

Micro Hi-Fi Component System

Operating Instructions



MDLP

CMT-M700DVD

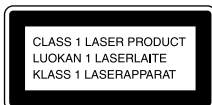
WARNING

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

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

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

US and foreign patents licensed from Dolby Laboratories.



This appliance is classified as a CLASS 1 LASER product. This label is located on the rear exterior.

The following caution label is located inside the apparatus.



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.



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

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

Except for European model



ENERGY STAR® is a U.S. registered mark. As an ENERGY STAR® partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

This system incorporates Dolby® Digital, Pro Logic Surround, 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.

Notes on DTS audio playback

- The DTS audio of the DVD is output only from the OPTICAL OUT jack, not from the speakers. To listen to the sound of DVD in other than DTS format, select “DOLBY DIGITAL” or other audio format (page 25).
- To enjoy DTS Digital Surround of DVD or CD, connect external 5.1 channel DTS Digital Surround Decoder to the OPTICAL OUT jack of this unit.
- When you playback the CD recorded in DTS format, excessive noise may be heard from the speakers. Set the volume to minimum and be careful not to damage your speaker system.

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.

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* European model only.

This system can play the following discs

	DVD VIDEOs	Audio CDs	VIDEO CD
Disc logo			
Contents	Audio + Video	Audio	Audio + Video

The “DVD VIDEO” logo is a trademark.

Discs that this system cannot play

- CD-ROMs (PHOTO CDs included)
- All CD-Rs other than music and VCD format CD-Rs
- Data part of CD-Extras
- DVD-ROMs
- DVD Audio discs
- Super Audio CDs


Note

Some CD-Rs/CD-RWs or DVD-Rs/DVD-RWs cannot be played on this system depending upon the format or 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.

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 labeled with identical region code.

DVDs labeled  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 labeled even though playing the DVD is prohibited by area restrictions.



Region code

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.

Note on PBC (Playback Control) (VIDEO CDs)

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.

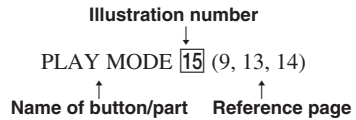
Disc type	You can
VIDEO CDs without PBC functions (Ver. 1.1 discs)	Enjoy video playback (moving pictures) as well as music.
VIDEO CDs with PBC functions (Ver. 2.0 discs)	Play interactive software using menu screens displayed on the TV screen (PBC Playback), in addition to the video playback functions of Ver. 1.1 discs. Moreover, you can play high-resolution still pictures, if they are included on the disc.

Copyrights

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

How to use this page

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



Main unit

ALPHABETICAL ORDER

A - P

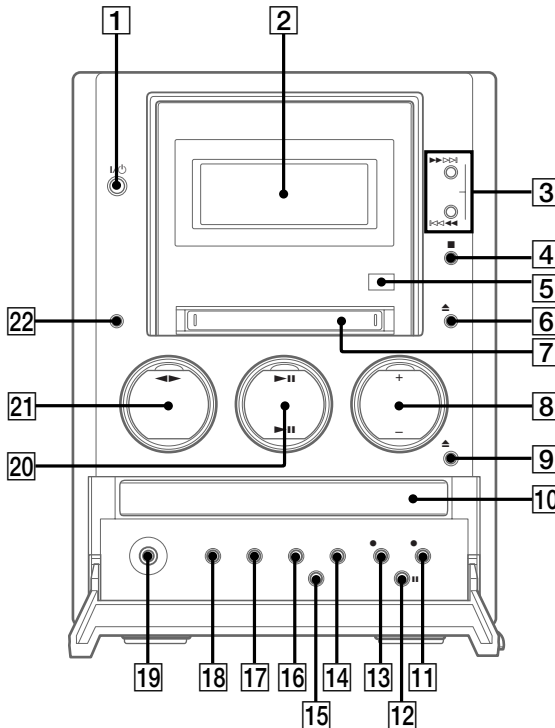
- DIRECTION **18** (63–65)
- Disc tray **10** (12)
- Display window **2**
- DVD **▶|| 20** (12, 13, 16, 18)
- ENTER/START **14** (40, 41, 64)
- FUNCTION **22** (12, 14, 33, 35, 36, 39, 41–45, 47, 48, 50–56, 58, 63, 65, 74)
- MD slot **7** (33)
- MD **▶|| 20** (33, 34, 36, 39, 41)
- PHONES jack **19**
- PLAY MODE **18** (12, 14, 15, 33, 35, 41, 47)

R - V

- REC MODE **15** (40–42)
- Remote sensor **5**
- REPEAT/FM MODE **17** (13, 34, 61, 62)
- SYNCHRO MODE **16** (40, 41, 64)
- TAPE **◀▶ 21** (63–65)
- TUNER BAND **21** (60–62)
- TUNING +/- **3** (60–62)
- TUNING MODE **18** (60–62)
- VOLUME +/- **8**

BUTTON DESCRIPTIONS

- I/⏻ (power) **1**
- ◀▶▶▶ **3**
- ◀◀◀/▶▶▶ **3**
- **4**
- ▲ DVD **9**
- ▲ MD **6**
- MD **13**
- TAPE **11**
- || TAPE **12**



Remote Control

ALPHABETICAL ORDER

A - D

ANGLE **35** (28)
 AUDIO **37** (25)
 BASS/TREBLE **13** (65)
 BGMD **29** (70)
 CLEAR **39** (14, 15, 17, 27, 35, 49, 62)
 CLOCK/TIMER SELECT **42** (69, 70)
 CLOCK/TIMER SET **43** (11, 68, 69)
 CURSOR ←/→ **5** (11, 48, 49)
 DISPLAY **20** (23, 35, 63, 71, 72)
 DSG **12** (65)
 DVD DISPLAY **15** (16, 17, 19, 20, 23–25, 27–29, 66)
 DVD MENU **11** (17)
 DVD TOP MENU **17** (17)
 DVD SETUP **36** (19, 30)
 DVD ►/SELECT **21** (12–18, 21, 32, 42)
 DVD **11** **21** (13, 42)
 DVD **21** (13, 16, 18, 29)
 DVD ◀◀/▶▶ **7** (13, 14, 18)
 DVD ◀◀/▶▶ **8** (13)

E - N

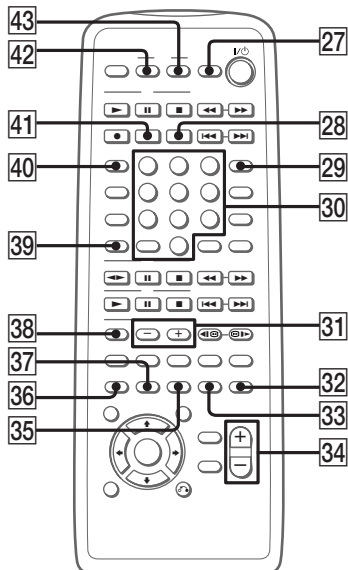
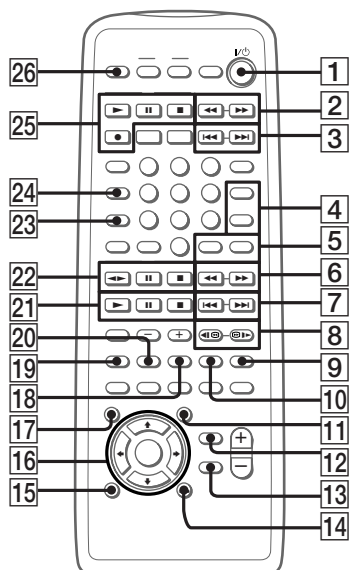
ENTER/YES **23** (11, 14, 35, 42–60, 62, 68–70)
 FUNCTION **19** (12, 14, 33, 35, 36, 39, 41–45, 47, 48, 50–56, 58, 63, 65, 74)
 GROUP **41** (36, 38–40, 48–51)
 GROUP SKIP **28** (36, 39, 40, 48, 49, 51)
 MD ► **25** (33, 35, 36, 39, 41)
 MD **11** **25** (34)
 MD **25** (34, 39–42, 46)
 MD ◀◀/▶▶ **2** (34, 54)
 MD ◀◀/▶▶ **3** (34–36, 48, 50, 52–59)
 MD ● **25** (39, 41, 44, 45)
 MENU +/- **4** (11, 43–60, 65, 68–70)
 MENU/NO **24** (43–47, 49–60, 62)
 NAME EDIT/SELECT **40** (48, 62)
 Numeric buttons **30** (13, 15, 17, 18, 27–32, 34, 48, 61)

P - V

PLAY MODE/TUNING MODE **10** (12, 14, 15, 33, 35, 41, 47, 60–62)
 REPEAT/FM MODE **9** (13, 34, 61, 62)
 RETURN ↶ **14** (18, 27, 30, 31)
 SCROLL **18** (49, 72)
 SLEEP **26** (68)
 SUBTITLE **33** (28)
 TAPE ◀◀ **22** (63–65)
 TAPE **11** **22** (63, 65)
 TAPE **22** (63–65)
 TAPE ◀◀/▶▶ **6** (63)
 TUNER BAND **38** (60–62)
 TUNER +/- **31** (60–62)
 TV I/⏻ **27** (10)
 TV/VIDEO **32** (10)
 VOL +/- **34**

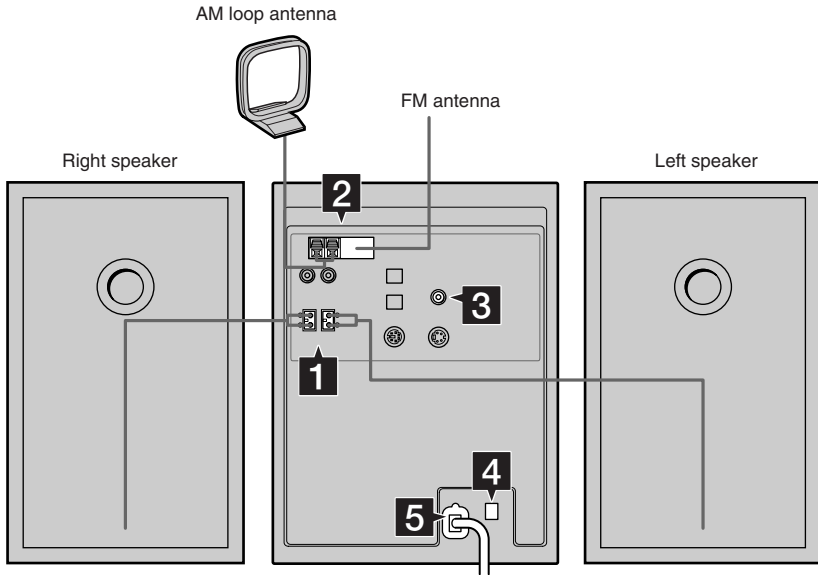
BUTTON DESCRIPTIONS

I/⏻ (power) **1**
 ↶/↷/↵/↷/ENTER **16**



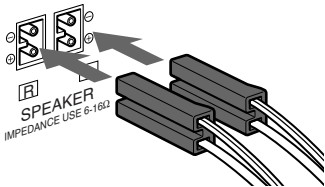
Hooking up the system

Perform the following procedure **1** to **5** to hook up your system using the supplied cords and accessories.



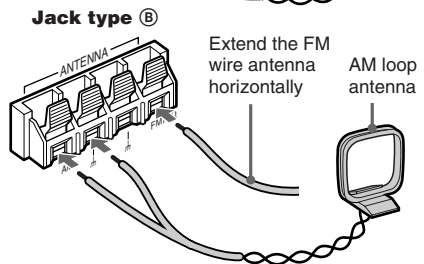
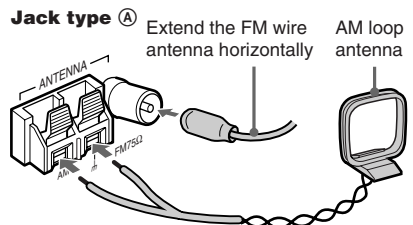
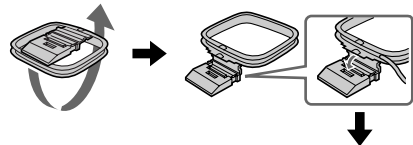
1 Connect the speakers.

Connect the right and left speaker cords to the SPEAKER terminals as shown below.



2 Connect the FM and AM antennas.

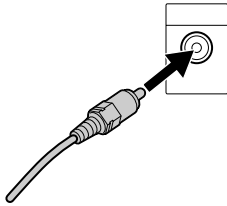
Set up the AM loop antenna, then connect it.



continued

Hooking up the system (continued)

- 3 Connect the video input jack of your TV to the VIDEO OUT jack with the video cable.



When using a TV

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

Tips

- For even higher quality video images, you can use an optional S-video cable to connect the S VIDEO input jack on your TV to the S VIDEO OUT jack.
- If you connect a video deck between this unit and the TV, you may experience video leakage when watching the video signal from this unit. Do not connect a video deck between this unit and the TV.

- 4 For models with a voltage selector, set **VOLTAGE SELECTOR** to the local power line voltage.

110V-120V



220V-240V

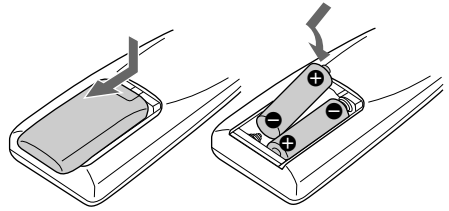
VOLTAGE
SELECTOR

- 5 Connect the power cord to a wall outlet.

If the plug does not fit the wall socket, detach the supplied plug adaptor (only for models equipped with an adaptor).

To turn on the system, press **I/⏻**.

Inserting two R6 (size AA) batteries into the remote



Operating a Sony TV

You can use the following buttons on the remote to operate a Sony TV.

To	Press
Turn the TV on or off	TV I/⏻
Switch the TV's video input	TV/VIDEO.

Tip

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

Note

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.

Setting the clock

- 1** Press I/⏻ to turn on the system.
- 2** Press CLOCK/TIMER SET on the remote.
- 3** Press MENU + or – on the remote repeatedly to set the hour.
- 4** Press ENTER/YES or CURSOR→ on the remote.
- 5** Press MENU + or – on the remote repeatedly to set the minute.
- 6** Press ENTER/YES on the remote.
The clock starts working.

To adjust the clock

- 1** Press CLOCK/TIMER SET on the remote.
- 2** Press MENU + or – on the remote to select “CLOCK SET?”, then press ENTER/YES on the remote.
- 3** Do the same procedures as step 3 to 6 above.

Playing discs

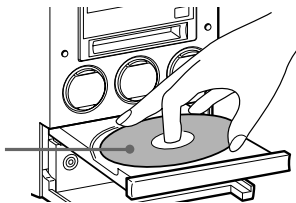
Loading a disc

1 Press \blacktriangle DVD.

The disc tray slides out.

2 Place a disc with the label side up on the disc tray.

When you play a 8 cm disc, place it on the inner circle of the tray.



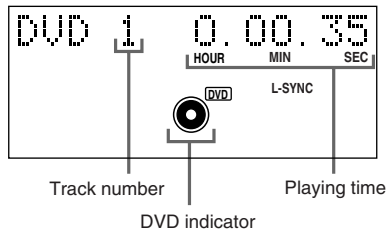
3 Press \blacktriangle DVD again to close the disc tray.

Playing a disc

— Normal Play/Shuffle Play/Repeat Play/Scan/Slow-motion Play

Before playing a DVD or a 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.



1 Press FUNCTION repeatedly to switch the function to DVD.

2 Press PLAY MODE (or PLAY MODE/TUNING MODE on the remote) in stop mode repeatedly until the mode you want appears in the display.

Select	To play
No display (Normal Play)	The tracks on the disc in original order.
SHUF (Shuffle Play)	All tracks on the disc in random order.
PGM (Program Play)	The tracks on the disc in the order you want them to be played (see "Creating your own program" on page 14).

3 Press DVD \blacktriangleright II (or DVD \blacktriangleright on the remote).

Notes

- You cannot change the play mode during playback.
- When playing DVDs, you cannot use Shuffle Play in chapters. Besides, you cannot use Shuffle Play depending on the DVD.
- When you change the function, the DVD indicator may light up even when there is no disc.

