registered to M-crew by computer operations. Also, you cannot play back tracks on the computer's hard disk or through the CD-ROM drive using the system remote. To play these tracks, operate the computer. However, note that M-crew cannot play tracks through the computer's CD-ROM drive.

Be sure to check that the system and the computer are connected correctly before performing M-crew operations.

- 1 Start up the M-crew software installed from the supplied CD-ROM.
 - Refer to the supplied M-crew instruction manual for the M-crew installation, startup and setup methods.
- 2 Press FUNCTION repeatedly to switch the function to PC.

3 Press PC LIB repeatedly to select the following modes.

- PC: Personal computer operations. In this mode you can listen to music with general music playback software such as Windows Media Player. "USB Audio" appears in the MD deck display.
- MUSIC LIBRARY: System remote operations. In this mode you can listen to music data (play list) registered to Mcrew. When you press DISPLAY on the MD deck to switch to name display, the name of the track currently being played appears in the MD deck display.
- WEB RADIO: System remote operations. In this mode you can listen to Internet radio stations registered to Mcrew. When you press DISPLAY on the MD deck to switch to name display, the name of the Internet radio station currently broadcasting appears in the MD deck display.

Note

The mode selection is valid only when M-crew is active. When M-crew is not active, you can start up general music playback software and listen to music using computer operations, regardless of the mode.

4 Press PC ►.

Music or radio playback starts in MUSIC LIBRARY or WEB RADIO mode selected in step 3.

Note

In WEB RADIO mode, the Internet Explorer connection setup and Internet connection must be made beforehand. The system and M-crew do not have dial-up or other Internet connection and disconnect functions. These Internet connection and disconnect operations should be done on the computer side.

When using an Internet service with a contract where fees are based on connection time, be sure to remember to disconnect from the Internet after using WEB RADIO.

Remote operations in MUSIC LIBRARY and WEB RADIO modes

То	Do this
Stop playback	Press ■.
Pause playback	Press II during playback. (This function may not work for some Internet radio stations depending on the transmission format.)
Select a track or an Internet radio station	Press ► or ► .
Adjust the volume	Press VOLUME + or
Switch the display	Press DISPLAY on the MD deck.
Switch to PC function from another source*	Press PC ➤ in step 2 (Automatic Source selection).

^{*} While the Net MD function is on, you cannot switch the function.

Tip

You can also select the play list track number or radio station number using the number buttons instead of l

or ▶ 1. To enter preset number 10 or higher, press >10 followed by the number button for the one's digit. To enter 0, press 10/0.

About the supplied SonicStage for Sony Net MDs

SonicStage for Sony Net MDs is a software application that utilizes Sony Corporation's copyright protection technology, "OpenMG". It allows users to store and play digital music content on the hard disk drive of a computer, and to transfer digital audio files from the hard drive to an MD (check out) for portable listening.

For details on the installation and basic operation of SonicStage for Sony Net MDs, refer to the supplied SonicStage instruction manual. For details on the advanced operation of SonicStage for Sony Net MDs, refer to the online help for SonicStage for Sony Net MDs.

Note

Be sure to install the SonicStage for Sony Net MDs software to your computer before connecting the system to your computer. If you are reinstalling the software, be sure to disconnect the USB cable before starting the installation.

Using SonicStage for Sony Net MDs

- 1 Press FUNCTION repeatedly to switch the function to MD.
- Press NET MD on the MD deck.

 The Net MD function is activated and "Net MD" appears.
- 3 Start up and operate SonicStage for Sony Net MDs on the personal computer.
- 4 Quit SonicStage for Sony Net MDs after use.
- 5 Press NET MD on the MD deck to turn off the Net MD function.

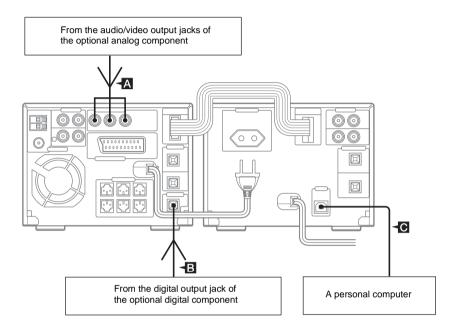
Notes

- You cannot use the Net MD function while the timer is on.
- When "Check USB" appears in the display, check the USB connection of the system and the personal computer.
- "CONNECT" appears in the display while you are checking-in/out tracks with SonicStage for Sony Net MDs. In this case, do not disconnect the supplied USB cable. For details on check-in/out, refer to the online help of SonicStage.
- While the Net MD function is on, the following functions are cancelled or the settings are cleared:
 - Repeat Play, Shuffle Play, Program Play
 - Group function
- When playing back these MDs on a system that does not support MDLP mode, set the transfer mode during SonicStage check-out to "Stereo Transfer". If transfer is performed in LP2 or LP4 mode, you will be unable to play back these MDs on a system that does not support MDLP mode.

Optional Components

Hooking up optional components

To enhance your system, you can connect optional components. Refer to the operating instructions provided with each component.



A VIDEO/SAT IN jacks

Use the audio/video cords (not supplied) to connect an optional analog component (VCR, etc.) to these jacks. You can then record or listen to from the component through this system.

B VIDEO/SAT DIGITAL IN OPTICAL jack

Use a digital optical cable (square, not supplied) to connect an optional digital component (satellite tuner, etc.) to this jack. You can then record or listen to from the component through this system.

C USB port

Use the supplied USB cable to connect a personal computer.

Optional Components

Listening to audio from a connected component

Listening to a digital component (such as a satellite tuner)

- 1 Connect an optical cable.
 - See "Hooking up optional components" on page 84.
- 2 Press FUNCTION repeatedly until "VIDEO" appears.
- 3 Press MENU/NO repeatedly until "SAT?" appears, then press ENTER.

Start playing the connected component.

Listening to an analog component (such as a VCR)

- Connect the audio cords.
 - See "Hooking up optional components" on page 84.
- 2 Press FUNCTION repeatedly until "VIDEO" appears.

Start playing the connected component.

Tip

When the component is connected using an optical digital cable and audio/video cords, the audio from the VIDEO/SAT DIGITAL IN OPTICAL jack has priority.

Recording audio from a connected component

Making a digital recording from a digital component

The Serial Copy Management System (page 99) may prevent you from making a digital recording of certain material. In this case, connect the component to VIDEO/SAT IN jacks and make an analog recording.

In addition, you cannot make a digital recording of sound encoded by other than PCM mode. Set optional digital components to PCM output.

- 1 Connect the digital optical cable.
 - See "Hooking up optional components" on page 84.
- 2 Start recording manually.

See "Recording on an MD manually" (page 45).

Note

When Smart Space/Auto Cut is set to on, the recording pauses if no sound continues for 30 seconds or more (page 48).

Tips

- You can activate Time Machine Recording (page 46).
- You can adjust the recording level when recording on an MD (page 49).

Making an analog recording from an analog component

1 Connect the audio cords.

See "Hooking up optional components" on page 84.

2 Start recording manually.

See "Recording on an MD manually" (page 45) or "Recording on a tape manually" (page 68).

Troubleshooting

Problems and remedies

Should you encounter a problem with your system, do the following:

- 1 Make sure the mains lead and speaker cords are correctly and firmly connected.
- 2 Find your problem in the troubleshooting checklist below and take the indicated corrective action.

If the problem persists after doing all of the above, consult your nearest Sony dealer. In case of repairing, please bring the entire system set (except for the speaker) to the service station.

When the I/ Undicator flashes

Immediately unplug the mains lead and check the following items.

- Are the system control cables connected correctly?
- If your system has a voltage selector, is the voltage selector set to the correct voltage? Check the voltage for your region, then make sure the voltage selector is set correctly.
- Are the + and speaker cords shortcircuited?
- Are you using the supplied speakers?
- Is anything blocking the ventilation holes on the rear of the system?

Check all the above items and fix any problems found. After I/I indicator stops flashing, reconnect the mains lead and turn on the system. If the indicator still flashes, or if the cause of the problem cannot be found even after checking all the above items, consult your nearest Sony dealer.

General

"--:--" appears in the display.

 A power interruption has occurred. Set the clock (page 12) and timer setting (pages 72 and 74) again.

There is no sound.

- Press VOLUME + or turn VOLUME control on the DVD player clockwise.
- · Make sure the headphones are not connected.
- · Check the speaker connections (page 9).
- The system is in pause mode or in slow-motion play mode. Press SA-CD/DVD ► to return to normal play mode.

There is severe hum or noise.

- · Move the system away from the source of noise.
- · Connect the system to different mains.
- Install a noise filter (commercially available) to the mains lead.

The timer cannot be set.

• Set the clock again (page 12).

The timer does not function.

