SONY

Mini Hi-Fi Component System

Operating Instructions

MHC-GNZ888D
MHC-GNZ777D

WARNING

## To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To prevent fire, do not cover the ventilation of the apparatus with newspapers, 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.

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.

Install this system so that the power cord can be unplugged from the wall socket immediately in the event of trouble.

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CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT
```
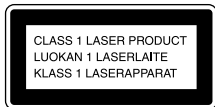
This appliance is classified as a CLASS 1 LASER product. This label is located on the rear exterior.

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

## Note on power cord plug shapes (Saudi Arabian model only)

For AC 220 V wall sockets

1 Make the appropriate voltage setting on the system (only for models with a voltage selector).

2 Make sure that the 13 A 3-pin plug (Type BF) is securely attached to the power cord. (The 13 A 3-pin plug is attached when shipped from the factory.)
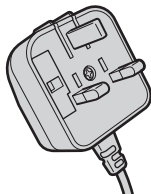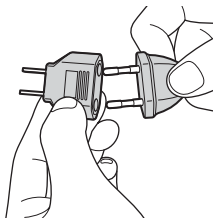
For AC 127 V wall sockets

1 Make the appropriate voltage setting on the system (only for models with a voltage selector).

2 Remove the 13 A 3-pin plug using a screwdriver.
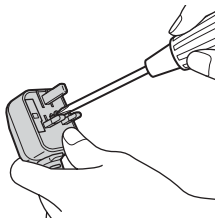
3 Attach the supplied parallel blade plug (Type A).

About this manual

- The instructions in this manual are for models MHC-GNZ888D and MHC-GNZ777D. In this manual, MHC-GNZ888D is used for illustration purpose unless stated otherwise.

The MHC-GNZ888D consists of:
– Tuner/DVD player/Stereo cassette deck/Amplifier (unit)

                    HCD-GNZ888D

– Speaker System
- Front speaker   SS-GNZ888D
- Center speaker   SS-CT888D
- Surround speaker SS-RSX888D

The MHC-GNZ777D consists of:
– Tuner/DVD player/Stereo cassette deck/Amplifier (unit)

                    HCD-GNZ777D

– Speaker System
- Front speaker   SS-GNZ888D

- Icons, such as [CD], listed at the top of each explanation indicate the type of media that can be used with the function being explained.
- The English on-screen display is used for illustration purposes only.
- The Control Menu items may be different depending on the disc.
- The Setup Menu items may be different depending on the area.

Table of Contents

Getting Started

Disc

Tuner

Tape

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Additional Information

Playable discs

Type	Characteristics	Icon used in this manual	Logo
DVD VIDEO	• DVD VIDEO • DVD-R*/-RW*/+R/+RW in DVD VIDEO format * also in video mode	DVD-V	DVD VIDEO
VR mode	• DVD-R/-RW in VR (Video Recording) mode	DVD-VR	
VIDEO CD	• VIDEO CD • Super VCD • CD-R/-RW in VIDEO CD or Super VCD format	VIDEO CD	COMPACT DISC DIGITAL VIDEO
CD	• AUDIO CD • CD-R/-RW in AUDIO CD format	CD	COMPACT DISC DIGITAL AUDIO TEXT COMPACT DISC DIGITAL AUDIO
DATA CD	• CD-ROM/-R/-RW in DATA CD format, containing MP3 audio tracks[1], JPEG image files[2] or DivX video files[3], and conforming to ISO 9660[4] Level 1 or Level 2, or Joliet (expansion format).	DATA CD	COMPACT DISC DIGITAL AUDIO Recordable COMPACT DISC Recordable COMPACT DISC DIGITAL AUDIO ReWritable COMPACT DISC ReWritable
DATA DVD	• DVD-ROM/-R/-RW/+R/+RW in DATA DVD format, containing MP3 audio tracks[1], JPEG image files[2] or DivX video files[3], and conforming to UDF (Universal Disk Format).	DATA DVD	