Other operations

To	Do this
Stop play	Press ■ (or DVD ■ on the remote).
Pause	Press DVD ▶ (or DVD on the remote). Press again to resume play.
Select a track or chapter	Press ◀◀ or ▶▶ (or DVD ◀◀ or ▶▶ on the remote) repeatedly.
Find a point in a track or chapter	Keep pressing ◀◀ or ▶▶ during play and release it at the desired point.
Play repeatedly* (Repeat Play)	<p>Press REPEAT/FM MODE repeatedly during playback until "REP" or "REP1" appears in the display.</p> <p>REP: For all the tracks on the disc. REP1: For only the currently playing title, chapter, or track.</p> <p>To cancel playing repeatedly, press REPEAT/FM MODE repeatedly until "REP" and "REP1" disappear from the display.</p>
Locating a point quickly in fast forward or fast reverse (scan)	During playback, press DVD ◀ or ▶ on the remote. Each time you press the button, the speed switches (3 steps). To return to normal playback, press DVD ▶ (or DVD ▶ on the remote).
Change the playback speed** (Slow-motion play)	<p>During pause mode, press DVD ◀ or ▶ on the remote.</p> <p>Each time you press the button, the speed switches (2 steps). To return to normal playback, press DVD ▶ (or DVD ▶ on the remote).</p>
Remove a disc	Press ▲ DVD.

* You cannot use Repeat Play depending on the DVD, or when playing VIDEO CDs with PBC functions.

You cannot select "REP1" during Program Play.

** DVD and VIDEO CD only.

Tips

- Depending on the disc, a menu may appear on the TV screen. You can play the disc interactively by following the instructions on the menu (see page 17 for DVD, and see page 18 for VIDEO CD).
- You can use the Control Menu to play repeatedly (page 16).

To enter track number using the remote

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

Press the numeric buttons, then press

ENTER. The playback automatically starts.

Creating your own program

— Program Play

You can make a program of up to 25 steps.

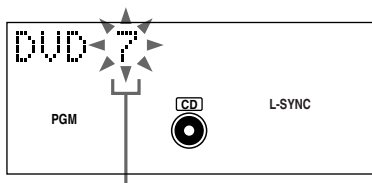
Using the front panel display

1 Press **FUNCTION** repeatedly to switch the function to DVD.

2 Press **PLAY MODE/TUNING MODE** on the remote in stop mode repeatedly until “PGM” appears.

3 Press **DVD** **◀◀** or **▶▶** on the remote repeatedly until the desired title or track number appears.

When programming a DVD, press **ENTER/YES** on the remote, then press **DVD** **◀◀** or **▶▶** on the remote repeatedly until the desired chapter number appears.



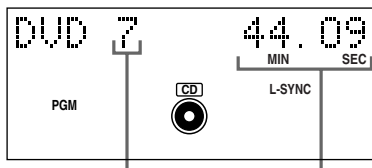
Selected title or track number

4 Press **ENTER/YES** on the remote.

The title/chapter, or track is programmed.

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

If you made a mistake, you can clear the last step from the program by pressing **CLEAR** on the remote.



Last programmed title or track number

Total playing time

5 To program additional tracks, repeat steps 3 and 4.

6 Press **DVD** **▶** on the remote.

Other operations

To	Do this
Cancel Program Play	Press PLAY MODE/TUNING MODE on the remote in stop mode repeatedly until both “SHUF” and “PGM” disappear.
Check the program order	Press DVD ◀◀ or ▶▶ on the remote repeatedly during Program Play.
Add a track to the end of the program	Perform steps 3 and 4 in stop mode.

Tips

- The program you made remains after Program Play finishes. To play the same program again, press **DVD** **▶** on the remote. However, the program is cleared when you open the disc tray.
- “----:--” appears when the total program time exceeds 1000 minutes, or when DVD titles/chapters are programmed.

Note

Depending on the DVD, you cannot use Program Play.

Using the on-screen display

The North American model is the model used for OSD (on-screen display) illustration purposes.

- 1 Press **PLAY MODE/TUNING MODE** on the remote repeatedly until **"PROGRAM"** appears in the on-screen display.

The Program Display appears on the screen.

PROGRAM	T	C
1. TITLE --	--	ALL
2. TITLE --	01	01
3. TITLE --	02	02
4. TITLE --	03	03
5. TITLE --	04	04
6. TITLE --	05	05
7. TITLE --		06

Chapters recorded on a disc

- 2 Select the title, chapter, or track you want to program.

When programming a DVD

For example, select chapter "02" of title "02".

Press \uparrow/\downarrow or the numeric buttons to select "02" under "T", then press ENTER.

PROGRAM	T	C
1. TITLE --	--	ALL
2. TITLE --	01	01
3. TITLE --	02	02
4. TITLE --	03	03
5. TITLE --	04	04
6. TITLE --	05	05
7. TITLE --		06

Next, press \uparrow/\downarrow or the numeric buttons to select "03" under "C", then press ENTER.

Selected title and chapter

PROGRAM	T	C
1. TITLE --	--	ALL
2. TITLE --	01	01
3. TITLE --	02	02
4. TITLE --	03	03
5. TITLE --	04	04
6. TITLE --	05	05
7. TITLE --		06

When programming a VIDEO CD or CD

For example, select track "02".

Press \uparrow/\downarrow or the numeric buttons to select "02" under "T", then press ENTER.

To erase a step

Press CLEAR on the remote. Each time you press the button, the last programmed step is erased.

You can also erase a step by selecting "--" under "T" in the on-screen display and pressing ENTER.

- 3 To program other titles, chapters, or tracks, repeat step 2.

- 4 Press **DVD** on the remote to start Program Play.

Program Play starts. When the program ends, you can restart the same program again by pressing **DVD** on the remote.

To return to normal play

Press **PLAY MODE/TUNING MODE** on the remote repeatedly until "CONTINUE" appears in the TV screen.

Note

The displayed number of titles, chapters, or tracks is the same as that recorded on the disc.

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.

1 While playing a disc, press **■** (or DVD **■** on the remote) to stop playback. “RESUME” appears in the display. If “RESUME” does not appear, Resume Play is not available.

2 Press DVD **▶||** (or DVD **▶** on the remote).

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

To view from the beginning of the disc

Press **■** (or DVD **■** on the remote) twice, then press DVD **▶||** (or DVD **▶** on the remote).

Notes

- Depending on where you stopped the disc, the system may resume playback from a different point.
- Resume play is canceled when:
 - you open the disc tray.
 - you change the play mode.
 - you change the settings using the Setup Display.

Playing repeatedly

— Repeat Play

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

In Shuffle or Program Play mode, the system repeats the titles or tracks in the shuffled or programmed order.

Use the remote for the operation.

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

2 Press **↑** or **↓** repeatedly to select “REPEAT”, then press ENTER. The options for “REPEAT” appear.

3 Press **↑** or **↓** repeatedly to select the Repeat Play setting.

■ When playing a DVD and when Program Play is set to OFF

- OFF: does not play repeatedly.
- DISC: repeats all the titles.
- TITLE: repeats the current title.
- CHAPTER: repeats the current chapter.

■ When playing a VIDEO CD/CD and when Program Play is set to OFF

- OFF: does not play repeatedly.
- DISC: repeats all the tracks.
- TRACK: repeats the current track.

■ When Program Play is set to ON

- OFF: does not play repeatedly.
- ON: repeats Program Play or Shuffle Play.

4 Press ENTER.

To cancel Repeat Play

Select "OFF" in step 3, or press CLEAR.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu is turned off.

Tip

You can set Repeat Play when the playback is stopped. Press REPEAT/FM MODE repeatedly to select the setting, then press DVD ►. The Repeat Play starts.

Playing DVDs using the menu

Some DVDs have menus to help you enjoy the DVDs. You can play DVDs using these menus. Use the remote for the operation.

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.

1 Press DVD TOP MENU.

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

2 Press ▲/▼/◀/▶ or the numeric buttons to select the title you want to play.**3 Press ENTER.**

The playback starts from the selected title.

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.

1 Press DVD MENU.

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

2 Press ▲/▼/◀/▶ or the numeric buttons to select the item you want to change.**3 To change other items, repeat step 2.****4 Press ENTER.**

Playing VIDEO CDs with PBC functions (Ver. 2.0)

— PBC Play

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

1 Press DVD ► II (or DVD ► on the remote) to start playing a VIDEO CD with PBC functions (Ver. 2.0).

The PBC menu appears on the TV screen.

2 Press \uparrow/\downarrow or the numeric buttons on the remote repeatedly to select the item number you want.

3 Press ENTER on the remote.

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 the menu

Press RETURN \curvearrowright on the remote.

To cancel playback with PBC functions

When the playback is stopped, press DVD \lll or \ggg on the remote, or the numeric buttons on the remote to select a track, then press DVD ► on the remote.

“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 DVD ■ on the remote twice, then press DVD ► on the remote.

Note

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 DVD ► on the remote.

Setting up for DVD/VIDEO CD/CD

Using the Setup Display

By using the Setup Display, you can make various adjustments to items such as picture and sound. You can also set a language for the subtitles and the Setup Display, among other things. For details on each Setup Display item, see pages 20–22. For an overall list of Setup Display items, see page 93.

The North American model is the model used for OSD (on-screen display) illustration purposes in this section.

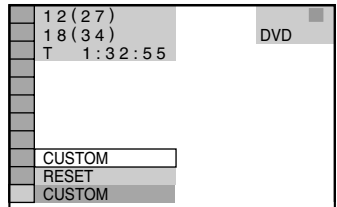
Use the remote for the operation.

1 When the playback is stopped, press **DVD DISPLAY**.

The Control Menu appears.
If you press DVD SETUP, you can go to step 4 directly.

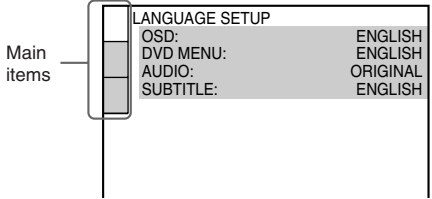
2 Press **↑** or **↓** repeatedly to select **“SETUP”**, then press **ENTER**.

The options for “SETUP” appear.



3 Press **↑** or **↓** repeatedly to select **“CUSTOM”**, then press **ENTER**.

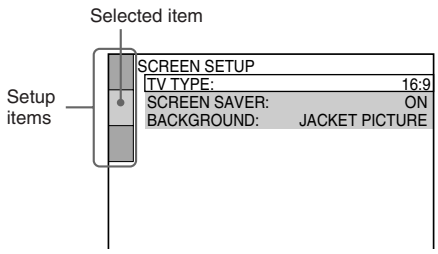
The Setup Display appears.



4 Press **↑** or **↓** repeatedly to select the setup item from the displayed list, then press **ENTER**.

The selected setup item appears.

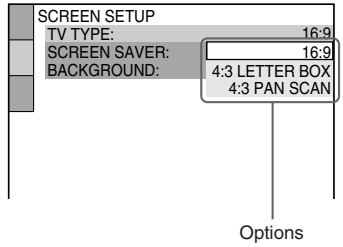
Example: “SCREEN SETUP”



5 Press **↑** or **↓** repeatedly to select an item, then press **ENTER**.

The options for the selected item appear.

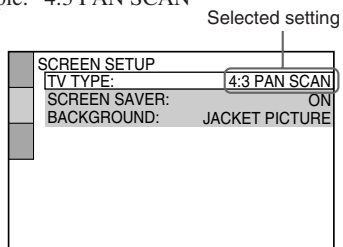
Example: “TV TYPE”



6 Press **↑** or **↓** repeatedly to select a setting, then press **ENTER**.

The setting is selected and the setup is completed.

Example: “4:3 PAN SCAN”



continued

Using the Setup Display (continued)

To turn off the Setup Display

Press DVD DISPLAY repeatedly until the Setup Display is turned off.

Tip

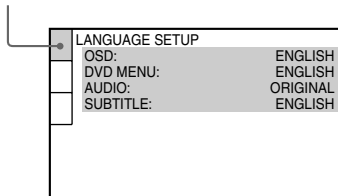
If you select “RESET” in step 3, you can reset all of the “SETUP” settings on pages 20–22 (except for PARENTAL CONTROL) to the default settings. After you select “RESET” and press ENTER, select “YES” and press ENTER to reset the settings (it takes a few seconds to complete). Do not press I/⏻ when resetting the system.

Setting the display or sound track language

— LANGUAGE SETUP

“LANGUAGE SETUP” allows you to set various languages for the on-screen display or sound track.

Select “LANGUAGE SETUP” in the Setup Display.



■ OSD (on-screen Display)

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

■ DVD MENU (DVD only)

Select the language for the DVD menu.*

■ AUDIO (DVD only)

Switches the language of the sound track. Select the language from the displayed list.* When you select “ORIGINAL”, the language given priority in the disc is selected.

■ SUBTITLE (DVD only)

Switches the language of the subtitle. Select the language from the displayed list.* When you select “AUDIO FOLLOW”, the language for the subtitles changes according to the language you selected for the sound track.

* If you select “OTHERS →” in “DVD MENU”, “AUDIO”, or “SUBTITLE”, select and enter the language code from the list using the numeric buttons (page 91). After you selected, the language code (4-digit) is displayed the next time you select “OTHERS →”.

Note

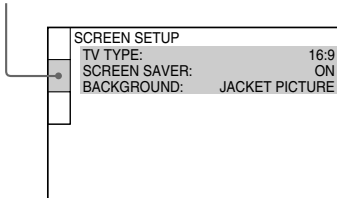
When you select a language that is not recorded on the DVD, one of the recorded languages will be automatically selected (except for “OSD”).

Settings for the display

— SCREEN SETUP

Select settings according to the connected TV.

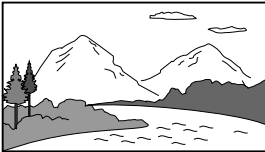
Select "SCREEN SETUP" in the Setup Display.



■ TV TYPE (DVD only)

Select the aspect ratio of the connected TV.

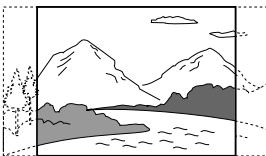
- **16:9:** Select this when you connect a wide-screen TV or a TV with a wide mode function.



- **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.



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 for more than 15 minutes. The screen saver will help prevent your display device from becoming damaged (ghosting). Press DVD ► to turn off the screen saver.

- **ON:** Turns on the screen saver.
- **OFF:** Turns off the screen saver.

■ BACKGROUND

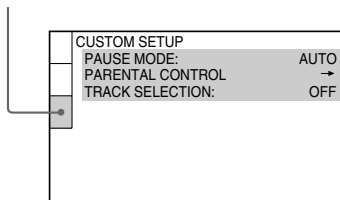
Select the background color or picture on the TV screen when the playback is stopped or while playing a CD.

- **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.
- **BLUE:** The background color is blue.
- **BLACK:** The background color is black.

Custom settings

— CUSTOM SETUP

Select "CUSTOM SETUP" in the Setup Display.



■ COLOR SYSTEM (Except for European model)

Select the color system when you play a VIDEO CD.

- **AUTO**: Outputs the video signal in the system of the disc, either PAL or NTSC. If your TV uses a DUAL system, select AUTO.
- **PAL**: Changes the video signal of an NTSC disc and outputs it in the PAL system.
- **NTSC**: Changes the video signal of a PAL disc and outputs it in the NTSC system.

Note

You cannot change the color system of the disc itself.

■ PAUSE MODE (DVD only)

Select the picture in pause mode.

- **AUTO**: A picture including subjects that move dynamically is output with no jitter. Normally select this position.
- **FRAME**: A picture including subjects that do not move dynamically is output in high resolution.

■ PARENTAL CONTROL → (DVD only)

Set a password and playback limitation level for DVDs with playback limitation for children. For details, see "Limiting playback by children (Parental Control)" on page 30.

■ 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, DTS, or Dolby Digital format) are recorded.

- **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" (page 20).
- If PCM, DTS, and Dolby Digital sound tracks have the same number of channels, the system selects PCM, DTS, and Dolby Digital 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 audio format by selecting "AUTO".

Viewing information about the disc

Checking the playing time and remaining time

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

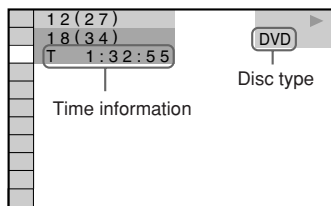
Use the remote for the operation.

1 Press DVD DISPLAY during playback.

The Control Menu appears.

2 Press DISPLAY repeatedly 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 **:**:**
Playing time of the current title
- T--**:**:**
Remaining time of the current title
- C **:**:**
Playing time of the current chapter
- C--**:**:**
Remaining time of the current chapter

■ When playing a VIDEO CD (with PBC functions)

- **:**:**
Playing time of the current scene

■ When playing a VIDEO CD (without PBC functions) or CD

- T **:**:**
Playing time of the current track
- T--**:**:**
Remaining time of the current track
- D **:**:**
Playing time of the current disc
- D--**:**:**
Remaining time of the current disc

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu is turned off.

Checking the playback information

— ADVANCED

(DVD only)

You can check information such as the bit rate or the disc layer that is being played.

While playing a disc, an approximate bit rate of the playback picture is always displayed as Mbps (Mega bit per second) and the audio as Kbps (Kilo bit per second).