- Active the timer, and "OPLAY" or "OREC 1 3" lights up (pages 73 and 74).
- Check the timer setting and set the correct time (pages 73 and 74).
- Cancel the Sleep Timer Function (page 72).

The remote does not function.

- · Remove the obstacle.
- · Move the remote closer to the system.
- Point the remote at the system's sensor.
- Replace the batteries (size AA/R6).
- · Locate the system away from the fluorescent light.

The buttons are disabled.

 Press Net MD on the MD deck to turn off the Net MD function while it is not in use

The system turned off automatically.

- Cancel the Sleep Timer Function (page 72).
- If approximately one hour passes with DVD playback paused or with the DVD top menu or a DVD menu displayed during DVD playback, the system automatically turns off.

Speakers

The left and right sounds are unbalanced or reversed.

- Check that the speakers and components are connected correctly and securely.
- Select "CENTER" in the BALANCE menu (page 37).

The sound comes from the center speaker only.

 Depending on the disc, the sound may come from the center speaker only. Refer to the operating instructions supplied with the disc.

There is no sound from the subwoofer.

- Check that the speakers and components are connected correctly and securely.
- Set the sound field to "A.F.D. AUTO" (page 70).
- Set the speaker output to "2.1CH" or "5.1CH" (page 69).

There is no sound from the center speaker.

- Check that the speakers and components are connected correctly and securely.
- Set the sound field to "C.ST.EX A (or B, C)" (page 70).
- Set the speaker output to "5.1CH" (page 69).

There is no sound from the surround speakers.

- Check that the speakers and components are connected correctly and securely.
- Set the sound field to "C.ST.EX A (or B, C)" (page 70).
- Set the speaker output to "5.1CH" (page 69).
- Depending on the disc, the recorded sound level may be too low. Refer to the operating instructions supplied with the disc.

The surround effect is difficult to hear when you are playing a Dolby Digital or MPEG audio sound track.

- Press SOUND FIELD +/- repeatedly to select a sound effect other than "A.F.D. AUTO" (page 70).
- Depending on the DVD, the output signal may not be the entire 5.1 channel. It may be monaural or stereo even if the sound track is recorded in Dolby Digital or MPEG audio format.

The sound loses stereo effect when you play a VIDEO CD, CD, or MP3.

 Set "AUDIO" to "STEREO" in the Control Menu display (page 25).

DVD/VIDEO CD/CD/Super Audio CD/MP3/JPEG player

"LOCKED" appears.

 Contact your Sony dealer or local authorized Sony service facility.

The disc does not eject.

- · Consult your nearest Sony dealer.
- · Stop Synchro recording, then eject the disc.

Play does not start.

- Check whether a disc is loaded. (The disc indicator lights up when a disc is loaded.)
- · Wipe the disc clean (page 97).
- · Replace the disc.
- Place the disc that this system can play (page 5).
- · Place the disc correctly.
- · Load the disc in the player with the label side up.
- Remove the disc and wipe away the moisture on the disc, then leave the system turned on for a few hours until the moisture evaporates.
- Press SA-CD/DVD

 to start play.
- The region code on the DVD does not match the system.
- Cancel the Custom Parental Control function (page 32).

Custom Parental Control is set but the display for entering the password does not appear.

 Set Custom Parental Control for the layer to be limited.

You are playing a multi-channel Super Audio CD but cannot obtain sound effects.

- Switch the audio to select the multi-channel area (page 25).
- Set speaker output to "5.1CH" (page 69).

The sound skips.

- · Wipe the disc clean (page 97).
- · Replace the disc.
- Try moving the system to a place without vibration (e.g., on top of a stable stand).
- Try moving the speakers away from the system, or placing them on separate stands. When you listen to a track with bass sounds at high volume, the speaker vibration may cause the sound to skip.

Play does not start from the first track.

- Press PLAY MODE repeatedly until both "PGM" and "SHUF" disappear to return to Normal Play.
- Resume Play has been selected. Press in stop mode, then start playback (page 16).
- The title, DVD or PBC menu automatically appears on the screen.

Playback starts automatically.

• The DVD features an auto playback function.

Playback stops automatically.

 Some discs may contain an auto pause signal.
 While playing such a disc, the playback stops at the auto pause signal.

The system turned off during DVD playback.

 If approximately one hour passes with DVD playback paused or with the DVD top menu or a DVD menu displayed during DVD playback, the system automatically turns off.

You cannot perform some functions such as Stop, Search, Slow-motion Play, Repeat Play, Shuffle Play, or Program Play.

 Depending on the disc, you may not be able to do some of the operations above. Refer to the operating instructions supplied with the disc.

Messages do not appear on the screen in the language you want.

 Select the language you want for the on-screen display in "OSD" under "LANGUAGE SETUP" in the Setup Display (page 27).

The language for the sound track cannot be changed.

- Multilingual tracks are not recorded on the DVD being played.
- The DVD prohibits changing the language for the sound track.

The subtitle language cannot be changed.

- Multilingual subtitles are not recorded on the DVD being played.
- The DVD prohibits changing the subtitles.

The subtitle cannot be turned off.

• The DVD prohibits turning off subtitles.

The angles cannot be changed.

- Multi-angles are not recorded on the DVD being played.
- The DVD prohibits changing the angles.

MP3 audio track cannot be played back.

- Recording was not performed according to the ISO9660 level 1/level 2 format, Joliet or Multi Session in the expansion format.
- The MP3 audio track does not have the extension ".MP3".
- The data is not stored in MP3 format.
- Discs containing files other than MPEG 1 Audio Layer-3 files cannot be played.
- Remove the disc and select "CUSTOM SETUP" from the setup items. Then select "DATA CD PRIORITY" and set to "MP3" again (page 27).
- · Playback is possible up to 8 levels.
- The maximum number of albums (99) or tracks (250) is exceeded (page 6).

The JPEG image file cannot be played.

- The DATA CD is not recorded in JPEG format that conforms to ISO9660 level 1/level 2, Joliet or Multi Session.
- The JPEG image file does not have the extension ".JPG" or ".JPEG".
- The data is not formatted in JPEG even though it has the extension ".JPG" or ".JPEG".
- · Length or width of image is more than 4720 dots.
- Remove the disc and select "CUSTOM SETUP" from the setup items. Then select "DATA CD PRIORITY" and set to "JPEG" again (page 27).
- · Playback is possible up to 8 levels.
- Progressive JPEG format files cannot be played on this system.
- The maximum number of albums (99) or files (250) is exceeded (page 6).

The album title, track title and ID3 tag do not appear correctly.

- Use a disc that conforms with ISO9660 level 1/ level 2, Joliet or Multi Session in the expansion format.
- The ID3 tag displays only the track title information and applies only to version 1.

There is no picture.

- Press FUNCTION repeatedly until "DVD" or "VIDEO" appears.
- · Check that the system is connected securely.
- The SCART cord is damaged. Replace it with a new one.
- Make sure you connect the system to the input jack of your TV (page 10).
- Make sure you turn on the TV and operate the TV correctly.
- Make sure you select the video input on the TV so that you can view the pictures from the system.

Picture noise appears.

- Try moving the system to a place without vibration.
- · Clean the disc.
- If video from your DVD player has to go through your VCR to get to your TV, the copy-protection applied to some DVD programs could affect picture quality. If you still experience problems after checking your connections, please try connecting your DVD player directly to your TV (page 10).

The aspect ratio of the screen cannot be changed even though you set "TV TYPE" in "SCREEN SETUP" in the Setup Display when you play a wide picture.

- · The aspect ratio is fixed on your DVD.
- Depending on the TV, you may not change the aspect ratio.

MD deck

An MD cannot be inserted.

• Insert the MD with the label side up and the arrow pointing toward the deck.

The controls do not work.

- Replace the MD with a new one.
- · Retry the operations after "TOC" turns off.
- If M-crew is active or present in the task tray at the bottom right of the screen, quit M-crew and then perform the operation.

Play does not start.

- · Replace the MD.
- Insert the MD and leave the system turned on for a few hours until the moisture evaporates.
- Press MD

 to start play.
- Press MD GROUP until "GROUP ON" disappears to cancel the Group Function.

The sound skips.

- · Replace the MD.
- Try moving the system to a place without vibration (e.g., on top of a stable stand).
- Try moving the speakers away from the system, or placing them on separate stands. When you listen to a track with bass sounds at high volume, the speaker vibration may cause the sound to skip.
- Insert the disc and wait for 10 to 20 minutes with the system turned on.

Play does not start from the first track.

 Press PLAY MODE repeatedly until both "PGM" and "SHUF" disappear to return to Normal Play.

"OVER" appears.

 You have reached the end of the MD. Press and hold ◀ or press ◄ to return to the desired playing position.

"OVER" lights up during recording.

• Adjust the recording level lower (page 49).

Recording or editing was done, but the TOC is not updated.