This system can also play back discs with the following disc logos:

RW DVD+ReWritable   RW High Speed DVD+ReWritable   DVD RW   DVD RW   RW DVD+R   RW DVD+R DL   DVD R R4.7

RW 2

5^{GB}

[1] MP3 (MPEG 1 Audio Layer 3) is a standard format defined by ISO/MPEG which compresses audio data. MP3 audio tracks must be in MPEG 1 Audio Layer 3 format.

[2] JPEG image files must conform to the DCF image file format. (DCF "Design rule for Camera File System": Image standards for digital cameras regulated by Japan Electronics and Information Technology Industries Association (JEITA)).

[3] DivX video files must be recorded in DivX format with the extension ".AVI" or ".DIVX".

[4] A logical format of files and folders on CD-ROMs, defined by ISO (International Organization for Standardization).

DivX$^{®}$ is a video file compression technology, developed by DivX, Inc..
DivX, DivX Certified, and associated logos are trademarks of DivX, Inc. and are used under license.
"DVD+RW", "DVD-RW", "DVD+R", "DVD VIDEO", and the "CD" logos are trademarks.

Discs that cannot be played

- CD-ROMs recorded in PHOTO CD format
- DATA CDs recorded in MP3 PRO format
- Data part of CD-Extras[1]
- Data part of Mixed CDs[2]
- Super Audio CDs
- DVD Audio discs
- DVD-RAMs
- A DVD VIDEO with a different region code.
- A disc that has a non-standard shape (e.g., heart, square, star).
- A disc that has the adhesive cellophane tape or a sticker still left on it.
- CPRM[3] compatible DVD-Rs/-RWs recorded in Copy-Once programs.

[1] CD-Extra: This format records audio (AUDIO CD data) on the tracks in session 1 and data on the tracks in session 2.

[2] Mixed CD: This format records data on the first track and audio (AUDIO CD data) on the second and subsequent tracks of a session.

[3] CPRM: Content Protection for Recordable Media is a coding technology that protects copyright for Copy-Once programs.

Region code of DVD VIDEOs you can play back on this system

Your system has a region code printed on the back of the unit and will only play back DVD VIDEOs labeled with identical region code.
DVD VIDEOs labeled 🌐 will also be played back on this system.
If you try to play back any other region code DVD VIDEO, the message "Playback prohibited by area limitations." will appear on the TV screen. Depending on the DVD VIDEO, no region code indication may be labeled even though playing the DVD VIDEO is prohibited by area restrictions.

Note on DualDiscs

A DualDisc is a two sided disc product which mates DVD recorded material on one side with digital audio material on the other side. However, since the audio material side does not conform to Compact Disc (CD) standard, playback on this product is not guaranteed.

Notes on CD-R/-RW and DVD-R/-RW/+R/+RW

- In some cases, CD-Rs/-RWs and DVD-Rs/-RWs/+Rs/+RWs cannot be played back on this system due to the recording quality or physical condition of the disc, or the characteristics of the recording device and authoring software. The disc will not be played back if it has not been correctly finalized. For more information, see the operation instructions for the recording device.
- Note that some playback functions may not work with some DVD+Rs/+RWs, even if they have been correctly finalized. In this case, view the disc by normal playback.
- A disc created in Packet Write format cannot be played back.

Note on playback operations of DVD VIDEOs and VIDEO CDs