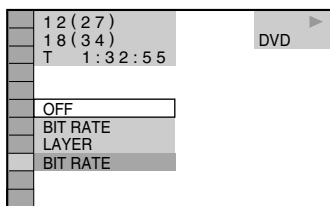
Use the remote for the operation.

1 Press DVD DISPLAY during playback.

The Control Menu appears.

2 Press \uparrow or \downarrow repeatedly to select “ADVANCED”, then press ENTER.

The options for “ADVANCED” appear.



3 Press \uparrow or \downarrow repeatedly to select the item.

For each item, see “Displays of each item”.

- BIT RATE: Displays the bit rate.
- LAYER: Displays the layer and the pick-up point.

4 Press ENTER.

To close the “ADVANCED” display

Select “OFF” in step 3.

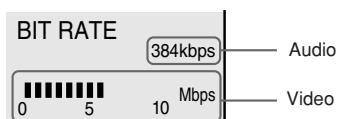
To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu is turned off.

Displays of each item

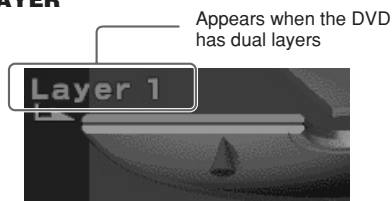
By pressing DVD DISPLAY repeatedly, you can display either “BIT RATE” or “LAYER”, whichever was selected in “ADVANCED”.

BIT RATE



Bit rate refers to the amount of video/audio data per second in a disc. The higher the bit rate, the larger the amount of data. When the bit rate level is high, there is a large amount of data. However, this does not always mean that you can get higher quality pictures or sounds.

LAYER



This item indicates the approximate point where the disc is playing. When the DVD has dual layers, the system indicates which layer is being read (“Layer 0” or “Layer 1”). For details on the layers, see page 89 (DVD).

Sound adjustment

Changing the sound

If a DVD is recorded with multilingual tracks, you can select the language you want while playing the DVD. If the DVD is recorded in multiple audio formats, you can select the audio format you want while playing the DVD.

With stereo CDs or VIDEO CDs, you can select the sound from the right or left channel and listen to the sound of the selected channel through both the right and left speakers. (In this case, the sound loses its stereo effect.) For example, when playing a disc containing a song with the vocals on the right channel and the instruments on the left channel, you can select the left channel and hear only the instruments from both speakers.

Use the remote for the operation.

1 Press DVD DISPLAY during playback.

The Control Menu appears.

2 Press \uparrow or \downarrow repeatedly to select "AUDIO", then press ENTER.

The options for "AUDIO" appear.

3 Press \uparrow or \downarrow repeatedly to select the audio signal you want.

■ When playing a DVD

Depending on the DVD, the choice of the language varies. When 4-digit is displayed, they represent the language code (see the language code list on page 91). When the same language is displayed twice or more, the DVD is recorded in multiple audio formats.

■ When playing a VIDEO CD or CD

- STEREO: The standard stereo sound.
- 1/L: The sound of the left channel (monaural).
- 2/R: The sound of the right channel (monaural).

The default setting is "STEREO".

4 Press ENTER.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu is turned off.

Tip

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

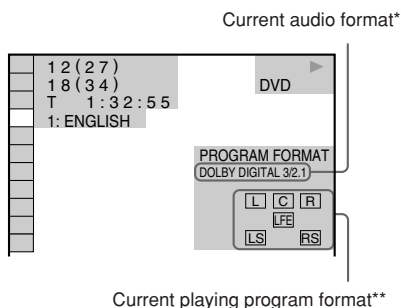
Notes

- 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 the DVD is recorded in multiple audio format.
- For VIDEO CDs and CDs, the setting returns to "STEREO" when you turn off the system or open the disc tray.
- During DVD playback, the sound may change automatically.

Displaying the audio information of the disc

(DVD only)

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

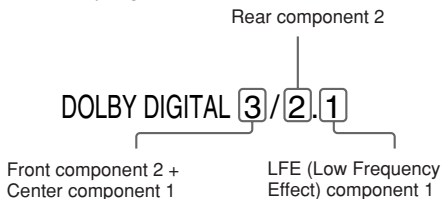


Current playing program format**

* "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:



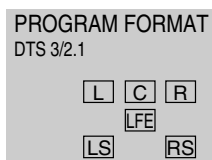
continued

Changing the sound (continued)

** The letters in the program format display mean the following sound components recorded in the track, regardless of the actual number of speakers:

- L: Front (left)
- R: Front (right)
- C: Center (monaural)
- LS: Rear (left)
- RS: Rear (right)
- S: Rear (monaural): The rear component of the Dolby Surround processed signal or the Dolby Digital signal.
- LFE: LFE (Low Frequency Effect)

- DTS
“LFE” is always enclosed in a solid line regardless of the LFE signal component being output.

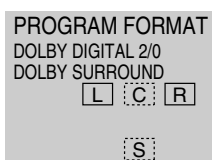


The display examples are as follows:

- PCM (stereo)

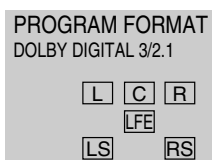


- Dolby Surround



- Dolby Digital 5.1ch

“LFE” is always enclosed in a solid line regardless of the LFE signal component being output.



Searching for a title/ chapter/track/index/scene

You can search a DVD disc by title or chapter, and you can search a VIDEO CD or CD by track, index, or scene. As titles and tracks are assigned unique numbers on the disc, you can select the desired one by entering its number. Or, you can search for a scene using the time code (TIME SEARCH).

Use the remote for the operation.

1 Press DVD DISPLAY.

The Control Menu appears.

2 Press \uparrow or \downarrow repeatedly to select the search method.

■ When playing a DVD

“TITLE”, “CHAPTER”, or “TIME”

Select “TIME” for TIME SEARCH.

■ When playing a VIDEO CD

“TRACK” or “INDEX”

■ When playing a VIDEO CD (with PBC functions)

“SCENE”

■ When playing a CD

“TRACK” or “INDEX”

3 Press ENTER.

“** (**)” changes to “-- (**)”.

The number in parentheses indicates the total number of titles, chapters, tracks, indexes, or scenes.

4 Press \uparrow or \downarrow repeatedly, or press the numeric buttons to select the title, chapter, track, index, or scene 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 search for a scene using the time code (TIME SEARCH)

(DVD only)

1 In step 2, select “TIME”.

“T **:**:**” (playing time of the current title) is selected.

2 Press ENTER.

“T **:**:**” changes to “T --:--:--”.

3 Input the time code using the numeric buttons, then press ENTER.

For example, to find the scene at 2 hours, 10 minutes, and 20 seconds after the beginning, just enter “2:10:20”.

To cancel

Press RETURN δ ↶.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu is turned off.

Notes

- The displayed number of titles, chapters, or tracks is the same as that recorded on the disc.
- When playing a VIDEO CD with PBC functions, index number does not appear.
- When the chapter number does not appear, you cannot search the disc by chapter.
- The number in parentheses does not appear when it is 100 or more.

Changing the angles

(DVD only)

When playing a DVD on which various angles (multi-angles) for a scene are recorded, 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.

Use the remote for the operation.

1 Press DVD DISPLAY during playback.

The Control Menu appears.

2 Press \uparrow or \downarrow repeatedly to select "ANGLE".

The angle number appears. The number in parentheses indicates the total number of angles.

3 Press \rightarrow or ENTER.

The angle number changes to "-".

4 Select the angle you want using the numeric buttons or \uparrow/\downarrow , then press ENTER.

The angle is changed to the selected angle.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu is turned off.

Tip

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

Note

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

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.

Use the remote for the operation.

1 Press DVD DISPLAY during playback.

The Control Menu appears.

2 Press \uparrow or \downarrow repeatedly to select "SUBTITLE", then press ENTER.

The options for "SUBTITLE" appear.

3 Press \uparrow or \downarrow repeatedly to select the language you want, then press ENTER.

The subtitles are displayed in the selected language.

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

To turn off the Control Menu
Press DVD DISPLAY repeatedly until the Control Menu is turned off.

Tip

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

Notes

- When 4-digit is displayed in step 3, they indicate the language code. Refer to the language code list on page 91 to see the language the code represents.
- Depending on the DVD, you may not be able to change the subtitles even if multilingual subtitles are recorded on the DVD.

Locking discs

— CUSTOM PARENTAL CONTROL/ PARENTAL CONTROL

You can set two kinds of playback restrictions for the disc.

- 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 50 discs. When you set the fifty-first disc, the playback restriction for the first disc is canceled.

- Parental Control

You can limit the playback of some DVDs according to a predetermined level such as the age of the users. The limited scene is not played, or replaced by a different scene.

The same password is used for both Custom Parental Control and Parental Control.

Use the remote for the operation.

Custom Parental Control

1 Insert the disc you want to lock.

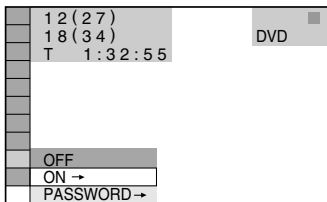
If the disc is playing, press DVD ■ to stop playback.

2 When the playback is stopped, press DVD DISPLAY.

The Control Menu appears.

3 Press ▲ or ▼ repeatedly to select “CUSTOM PARENTAL CONTROL”, then press ENTER.

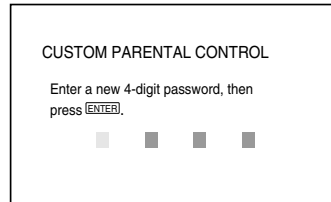
“CUSTOM PARENTAL CONTROL” is selected.



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.

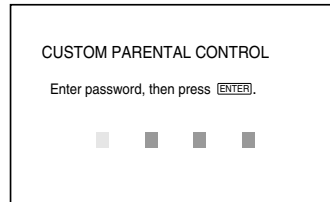


Enter a 4-digit password using the numeric buttons, then press ENTER.

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 numeric buttons, then press ENTER.

“Custom parental control is set.” appears and the screen returns to the Control Menu Display.

If you make a mistake entering your password

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

continued

Locking discs (continued)

If you make a mistake

Press RETURN ↵, then start from step 3 again.

To turn off the Control Menu

Press RETURN ↵, then press DVD DISPLAY repeatedly until the Control Menu is turned off.

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 numeric 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 numeric buttons, then press ENTER.
- 3 Enter a new 4-digit password using the numeric buttons, then press ENTER.
- 4 To confirm your password, re-enter it using the numeric 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 numeric buttons, then press ENTER.

The system is ready for playback.

Tip

If you forgot your password, enter the 6-digit number "199703" using the numeric 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 (Parental Control)

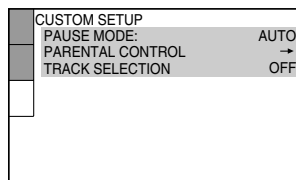
(DVD only)

1 When the playback is stopped, press DVD SETUP.

The Setup Display appears.

2 Press ↑ or ↓ repeatedly to select "CUSTOM SETUP", then press ENTER.

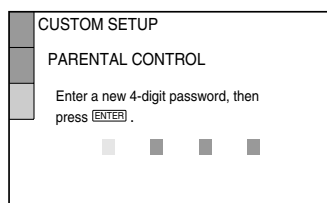
The "CUSTOM SETUP" display appears.



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.

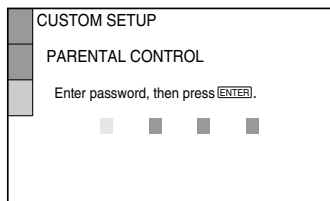


Enter a 4-digit password using the numeric buttons, then press ENTER.

The display for confirming the password appears.

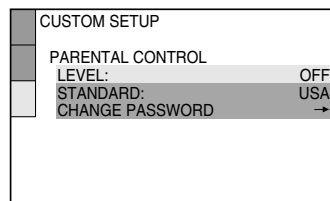
■ When you have already registered a password

The display for entering the password appears.



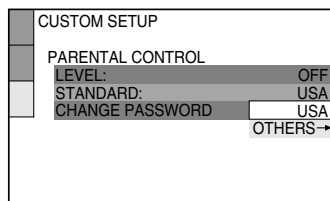
4 Enter or re-enter your 4-digit password using the numeric buttons, then press ENTER.

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



5 Press ↑ or ↓ repeatedly to select “STANDARD”, then press ENTER.

The options for “STANDARD” appears.



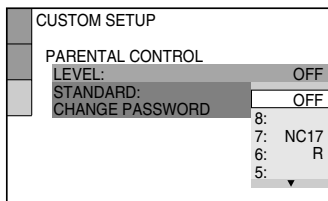
6 Press ↑ or ↓ repeatedly to select a geographic area as the playback limitation level, then press ENTER.

The area is selected.

When you select “OTHERS →”, select and enter the standard code in the table on page 32 using the numeric buttons.

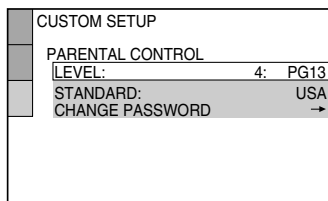
7 Press ENTER.

The options for “LEVEL” appears.



8 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 RETURN ↵ to go back to the previous screen.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu is turned off.

continued

Locking discs (continued)

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, press \blacktriangledown to select “CHANGE PASSWORD \rightarrow ”, 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 DVD \blacktriangleright .

The “PARENTAL CONTROL” display appears.

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

The playback starts.

Tip

If you forgot your password, remove the disc and repeat steps 1 to 3 of “Limiting playback by children”. When you are asked to enter your password, enter “199703” using the numeric 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 DVD \blacktriangleright . When the “PARENTAL CONTROL” display appears, enter your new password.

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.

Area code

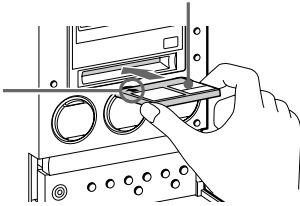
Standard	Code number	Standard	Code number
Argentina	2044	Korea	2304
Australia	2047	Malaysia	2363
Austria	2046	Mexico	2362
Belgium	2057	Netherlands	2376
Brazil	2070	New Zealand	2390
Canada	2079	Norway	2379
Chile	2090	Pakistan	2427
China	2092	Philippines	2424
Denmark	2115	Portugal	2436
Finland	2165	Russia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

Loading an MD

Insert an MD.

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

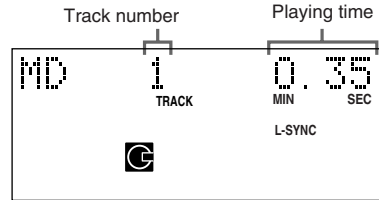
With the arrow pointing toward the deck



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.
- 2** Press **PLAY MODE** (or **PLAY MODE/TUNING MODE** on the remote) 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 35).

- 3** Press **MD ►||** (or **MD ►** on the remote).

continued

Playing an MD (continued)

Other operations

To	Do this
Stop play	Press ■ (or MD ■ on the remote).
Pause	Press MD ► (or MD on the remote). Press again to resume play.
Select a track	Press ◀◀◀ or ▶▶▶ (or MD ◀◀◀ or ▶▶▶ on the remote) repeatedly until you find the desired track.
Find a point in a track	Keep pressing ◀◀ or ▶▶ (or MD ◀◀ or ▶▶ on the remote) during play and release it at the desired point.
Play repeatedly (Repeat Play)	<p>Press REPEAT/FM MODE repeatedly during play until "REP" or "REP1" appears.</p> <p>REP: For all the tracks on the MD up to five times.</p> <p>REP1: For a single track only.</p> <p>To cancel playing repeatedly, press REPEAT/FM MODE repeatedly until both "REP" and "REP1" disappear.</p>
Remove the MD	Press ▲ MD.

Note

You cannot change play mode during playback.

To enter the track number using the remote

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

Press the numeric buttons. The playback automatically starts.

To enter the track number over 10

1 Press >10.

2 Press the numeric buttons for the same number of "--" flashing in the display.
To select 0, press 10/0.

Examples:

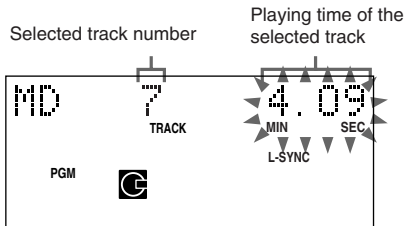
- To enter 6 while "--" flashes in the display, press 10/0, 6.
- To enter 20 while "--" flashes in the display, press 10/0, 2, 10/0.

Programming MD tracks

— Program Play

You can make a program of up to 25 tracks.

- 1** Press **FUNCTION** repeatedly to switch the function to MD.
- 2** Press **PLAY MODE/TUNING MODE** on the remote in stop mode repeatedly until “PGM” appears.
- 3** Press **MD** **◀◀** or **▶▶** on the remote repeatedly until the desired track number appears.