 MD recording and editing contents are recorded to the MD when the MD is removed, so make sure you remove the MD after recording or editing (pages 42 and 50).

The track is not deleted.

 Perform check-in the track with SonicStage for Sony Net MDs and delete the track (page 83).

Recording is not possible.

- Remove the MD and slide the tab to close the slot (page 42).
- Connect the optional component properly (page 84).
- Press FUNCTION repeatedly to select the recording source correctly.
- · Replace with a recordable MD.
- Replace the MD with a recordable MD, or use the Erase Function to erase unnecessary tracks (page 55).
- · Start recording again.

Synchro recording is not possible.

 You cannot use the Synchro recording function with DVDs.

The sound from an MD you recorded is too low (or too high).

• Adjust the recording level (page 49).

Sound leaks when recording in LP4 stereo mode.

Record in stereo or LP2 stereo mode. When
recording the sound from a CD, tape or optional
component with music or audio on only one
channel in LP4 stereo mode, the sound may leak
to the empty channel.

Track numbers are not marked on recorded MDs.

You are recording sound with a lot of noise.
 Adjust so that track numbers are marked correctly.

Tuner

Severe hum or noise/stations cannot be received. ("TUNED" or "ST" flashes in the display.)

- Set the proper band and frequency (page 62).
- Connect the antenna properly (page 9).
- Find a place and an orientation that provide good reception, then set up the antenna again. If you cannot obtain good reception, we recommend you connect a commercially available external antenna
- The supplied FM lead antenna receives signals along its entire length, so make sure you extend it fully.
- Locate the antennas as far away from the speaker cords as possible.
- Consult your nearest Sony dealer if the supplied AM antenna has come off the plastic stand.
- Try turning off surrounding electrical equipment.

A stereo FM program cannot be received in stereo.

• Press FM MODE until "MONO" disappears.

Cyclical static noise is heard while recording on an MD.

• Adjust the antenna orientation and position until the noise stops.

Tape deck

The tape does not record or play, or there is a decrease in sound level.

- The heads are dirty. Clean them (page 97).
- The record/playback heads are magnetised.
 Demagnetise them (page 97).

The tape does not erase completely.

The record/playback heads are magnetised.
 Demagnetise them (page 97).

There is excessive wow or flutter, or the sound drops out.

• The capstans in the tape deck are dirty. Clean them using a cleaning cassette.

Noise increases or the high frequencies are erased.

• The record/playback heads are magnetised. Demagnetise them (page 97).

The tape does not record.

- · No cassette is loaded. Load a cassette.
- The tab has been removed from the cassette.
 Cover the broken tab with adhesive tape (page 97).
- · The tape has wound to the end.

Personal computer

"Windows cannot locate the driver" appears.

· Install the device driver.

M-crew or SonicStage for Sony Net MDs does not start up.

 The software may not operate properly depending on the USB host controller installed in your computer. The pertinent USB host controller as of October 2003 is the SiS7001 PCI to USB Open Host Controller.

Optional components

There is no sound.

- Refer to General item "There is no sound." (page 87) and check the condition of the system.
- Connect the component properly (page 84) while checking:
 - if the cords are connected properly.
 - if the cord plugs are firmly inserted all the way.
- Turn on the connected component.
- Refer to the operating instructions supplied with the connected component and start playing.
- Check if proper function is selected.

The sound is distorted.

- Set the volume of the connected component lower.
- Press FUNCTION repeatedly until "VIDEO" appears, and press MENU/NO to select "SAT?", then press ENTER.

If the system still does not operate properly after performing the above measures, reset the system as follows:

- 1 Disconnect the mains lead.
- 2 Reconnect the mains lead.
- 3 Press I/ to turn on the system.
- 4 Press SPEAKER OUT MODE and SOUND FIELD + on the DVD player and move SA-CD/DVD lever on the DVD player to ■ at the same time.

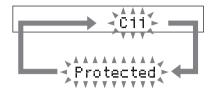
The system is reset to the factory settings except for DVD settings. You should set the settings you made, such as the preset stations, clock, and timer.

To return the DVD setup to the default settings*, perform reset as follows:

- 1 Press DVD SETUP in stop mode.
- 2 Press ▲ or ▼ repeatedly to select "RESET", then press ENTER.
- 3 Press ▲ or ▼ repeatedly to select "YES", then press ENTER. It takes a few seconds to complete. Do not press I/⁽⁾ when resetting the system.
- * Except for Parental Control settings

Self-diagnosis display

This system has a Self-diagnosis display function to let you know if there is a system malfunction. The display shows a code made up of three or five letters and a message alternately to show you the problem. To solve the problem refer to the following list. If any problem persists, consult your nearest Sony dealer.



C11/Protected

The MD is protected against erasure.

→Remove the MD and slide the tab to close the slot (page 42).

C12/Cannot Copy

You tried to record a disc with a format that the system does not support, such as a CD-ROM.

→ Remove the disc and turn off the system once, then turn it on again.

You tried to record sound that cannot be digitally recorded with this system from a connected optional component.

→ Switch the digital audio output of the optional component to PCM mode.

C13/REC Error

Recording could not be performed properly.

→Move the system to a stable place, and start recording over from the beginning.

The MD is dirty or scratched, or the MD does not meet the standards.

→ Replace the MD and start recording over from the beginning.

C13/Read Error

The MD deck cannot read the disc information properly.

→Remove the MD once, then insert it again.

C14/TOC Error

The MD deck cannot read the disc information properly.

- → Replace the MD.
- → Erase all the recorded contents of the MD using the All Erase Function (page 56).

C41/Cannot Copy

The sound source is a copy of a commercially available music software or CD-R.

→The Serial Copy Management System prevents making a digital copy (page 99). In addition, you cannot copy from a CD-R.

C71/Check OPT-IN

The digital optical cable is disconnected, or the power of the connected component is turned off while recording the digital audio from an optional component connected to the VIDEO/SAT DIGITAL IN OPTICAL jack or a CD.

→ Connect the digital optical cable, or turn on the power of the connected component.

The DVD player and the MD deck are not connected correctly with the digital optical cable, or you tried to start the recording immediately after setting the recording pause mode when making a digital recording from a optional component connected to the VIDEO/SAT DIGITAL IN OPTICAL jack or a CD.

→ Connect the digital optical cable correctly, or wait for several seconds in the recording pause mode before starting the recording.

E0001/MEMORY NG

The component has internal problem.

→Consult your nearest Sony dealer.

E0101/LASER NG

There is a problem with the laser pickup.

→The laser pickup may be damaged. Consult your nearest Sony dealer.

E0201/LOADING NG

There is a problem with loading.

→Consult your nearest Sony dealer.

Messages

One of the following messages may appear or flash in the display during operation.

DVD/VIDEO CD/CD/Super Audio CD/MP3/JPEG

Cannot Play

- A disc that cannot be played was inserted (page 5).
- A disc with an unsupported Region code was inserted.

Data Error

The JPEG file is an unsupported format.

DVD No Disc

There is no disc in the player.

Ejec

The DVD player is ejecting the disc.

No Disc

There is no disc in the player.

Not in Use

You pressed an invalid button.

PASSWORD

Custom Parental Control or Parental Control is set.

Play Limit

The MP3 file cannot be played.

Please Wait

The function is switching to the DVD.

Push STOP!

You pressed PLAY MODE during play.

Reading

The system is reading TOC information of the disc. Some buttons are not available.

RESUME

You stopped play with Resume Play activated (page 16).

Step Full!

You tried to program 26 or more tracks (steps).

Analog REC

The MD deck starts the analog recording.

Assign None

All the tracks on an MD are registered into groups.

Auto Cut

The MD deck is pausing the recording because silence continued for 30 seconds or more during digital recording.

Blank Disc

The inserted recordable MD is new, or all tracks on the MD have been erased.

Cannot Edit

- · A pre-mastered MD is in the deck.
- · You tried to edit in Program or Shuffle Play mode.
- . The track is recorded in MDLP mode.

Cannot REC

- A pre-mastered MD is in the deck.
- · The function is switched to MD.

Cannot SYNC!

- There is no disc in the MD deck, or the MD is protected against erasure.
- · There is no time remaining on the MD.

Complete!

The editing operation of the MD is completed.

Disc Full!

There is no time remaining on the MD.

Eject

The MD deck is ejecting the MD.

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

- You tried to make an impossible editing operation.
- You cannot perform Net MD operations during timer playback.
- You cannot combine or erase the tracks due to the system limitations of MDs.

Incomplete!

Adjustment of the recording level after recording or Fade-in and Fade-out procedures have failed since the system was either subject to vibration or there is a damaged or dirty disc in the tray.

Initialize

The power was off for a long time, so the system is initializing itself.

Name Full!

There is no more space to store track, disc or group titles.