Some playback operations of DVD VIDEOs and VIDEO CDs may be intentionally set by software producers. Since this system play back DVD VIDEOs 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 DVD VIDEOs or VIDEO CDs.

Music discs encoded with copyright protection technologies

This product is designed to play back 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.

Notes on Multi Session disc

• This system can play back Multi Session discs when an MP3 audio track (or a JPEG image file) is contained in the first session. Any subsequent MP3 audio tracks (or JPEG image files) recorded in later sessions can also be played back.
• If the first session is recorded in AUDIO CD or VIDEO CD format, only the first session will be played back.
• The system will recognize a Multi Session disc as an AUDIO CD if there is a session recorded in AUDIO CD format on the disc. However, the system will only play back the disc if the first session is recorded in AUDIO CD format.
• With DATA CD or DATA DVD, the system will only play back DivX video files even if it contains MP3 audio tracks or JPEG image files.

Copyrights

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

This system incorporates Dolby* Digital, Dolby Pro Logic (II) adaptive matrix surround decoder, and the DTS** Digital Surround System.
* Manufactured under license from Dolby Laboratories.
  "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.
** Manufactured under license from DTS, Inc. "DTS" and "DTS Digital Surround" are registered trademarks of DTS, Inc.

Guide to parts and controls

This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the unit having the same or similar names.

Front panel
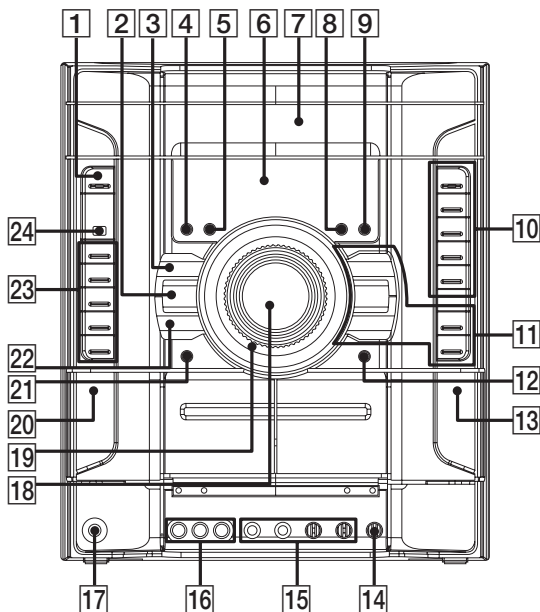
Top panel
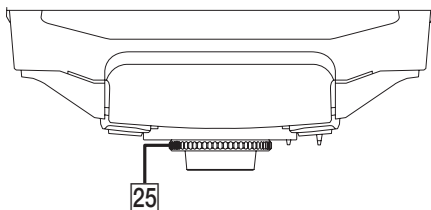
1 **I/⏻ STANDBY** (pages 17, 18, 19, 22, 23, 54, 73, 74, 80, 81)

Press to turn the unit on or off.

2 **GROOVE** (page 58)

Press to reinforce the bass.

3 **EQ BAND/MEMORY** (page 58)

Press to select a frequency band when adjusting the equalizer.

4 **DISPLAY** (pages 20, 67)

Press to display disc information in the front panel display or to change the front panel display during Power Saving Mode.

5 **ILLUMINATION** (page 67)

Press to change the power illuminator.

6 **Display** (pages 12, 67, 82)

7 **Disc tray** (pages 12, 26, 76)

8 **CD SYNC** (page 56)

Press to select CD Synchro Recording.

9 **REC PAUSE/START** (page 56)

Press to start recording.

10 **DISC 1 ~ 3** (page 27)

Press to select a disc.

DISC SKIP/EX-CHANGE (pages 18, 26, 27)

Press to exchange other discs during playback.

⏏ OPEN/CLOSE (pages 18, 26, 76)

Press to load or eject a disc.

11 **TUNING +/–** (pages 53, 54)

Press to tune in a radio station.

▶▶I▶ /◀◀ ◀I (fast forward/ rewind) (page 27)

Press to fast forward or rewind.

◀▶ (play) (pages 26, 55, 56, 74)

II (pause) (pages 26, 55)

■ (stop) (pages 26, 53, 55, 56, 80)

Press to start, pause or stop playback.

12 **DIRECTION** (pages 55, 56, 66)

Press to select the tape playback option.

13 **⏏ PUSH (Eject B)** (page 55)

Press to insert or eject tape B.

Deck B (pages 55, 56, 66)

14 **ECHO LEVEL** (page 61, 62)

Turn to adjust the microphone echo effect.

15 **MIC 1/2 (jack)** (pages 57, 62, 74)

Connect the microphones.

MIC 1/2 LEVEL (pages 57, 61, 74)

Turn to adjust the microphone volume.

16 **VIDEO INPUT (jacks)** (page 71)

Connect an audio or video component.

17 **PHONES (jack)** (page 74)