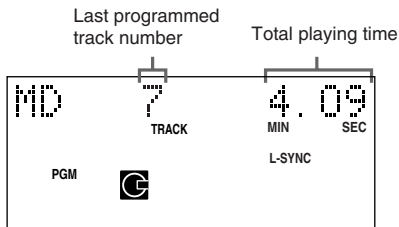


- 4** Press **ENTER/YES** on the remote.

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.

If you made a mistake, you can clear the last programmed track from the program by pressing **CLEAR** on the remote.



- 5** To program additional tracks, repeat steps 3 and 4.

- 6** Press **MD** **▶** on the remote.

Other operations

To	Do this
Cancel Program Play	Press PLAY MODE/TUNING MODE on the remote in stop mode repeatedly until both “PGM” and “SHUF” disappear.
Check the program order	Press MD ◀◀ or ▶▶ on the remote repeatedly during Program Play.
Check the total number of programmed tracks	Press DISPLAY on the remote in stop mode. The total number of programmed steps appears, followed by the last programmed track number and the total playing time of the program.
Add a track to the end of the program	Perform steps 3 and 4 in stop mode.
Erase a track	Press CLEAR on the remote in stop mode. Each time you press the button, the last programmed track is erased.

Tips

- The program you made remains after Program Play finishes. To play the same program again, press **MD** **▶** on the remote. However, the program is cleared after you remove the MD or press **GROUP** on the remote.
- “----” 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 page 38.

- 1** Press **FUNCTION** repeatedly to switch the function to **MD**.
- 2** Press **GROUP** on the remote in stop mode repeatedly until “**GROUP ON**” appears.
- 3** Press **GROUP SKIP** on the remote repeatedly until the desired group appears.
- 4** To start playing from a specific track in the group, press **⏮** or **⏭** (or **MD** **⏮** or **⏭** on the remote) repeatedly until the desired track appears.
Proceed to step 5 when you start playing from the first track in the group.
- 5** Press **MD** **▶||** (or **MD** **▶** on the remote).
Play starts.
When the playing of the last track in the group finishes, the MD deck stops automatically.

Tip

You can perform the operations on pages 33–35 only for the tracks in the group.
To select the desired play mode, select the play mode before step 3.

Note

If you select a group that does not have any tracks registered and press **MD** **▶||** (or **MD** **▶** on the remote), playback starts from the first track of the first group on the MD.

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/CD player**
 - The MD deck performs digital recording.*¹
 - Track numbers are automatically marked as on the original CD. However, track numbers are not marked depending on the track (page 86).
 - **DVDs or VIDEO CDs loaded in this system's DVD/CD player**
 - The MD deck performs analog recording.
 - A track number is marked at the beginning of a recording only, but when you turn on the Level Synchro Recording Function (page 44), track numbers are automatically marked on sync with the level of the input signal.
 - **Other digital components connected to the DIGITAL OPTICAL IN jack**
 - The MD deck performs digital recording.*¹
 - Track numbers are marked differently depending on the source you record.
- *¹ For details on the limitations of digital recording, see “System limitations of MDs” on page 85.
- **This system's tuner or other analog components connected to the ANALOG IN jacks**
 - The MD deck performs analog recording.*²
 - A track number is marked at the beginning of a recording only, but when you turn on the Level Synchro Recording Function (page 44), track numbers are automatically marked in sync with the level of the input signal.
- *² Even if you connect a digital component, the MD deck performs analog recording.

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 52).

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*³ area independent of the sound information. You can edit recorded tracks quickly by modifying the TOC information.

*³ TOC: Table Of Contents

About recording errors

- With the following kinds of CDs, you may experience a reading failure or noise when recorded on an MD:
 - CDs with adhesive labels attached to them
 - Irregularly shaped CDs (for example, heart- or star- shaped)
 - CDs with printed text concentrated on one side only
 - Scratched CDs
 - Dirty CDs
 - Warped CDs
- If the following occurs during CD playback or recording, a reading error may occur or noise may be produced in the recorded results:
 - The disc tray or other part of 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 52).

After recording

Press **▲ MD** to remove the MD or press **I/⏻ (power)** to turn off the system.

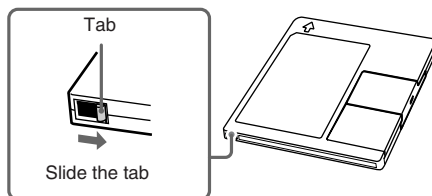
“TOC” or “STANDBY” starts flashing. The TOC is updated and recording is completed.

Before pulling out the power cord

MD recording is completed when the MD Table of Contents (TOC) is updated. The TOC is updated when you eject the MD or press **I/⏻** to turn off the 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.



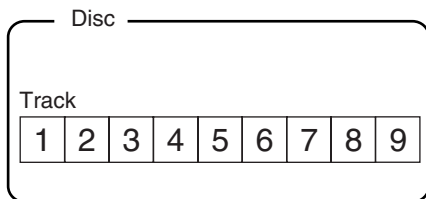
Recording tracks in groups

— Group Function

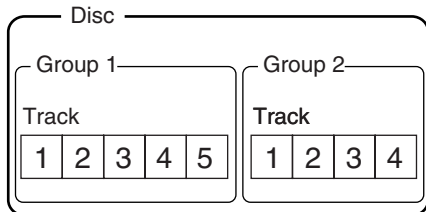
What is the Group Function?

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

Group Function: Off



Group Function: On



Operations using the Group Function

- Playing only the tracks in the desired group (page 36)
- Labelling a group (page 47)
- Registering recorded tracks into a new group (page 50)
- Releasing group registrations (page 51)

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

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

① ② ③

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

Therefore, when an MD recorded using the Group Function is loaded on a system that does not support the Group Function or on this 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 the registrations of all tracks on an MD” on page 51 and release the registrations of all tracks on the MD.

Notes

- The Group Function setting is stored even if you eject the MD or turn off the 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.
- 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.

Recording into a new group

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

- 1 Load a recordable MD.**
- 2 Press FUNCTION repeatedly to select the desired source to record.**
 - DVD: To record from this system's DVD/CD player.
 - TAPE: To record from this system's cassette deck.
 - TUNER: To record from this system's tuner.
 - OPTICAL IN: To record from the optional component connected to the OPTICAL IN jack.
 - ANALOG IN: To record from the optional component connected to the ANALOG IN jacks.
- 3 Press GROUP on the remote repeatedly until "GROUP ON" appears.**
- 4 Press ● MD (or MD ● on the remote).** "New Group" flashes and the MD deck stands by for recording.
- 5 Press MD ►II (or MD ► on the remote), then start playing the desired source to record.**

To continue recording into another new group, switch the function to MD after recording, press ■ (or MD ■ on the remote) repeatedly until the disc title and total number of groups appears, then perform steps 2 to 5.

Recording into an existing group

After step 4, press GROUP SKIP on the remote repeatedly until the desired group appears, then proceed to step 5. New tracks are recorded after the last track in the group.

If "Group Full!" appears when you press ● MD (or MD ● on the remote) in step 4

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 (see page 49).

Tips

- You can check the remaining recordable time on the MD during recording by pressing DISPLAY on the remote.
- You can adjust the recording level (page 45).

Notes

- The new group is added after any existing groups with tracks registered.
- 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 "Group Full!" appears during recording, track numbers are not marked.

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.

1 Load a recordable MD.

2 Load a CD you want to record.

Proceed to step 4 to record not using the Group Function.

3 To record using the Group Function, press **GROUP** on the remote repeatedly until “GROUP ON” appears.

4 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 (change the stereo signal to monaural)	MONO (monaural)

5 Press **SYNCHRO MODE** repeatedly until “CD→MD SYNC?” appears.

6 Press **ENTER/START**.

“Press START” flashes.

The MD deck stands by for recording and the CD player pauses for playback.

7 To record using the Group Function, perform the following procedure depending on where you want to record:

To record into a new group

Press **GROUP SKIP** on the remote repeatedly until “New Group” appears.

To record into an existing group

Press **GROUP SKIP** on the remote repeatedly until the desired group appears.

Proceed to step 8 to record not using the Group Function.

8 Press **ENTER/START** while “Press START” flashes.

Recording starts.

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

To stop recording

Press **■** (or MD **■** on the remote).

Recording a CD on an MD and a tape at the same time

Load a recordable tape, then select “DUAL SYNC?” in step 5.

Even if the MD or the tape ends part-way through the recording, the other continues recording.

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 14).

Tip

For details about LP2/LP4 recording, see page 46.

Notes

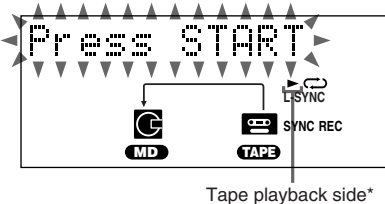
- You cannot pause the recording.
- If the play mode is set to the Repeat Play or Shuffle Play, the play mode switches to Normal Play in step 5.
- Depending on the VIDEO CD, you cannot use the CD Synchro Recording. In this case, record from the VIDEO CD manually.
- You cannot use this recording function with DVDs.

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.

- 1** Load a recordable MD.
- 2** Press **▲** PUSH and load a tape you want to record.
- 3** Press **SYNCHRO 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.



* **▶** appears for the top side, and **◀** for the bottom side. To play the side not indicated, press **■** and remove the cassette to reverse the tape side, then perform steps 3 and 4 again.

- 5** Press **PLAY MODE/DIRECTION** repeatedly until **⇄** appears to play one side or **↔** (or **↔**) to play both sides.
- 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

Press **■** (or MD **■** on the remote).

Recording on an MD manually

— Manual Recording

You can record just the portions you like from a CD, 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/CD player.
 - TAPE: To record from this system’s cassette deck.
 - TUNER: To record from this system’s tuner.
 - OPTICAL IN: To record from the optional component connected to the OPTICAL IN jack.
 - ANALOG IN: To record from the optional component connected to the ANALOG IN jacks.

- 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 (change the stereo signal to monaural)	MONO (monaural)

- 4** Press **● MD** (or MD **●** on the remote).
 The MD deck stands by for recording.
- 5** Press **MD ▶ II** (or MD **▶** on the remote), then start playing the desired source to record.

To stop recording

Press **■** (or MD **■** on the remote).

continued

Recording on an MD manually (continued)

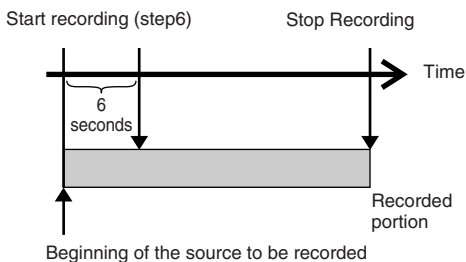
Tips

- If you want to record manually in the middle of a track loaded in this system, press DVD ►|| (or DVD || on the remote) before step 4 to pause the playback, then press DVD ►|| (or DVD ► on the remote) in step 5 to start playback.
- You can check the remaining recordable time on the MD during recording by pressing DISPLAY on the remote.
- If cyclical static noise is heard while recording an AM radio program, move the AM loop antenna to reduce the noise or connect a ground wire to the \hbar terminal.
- For details about LP2/LP4 recording, see page 46.
- You can adjust the recording level (page 45).

Starting recording with 6 seconds of prestored audio data

— Time Machine Recording

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



- 1** Load a recordable MD.
- 2** Press FUNCTION repeatedly to select the desired source 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 (change the stereo signal to monaural)	MONO (monaural)

- 4** Press ● MD (or MD ● on the remote).
The MD deck stands by for recording.
- 5** Start playing the desired source to record.
- 6** Press ENTER/YES on the remote at the desired point to start recording.

To stop Time Machine Recording

Press ■ (or MD ■ on the remote).

Tip

For details about LP2/LP4 recording, see page 46.

Note

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/YES on the remote, Time Machine Recording starts with less than 6 seconds of audio data.

Recording tips

Adding “LP:” to a track name during MDLP recording

You can add “LP:” at the beginning of the track title which appears when you try to play the track on a system that does not support MDLP mode. This convenient function lets you know at a glance that the track is recorded in MDLP mode and cannot be played back.

It does not appear when the system supports MDLP mode.

- 1 Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO on the remote.
- 3 Press MENU + or – on the remote repeatedly until “Setup?” appears, then press ENTER/YES on the remote.
- 4 Press MENU + or – on the remote repeatedly until “LP Stamp Off ” (or “LP Stamp On”) appears, then press ENTER/YES on the remote.
- 5 Press MENU + or – on the remote repeatedly to select the setting, then press ENTER/YES on the remote.

To	Select
Add “LP:”	LP Stamp On (factory setting)
Cancel adding “LP:”	LP Stamp Off

- 6 Press MENU/NO on the remote.

Note

When set to “On”, “LP:” is recorded as the track title, so the number of characters that can be input to an MD is reduced. In addition, if you divide an “LP:” track using the Divide Function, “LP:” is also added to the latter track.

Marking track numbers

- **Automatically during recording (Level Synchro Recording)**

Track numbers are automatically marked as on the original source during recording from this system’s DVD/CD player or components connected to DIGITAL OPTICAL IN jack.

However, track numbers are not marked depending on the track (page 86).

Use the Level Synchro Recording Function to automatically mark track numbers during recording from this system’s tuner or components connected to the ANALOG IN jacks. However, track numbers are not marked automatically if the source sound to be recorded is noisy (e.g., tapes or radio programs).

Note

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.

- **At any point during recording (Track Mark)**

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

- **After recording**

Use the Divide Function (page 55).

This function is convenient when the source is tape or radio programs and the track numbers are not marked automatically.

continued

Recording tips (continued)

Marking track numbers automatically during recording

— Level-Synchro Recording

The Level Synchro Recording Function is factory set to on, so the track numbers are automatically marked. If “L-SYNC” does not appear during recording, turn on the Level Synchro Recording as follows. 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.

- 1 Press FUNCTION repeatedly to switch the function to MD.
- 2 Press MENU/NO on the remote.
- 3 Press MENU + or – on the remote repeatedly until “Setup?” appears, then press ENTER/YES on the remote.
- 4 Press MENU + or – on the remote repeatedly until “T.Mark Off” (or “T.Mark LSync”) appears, then press ENTER/YES on the remote.
- 5 Press MENU + or – on the remote repeatedly to select the setting, then press ENTER/YES on the remote.

To	Select
Turn on the Level Synchro Recording Function	T.Mark LSync (factory setting)
Turn off the Level Synchro Recording Function	T.Mark Off

When you set the Level Synchro Recording Function on, “L-SYNC” lights up.

- 6 Press MENU/NO on the remote. To continue recording, follow the procedures described for each type of recording.

To change the trigger level for Level Synchro Recording

When the Level Synchro recording is set to “On”, track numbers are automatically marked when the input signal is below the trigger level set in this section for more than two seconds and then exceeds that level. The factory setting is “–50 dB”.

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.

Perform the following procedure to change the signal level that triggers Level Synchro Recording.

- 1 Press MENU/NO on the remote during recording pause.
- 2 Press MENU + or – on the remote repeatedly until “Setup?” appears, then press ENTER/YES on the remote.
- 3 Press MENU + or – on the remote repeatedly until “LS(T)” appears, then press ENTER/YES on the remote.
- 4 Press MENU + or – on the remote repeatedly to select the level, then press ENTER/YES on the remote.

You can set the level at any value between –72 dB and 0 dB, in 2 dB steps.

- 5 Press MENU/NO on the remote.

Marking track numbers at a specific point during recording

— Track Mark

You can mark track numbers at any time during manual recording, regardless of the type of source sound.

Press ● MD (or MD ● on the remote) during manual recording at the point you want to add a track mark.

The tracks following the added one are renumbered.

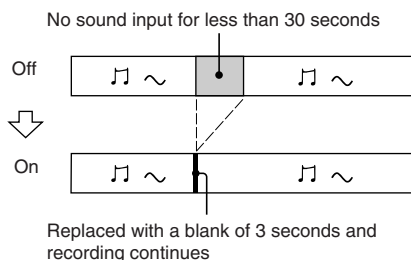
Marking track numbers after recording

Use the Divide Function (page 55).

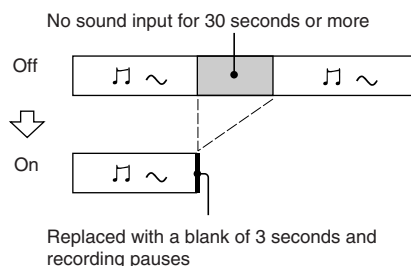
Making a space between tracks 3 seconds long automatically

— 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.



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.