No Change

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

No Disc

There is no disc in the MD deck.

OVER

You have reached the end of the MD while pressing ▶▶ during pause mode.

Push STOP!

You pressed an invalid button during playback, pause, recording or recording pause.

Reading

The MD deck is reading the TOC information of the MD.

-Rehearsal-

The MD is playing the specified point for confirmation during the A-B Erase Function and the Divide Function (pages 56 and 59).

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.

S.F Edit NOW

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

Smart Space

The signal was input again after silence continued for 3 or more but less than 30 seconds during digital recording, and the silence was cut to 3 seconds.

Step Full!

You tried to program 26 or more tracks (steps).

TOC Writing

The MD deck is writing the information of recorded or edited contents.

Track End

You have reached the end of the track while adjusting the dividing point during the Divide Function.

Tr Protected

Tracks and other data that have been checked out on Net MD equipment are protected, so you cannot use some of the MD editing functions.

Tape

Cannot SYNC!

There is no tape in the tape deck, or the tab has been removed from the cassette.

Eject

The tape deck is ejecting the cassette.

No Tab

You cannot record the tape because the tab has been removed from the cassette.

No Tape

There is no tape in the tape deck.

Timer

OFF TIME NG!

The Play Timer and the recording timer start and end times are set to the same time.

OVERLAP!

The Play Timer setting or the recording timer setting overlaps with part or all of another timer setting.

PUSH SELECT!

You tried to set the clock or timer during timer operation.

SET CLOCK!

You tried to select the timer with the clock not set.

SET TIMER!

You tried to select the timer with the timer not set.

Optional personal computer

Buffer>>***%

The personal computer is preparing the amount of data needed for playback while using the WEB RADIO function.

Busy NOW!

You pressed NET MD on the MD deck during check in or check out. Wait until the operation is completed.

Cannot Pause

You tried to pause a music file or a broadcast station that cannot be paused while using the MUSIC LIBRARY or WEB RADIO function.

Cannot Play

You tried to play the music file that cannot be played while using the MUSIC LIBRARY function.

Check USB

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

CONNECT

Check in and check out is underway.

Connecting

The personal computer is connecting to the broadcast station server while using the WEB RADIO function.

Disconnect

You were disconnected from the broadcast station server while using the WEB RADIO function.

Net MD

The Net MD function is on.

No Track

The music file is not registered to the MUSIC LIBRARY.

No URL

The URL is not registered to the WEB RADIO.

Not Found

The personal computer could not connect to the broadcast station server while using the WEB RADIO function.

PC Soft Off

M-crew is not active.

Additional Information

Precautions

The nameplate is located on the bottom exterior.

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet (mains), even if the unit itself has been turned off.
- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the power cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the system, unplug the system and have it checked by qualified personnel before operating it any further.
- AC power cord (mains) must be changed only at the qualified service shop.
- The DVD player and the MD deck each have operation levers. Households with small children should take care to install the system in a safe location so that children do not stumble and hurt themselves.

On placement

- Do not place the system in an inclined position.
- · Do not place the system in locations where it is;
 - Extremely hot or cold
 - Dusty or dirty
 - Very humid
 - Subject to vibrations
 - Subject to direct sunlight
- Use caution when placing the unit or speakers on surfaces that have been specially treated (with wax, oil, polish, etc.) as staining or discoloration of the surface may result.

On heat buildup

- Although the system heats up during operation, this is not a malfunction.
- Place the system in a location with adequate ventilation to prevent heat buildup in the system.
- If you continuously use this system at a high volume, the cabinet temperature of the top, side and bottom rises considerably. To avoid burning yourself, do not touch the cabinet.
- To prevent a malfunction, do not cover the ventilation hole for the cooling fan.

In case color irregularity is observed on nearby a TV screen

With the magnetically shielded type of speaker system, the speakers can be installed near a TV set. However, color irregularity may still be observed on the TV screen depending on the type of your TV set.

If color irregularity is observed...

Turn off the TV set once, then turn it on after 15 to 30 minutes

If color irregularity is observed again...

Place the speakers farther away from the TV set.

IMPORTANT NOTICE

Caution: This system is capable of holding a still video image or on-screen display image on your television screen indefinitely. If you leave the still video image or on-screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen. Projection televisions are especially susceptible to this

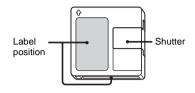
On operation

- If the system is brought directly from a cold to a
 warm location, or is placed in a very damp room,
 moisture may condense on the lens inside the DVD
 player. Should this occur, the system will not operate
 properly. Remove the disc and leave the system
 turned on for about an hour until the moisture
 evaporates.
- When you move the system, take out any disc, MD or tape.

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

Notes on MDs

- Do not open the shutter to expose the MD. Close the shutter immediately if the shutter opens.
- Affix the label supplied with the disc only to the specified label indentation. Do not affix the label around the shutter or in other locations. Note that the shape of the indentation depends on the disc.



- Wipe the disc cartridge with a dry cloth to remove dirt.
- Do not expose the MD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.

Notes on discs

- Before playing, clean the disc with a cleaning cloth.

 Wipe the disc from the center out.
- Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.
- Do not use discs encircled with a protection ring.
 This may cause a malfunction to the system.
- When using discs that have glue or similar tacky substance on the label side of the disc or that used a special ink when the label was printed, there is a chance that the disc or label may become attached to parts inside this unit. When this occurs, it may not be possible to remove the disc, and may also cause this unit to malfunction. Be sure to check that the label side of the disc is not sticky before using.

The following types of disc should not be used:

- Rental or used discs with attached seals where the glue extends beyond the seal. The perimeter of the seal on the disc is tacky.
- Discs that have labels printed using a special ink that feels tacky when touched.
- Discs with non-standard shapes (e.g., heart, square, star) cannot be played on this unit. Attempting to do so may damage the unit. Do not use such discs.

Cleaning the cabinet

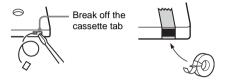
Clean the cabinet, panel and controls with a soft cloth slightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as thinner, benzine or alcohol.

Disc cleaning

Do not use a commercially available CD/DVD lens cleaning disc with this system, as this may result in malfunction.

To save a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated.



If you later want to reuse the tape for recording, cover the broken tab with adhesive tape.

Before placing a cassette in the tape deck

Take up any slack in the tape. Otherwise, the tape may get entangled in the parts of the tape deck and become damaged.

When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding frequently. The tape may get entangled in the tape deck.

Cleaning the tape heads

Clean the tape heads after every 10 hours of use. Be sure to clean the tape heads before you start an important recording or after playing an old tape. Use a separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

Demagnetising the tape heads

Demagnetise the tape heads and the metal parts that have contact with the tape after every 20 to 30 hours of use with a separately sold demagnetising cassette. For details, refer to the instructions of the demagnetising cassette.

System limitations of MDs

The recording system in your MD deck has the limitations described below.

Note, however, that these limitations are due to the inherent nature of the MD recording system itself, not to mechanical causes.

"Disc Full!" appears before the MD has reached the maximum recording time

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

"Disc Full!" appears before the maximum number of tracks (255) is reached

Fluctuations in emphasis within tracks are sometimes interpreted as track intervals, increasing 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 titles, group titles 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 shorter than 12 seconds* are not counted, so erasing them may not increase the recording time.

* During Stereo recording.

In Monaural or LP2 stereo mode: about 24 seconds
In LP4 stereo mode: about 48 seconds

"Impossible" appears when you use A-B Erase Function or Combine Function

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.

The total recorded time and the remaining time on the MD do not add up to the maximum recording time

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

* During Stereo recording.

In Monaural or LP2 stereo mode: about 4 seconds In LP4 stereo mode: about 8 seconds

The sound may drop-out while searching the edited tracks

Tracks created through editing may exhibit sound dropout during searching because high-speed playback requires time to search for the position on the disc when the tracks are not in order.

Track numbers cannot be marked Even in the Level Synchro Recording, the track numbers may not be marked at the beginning of the track:

- if the input signal is below a certain fixed level for less than 2 seconds between tracks.
- if the input signal is below a certain fixed level for more than 2 seconds in the middle of the track.
- if you record a track that is 4 seconds or less*.
- * During Stereo, Monaural or LP2 stereo recording mode (In LP4 stereo recording mode: 8 seconds or less).

Extra tracks are created

When there is a long silence between CD tracks, an extra track may be created.

The number of tracks on the CD and the recorded MD is different

When there are short tracks on the CD, track numbers may not be marked for these tracks, and the number of tracks recorded on the MD may differ from that of the CD.

Guide to the Serial Copy Management System

Digital audio components, such as CDs, MDs, and DATs let you copy music easily with high quality by processing music as a digital signal.

To protect the copyrighted music programs, this system uses the Serial Copy Management System that 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* through a digital-to-digital connection.