- 1** Press **FUNCTION** repeatedly to switch the function to MD.
- 2** Press **MENU/NO** on the remote.
- 3** Press **MENU + or -** on the remote repeatedly until “Setup?” appears, then press **ENTER/YES** on the remote.
- 4** Press **MENU + or -** on the remote repeatedly until “S.Space Off” (or “S.Space On”) appears, then press **ENTER/YES** on the remote.
- 5** Press **MENU + or -** on the remote repeatedly to select the setting, then press **ENTER/YES** on the remote.

To	Select
Turn on the Smart Space Function	S.Space On (factory setting)
Turn off the Smart Space Function	S.Space Off

- 6** Press **MENU/NO** on the remote. To continue and record, follow the procedures described on the various recording pages.

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.

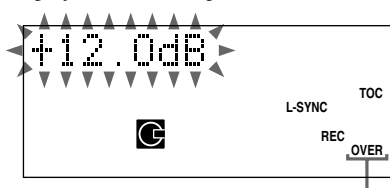
- 1** Press **FUNCTION** repeatedly to select the desired source to record.
- 2** Press **● MD** (or **MD ●** on the remote). The MD deck stands by for recording.
- 3** Start playing the desired source to record.

continued

Recording tips (continued)

- 4 Press MENU/NO on the remote to display “Setup?”, then press ENTER/YES on the remote.
- 5 Press MENU + or – on the remote repeatedly until “LevelAdjust?” appears, then press ENTER/YES on the remote.
- 6 Press MENU + or – on the remote 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/YES on the remote.
- 8 Press MENU/NO on the remote.
- 9 Press ■ (or MD ■ on the remote).

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.

Explanation of recording Settings

Recording for long times

This system has two long time recording modes: LP2 and LP4 (MDLP recording). Press REC MODE to select the recording mode. Refer to each pages about recording (40–42).

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. You can add “LP:” at the beginning of a track title when you try to play the track on the system that does not support MDLP mode (page 43).

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 repeatedly.

Notes

- You cannot change the recording mode while recording pause or recording.
- 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).

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.

2 Press PLAY MODE (or PLAY MODE/TUNING MODE on the remote) 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 on the remote.

After editing

Press \blacktriangle MD to remove the MD or press I/⏻ (power) to turn off the system.

“TOC” or “STANDBY” 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/⏻ 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.

Labelling an MD

— Name Function

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

During recording

During the CD-MD Synchro Recording, CD-TEXT information is recorded automatically.

To cancel recording the CD-TEXT information automatically, change the setting as follows.

Use the remote for the operation.

After pressing FUNCTION repeatedly to switch the function to MD, press MENU/NO, press MENU + or – repeatedly until “Setup?” appears, then press ENTER/YES. Press MENU + or – repeatedly until “Txt Save On” appears, then press ENTER/YES. Again, press MENU + or – repeatedly until “Txt Save Off” appears, then press ENTER/YES, then press MENU/NO. The factory setting is “ON”.

Note

Even when “Txt Save Off” is selected, the CD-TEXT information is recorded automatically depending on the disc.

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 page 38.

continued

Labelling an MD (continued)

1 Press **FUNCTION** repeatedly to switch the function to **MD**.

2 Perform the following procedure depending on what you want to label:

To label a track

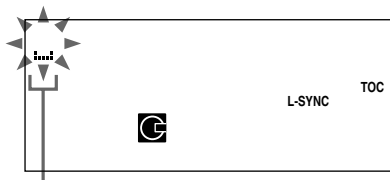
Press **MD** **◀◀** or **▶▶** on the remote repeatedly until the desired track number appears, then press **NAME EDIT/SELECT** on the remote.

To label an MD

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

To label a group

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



The cursor starts flashing.

3 Press **NAME EDIT/SELECT** on the remote 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 (or MENU +/-) on the remote repeatedly until the character to be entered flashes, then press CURSOR→ on the remote.
Numbers	Press the corresponding numeric buttons on the remote.
Blank space	Press 10/0 on the remote.
˘ - / , . () : ! ?	Press 1 on the remote repeatedly.
& + < > _ = " ; # \$ % @ * `	Press 1 on the remote, then press MENU +/- repeatedly.

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

6 Press **ENTER/YES** on the remote.

To change the character

In step 3 or 4, press ←CURSOR or CURSOR→ repeatedly until the character to be changed flashes, press CLEAR on the remote to erase the character, then repeat steps 3 and 4.

To add a character

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

Tip

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

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.

Checking the titles

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

To check the group titles, press GROUP on the remote repeatedly in stop mode until “GROUP ON” appears, press GROUP SKIP on the remote repeatedly until the desired group appears, then press SCROLL on the remote.

To stop scrolling, press SCROLL on the remote. Press the button again to resume scrolling.

Erasing the titles

1 To erase group titles, press GROUP on the remote repeatedly in stop mode until “GROUP ON” appears.

2 Press MENU/NO on the remote in stop mode.

3 Press MENU + or – on the remote repeatedly until “Nm Erase?” appears, then press ENTER/YES on the remote.

4 To erase disc titles

Press MENU + or – on the remote repeatedly until “Nm Ers Disc” appears, then press ENTER/YES on the remote.

To erase track titles

Press MENU + or – on the remote repeatedly until the desired track number appears, then press ENTER/YES on the remote.

To erase group titles

Press GROUP SKIP on the remote repeatedly until the desired group number appears, then press ENTER/YES on the remote.

“Complete!” appears.

Note

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

Registering recorded tracks into a new group

— *Create Function*

This function allows you to create a new group and register a track or consecutive tracks which are not yet registered into that group.

- 1** Press **FUNCTION** repeatedly to switch the function to **MD**.
- 2** Press **GROUP** on the remote repeatedly until “**GROUP ON**” appears.
- 3** Press **MENU/NO** on the remote to display “**Edit Menu**”.
- 4** Press **MENU +** or **-** on the remote repeatedly until “**Gp Create?**” appears, then press **ENTER/YES** on the remote.
- 5** Perform steps 3 to 6 of “**Labelling an MD**” on page 47.
- 6** Press **MD I◀◀** or **▶▶I** on the remote repeatedly until the first track number you want to register appears, then press **ENTER/YES** on the remote.
- 7** Press **MD I◀◀** or **▶▶I** on the remote repeatedly until the last track number you want to register appears, then press **ENTER/YES** on the remote. (When registering only one track, simply press **ENTER/YES** on the remote again without performing any other operations.)

“**Complete!**” appears.

To create a group without registering any tracks

In step 6, press **MD I◀◀** or **▶▶I** on the remote repeatedly until “**None**” appears, then press **ENTER/YES** on the remote.

Tip

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

Notes

- You cannot register the same track to multiple groups.
- When creating a group without registering any tracks, you must enter the group title.
- If you do not enter a group title in step 5, “**Group **** (group number)” appears instead of the group title.

Releasing group registrations

— Release Function

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

Releasing a single group

— Group Release Function

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

- 1** Press **FUNCTION** repeatedly to switch the function to MD.
- 2** Press **GROUP** on the remote repeatedly until “GROUP ON” appears.
- 3** Press **GROUP SKIP** on the remote repeatedly until the desired group appears.
- 4** Press **MENU/NO** on the remote to display “Edit Menu”.
- 5** Press **MENU + or –** on the remote repeatedly until “Gp Release?” appears, then press **ENTER/YES** on the remote.
“REL Gp** (selected group number)??” appears.
- 6** Press **ENTER/YES** on the remote.

Releasing the registrations of all tracks on an MD

— All Release Function

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

- 1** Press **GROUP** on the remote repeatedly in stop mode until “GROUP ON” appears.
- 2** Press **MENU/NO** on the remote to display “Edit Menu”.
- 3** Press **MENU + or –** on the remote repeatedly until “Gp All REL?” appears, then press **ENTER/YES** on the remote.
“All REL??” appears.
- 4** Press **ENTER/YES** on the remote.

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 57). However, you cannot restore the erased contents after performing other editings. Before erasing, make sure if it is all right to erase the content.

The three options for erasing recordings are:

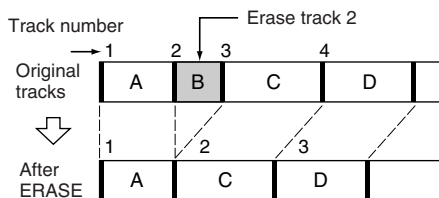
- Erasing a single track (Track Erase Function)
- Erasing all tracks (All Erase Function)
- Erasing a portion of a track (A-B Erase Function)

Erasing a single track

— Track Erase Function

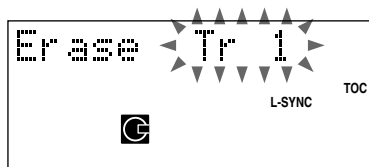
When you erase a track, the total number of tracks on the MD decreases by one and all the tracks following the erased one are renumbered.

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 numberings of unerased tracks.

- 1 Press FUNCTION repeatedly to switch the function to MD.**
- 2 Press MENU/NO on the remote to display “Edit Menu”.**
- 3 Press MENU + or – on the remote repeatedly until “Tr Erase?” appears, then press ENTER/YES on the remote.**
The playback of the selected track starts.
- 4 Press MD ◀◀ or ▶▶ on the remote repeatedly until the desired track number appears.**



- 5 Press ENTER/YES on the remote.**
“Complete!” appears. The track selected in step 4 is erased and the 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** on the remote to display “Edit Menu”.
- 3** Press **MENU + or –** on the remote repeatedly until “All Erase?” appears, then press **ENTER/YES** on the remote. “All Erase??” appears.
- 4** Press **ENTER/YES** on the remote 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

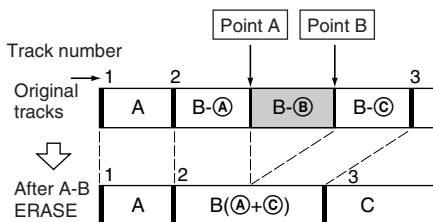
— A-B Erase Function

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.

* 1 frame is 1/86 second.

Example: Erasing a portion of track 2.



- 1** Press **FUNCTION** repeatedly to switch the function to MD.
- 2** Press **MENU/NO** on the remote to display “Edit Menu”.
- 3** Press **MENU + or –** on the remote repeatedly until “A-B Erase?” appears, then press **ENTER/YES** on the remote. Playback starts.
- 4** Press **MD** **◀◀** or **▶▶** on the remote repeatedly until the desired track number appears.
- 5** While monitoring the sound, press **ENTER/YES** on the remote 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.

continued

Erasing recordings (continued)

6 Press ENTER/YES on the remote 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 MD ◀◀ or ▶▶ on the remote repeatedly to find the starting point of the portion to be erased (point A) while monitoring the sound, then press ENTER/YES on the remote.

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/YES on the remote.

“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/YES on the remote if point B is correct.

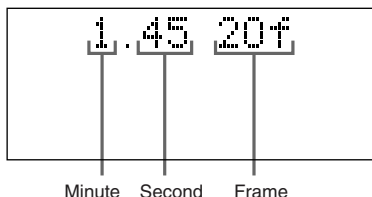
If the point B is incorrect, press MD ◀◀ or ▶▶ on the remote repeatedly to find the ending point of the portion to be erased (point B) while monitoring the sound, then press ENTER/YES on the remote.

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 MD ◀◀ or ▶▶ on the remote repeatedly to flash minute, second, or frame indication, then press MD ◀◀ or ▶▶ on the remote.

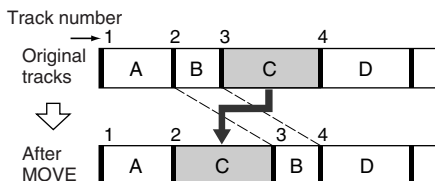


Moving recorded tracks

— Move Function

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

Example: Moving track 3 to position 2.



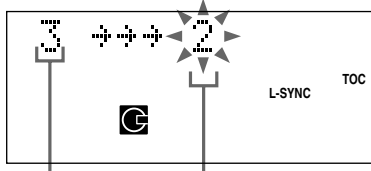
1 Press FUNCTION repeatedly to switch the function to MD.

2 Press MENU/NO on the remote to display “Edit Menu”.

3 Press MENU + or – on the remote repeatedly until “Move?” appears, then press ENTER/YES on the remote.

4 Press MD ◀◀ or ▶▶ on the remote repeatedly until the desired track number to move appears, then press ENTER/YES on the remote.

- 5** Press MD **◀◀** or **▶▶** on the remote repeatedly until the new track position appears.



Original track number New track position

- 6** Press **ENTER/YES** on the remote.
“Complete!” appears.

Note

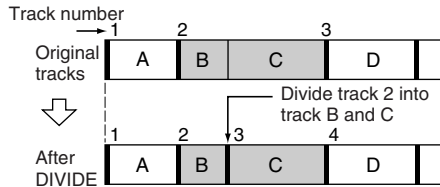
When you move a track to a track number that is registered into a group, the moved track is re-registered into the group. In addition, if you move a track that is registered into a group to a track number that is not registered into a group, the group registration of the moved track is released. However,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

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.



- 1** Press **FUNCTION** repeatedly to switch the function to MD.
- 2** Press **MENU/NO** on the remote to display “Edit Menu”.
- 3** Press **MENU + or -** on the remote repeatedly until “Divide?” appears, then press **ENTER/YES** on the remote. Playback starts.
- 4** Press MD **◀◀** or **▶▶** on the remote repeatedly until the desired track number to divide appears.
- 5** While monitoring the sound, press **ENTER/YES** on the remote at the point to be divided.
“—Rehearsal—” appears and the portion to be divided is played repeatedly.

continued

Dividing recorded tracks (continued)

6 Press ENTER/YES on the remote again if the point to be divided is correct.

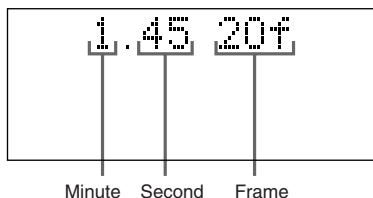
If the point to be divided is incorrect, press MD ◀◀ or ▶▶ on the remote to find the point to be divided, then press ENTER/YES on the remote.

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

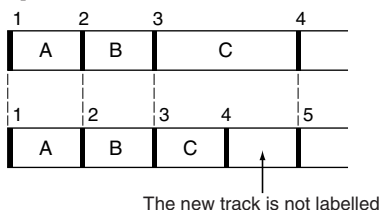
To shift the point by minute or second intervals in step 6, press MD ◀◀ or ▶▶ on the remote repeatedly to flash minute, second, or frame indication, then press MD ◀◀ or ▶▶ on the remote.



Note

If you divide a labelled track (page 47) into two tracks, only the first track retains the track title.

Example:

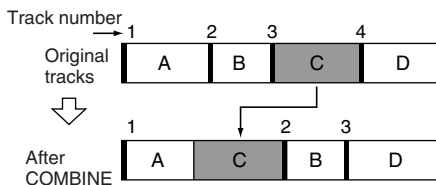


Combining recorded tracks

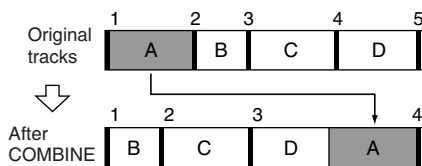
— Combine Function

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.

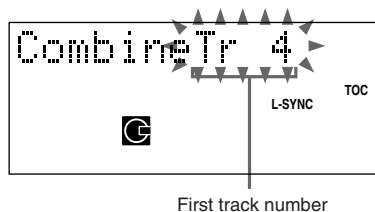


Example: Combining track 1 to track 4.

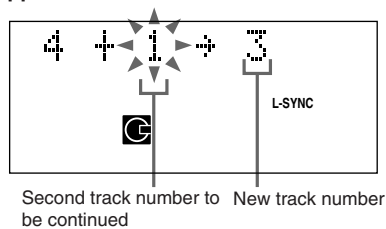


- 1** Press FUNCTION repeatedly to switch the function to MD.
- 2** Press MENU/NO on the remote to display "Edit Menu".
- 3** Press MENU + or - on the remote repeatedly until "Combine?" appears, then press ENTER/YES on the remote.

- 4** Press MD **◀◀** or **▶▶** on the remote repeatedly until the first track number of the two to be combined appears, then press **ENTER/YES** on the remote. For example, to combine track 1 to 4, select 4.



- 5** Press MD **◀◀** or **▶▶** on the remote repeatedly until the second track number of the two to be combined appears.



- 6** Press **ENTER/YES** on the remote. “Complete!” appears for a few seconds. The tracks are combined and the playback of the track starts.

Notes

- When you combine two tracks that are registered into different groups, the second track is re-registered into the group containing the first track. In addition, if you combine a track that is registered to a group with a track that is not registered to a group, the second track takes the same registration setting as the first track. However, when the Group Function is on, you can only combine tracks within the selected group.
- Tracks recorded in different 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.

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.
- Start recording.
- Update the TOC by turning off the system or ejecting the MD.
- Disconnect the power cord.

- 1** Press **MENU/NO** on the remote in stop mode to display “Edit Menu”.

- 2** Press **MENU + or -** on the remote repeatedly until “Undo?” appears. “Undo?” does not appear when there is no editing function that can be cancelled.

- 3** Press **ENTER/YES** on the remote. Following message appears depending on the last edit.

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

- 4** Press **ENTER/YES** on the remote again.

Changing the recorded level after recording

— S.F Edit Function

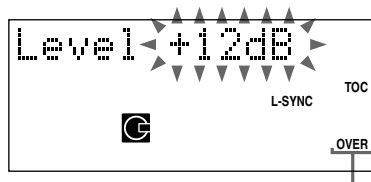
You can change the volume of recorded tracks. The original track is recorded over at the new recording level. When changing the recording level, you can select Fade-in Recording to gradually increase the signal level at the start of recording, or Fade-out Recording to gradually decrease the signal level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

Changing the overall recording level

- 1 Press **FUNCTION** repeatedly to switch the function to MD.
- 2 Press **MENU/NO** on the remote to display “Edit Menu”.
- 3 Press **MENU + or –** on the remote repeatedly until “S.F Edit?” appears, then press **ENTER/YES** on the remote.
- 4 Press **MENU + or –** on the remote repeatedly until “Tr Level?” appears, then press **ENTER/YES** on the remote.
- 5 Press **MD ◀◀** or **▶▶** on the remote repeatedly until the track number you want to change the recording level appears, then press **ENTER/YES** on the remote.
“Level 0dB” appears.

- 6 While monitoring the sound, press **MENU + or –** on the remote 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”

- 7 Press **ENTER/YES** on the remote.
“S.F Edit OK?” appears.
- 8 Press **ENTER/YES** on the remote again.
The deck starts recording over the existing track. “S.F Edit: ** %” appears while the track is being recorded. An amount of time that is roughly equal to or longer than the playback time of the track is required when recording over the track. When the recording finishes, “Complete!” appears.

Fade-in and Fade-out Recording

- 1 Press **FUNCTION** repeatedly to switch the function to MD.
- 2 Press **MENU/NO** on the remote to display “Edit Menu”.
- 3 Press **MENU + or –** on the remote repeatedly until “S.F Edit?” appears, then press **ENTER/YES** on the remote.

4 Press **MENU + or –** on the remote repeatedly until “**Fade In?**” or “**Fade Out?**” appears, then press **ENTER/YES** on the remote.

5 Press **MD ◀◀ or ▶▶** on the remote repeatedly until the track number you want to change the recording level appears, then press **ENTER/YES** on the remote.

“Time 5.0s” appears.

6 While monitoring the sound, press **MENU + or –** on the remote repeatedly to change the **Fade-in 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.

7 Press **ENTER/YES** on the remote.

“S.F Edit OK?” appears.

8 Press **ENTER/YES** on the remote again.

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

To cancel the operation

Press **MENU/NO** on the remote during step 3 through 7. After pressing **ENTER/YES** on the remote in step 8 to start recording, you cannot interrupt the operation.

Notes

- 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.

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.

There are two ways to store the station presets.

To	Method
Automatically tune in all of the stations that can be received in your area and then store them manually	Automatic Tuning Preset
Manually tune in and store the radio frequency of your favorite stations	Manual Tuning Preset

Setting presets through automatic tuning

- 1 Press **TUNER BAND** repeatedly to select FM or AM.
- 2 Press **TUNING MODE** (or **PLAY MODE/TUNING MODE** on the remote) repeatedly until “**AUTO**” appears in the display.
- 3 Press **TUNING +/-** (or **TUNER +/-** on the remote).

The frequency changes as the system scans for a station. Scanning stops automatically when a station is tuned in. At that time, “**TUNED**” and “**STEREO**” (for stereo program only) 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 “Setting presets through manual tuning”.

- 4 Press **MENU/NO** on the remote.

- 5 Press **MENU +/-** on the remote repeatedly until “**Memory?**” appears, then press **ENTER/YES**.

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



Preset number

- 6 Press **TUNING +/-** (or **TUNER +/-** on the remote) repeatedly to select the desired preset station.
- 7 Press **ENTER/YES** on the remote.
- 8 Repeat steps 1 through 7 to preset other stations.

Setting presets through manual tuning

- 1 Press **TUNER BAND** repeatedly to select FM or AM.
- 2 Press **TUNING MODE** (or **PLAY MODE/TUNING MODE** on the remote) repeatedly until “**AUTO**” and “**PRESET**” disappear from the display.
- 3 Press **TUNING +/-** (or **TUNER +/-** on the remote) repeatedly to tune in the desired station.
- 4 Press **MENU/NO** on the remote.
- 5 Press **MENU +/-** on the remote repeatedly until “**Memory?**” appears, then press **ENTER/YES**.

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



Preset number

6 Press **TUNING +/-** (or **TUNER +/-** on the remote) repeatedly to select the desired preset station.

7 Press **ENTER/YES** on the remote.

8 Repeat steps 1 through 7 to preset other stations.

Other Operations

To	Do this
Tune in a station with a weak signal	Follow the procedure described in “Setting presets through manual tuning”.
Set another station to the existing preset number	After step 5, press TUNING +/- (or TUNER +/- on the remote) repeatedly to select the preset number you want to store the station.

To change the AM tuning interval (Except for European model)

The AM tuning interval is factory-preset to 9 kHz (or 10 kHz for some areas). To change the AM tuning interval, tune in any AM station first, then turn off the system. While holding **REPEAT/FM MODE**, press **I/⏪**. When you change the interval, all the AM preset stations are erased. To reset the interval, tune in any AM station first, then turn off the system. While holding **REPEAT/FM MODE**, press **I/⏪**.

Note

You cannot change the AM tuning interval in the Power Saving Mode.

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 (page 62).
- 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 60).

1 Press **TUNER BAND** repeatedly to select **FM** or **AM**.

2 Press **TUNING MODE** (or **PLAY MODE/TUNING MODE** on the remote) repeatedly until “**PRESET**” appears in the display.

3 Press **TUNING +/-** (or **TUNER +/-** on the remote) repeatedly to select the desired preset station.

To select the desired preset number using the numeric buttons on the remote

Press numeric buttons instead of performing step 3.

To enter preset number 10 or higher, press **>10** and the corresponding numeric buttons. To enter 0, press **10/0**.

Example:

To enter preset number 20, press **>10**, then **2** and **10/0**.

continued

Listening to the radio (continued)

Listening to non-preset radio station

— Manual Tuning

- 1** Press **TUNER BAND** repeatedly to select FM or AM.
- 2** Press **TUNING MODE** (or **PLAY MODE/TUNING MODE** on the remote) repeatedly until “**AUTO**” and “**PRESET**” disappear from the display.
- 3** Press **TUNING +/-** (or **TUNER +/-** 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 **REPEAT/FM MODE** repeatedly until “**MONO**” appears. There will be no stereo effect, but the reception will improve.
- Press **TUNING MODE** (or **PLAY MODE/TUNING MODE** on the remote) repeatedly until “**AUTO**” appears in step 2 above, then press **TUNING +/-** (or **TUNER +/-** 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 41 and 65).

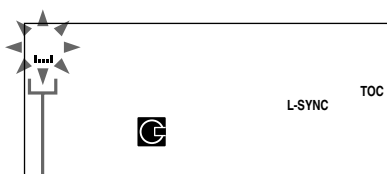
Labelling the preset stations

— Station Name

You can label each preset station with up to 12 characters (Station Name).

- 1** Tune in the station you want to label (see “Listening to the radio” on page 61).
- 2** Press **NAME EDIT/SELECT** on the remote.

The cursor starts flashing.



Cursor

- 3** Perform steps 3 to 6 of “Labelling an MD” (page 47).

To cancel

Press **MENU/NO** on the remote.

To erase the station name

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

Using the Radio Data System (RDS)

(European model only)

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. 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 remote, the display changes cyclically as follows:

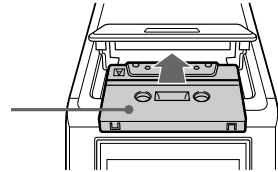
Station name* → Frequency → Clock display → BASS level → TREBLE level

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

Loading a tape

- 1 Press **▲** PUSH.
- 2 Load a recorded/recordable tape into the cassette holder.

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** repeatedly to select “←” to play one side of a tape, “↔” to play both sides, or “→” to play both sides repeatedly.

* The tape deck stops automatically after repeating the sequence five times.

- 3 Press **TAPE** **◀▶**.
Press **TAPE** **◀▶** again to play the bottom side.

Other operations

To	Do this
Stop play	Press ■ (or TAPE ■ on the remote).
Pause	Press TAPE II . Press again to resume play.
Fast-forward or rewind	Press ◀▶ or ▶▶ (or TAPE ◀▶ or ▶▶ on the remote).
Remove the tape	Press ▲ PUSH.

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.

- 1 Load a recordable tape.**
- 2 Load a CD or MD you want to record.**
- 3 Press SYNCHRO 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 CD player or MD deck pauses for play. Press TAPE ◀▶ again to record on the bottom side.

- 5 Press DIRECTION repeatedly until ⇄ appears to record on one side or ⇄⇄ (or ⇄⇄) to record on both sides.**

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. If you start from the reverse side, recording stops at the end of the reverse side.

- 6 Press ENTER/START while “Press START” flashes.**

Recording starts.

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

To stop recording

Press ■ (or TAPE ■ on the remote).

Recording on an MD and a tape at the same time

Insert a recordable MD, then select “DUAL SYNC?” in step 3.

Even if the MD or the tape ends part-way through the recording, the other continues recording.

To record only your favorite CD or MD tracks

You can record only your favorite CD or MD tracks using the Program Play. Between steps 2 and 3, perform steps 1 to 5 of “Creating your own program” (page 14) or “Programming MD tracks” (page 35).

Note

Depending on the VIDEO CD, you cannot use the CD Synchro Recording. In this case, record from the VIDEO CD manually.

Recording on a tape manually

— Manual Recording

You can record just the portions you like from a CD or an MD on a tape. You can also record a radio programme.

You can use TYPE I (normal) tape.

1 Load a recordable tape.

2 Press FUNCTION repeatedly to select the desired source to record.

- DVD: To record from this system's DVD/CD player.
- MD: To record from this system's MD deck.
- TUNER: To record from this system's tuner.
- OPTICAL IN: To record from the optional component connected to the OPTICAL IN jack.
- ANALOG IN: To record from the optional component connected to the ANALOG IN jacks.

3 Press ● TAPE.

“▶” lights up and the tape deck stands by for recording.

To start recording from the side facing away from you, press TAPE ◀▶ until “◀” lights up.

4 Press DIRECTION repeatedly until ⇐ appears to record on one side or ⇔ (or ⇔) to record on both sides.

If you start from the reverse side, recording stops at the end of the reverse side.

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

Adjusting the sound

Generating a more dynamic sound (Dynamic Sound Generator)

Press DSG on the remote.

To cancel the DSG, press DSG on the remote again.

Adjusting the bass and treble

1 Press BASS/TREBLE on the remote repeatedly to select “BASS” or “TREBLE”.

2 While “BASS” or “TREBLE” appears, press MENU + or – on the remote repeatedly to adjust the level.

To	Do this
Stop recording	Press ■ (or TAPE ■ on the remote).
Pause recording	Press II (or TAPE II on the remote).

Enjoying virtual surround sound

VES (Virtual Enhanced Surround) lets you enjoy surround sound effects by using sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers.

Use the remote for the operation.

1 Press DVD DISPLAY during playback.

The Control Menu appears

2 Press \uparrow or \downarrow repeatedly to select "VIRTUAL SURROUND", then press \rightarrow or ENTER.

The options for "VIRTUAL SURROUND" appear.

3 Press \uparrow or \downarrow repeatedly to select a surround effect.

For each item, see "Effects of each item".

- VES TV
- VIRTUAL SEMI MULTI DIMENSION
- VES NIGHT
- VES A

4 Press ENTER.

To cancel

Select "OFF" in step 3.

To turn off the Control Menu

Press DVD DISPLAY repeatedly until the Control Menu is turned off.

Effects of each item

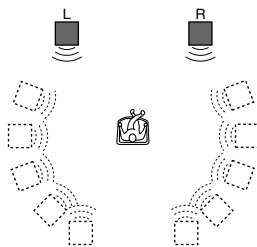
VES (Virtual Enhanced Surround) TV

Uses sound imaging to create virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers (shown below). The sound imaging effect is distinct and clearly reproduces each aural element of the audio track. This mode is effective when the distance between the front L and R speakers is short, such as with built-in speakers on a stereo TV.



VIRTUAL SEMI MULTI DIMENSION

Uses sound imaging to create 5 sets of virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers. The virtual speakers are reproduced as shown in the illustration below. This gives the sound an expanded effect that fills the area surrounding the listener.

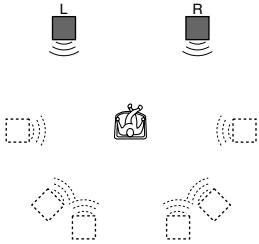


VES (Virtual Enhanced Surround) NIGHT

The large sounds, such as explosions, are compressed, but the quieter sounds are unaffected. This feature is useful when you don't want to disturb other people but still want to hear the dialog and enjoy the surround sound effects of VIRTUAL SEMI MULTI DIMENSION. The volume may increase when you switch to this effect. Turn down the volume after switching to this effect.

VES (Virtual Enhanced Surround) A

Uses sound imaging to create 3 sets of virtual rear speakers from the sound of the front speakers (L, R) without using actual rear speakers. The virtual speakers are reproduced as shown in the illustration below. Use this setting to enhance the sound quality.



L : Front speaker (left)
 R : Front speaker (right)
 Virtual speaker

Notes

- When you select an item, the sound cuts off for a moment. When you change the item while recording, a track number may marked at the point.
- When the playing signal does not contain a signal for the rear speakers, the surround effects may be difficult to hear.
- Make sure that your listening position is between and at an equal distance from your speakers, and that the speakers are located in similar surroundings. Otherwise, the VES effect may be hard to discern.
- “VES NIGHT” only works with Dolby Digital discs. However, not all discs will respond to the “VES NIGHT” in the same way.
- If you use the DIGITAL OUT jack, sound will come from your speakers but it will not have the VES effect.

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 on the remote.

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

SLEEP OFF → AUTO* → 90min → 80min
→ ... → 10min

* The system automatically turns off in 100 minutes or after the current CD, MD or tape finishes playing.

Other operations

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

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

Note

Do not set to "AUTO" during Synchro Recording on an MD or a tape.

Waking up to music

— Daily Timer

You can wake up to music at a preset time. Make sure you have set the clock (see "Setting the clock" on page 11).

1 Prepare the sound source you want to play.

- DVD/VIDEO CD/CD: Load a disc. To start from a specific track, make a program (see "Creating your own program" on page 14).
- MD: Load an MD. To start from a specific track, make a program (see "Programming MD tracks" on page 35).
- Tape: Load a tape.
- Radio: Tune in the preset radio station (see "Listening to the radio" on page 61).

2 Press VOL + or – on the remote to adjust the volume.

3 Press CLOCK/TIMER SET on the remote to display "DAILY SET?".

4 Press ENTER/YES on the remote. "ON" appears and the hour indication flashes.

5 Set the time to start playing.

Press MENU + or – on the remote repeatedly to set the hour, then press ENTER/YES on the remote.

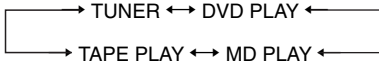
The minute indication flashes.

Press MENU + or – on the remote repeatedly to set the minute, then press ENTER/YES on the remote.

6 Set the time to stop playing following the same procedure as step 5.

7 Press MENU + or – on the remote repeatedly until the desired sound source appears.

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



8 Press ENTER/YES on the remote.

The start time, the stop time, and the sound source appear in turn, before the original display returns.

9 Press I/⏻ to turn off the system.

Other operations

To	Do this
Check the settings/ activate the timer	<ol style="list-style-type: none">1 Press CLOCK/TIMER SELECT on the remote.2 Press MENU + or – on the remote repeatedly until “DAILY SELECT?” appears, then press ENTER/YES on the remote.
Change the setting	Start over from step 1.
Cancel the timer	<ol style="list-style-type: none">1 Press CLOCK/TIMER SELECT on the remote.2 Press MENU + or – on the remote repeatedly until “TIMER OFF?” appears, then press ENTER/YES on the remote.

Notes

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

Timer recording radio programs

To timer record, you must first preset the radio station (see “Presetting radio stations” on page 60) and set the clock (see “Setting the clock” on page 11).

1 Tune in the preset radio station (see “Listening to the radio” on page 61).

2 Press CLOCK/TIMER SET on the remote.

3 Press MENU + or – on the remote repeatedly to select “MD REC SET?” or “TAPE REC SET?”, then press ENTER/YES on the remote.