For example:

- 1 You can make a copy of a commercially available digital sound program (for example, a CD or MD), but you cannot make a second copy from the first-generation copy.
- 2 You can make a copy of a digital signal from a digitally recorded analog sound program (for example, an analog record or a music cassette tape) or from a digital satellite broadcast program, but you cannot make a second copy.
- * A first-generation copy means a digital recording of a digital signal made on digital audio equipment. For example, if you record from this system's DVD player to the MD deck, you make a first-generation copy.

Specifications

DVD player/Tuner (HCD-SE9)

Amplifier section

DIN power output (rated): 20 + 20 W

(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)

Front speaker: 25 + 25 watts

(6 ohms at 1 kHz, 10%

THD)

Center speaker: 25 watts

(8 ohms at 1 kHz, 10%

THD)

Surround speaker: 25 + 25 watts

THD)

Subwoofer: 50 watts

(3 ohms at 1 kHz, 10%

(6 ohms at 1 kHz, 10%

THD)

Music power output (reference):

40 + 40 W

Inputs

MD/TAPE IN (phono jack):

Voltage 250 mV, impedance 47 kilohms

VIDEO/SAT IN (phono jacks):

Voltage 450/250 mV, impedance 47 kilohms

VIDEO/SAT IN VIDEO (phono jack):

1 Vp-p, 75 ohms

MD DIGITAL IN OPTICAL:

Supported sampling frequencies: 32 kHz,

44.1 kHz and 48 kHz

VIDEO/SAT DIGITAL IN OPTICAL:

Supported sampling frequencies: 32 kHz, 44.1 kHz and 48 kHz

Outputs

MD/TAPE OUT (phono jacks):

Voltage 250 mV, impedance 1 kilohm

MD DIGITAL OUT OPTICAL:

Sampling frequencies: 44.1 kHz (CD only)

Wavelength: 660 nm

PHONES (stereo phone jack):

Accepts headphones of

8 ohms or more

LINE-TV: Max. output level

1 Vp-p, unbalanced, Svnc negative, load impedance

75 ohms

Disc player section

System Compact disc, digital

> audio and video system and Super Audio CD

Laser Semiconductor laser

> (DVD: λ=650 nm CD: $\lambda = 780 \text{ nm}$) Emission duration:

continuous

Frequency response DVD (PCM 48 kHz):

> 2 Hz - 22 kHz CD: 2 Hz - 20 kHz Super Audio CD: 2 Hz - 50 kHz

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 - 108.0 MHz

(50 kHz step)

Antenna FM lead antenna 75 ohm unbalanced Antenna terminals

Intermediate frequency 10.7 MHz

AM tuner section

Tuning range 531 - 1.602 kHz

(with the tuning interval

set at 9 kHz)

Antenna AM loop antenna

Antenna terminals External antenna terminal

Intermediate frequency 450 kHz MD/Tape deck (MDS-SE9)

MD deck section

System Minidisc digital audio

system

Laser Semiconductor laser

 $(\lambda = 780 \text{ nm})$ Emission duration: continuous

44.1 kHz

Sampling frequency Frequency response 5 Hz - 20 kHz

Tape deck section

4-track 2-channel stereo Recording system 50 - 13,000 Hz, using

Frequency response Sony TYPE I cassettes

Wow and flutter ±0.15% W. Peak (IEC) 0.1% W. RMS (NAB)

±0.2% W. Peak (DIN)

Speaker

Front speaker SS-FSE9

Speaker system 2-way, 3-unit, bass-reflex

type, magnetically

shielded type

Speaker units

Woofer: 9 cm, cone type

Tweeter: 2.5 cm, balanced drive

type

Nominal impedance 6 ohms Dimensions (w/h/d)

Approx. $120 \times 285 \times$

280 mm

Mass Approx. 4.0 kg net per

speaker

Surround speaker SS-RSE9

Speaker system 1-way, 1-unit, closed type

Speaker units

Full-range: 7 cm, cone type

Nominal impedance

Dimensions (w/h/d) Approx. $90 \times 120 \times$

6 ohms 120 mm

Mass Approx. 0.7 kg net per

speaker

Center speaker SS-CSE9

Speaker system 1-way, 1-unit, closed type,

magnetically shielded type

Speaker units

Full-range: 7 cm, cone type

Nominal impedance 6 ohms

Dimensions (w/h/d) Approx. $120 \times 90 \times$

120 mm

Mass Approx. 0.8 kg

Subwoofer SS-WSE9

Speaker system 1-way, 1-unit, bass-reflex

type, magnetically

shielded type

Speaker units

Full-range: 15 cm, cone type

Nominal impedance 3 ohms

Dimensions (w/h/d) Approx. $175 \times 285 \times$

280 mm

Mass Approx. 4.5 kg

General

Power requirements

230 V AC, 50/60 Hz

Power consumption

DVD player/Tuner: 55 W

0.3 W or less (in Power

Saving mode)

13 W

Dimensions (w/h/d)

MD/Tape deck:

DVD player/Tuner: Approx. $155 \times 120 \times$

345 mm

MD/Tape deck: Approx. $155 \times 120 \times$

345 mm

Mass

DVD player/Tuner: Approx. 5.3 kg MD/Tape deck: Approx. 4.0 kg

Supplied accessories: Remote Commander (1)

Batteries (2)

AM loop antenna (1) FM lead antenna (1) Speaker cords (6) Digital optical cables (2) Audio cords (2) USB cable (1)

Operating Instructions (1) M-crew/SonicStage for Net MD CD-ROM (1)

Design and specifications are subject to change without notice.

Language code list

For details, see pages 25 and 27.

The language spellings conform to the ISO639: 1988 (E/F) standard.