“ON” appears and the hour indication flashes.

4 Set the time to start recording.

Press MENU + or – on the remote repeatedly to set the hour, then press ENTER/YES on the remote.

The minute indication flashes.

Press MENU + or – on the remote repeatedly to set the minute, then press ENTER/YES on the remote.

5 Set the time to stop recording following the same procedure as step 4.

6 When you record on an MD, press MENU + or – on the remote repeatedly to select the recording mode (e.g., LP2, LP4), then press ENTER/YES on the remote.

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

7 Load a recordable MD or tape.

8 Press I/⏻ to turn off the system.

continued

Timer recording radio programs (continued)

Other operations

To	Do this
Check the settings/ activate the timer	<ol style="list-style-type: none"> 1 Press CLOCK/TIMER SELECT on the remote. 2 Press MENU + or – on the remote repeatedly until “MD REC?” or “TAPE REC?” appears, then press ENTER/YES on the remote.
Change the setting	Start over from step 1.
Cancel the timer	<ol style="list-style-type: none"> 1 Press CLOCK/TIMER SELECT on the remote. 2 Press MENU + or – on the remote repeatedly until “TIMER OFF?” appears, then press ENTER/YES on the remote.

Tip

When you record from the radio, the station name (or the frequency when the station is not labelled. See page 62) is recorded on an MD together with the start time and the stop time.

Notes

- You cannot activate the Daily Timer and recording timer at the same time.
- If you use the recording timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- Do not operate the system from the time the system turns on until the recording starts (about 30 seconds before the preset time).
- When you record on a brand new MD, the first 15 seconds are not recorded.
- If the system is on about 30 seconds before the preset time, the timer-recording will not be activated.
- The volume is reduced to minimum during recording.
- When you record on an MD, if timer recording is set with the Group Function on but no group is specified, the material is recorded into a new group.

Playing an MD and a DVD at the same time

— BGMD Function

You can enjoy the video images of a DVD with the sound of an MD. The sound of the MD is output from this system’s speaker (2 channel) and the sound of the DVD is output from the DIGITAL OPTICAL OUT jack. If you connect an optional component to the DIGITAL OPTICAL OUT jack of this system, you can also enjoy the sound recorded on the DVD.

Press BGMD on the remote.

“BGMD” lights up. The function switches to DVD, then the playback of both DVD and MD starts. Press again to cancel the BGMD function. “BGMD” turns off, then the playback of both DVD and MD stops.

Tip

Even when “BGMD” lights up, MD ►, MD ■, MD ◀◀/▶▶, MD ◀◀/▶▶|, DVD ►, DVD ■, DVD ◀◀/▶▶, and DVD ◀◀/▶▶| on the remote work independently.

Notes

- When you switch the function while BGMD function is on, the BGMD function is canceled automatically.
- When you press I/⏻ to turn off the system, BGMD function is canceled.
- You cannot use the BGMD function during recording. Or, you cannot use the recording function when the BGMD function is on.
- The function of the system is DVD when “BGMD” lights up. During the period, operations are valid for DVD only.

Turning off the display

— Power Saving Mode

Even if the system is off, the system consumes power to display the clock and to stay responsive to commands from the remote. Power saving mode reduces the amount of power consumed during standby.

In this mode, the clock is not displayed.

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

To cancel Power Saving Mode

Press DISPLAY while the system is off. Each time you press the button, the display switches as follows:

Clock display ↔ No display (Power Saving Mode)

Tip

The timer continues to operate in Power Saving Mode.

Using the display

Checking the remaining time/titles (DVD/VIDEO CD/CD/MD)

When a CD TEXT disc is loaded, you can check the information stored on the disc, such as the titles. When the unit detects CD TEXT discs, the “TEXT” indication appears in the display.

Press DISPLAY on the remote during playback.

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

■ When playing a DVD

Current title number and the playing time →
 Current title number and the remaining time →
 Current chapter number and the playing time →
 Current chapter number and the remaining time →
 Clock display → BASS level →
 TREBLE level

■ When playing a VIDEO CD/CD

Current track number and the playing time*¹
 → Current track number and the remaining time*¹ →
 Playing time of the current disc*² →
 Remaining time of the disc*² → track title*³
 → Clock display → BASS level → TREBLE level

■ When playing an MD

Current track number and the playing time →
 Current track number and the remaining time →
 Remaining time of the MD*⁴ → Track title*⁵ →
 Clock display → BASS level →
 TREBLE level

*¹ When playing VIDEO CDs with PBC functions, only the playing time of the scene is displayed.

*² These are not displayed during Shuffle Play or Program Play.

This information is skipped when playing a VIDEO CD with PBC functions.

*³ With CD TEXT discs only (certain characters cannot be displayed). Depending on the disc, some CD TEXT information may not appear.

This information is skipped when playing a VIDEO CD with PBC functions.

*⁴ When the Group Function is on, the remaining time of all tracks in the group is displayed.

*⁵ Only when the track is labelled.

Using the display (continued)

Checking the total playing time/titles (DVD/VIDEO CD/CD/MD)

Press **DISPLAY** on the remote in stop mode.

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

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

Total number of tracks and the total playing time*⁶ → Disc title*⁷ → Clock display → BASS level → TREBLE level

■ When an MD is in stop mode

Total number of tracks and the total playing time*⁸ → Remaining recordable time (recordable MD only) → Disc title*⁹ → Clock display → BASS level → TREBLE level

*⁶ The number of titles is displayed when playing a DVD.

*⁷ With CD TEXT discs only (certain characters cannot be displayed). Depending on the disc, some CD TEXT information may not appear.

*⁸ 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.

*⁹ 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 remote while listening to the radio.

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

Station name*¹⁰ → Frequency → Clock display → BASS level → TREBLE level

*¹⁰ Only when the preset station is labelled.

To scroll a long name

Press **SCROLL** on the remote.

Tips

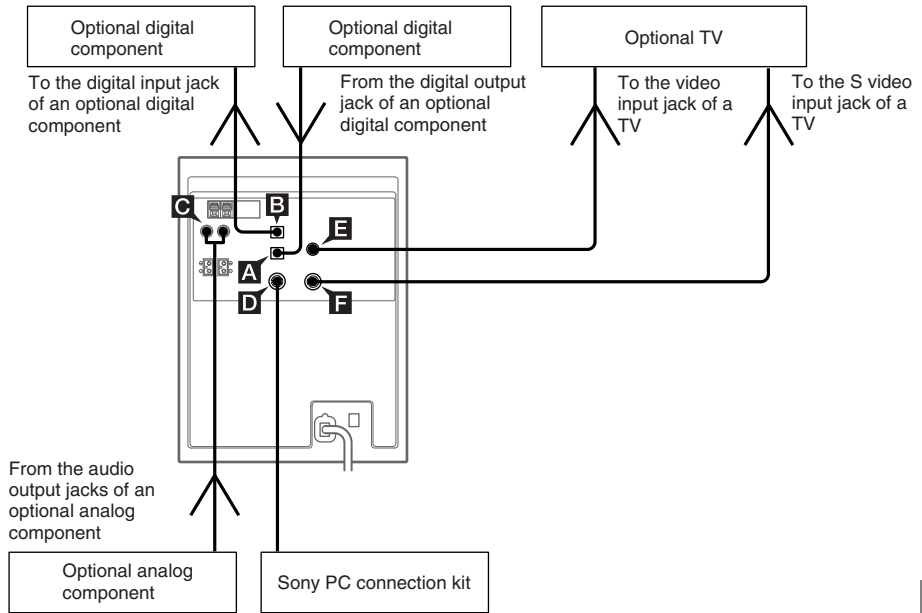
- You can check the current track title during playback. If you press **SCROLL** on the remote, a track title appears scrolling in the display.
- To label a disc, tracks, and groups, see “Labelling an MD” on page 47.
- To label the preset stations, see “Labelling the preset stations” on page 62.
- You can check the playing time of the disc using the Control Menu (page 23).

Note

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

Hooking up optional components

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



A DIGITAL OPTICAL IN jack

Use a digital optical cable (square, not supplied) to connect an optional digital component (digital satellite receiver, etc.) to this jack. You can then listen to the sound from the component.

B DIGITAL OPTICAL OUT jack

Use a digital optical cable (square, not supplied) to connect an amplifier, MD deck, or DAT deck with a digital optical input jack. You can then output the digital audio to the component from this system. If the jack is covered with a cap, remove it before use.

C ANALOG IN jacks

Use audio cords (not supplied) to connect an optional analog component (cassette deck, etc.) to these jacks. You can then listen to the sound from the component.

D PC LINK jack

Use an Sony PC connection kit (not supplied) that supports this system to connect the personal computer.

E VIDEO OUT jack

Use a video cable to connect an optional component (such as a TV) to this jack. You can then output the video to the component from this unit, and enjoy the video images of DVDs, etc.

F S VIDEO OUT jack

Use an S video cable (not supplied) to connect an optional component (such as a TV) to this jack. You can then output the video to the component from this unit, and enjoy higher quality video images.

Listening to audio from a connected component

Listening to a digital component such as a digital satellite receiver, etc.

1 Connect the digital optical cable.

See “Hooking up optional components” on page 73.

2 Press FUNCTION repeatedly until “OPTICAL IN” appears.

Start playing the connected component.

Listening to an analog component such as a cassette deck

1 Connect audio cords.

See “Hooking up optional components” on page 73.

2 Press FUNCTION repeatedly until “ANALOG IN” appears.

Start playing the connected component.

Enjoying the 5.1 channel sound with the optional amplifier

By connecting this unit to the optical input jack of the optional amplifier equipped with Dolby Digital or DTS decoder, you can enjoy the 5.1 channel sound. Connect 6 speakers to the amplifier.

For the speaker placement, refer to the operating instructions supplied with the amplifier.

1 Connect the digital optical cable.

2 Press FUNCTION repeatedly until “DVD” appears.

Tips

- It is recommended to use the surround effect such as 5.1 channel Dolby Digital or DTS sound through the amplifier. You cannot use the surround effect of this unit.
- With BGMD function, you can play both MD and DVD at the same time.

Recording audio from a connected component

Making a digital recording from a digital component

The Serial Copy Management system (page 86) may prevent you from making a digital recording of certain material. In this case, connect the component to ANALOG IN jacks and make an analog recording.

1 Connect the digital optical cable.

2 Start recording manually.

See “Recording on an MD manually” (page 41) or “Recording on a tape manually” (page 65).

Tips

- You can activate Time Machine Recording (page 42) and Smart Space/Auto Cut functions (page 45).
- You can adjust the recording level when recording on an MD (page 45).

Making an analog recording from an analog component

1 Connect the audio cords.

2 Start recording manually.

See “Recording on an MD manually” (page 41) or “Recording on a tape manually” (page 65).

Recording on a connected component

1 Connect the digital optical cable.

2 Start recording.

Refer to the operating instructions provided with connected component.

Note

You can digitally record from the discs only. However, you cannot record from copy prohibited discs.

Problems and remedies

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

- 1 Make sure the power cord 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.

General

“--:--” appears in the display.

- A power interruption has occurred. Set the clock (see page 11) and timer settings (see pages 68 and 69) again.

There is no sound.

- Press VOLUME + (or VOL + on the remote).
- Make sure the headphones are not connected.
- Check the speaker connections (see page 9).
- BGMD function is activated with no MD inserted. Press BGMD on the remote to turn off “BGMD”.

Sound comes from one channel, or unbalanced left and right volume.

- Place the speakers as symmetrically as possible.
- Connect the supplied speakers.

There is severe hum or noise.

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

The timer cannot be set.

- Set the clock again (see page 11).

The timer does not function.

- Press CLOCK/TIMER SELECT on the remote to set the timer and light up “⊖DAILY” or “⊖REC” in the display (see pages 68 and 69).
- Check the timer setting and set the correct time (see pages 68 and 69).
- Cancel the Sleep Timer Function (see page 68).

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 (R6/size AA).
- Locate the system away from the fluorescent light.

DVD/VIDEO CD/CD Player

The disc tray does not open and “LOCKED” appears on the front panel display.

- Contact your Sony dealer or local authorized Sony service facility.

The disc tray does not close.

- Place the disc correctly in the center of the tray.
- Always close the tray by pressing ▲ DVD. Trying to press the tray closed with your fingers may cause problems with the player.

The disc does not eject.

- You cannot eject the disc during CD Synchro Recording. Press ■ to cancel the CD Synchro Recording, then press ▲ DVD to eject the disc.
- Consult your nearest Sony dealer.

Play does not start.

- Open the disc tray and check whether a disc is loaded.
- Wipe the disc clean (see page 84).
- Replace the disc.
- Place the disc correctly in the center of the tray.
- Place the disc in the tray 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 DVD ► to start play.
- The region code on the DVD does not match the system.
- Cancel the Custom Parental Control function.

The sound skips.

- Wipe the disc clean (see page 84).
- 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 (or press PLAY MODE/TUNING MODE on the remote) repeatedly until both “PGM” and “SHUF” disappear to return to normal play.
- Resume Play has been selected. When the playback is stopped, press ■, then start DVD playback (see page 16).
- The title, DVD, or PBC menu automatically appears on the TV screen. Follow the instructions on the TV screen.

Picture

There is no sound.

- The DTS format is selected. Select other audio format such as Dolby Digital (see page 25).

Playback starts automatically.

- The DVD features an auto playback function. Refer to the operating instructions supplied with the disc.

Playback stops automatically.

- Some discs may contain an auto pause signal. While playing such a disc, the playback stops at the auto pause signal. Refer to the operating instructions supplied with the disc.

You cannot perform some functions such as Stop, Scan, 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 described 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 (see page 20).

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. Refer to the operating instructions supplied with the disc.

The subtitle language cannot be changed.

- Multilingual subtitles are not recorded on the DVD being played.
- The DVD prohibits changing the subtitles. Refer to the operating instructions supplied with the disc.

The subtitle cannot be turned off.

- The DVD prohibits turning off subtitles. Refer to the operating instructions supplied with the disc.

The angles cannot be changed.

- Multi-angles are not recorded on the DVD being played. The angle can be changed only when the "ANGLE" indicator lights up on the front panel display (see page 28).
- The DVD prohibits changing the angles. Refer to the operating instructions supplied with the disc.

There is no picture.

- Press FUNCTION repeatedly to select "DVD".
- Check that the system is connected securely.
- The video cable is damaged. Replace it with a new one.
- Make sure you connect the system to the video input jack of your TV (see page 10).
- Make sure you turn on the TV.
- Make sure you select the video input on the TV so that you can view the pictures from the system.

The picture noise appears.

- Clean the disc.
- If video from this system 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 this system directly to your TV's S video-input, if your TV is equipped with this input (see page 10).
- Except for European model, the color system is different. Set the color system to match your TV (see pages 22).

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.
- If you connect the system with the S-video cable, connect directly to the TV. Otherwise, you may not change the aspect ratio.
- Depending on the TV, you may not change the aspect ratio.

A 5-character service number is displayed on the screen and on the front panel display.

- The self-diagnosis function is activated. (See the table on page 81.)
-

continued

Problems and remedies (continued)

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” or “STANDBY” turns off.

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 ►|| (or MD ► on the remote) to start play.
- Press GROUP on the remote 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 (or PLAY MODE/TUNING MODE on the remote) 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 (see page 45).

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 (see pages 37 and 47).

Recording is not possible.

- Remove the MD and slide the tab to close the slot (see page 37).
- Connect the optional component properly (see page 73).
- Replace with a recordable MD.
- Press FUNCTION repeatedly to select the recording source correctly.
- Replace the MD with a recordable MD, or use the Erase Function to erase unnecessary tracks (see page 52).
- Start recording again.

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

- Readjust the recording level (see page 45).

Tape Deck

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

- The heads are dirty. Clean them.
- The record/playback heads are magnetised. Demagnetise them (see page 85).

The tape does not erase completely.

- The record/playback heads are magnetised. Demagnetise them (see page 85).

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 (see page 84).

Noise increases or the high frequencies are erased.

- The record/playback heads are magnetised. Demagnetise them (see page 85).

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 (see page 84).
 - The tape has wound to the end.
-

Optional components

There is no sound.

- Refer to General item “There is no sound.” on page 76 and check the condition of the system.
 - Connect the component properly (see page 73) 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.
 - Press FUNCTION repeatedly to select “OPTICAL IN” or “ANALOG IN”.
-

The sound is distorted.

- Set the volume of the connected component lower.
-

Tuner

Severe hum or noise/stations cannot be received.

- Set the proper band and frequency (see page 61).
 - Connect the antenna properly (see 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 equipments.
-

A stereo FM program cannot be received in stereo.