1027	Code	Language	Code	Language	Code	Language
1032						Russian
1039	1028	Abkhazian	1248	Indonesian	1491	Kinyarwanda
1044 Arabic 1257 Hebrew 1501 Sangho 1045 Assamese 1261 Japanese 1502 Serbo-Croatian 1051 Aymara 1269 Yiddish 1503 Singhalese 1052 Azerbaijani 1283 Javanese 1505 Slovak 1057 Byelorussian 1297 Kazakh 1507 Samoan 1059 Bulgarian 1298 Greenlandic 1508 Shona 1060 Bihari 1299 Cambodian 1509 Somali 1061 Bislama 1300 Kanada 1511 Albanian 1066 Bengali; Bangla 1301 Korean 1512 Serbian 1070 Breton 1307 Kurdish 1514 Sesotho 1079 Catalan 1311 Kirghiz 1515 Sundanese 1097 Czech 1326 Lingala 1517 Swahili 1103 Welsh 1327 Laothian <td>1032</td> <td>Afrikaans</td> <td>1253</td> <td>Icelandic</td> <td>1495</td> <td>Sanskrit</td>	1032	Afrikaans	1253	Icelandic	1495	Sanskrit
1045	1039	Amharic		Italian	1498	
1051	1044	Arabic		Hebrew	1501	Sangho
1052	1045	Assamese	1261	Japanese	1502	Serbo-Croatian
1053	1051	Aymara	1269	Yiddish	1503	Singhalese
1057 Byelorussian 1297 Kazakh 1507 Samoan 1059 Bulgarian 1298 Greenlandic 1508 Shona 1060 Bihari 1299 Cambodian 1509 Somali 1061 Bislama 1300 Kannada 1511 Albanian 1066 Bengali; Bangla 1301 Korean 1512 Serbian 1067 Tibetan 1305 Kashmiri 1513 Siswati 1070 Breton 1307 Kurdish 1514 Sesotho 1079 Catalan 1311 Kirghiz 1515 Sundanese 1093 Corsican 1313 Latin 1516 Swedish 1097 Czech 1326 Lingala 1517 Swahili 1103 Welsh 1327 Laothian 1521 Tamil 1105 Danish 1332 Lithuanian 1525 Telugu 1109 German 1334 Latvian; Lettish 1527 Tajik 1142 Greek 1347 Maori 1529 Tigrinya 1144 English 1349 Macedonian 1531 Turkmen 1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Stetswana 1550 Estonian 1353 Moldavian 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1174 French 1369 Nepali 1564 Urdu 1174 Grivan 1408 Oriya 1632 Xhosa 1209 Hausa 1428 Polish 1684 Chinese 1229 Hungarian 1463 Quechua 1235 Interlingua 1482 Kirundi 1482	1052	Azerbaijani	1283	Javanese	1505	Slovak
1059	1053	Bashkir	1287	Georgian	1506	Slovenian
1060	1057	Byelorussian	1297	Kazakh	1507	Samoan
1061	1059	Bulgarian	1298	Greenlandic	1508	Shona
1066 Bengali; Bangla 1301 Korean 1512 Serbian 1067 Tibetan 1305 Kashmiri 1513 Siswati 1070 Breton 1307 Kurdish 1514 Sesotho 1079 Catalan 1311 Kirghiz 1515 Sundanese 1093 Corsican 1313 Latin 1516 Swedish 1097 Czech 1326 Lingala 1517 Swahili 1103 Welsh 1327 Laothian 1521 Tamil 1105 Danish 1332 Lithuanian 1525 Telugu 1109 German 1334 Latvian; Lettish 1527 Tajik 1130 Bhutani 1345 Malagasy 1528 Thai 1142 Greek 1347 Maori 1529 Tigrinya 1144 English 1349 Macedonian 1531 Turkmen 1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Setswana 1150 Estonian 1353 Moldavian 1535 Tonga 1151 Basque 1356 Marathi 1538 Turkish 1357 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1165 Finnish 1358 Maltese 1540 Tatar 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1226 Croatian 1436 Portuguese 1703 Not specified 1229 Hungarian 1463 Quechua 1235 Interlingua 1482 Kirundi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Quechua 1235 Interlingua 1482 Kirundi 1482 Kirundi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1481 Rhaeto-Romance 1535 Interlingua 1482 Kirundi 1435 Pashto; Pushto 1697 Zulu 1235 Interlingua 1482 Kirundi 1482 Kirundi 1483 Chiraca 1484 Chiraca 1484 Chiraca 1485 Chiraca 1486 Chiraca	1060	Bihari	1299	Cambodian	1509	Somali
1067 Tibetan 1305 Kashmiri 1513 Siswati 1070 Breton 1307 Kurdish 1514 Sesotho 1079 Catalan 1311 Kirghiz 1515 Sundanese 1093 Corsican 1313 Latin 1516 Swedish 1097 Czech 1326 Lingala 1517 Swahili 1103 Welsh 1327 Laothian 1521 Tamil 1105 Danish 1332 Lithuanian 1525 Telugu 1109 German 1334 Latvian; Lettish 1527 Tajik 1130 Bhutani 1345 Malagasy 1528 Thai 1142 Greek 1347 Maori 1529 Tigrinya 1144 English 1349 Macedonian 1531 Turkmen 1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 15	1061	Bislama	1300	Kannada	1511	Albanian
1070 Breton 1307 Kurdish 1514 Sesotho 1079 Catalan 1311 Kirghiz 1515 Sundanese 1093 Corsican 1313 Latin 1516 Swedish 1097 Czech 1326 Lingala 1517 Swahili 1103 Welsh 1327 Laothian 1521 Tamil 1105 Danish 1332 Lithuanian 1525 Telugu 1109 German 1334 Latvian; Lettish 1527 Tajik 1130 Bhutani 1345 Malagasy 1528 Thai 1142 Greek 1347 Maori 1529 Tigrinya 1144 English 1349 Macedonian 1531 Turkmen 1445 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Setswana 1150 Estonian 1353 Moldavian 1538 Turkish 1357 Basque 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1226 Croatian 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1235 Interlingua 1482 Kirundi 14	1066	Bengali; Bangla	1301	Korean	1512	Serbian
1079	1067	Tibetan	1305	Kashmiri	1513	Siswati
1093	1070	Breton	1307	Kurdish	1514	Sesotho
1097 Czech 1326 Lingala 1517 Swahili 1103 Welsh 1327 Laothian 1521 Tamil 1105 Danish 1332 Lithuanian 1525 Telugu 1109 German 1334 Latvian; Lettish 1527 Tajik 1109 German 1344 Latvian; Lettish 1527 Tajik 1130 Bhutani 1345 Malagasy 1528 Thai 1142 Greek 1347 Maori 1529 Tigrinya 1144 English 1349 Macedonian 1531 Turkmen 1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Setswana 1150 Estonian 1353 Moldavian 1534 Setswana 1157 Persian 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay	1079	Catalan	1311	Kirghiz	1515	Sundanese
1103 Welsh 1327	1093	Corsican	1313	Latin	1516	Swedish
1105	1097	Czech	1326	Lingala	1517	Swahili
1109 German 1334	1103	Welsh	1327	Laothian	1521	Tamil
1130 Bhutani 1345 Malagasy 1528 Thai 1142 Greek 1347 Maori 1529 Tigrinya 1144 English 1349 Macedonian 1531 Turkmen 1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Setswana 1150 Estonian 1353 Moldavian 1535 Tonga 1151 Basque 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 U	1105	Danish	1332	Lithuanian	1525	Telugu
1142 Greek 1347 Maori 1529 Tigrinya 1144 English 1349 Macedonian 1531 Turkmen 1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Setswana 1150 Estonian 1353 Moldavian 1535 Tonga 1151 Basque 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 V	1109	German	1334	Latvian; Lettish	1527	Tajik
1144 English 1349 Macedonian 1531 Turkmen 1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Setswana 1150 Estonian 1353 Moldavian 1535 Tonga 1151 Basque 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587	1130	Bhutani	1345	Malagasy	1528	Thai
1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Setswana 1150 Estonian 1353 Moldavian 1535 Tonga 1151 Basque 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613	1142	Greek	1347	Maori	1529	Tigrinya
1145 Esperanto 1350 Malayalam 1532 Tagalog 1149 Spanish 1352 Mongolian 1534 Setswana 1150 Estonian 1353 Moldavian 1535 Tonga 1151 Basque 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613	1144	English	1349	Macedonian	1531	Turkmen
1150 Estonian 1353 Moldavian 1535 Tonga 1151 Basque 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 <td< td=""><td>1145</td><td></td><td>1350</td><td>Malayalam</td><td>1532</td><td>Tagalog</td></td<>	1145		1350	Malayalam	1532	Tagalog
1151 Basque 1356 Marathi 1538 Turkish 1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chin	1149	Spanish	1352	Mongolian	1534	Setswana
1157 Persian 1357 Malay 1539 Tsonga 1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 <t< td=""><td>1150</td><td>Estonian</td><td>1353</td><td>Moldavian</td><td>1535</td><td>Tonga</td></t<>	1150	Estonian	1353	Moldavian	1535	Tonga
1165 Finnish 1358 Maltese 1540 Tatar 1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703	1151	Basque	1356	Marathi	1538	Turkish
1166 Fiji 1363 Burmese 1543 Twi 1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1233 Armenian 1481 Rhaeto-Romance	1157	Persian .	1357	Malay	1539	Tsonga
1171 Faroese 1365 Nauru 1557 Ukrainian 1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1165	Finnish	1358	Maltese	1540	Tatar
1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1166	Fiji	1363	Burmese	1543	Twi
1174 French 1369 Nepali 1564 Urdu 1181 Frisian 1376 Dutch 1572 Uzbek 1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1229 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1171	Faroese	1365	Nauru	1557	Ukrainian
1183 Irish 1379 Norwegian 1581 Vietnamese 1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1174	French	1369	Nepali	1564	Urdu
1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1229 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1181	Frisian	1376	Dutch	1572	Uzbek
1186 Scots Gaelic 1393 Occitan 1587 Volapük 1194 Galician 1403 (Afan) Oromo 1613 Wolof 1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1229 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1183	Irish	1379	Norwegian	1581	Vietnamese
1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1239 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1186	Scots Gaelic	1393		1587	Volapük
1196 Guarani 1408 Oriya 1632 Xhosa 1203 Gujarati 1417 Punjabi 1665 Yoruba 1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1239 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1194	Galician	1403	(Afan) Oromo	1613	Wolof
1209 Hausa 1428 Polish 1684 Chinese 1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1229 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1196	Guarani	1408	, ,	1632	Xhosa
1217 Hindi 1435 Pashto; Pushto 1697 Zulu 1226 Croatian 1436 Portuguese 1703 Not specified 1229 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1203	Gujarati	1417	Punjabi	1665	Yoruba
1226 Croatian 1436 Portuguese 1703 Not specified 1229 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi		,		,		Chinese
1226 Croatian 1436 Portuguese 1703 Not specified 1229 Hungarian 1463 Quechua 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1217	Hindi	1435	Pashto; Pushto	1697	Zulu
1229 Hungarian 1463 Quechua 1703 Not specified 1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1226	Croatian		,		
1233 Armenian 1481 Rhaeto-Romance 1235 Interlingua 1482 Kirundi	1229	Hungarian		•	1703	ivot specified
1235 Interlingua 1482 Kirundi		- C				
č						
	1239	•	1483	Romanian		

List of items that can be displayed and selected by disc type

When you press DVD DISPLAY, the following control menu items are displayed.

	Control Menu items	Function
(DISC	Displays the disc name inserted into the system.
		Selects the disc to be played.
(Rep	TITLE (DVD only)	Selects the title (DVD), the scene (VIDEO CD in PBC Playback),
(P	SCENE (VIDEO CD in PBC	the track (VIDEO CD) to be played.
	playback only)	
	TRACK (VIDEO CD only)	
2222	CHAPTER (DVD only)	Selects the chapter (DVD) or the index (VIDEO CD) to be played.
	INDEX (VIDEO CD only)	
T.	ALBUM (MP3 only)	Selects the album (MP3) to be played.
见	TRACK (CD/Super Audio CD/MP3 only)	Selects the track (CD/Super Audio CD/MP3) to be played.
	INDEX (CD/Super Audio CD only)	Selects the index (Super Audio CD) to be played. (For CD, index only is displayed.)
	TIME	Checks the elapsed time and the remaining playback time.
- C	THALE	Inputs the time code for picture and music searching.
	ALIDIO (* * * * * * * * * * * * * * * * * * * *
	AUDIO (except for JPEG)	Changes the audio language while playing a disc recorded with multilingual audio tracks.
[]	SUBTITLE (DVD only)	Displays the subtitles.
		Changes the subtitle language.
	ALBUM (JPEG only)	Selects the album (JPEG) to be played.
	FILE (JPEG only)	Selects the file (JPEG) to be played.
	DATE (JPEG only)	Displays the date information.
	ANGLE (DVD only)	Changes the angle.
FLAY	PLAY MODE (except for	Changes the play mode (Normal Play/Shuffle Play/Program Play)
MODE	DVD*)	for the disc currently loaded to the system.
	REPEAT	Plays the entire disc (all titles/all tracks/all files), one title/chapter/
		album/track or contents of program repeatedly.
Î	CUSTOM PARENTAL CONTROL	Sets the disc to prohibit playback.

^{*} For JPEG files, Normal Play mode only is available.

Tips

- Each time you press DVD DISPLAY, the Control Menu display changes cyclically as follows: Control Menu display → Control Menu display off
- · The Control Menu items differ depending on the disc.
- The Control Menu icon indicator lights up in green when you select any item except "OFF" ("REPEAT" only).
- The "ANGLE" indicator lights up in green only when multiple angles are recorded on the disc.

System setup item list

When you press DVD SETUP, the following settings are displayed.

LANGUAGE SETUP (page 27)

OSD	Select the language you want to use from the displayed language list.
DVD MENU	Select the language you want to use from the displayed language list.
AUDIO	Select the language you want to use from the displayed language list.
SUBTITLE	Select the language you want to use from the displayed language list.

SCREEN SETUP (page 30)

TV TYPE	<u>16:9</u>
	4:3 LETTER BOX
	4:3 PAN SCAN
SCREEN SAVER	<u>ON</u>
	OFF
BACKGROUND	JACKET PICTURE
	GRAPHICS
	BLUE
	BLACK
LINE	VIDEO
	RGB

CUSTOM SETUP (pages 27, 32)

PARENTAL CONTROL→	
TRACK SELECTION	<u>OFF</u> AUTO
AUDIO DRC	OFF STANDARD MAX
DATA CD PRIORITY	MP3 JPEG
JPEG DATE	MM/DD/YYYY YYYY/MM/DD DD/MM/YYYY YYYY/DD/MM

SPEAKER SETUP (page 35)

SIZE	FRONT	<u>YES</u>	
	CENTER	YES	
	SURROUND	BEHIND (LOW)	
		BEHIND (HIGH)	
		SIDE (LOW)	
		SIDE (HIGH)	
	SUBWOOFER	YES	
DISTANCE	FRONT	$3.0 \mathrm{m} (1.0 \mathrm{m} - 7.0 \mathrm{m})$	
	CENTER	$3.0 \mathrm{m} (1.0 \mathrm{m} - 7.0 \mathrm{m})$	
	SURROUND	3.0 m (1.0 m - 7.0 m)	
LEVEL	CENTER	0 dB (-6 dB - +6 dB)	
	SURROUND LEFT	$\underline{0 dB} \left(-6 dB - +6 dB \right)$	
	SURROUND RIGHT	$\underline{0\mathrm{dB}}(-6\mathrm{dB}-+6\mathrm{dB})$	
	SUBWOOFER	0 dB (-6 dB - +6 dB)	
BALANCE	FRONT	(<u>CENTER</u>)	
		(6 steps left or right)	
TEST	OFF		
TONE	ON		
RESET			
YES			
NO			

Glossary

Album

Section of a music piece on a data CD containing MP3 audio tracks or JPEG image files.

Auto Pause

An automatic pause may occur according to the signal encoded on the disc while playing a VIDEO CD. If the DVD player does not resume play for a long time, press SA-CD/DVD
to resume play manually.

Chapter

Subdivision of a title on a DVD. A title is composed of several chapters.

DCS (Digital Cinema Sound)
In collaboration with Sony Pictures
Entertainment, Sony measured the sound
environment of their studios and integrated the
data of the measurement and Sony's own DSP
(Digital Signal Processor) technology to
develop "Digital Cinema Sound". "Digital
Cinema Sound" simulates in a home theatre an
ideal movie theatre sound environment based on
the preference of the movie director.

Dolby Digital

This sound format for movie theatres is more advanced than Dolby Surround Pro Logic. In this format, the surround speakers output stereo sound with an expanded frequency range and a subwoofer channel for deep bass is independently provided. This format is also called "5.1" because the subwoofer channel is counted as 0.1 channel (since it functions only when a deep bass effect is needed). All six channels in this format are recorded separately to realize superior channel separation. Furthermore, since all the signals are processed digitally, less signal degradation occurs.

Dolby Surround Pro Logic

As one method of decoding Dolby Surround, Dolby Surround Pro Logic produces four channels from two-channel sound. Compared with the former Dolby Surround system, Dolby Surround Pro Logic reproduces left-to-right panning more naturally and localizes sounds more precisely. To take full advantage of Dolby Surround Pro Logic, you should have one pair of front speakers, surround speakers and a center speaker. The surround speakers output monaural sound.

Dolby Pro Logic II

Dolby Pro Logic II creates five full-bandwidth output channels from two-channel sources. This is done using an advanced, high-purity matrix surround decoder that extracts the spatial properties of the original recording without adding any new sounds or tonal colorations.

- Dolby Pro Logic II Movie
 The Movie mode is for use with stereo television
 shows and all programmes encoded in Dolby
 Surround. The result is enhanced soundfield
 directionality that approaches the quality of
 discrete 5.1-channel sound.
- Dolby Pro Logic II Music The Music mode is for use with any stereo music recordings, and provides a wide and deep sound space.

DTS

Digital audio compression technology that the Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround. The surround channel is stereo and there is discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio. The good channel separation is realized because the all channel data is recorded discrete and processed in digital.

DVD

A disc that contains up to 8 hours of moving pictures even though its diameter is the same as a CD.

The data capacity of a single-layer and single-sided DVD, at 4.7 GB (Giga Byte), is 7 times that of a CD. Furthermore, the data capacity of a dual-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD 9.4 GB, and a dual-layer and double-sided DVD 17 GB. The picture data uses the MPEG 2 format, one of

the worldwide standards of digital compression technology. The picture data is compressed to about 1/40 of its original size. The DVD also uses the variable rate coding technology that changes the data to be allocated according to the status of the picture.

The audio data is recorded in Dolby Digital as well as in PCM, allowing you to enjoy more realistic audio presence.

Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD.

File

Section of a picture on a data CD containing JPEG image files.

Film based software, Video based software

DVDs can be classified as Film based or Video based software. Film based DVDs contain the same images (24 frames per second) that are shown at movie theatres. Video based DVDs, such as television dramas or sit-coms, displays images at 30 frames (or 60 fields) per second.

Index (CD/Super Audio CD) / Video Index (VIDEO CD)

A number that divides a track into sections to easily locate the point you want on a VIDEO CD or a CD. Depending on the disc, no indexes may be recorded.

MDLP

Technology for doubling (LP2) or quadrupling (LP4) the recording time for a single MD. MDs recording using this technology cannot be played back on MD decks without the MDLP logo (MD decks that do not support MDLP mode).

Menu Playback

Playback using the menu screens recorded on VIDEO CDs with PBC functions. You can enjoy simple interactive software using the menu playback function.

Multi-angle function

Various angles, or viewpoints of the video camera, for a scene are recorded on some DVDs.

Multilingual function

Several languages for the sound or subtitles in a picture are recorded on some DVDs.

Net MD

An MD expansion standard that allows highspeed transfer of music data stored on a computer to the MD deck.

Parental Control

A function of the DVD to limit playback of the disc by the age of the users according to the limitation level in each country/region. The limitation varies from disc to disc; when it is activated, playback is completely prohibited, violent scenes are skipped or replaced with other scenes and so on.

Playback Control (PBC)

Signals encoded on VIDEO CDs (Version 2.0) to control playback. By using menu screens recorded on VIDEO CDs with PBC functions, you can enjoy playing simple interactive programs, programs with search functions, and so on.