- Press REPEAT/FM MODE until “STEREO” appears in the display.
-

Cyclical static noise is heard while recording on an MD.

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

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

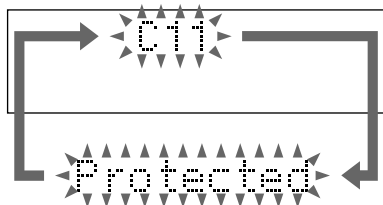
- 1 Disconnect the mains lead.
- 2 Reconnect the mains lead.
- 3 Press I/⏻ to turn on the system.
- 4 Press ■, ENTER/START and I/⏻.

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 reset the DVD settings, select “RESET” in step 3 of “Using the Setup Display” (page 19). After you select “RESET” and press ENTER, select “YES”, then press ENTER to reset the settings (it takes a few seconds to complete). Do not press I/⏻ when resetting the system.

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 (see page 37).

C12/Cannot Copy

You tried to record a CD 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.

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 (see page 53).

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 (see page 86). In addition, you cannot copy from a CD-R.

C71/Check OPT-IN

No component is connected to the DIGITAL OPTICAL IN jack, or you tried to record from the digital component which is not connected correctly.

→Connect the optional digital component correctly to the DIGITAL OPTICAL IN jack using the digital optical cable (not supplied).

The power of the connected component is not turned on.

→Check if the power of the connected digital component is on. Refer to the operating instructions supplied with the component.

The digital optical cable is disconnected, or the power of the connected component is turned off while recording the digital audio from the component connected to the DIGITAL OPTICAL IN jack.

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

E0001/MEMORY NG

The component has internal problem.

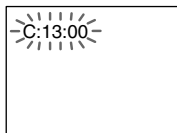
→Consult your nearest Sony dealer.

E0101/LASER NG

There is a problem with the laser pickup.

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

When the self-diagnosis function for DVD is activated, a five-character service number (e.g., C 13 00) with a combination of a letter and digits appears on the screen and the front panel display. In this case, check the following table.



C 13

The disc is dirty

→Clean the disc with a soft cloth (page 84).

C 31

The disc is not inserted correctly.

→Re-insert the disc correctly.

E XX

(XX is a number)

To prevent a malfunction, the system has performed the self-diagnosis function.

→Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number.

Example: E 61 10

Messages

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

MD

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 combine or erase the tracks due to the system limitations of MDs.

continued

Self-diagnosis display (continued)

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/YES on the remote 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 playing pause.

Push STOP!

You pressed PLAY MODE (or PLAY MODE/TUNING MODE on the remote) during play.

—Rehearsal—

The MD is playing the specified point for confirmation during the A-B Erase Function and the Divide Function (pages 53 and 55).

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/⏪ 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 Reading

The MD deck is reading the TOC information of the MD.

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 Protect

You attempted to erase a protected track.

DVD

No Disc

There is no DVD in the player.

Push STOP!

You pressed PLAY MODE (or PLAY MODE/TUNING MODE on the remote) during play.

Cannot use

You pressed an invalid button.

CD

No Disc

There is no CD in the player.

OVER

You have reached the end of the CD while pressing ►► during play or pause.

Step Full!

You tried to program 26 or more tracks (steps).

TAPE

Cannot SYNC!

There is no tape in the tape deck, or the tab has been removed from 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.

TUNER

WAIT

The function is switching to the tuner.

Precautions

On operating voltage

Before operating the system, check that the operating voltage of your system is identical with the voltage of your local power supply.

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, 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 must be changed only at the qualified service shop.

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 build-up in the system.

If you continuously use this system at a large 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.

On operation

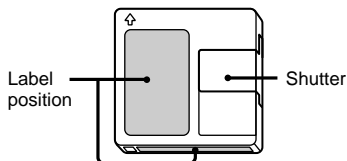
- If the system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the DVD player. Should this occur, the system will not operate properly. Remove the disc and leave the system turned on for about an hour until the moisture evaporates.
- When you move the system, take out any disc.

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

Precautions (continued)

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 benzene, 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.

Note on CD-R/CD-RW playback

Discs recorded on CD-R/CD-RW drives may not be played back because of scratches, dirt, recording condition or the drive's characteristics. Besides, the discs, which are not yet finalized at the end of recording, cannot be played back.

Music discs encoded with copyright protection technologies

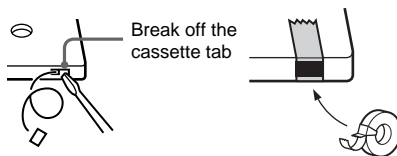
This product is designed to playback discs that conform to the Compact Disc (CD) standard. Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard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

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, benzene or alcohol.

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.

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.

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.

continued

System limitations of MDs (continued)

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, 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 programme (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 analogue sound programme (for example, an analogue record or a music cassette tape) or from a digital satellite broadcast programme, but you cannot make a second copy.

* 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 CD player to the MD deck, you make a first-generation copy.

Specifications

Main Unit (HCD-M700)

Amplifier section

European model:

DIN power output (rated): 15 + 15 W
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):
20 + 20 W
(6 ohms at 1 kHz, 10% THD)

Music power output (reference):
40 + 40 W

Other models:

The following measured at 230 V AC, 60 Hz

DIN power output (rated): 15 + 15 W
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):
18 + 18 W
(6 ohms at 1 kHz, 10% THD)

The following measured at 220 V AC, 60 Hz

DIN power output (rated): 12 + 12 W
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):
15 + 15 W
(6 ohms at 1 kHz, 10% THD)

Inputs

ANALOG IN: Sensitivity 250 mV,
(phono jacks) impedance 47 kilohms

DIGITAL OPTICAL IN (supported sampling frequencies: 32 kHz, 44.1 kHz and 48 kHz)

Outputs

VIDEO OUT: max. output level
(phono jack) 1 V_{p-p}, unbalanced, Sync negative, load impedance 75 ohms

S-VIDEO OUT: Y: 1 V_{p-p}, unbalanced,
(4-pin/mini-DIN jack) Sync negative, C: 0.286V_{p-p}, load impedance 75 ohms

DIGITAL OPTICAL OUT: Optical
Wavelength: 660 nm

PHONES: Accepts headphones with an impedance of 8 ohms or more

SPEAKER: accepts impedance of 6 to 16 ohms.

DVD player section

Laser Semiconductor laser
(DVD: $\lambda=650$ nm, CD: $\lambda=780$ nm)
Emission duration: continuous

Frequency response DVD (PCM 48 kHz):
2 Hz – 22 kHz
CD: 2 Hz – 20 kHz

Video color system format NTSC, PAL

MD deck section

System Minidisc digital audio system

Laser Semiconductor laser
($\lambda=780$ nm)
Emission duration: continuous

Sampling frequency 44.1 kHz
Frequency response 5 Hz – 20 kHz

Tape deck section

Recording system 4-track 2-channel stereo
Frequency response 50 – 13,000 Hz (± 3 dB), using Sony TYPE I cassettes

Wow and flutter $\pm 0.15\%$ W. Peak (IEC)
0.1% W. RMS (NAB)
 $\pm 0.2\%$ W. Peak (DIN)

continued

Specifications (continued)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 - 108.0 MHz
(50-kHz step)

Antenna FM wire antenna

Antenna terminals 75 ohms unbalanced

Intermediate frequency 10.7 MHz

AM tuner section

Tuning range

European model: 531 - 1,602 kHz
(with the tuning interval set at 9 kHz)

Other models: 530 - 1,710 kHz
(with the tuning interval set at 10 kHz)

531 - 1,602 kHz
(with the tuning interval set at 9 kHz)

Antenna AM loop antenna, external antenna terminal

Intermediate frequency 450 kHz

Speaker (SS-CM700)

Speaker system 2-way, bass-reflex type

Speaker units

Woofer: 10 cm dia., cone type

Tweeter: 2.5 cm dia., balanced drive type

Nominal impedance 6 ohms

General

Power requirements

European model: 230 V AC, 50/60 Hz

Other models: 110 - 120 V or

220 - 240 V AC,

50/60 Hz

Adjustable with voltage selector

Power consumption

European model: See the name plate

0.3 watts (at the Power Saving mode)

Other models: See the name plate

Dimensions (w/h/d) incl. projecting parts and controls

Amplifier/Tuner/Tape/MD/DVD section:

Approx. 159 × 216.5 × 330 mm

Speakers: Approx. 140 × 215 × 256 mm

Mass

Amplifier/Tuner/Tape/MD/DVD section:

Approx. 5.9 kg

Speakers: Approx. 2.3 kg net per speaker

Supplied accessories

Remote (1)
R6 (size AA) batteries (2)

Video cable (1)

AM loop antenna (1)

FM lead antenna (1)

Optional accessories Sony PC connection kit (See the catalogue and other promotional materials for the release date.)

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

Design and specifications are subject to change without notice.

Glossary

Bit Rate

Value indicating the amount of video data compressed in a DVD per second. The unit is Mbps (Mega bit per second). 1 Mbps indicates that the data per second is 1,000,000 bits. The higher the bit rate is, the larger the amount of data. However, this does not always mean that you can get higher quality pictures.

Chapter

Sections of a picture or a music piece on a DVD that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want.

Dolby Digital

This sound format for movie theaters is more advanced than Dolby Pro Logic Surround. In this format, the rear 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 Pro Logic Surround

As one method of decoding Dolby Surround, Dolby Pro Logic Surround produces four channels from two-channel sound. Compared with the former Dolby Surround system, Dolby Pro Logic Surround reproduces left-to-right panning more naturally and localizes sounds more precisely. To take full advantage of Dolby Pro Logic Surround, you should have one pair of rear speakers and a centre speaker. The rear speakers output monaural sound.

DTS

Digital audio compression technology that the Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround. The rear 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 real audio presence. Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD.

Index (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.

continued

Glossary (continued)

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.


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. 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.

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

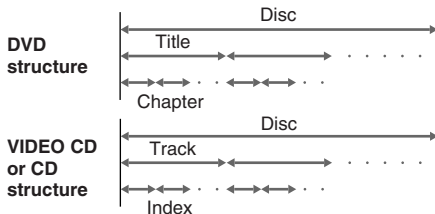
On a VIDEO CD with PBC functions (page 18), the menu screens, moving pictures, and still pictures are divided into sections called “scenes”. Each scene is assigned a scene number enabling you to locate the scene you want.

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 an audio software. Each title is assigned a title number enabling you to locate the title you want.

Track

Sections of a picture or a music piece on a CD or VIDEO CD. Each track is assigned a track number enabling you to locate the track you want.



Virtual Enhanced Surround (VES)

Technology from Sony developed to produce surround sound for home use using only the supplied front speakers. You can enjoy the surround effect using the sound imaging to create virtual rear speakers from the sound of the front speakers without using actual rear speakers.

VIDEO CD

A compact disc that contains moving pictures. The picture data uses the MPEG 1 format, one of the worldwide standards of 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.

Language code list

For details, see pages 20, 25 and 28.

The language spellings conform to the ISO 639: 1988 (E/F) standard.

Code	Language	Code	Language	Code	Language	Code	Language
1027	Afar	1186	Scots Gaelic	1350	Malayalam	1513	Siswati
1028	Abkhazian	1194	Galician	1352	Mongolian	1514	Sesotho
1032	Afrikaans	1196	Guarani	1353	Moldavian	1515	Sundanese
1039	Amharic	1203	Gujarati	1356	Marathi	1516	Swedish
1044	Arabic	1209	Hausa	1357	Malay	1517	Swahili
1045	Assamese	1217	Hindi	1358	Maltese	1521	Tamil
1051	Aymara	1226	Croatian	1363	Burmese	1525	Telugu
1052	Azerbaijani	1229	Hungarian	1365	Nauru	1527	Tajik
1053	Bashkir	1233	Armenian	1369	Nepali	1528	Thai
1057	Byelorussian	1235	Interlingua	1376	Dutch	1529	Tigrinya
1059	Bulgarian	1239	Interlingue	1379	Norwegian	1531	Turkmen
1060	Bihari	1245	Inupiak	1393	Occitan	1532	Tagalog
1061	Bislama	1248	Indonesian	1403	(Afan) Oromo	1534	Setswana
1066	Bengali; Bangla	1253	Icelandic	1408	Oriya	1535	Tonga
1067	Tibetan	1254	Italian	1417	Punjabi	1538	Turkish
1070	Breton	1257	Hebrew	1428	Polish	1539	Tsonga
1079	Catalan	1261	Japanese	1435	Pashto; Pushto	1540	Tatar
1093	Corsican	1269	Yiddish	1436	Portuguese	1543	Twi
1097	Czech	1283	Javanese	1463	Quechua	1557	Ukrainian
1103	Welsh	1287	Georgian	1481	Rhaeto-Romance	1564	Urdu
1105	Danish	1297	Kazakh	1482	Kirundi	1572	Uzbek
1109	German	1298	Greenlandic	1483	Romanian	1581	Vietnamese
1130	Bhutani	1299	Cambodian	1489	Russian	1587	Volapük
1142	Greek	1300	Kannada	1491	Kinyarwanda	1613	Wolof
1144	English	1301	Korean	1495	Sanskrit	1632	Xhosa
1145	Esperanto	1305	Kashmiri	1498	Sindhi	1665	Yoruba
1149	Spanish	1307	Kurdish	1501	Sangho	1684	Chinese
1150	Estonian	1311	Kirghiz	1502	Serbo-Croatian	1697	Zulu
1151	Basque	1313	Latin	1503	Singhalese	1703	Not specified
1157	Persian	1326	Lingala	1505	Slovak		
1165	Finnish	1327	Laothian	1506	Slovenian		
1166	Fiji	1332	Lithuanian	1507	Samoan		
1171	Faroese	1334	Latvian; Lettish	1508	Shona		
1174	French	1345	Malagasy	1509	Somali		
1181	Frisian	1347	Maori	1511	Albanian		
1183	Irish	1349	Macedonian	1512	Serbian		

Control Menu Item List

Control Menu Items	Function
TITLE (DVD only) SCENE (VIDEO CD in PBC Playback only) TRACK (VIDEO CD only)	Selects the title (DVD), the scene (VIDEO CD in PBC Playback), or the track (VIDEO CD) to be played.
CHAPTER (DVD only) INDEX (VIDEO CD only)	Selects the chapter (DVD) or the index (VIDEO CD) to be played.
TRACK (CD only)	Selects the track to be played.
INDEX (CD only)	Selects the index to be played.
TIME	Checks the elapsed time and the remaining playback time. Input the time code for picture and music searching.
AUDIO	Changes the audio setting.
SUBTITLE (DVD only)	Displays the subtitles. Changes the subtitle language.
ANGLE (DVD only)	Changes the angle.
REPEAT	Plays the entire disc (all titles/all tracks) repeatedly or one title/chapter/track repeatedly.
VIRTUAL SURROUND	Uses 3D sound imaging to create virtual speakers to enjoy virtual surround sound.
ADVANCED (DVD only)	Checks the information (bit rate or layer) on the disc while playing a DVD.
CUSTOM PARENTAL CONTROL SETUP	Sets the disc to prohibit playback. CUSTOM Setup Adjusts the image and sound quality, Parental Control, and other various settings. RESET Returns the settings in "SETUP" to the default setting.

Tips

- Each time you press DVD DISPLAY, the Control Menu display changes cyclically as follows.
Control Menu display → "ADVANCED" display (Appears if you select any setting other than "OFF". See page 24.) → Control Menu display off
The Control Menu items differ depending on the disc.
- The Control Menu icon indicator lights in green when you select any item except for "OFF" ("REPEAT" and "VIRTUAL SURROUND" only). The "ANGLE" indicator lights in green only when the angles can be changed.

Setup Display Item List

You can set the following items in the Setup Display.

The order of the displayed items may be different from the actual display.

LANGUAGE

- 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. When you select ORIGINAL, you can enjoy the language given priority on the disc.)
- SUBTITLE — (Select the language you want to use from the displayed language list. When you select AUDIO FOLLOW, the setting is automatically switched to the language selected in AUDIO.)

CUSTOM

- COLOR SYSTEM* —
 - AUTO
 - PAL
 - NTSC
- PAUSE MODE —
 - AUTO
 - FRAME
- PARENTAL CONTROL —
 - LEVEL —
 - OFF
 - 8.
 - 7. NC17
 - 6. R
 - 5.
 - 4. PG13
 - 3. PG
 - 2.
 - 1. G
 - STANDARD —
 - USA
 - OTHERS
 - CHANGE PASSWORD
- TRACK SELECTION —
 - OFF
 - AUTO

SCREEN

- TV TYPE —
 - 16:9
 - 4:3 LETTER BOX
 - 4:3 PAN SCAN
- SCREEN SAVER —
 - ON
 - OFF
- BACKGROUND —
 - JACKET PICTURE
 - GRAPHICS
 - BLUE
 - BLACK

* Except for European model.