This system conforms to Ver. 1.1 and Ver. 2.0 of VIDEO CD standards. You can enjoy two kinds of playback depending on the disc type.

VIDEO CDs without PBC functions (Ver. 1.1 discs)

Enjoy video playback (moving pictures) as well as music.

VIDEO CDs with PBC functions (Ver. 2.0 discs)

Play interactive software using menu screens displayed on the TV screen (PBC Playback), in addition to the video playback functions of Ver. 1.1 discs. Moreover, you can play high-resolution still pictures, if they are included on the disc.

Region Code

This system is used to protect copyrights. A region number is allocated on each DVD system or DVD disc according to the sales region. Each region code is shown on the system as well as on the disc packaging. The system can play the discs that match its region code. The system can also play discs with the "mark. Even when the region code is not shown on the DVD, the region limit may still be activated.

Scene

On a VIDEO CD with PBC functions (page 17), the menu screens, moving pictures, and still pictures are divided into sections called "scenes". Each scene is assigned a scene number enabling you to locate the scene you want.

Super Audio CD

Super Audio CD is a new high quality audio disc standard that records using the DSD (Direct Stream Digital) format instead of the PCM format used for current CDs, etc. The DSD format has a sampling frequency 64 times that of current CDs, and uses 1-bit quantization to ensure a sufficient dynamic range and more faithfully reproduce the original sound over a vastly wider playback range and audible range than current CDs.

There are various types of Super Audio CD as follows.

- Super Audio CD (single layer disc)
 Discs with only a single HD (high density)
 layer (high density signal layer for Super Audio CD)
- Super Audio CD (dual layer disc)
 Discs with two HD layers that allow long-time playback. These discs have a two-layer structure but only one side is read, so there is no need to turn over the disc.
- Super Audio CD+CD (hybrid disc)
 Two-layer discs with a HD layer and a CD layer. These discs have a two-layer structure but only one side is read, so there is no need to turn over the disc. In addition, the CD layer contents can be played even by a normal CD player.
- Two-channel + multi-channel Super Audio CD discs
 Super Audio CD discs with both a twochannel area and a multi-channel area recorded in the HD layer.

Title

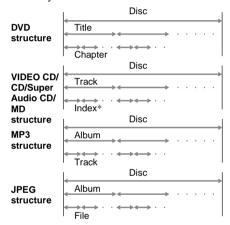
The longest sections of a picture or a music piece on a DVD; a movie, etc., for a picture piece on video software; or an album, etc., for a music piece on audio software. Each title is assigned a title number enabling you to locate the title you want.

TOC

The area where the MD track numbers (track order), track start/end points and other information is managed. This is separate from the music area.

Track

Sections of a picture or a music piece on a CD, VIDEO CD, MP3, JPEG or MD. Each track is assigned a track number enabling you to locate the track you want.



^{*} There is no index on MDs.

VIDEO CD

A compact disc that contains moving pictures. The picture data uses the MPEG 1 format, one of the worldwide standards for digital compression technology. The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures.

VIDEO CDs also contain compact audio data. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. VIDEO CDs can hold 6 times the audio information of conventional audio CDs.

There are 2 versions of VIDEO CDs.

- Version 1.1: You can play only moving pictures and sounds.
- Version 2.0: You can play high-resolution still pictures and enjoy PBC functions.
 This system conforms to both versions.

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.

Illustration number ↓ ENTER/START 17 (43, 44, 67)

Name of button/part Reference page

Main unit

ALPHABETICAL ORDER

A - M

AM $\boxed{9}$ (62, 63)

Disc slot **3** (14)

DIRECTION 18 (44, 66, 67, 68) DISPLAY 12 23 (40, 46, 65, 75,

76, 78, 82)

Display window 425

ENTER/START 17 (43, 44, 67)

FM **9** (62, 63)

FUNCTION **2** (10, 13, 14, 21, 38, 39, 40, 45, 46, 47, 49, 52,

53, 54, 55, 57, 58, 59, 60, 66,

68, 81, 83, 85)

MD lever 22

MD slot 21

MODE 17 (43, 44, 67)

N – Z

NET MD 24 (83)

PHONES jack 8

REC 18 (68)

REC MODE 19 (43, 45, 46)

REC/REC IT 19 (45, 46, 47, 49)

Remote sensor 13

SA-CD/DVD lever 11

SOUND FIELD +/- 7 (69, 70,

92)

SPEAKER OUT MODE 10 (35, 69, 70, 92)

69, 70, 92)

TAPE lever 20

TAPE slot 15

TUNER lever 9

VOLUME control **6** (37, 72, 82)

BUTTON DESCRIPTIONS

1/(b) (power) 1 (10, 42, 50, 73, 92)

△ DVD (eject) **⑤** (14)

+/- 9 (62)

■ (stop) 11 20 22 (15, 31, 39, 43, 66, 67, 82, 92)

[1] [22] (12, 15, 39, 47, 52, 62, 72, 82)

ll (play/pause) 11 22 (15, 30, 38, 39, 45, 46)

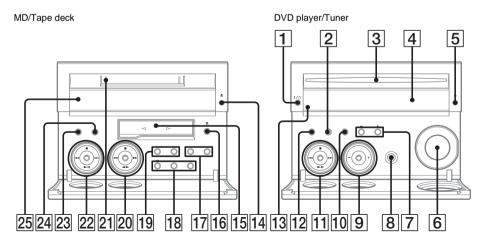
▲ MD (eject) **14** (39, 42, 50)

▲ TAPE (eject) **16** (66)

(pause) 18 (66, 68)

✓► (play) 20 (66, 67)✓✓</l>✓✓✓✓✓✓✓✓✓✓✓✓✓✓✓✓✓✓✓<l

20 (12, 15, 39, 52, 66, 74)



Remote control

ALPHABETICAL ORDER

A – F

ALBUM +/-* 13 (15, 18, 21) ANGLE* 8 (29) AUDIO* 8 (25)

CLEAR **20** (20, 21, 24, 35, 40,

52, 64) CLOCK/TIMER SELECT 12

(73, 74) CLOCK/TIMER SET 12 (12, 72,

74) DDSG **14** (71)

DVD DISPLAY* **9** (15, 18, 20, 23, 25, 29, 31, 78, 79, 103)

DVD MENU* 13 (17)

DVD SETUP* **24** (13, 27, 30, 32, 35, 92, 104)

ENTER 16 (11, 12, 13, 15, 17, 18, 20, 21, 23, 25, 29, 31, 35, 39, 47, 49, 52, 53, 54, 55, 57, 58, 59, 60, 62, 64, 72, 74, 85, 92)

FM MODE 22 (64)

FUNCTION 19 (10, 13, 14, 21, 38, 39, 40, 45, 46, 47, 49, 52, 53, 54, 55, 57, 58, 59, 60, 66, 68, 81, 83, 85)

G – Z

GROUP SKIP 7 (40, 44, 45, 46, 47, 52, 54)

MD GROUP **7** (40, 44, 45, 46, 47, 50, 52, 53, 54)

MENU/NO 4 (47, 49, 53, 54, 55, 57, 58, 59, 60, 62, 64, 85)

57, 58, 59, 60, 62, 64, 85) NAME EDIT/SELECT 10 (52,

64) Number buttons 3 (16, 17, 22, 24, 27, 29, 31, 39, 52, 63, 82)

PC LIB 21 (82)

PLAY MODE 18 (15, 21, 38, 39, 50, 60)

REPEAT **22** (19, 22, 39) SCROLL **23** (53, 78)

SLEEP **2** (72)

SOUND FIELD +/- **6** (69, 70) SPEAKER OUT MODE **17** (35,

69, 70) SUBTITLE* **8** (27) TOP MENU* **13** (17)

TUNER BAND 15 (62, 63)

TUNING MODE 18 (62, 63) VOLUME +/- 11 (37, 72, 82) **BUTTON DESCRIPTIONS**

I/() (power) **1** (10, 42, 50, 73, 92)

MD (play) (38, 45)

PC ► (play) 5 (82)

SA-CD/DVD ►/SELECT (play) **5** (15, 30, 46)

TAPE (play) (5) (66, 67) +/- (16) (62)

11 (pause) **16** (15, 39, 46, 66, 68, 82)

■ (stop) 16 (15, 31, 39, 43, 66, 67, 82)

▲/▼/◄/▶ 16 (11, 15, 25, 92)

◄/▶ (rewind/fast forward) 16 (12, 15, 39, 52, 66, 74)

[6] (12, 15, 39, 47, 52, 62, 72, 82) [16] (12, 15, 39, 47, 52, 62, 72, 82)

◄▮/▮► (slow review/slow play)

16 (15)

RETURN ** 25 (17, 32)

* Please operate with the cover closed.