Connect the headphones.

18 **MASTER VOLUME** (pages 26, 65, 67, 74)

Turn to adjust the volume.

19 **Power illuminator** (pages 67)

20 ▲ PUSH (Eject A) (page 55)
Press to insert or eject tape A.

Deck A (page 55)

21 SOUND FIELD (page 59)
Press to select a sound field.

22 PRESET EQ (page 58)
Press to select a preset effect.

23 VIDEO (pages 67, 73)
TV/SAT (pages 67, 73, 75)
TAPE A/B (pages 55, 66, 67)
TUNER/BAND (pages 53, 67)
DVD (pages 18, 26, 56, 61, 67, 78)
Press to select a function.

24 Remote sensor (page 75)

25 I◄◄ OPERATION DIAL ►►I
(pages 27, 53, 56, 58, 59)
Turn to select a setting.
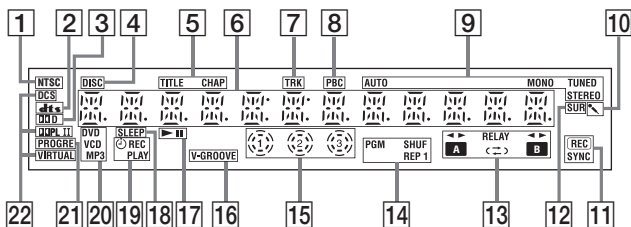
DISPLAY

1. Lights up when the color system of the video output is NTSC (page 19).
2. Lights up when DTS source is played back (page 49).
3. Lights up when Dolby Digital source is played back (page 49).
4. Lights up when disc number is displayed.
5. Lights up when the elapsed playing time and the remaining playing time for the title or chapter is displayed (page 67).
6. Displays the current status and information (page 67).
7. Lights up when the track information is displayed.
8. Lights up when VIDEO CD with PBC functions is played back (page 29).
9. Indicators for the TUNER function (page 53).
10. Lights up when Karaoke Mode is turned on (page 61).
11. Lights up during recording (page 56).
12. Indicators for sound field (page 59).
    (MHC-GNZ888D only)
    "SUR" lights up when "LINK SUR" or "2CH SUR" is selected.
    (MHC-GNZ777D only)
    "SUR" lights up when "HP SUR" or "2CH SUR" is selected.

13. Indicators for the TAPE function (page 55).
    "A" and "B" lights up when the system is turned on.
    "◄" or "►" lights up when there is a tape in the deck and indicates the tape playback direction. "RELAY", "⇄" and "⊂⊃" indicates the tape playback option.
14. Indicates the selected play mode (page 31).
    "SHUF" lights up when Shuffle Play is activated. "PGM" lights up when Program Play is activated. "REP" lights up when Repeat Play is set to "ALL DISCS", "ONE DISC", "ALBUM" or "ON". "REP 1" lights up when Repeat Play is set to "TITLE", "CHAPTER", "TRACK" or "FILE".
15. Indicators for the disc tray (page 26).
    "⊙" lights up when there is a disc on the disc tray. "○", "1", "2" and "3" light up when the system is turned on.
16. "GROOVE" lights up when "GROOVE ON" is selected.
    "V GROOVE" lights up when "V-GROOVE ON" is selected (page 58).
17. Indicates the disc playback condition.
    "►" lights up when source is played back. "❚❚" lights up when the source is paused.

R Lights up when the Sleep Timer is activated (page 65).

S Lights up when the Play Timer or Timer Recording is set (page 65).

T Indicators for the DVD function (page 26).
"DVD" lights up when DVD VIDEO, DVD-R/-RW in VR mode or DATA DVD is detected. "MP3" lights up when MP3 audio tracks are played back. "VCD" lights up when VIDEO CD or Super VCD is detected. "CD" lights up when AUDIO CD or DATA CD is detected.

U Lights up when "P AUTO" or "P VIDEO" is selected (page 20).

V Indicators for sound field (page 59).
(MHC-GNZ888D only)
"VIRTUAL" and "DCS" light up when "V.M.DIM." is selected. "DD PL" or "DD PL II" lights up when Pro Logic decoding or Pro Logic II Movie/Music decoding is performed.

(MHC-GNZ777D only)
"VIRTUAL" lights up when "VIRTUAL A", "VIRTUAL B" or "HP VIRTUAL" is selected.

Remote
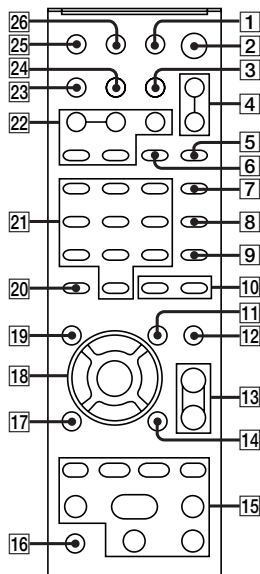
A THEATRE SYNC (page 25)
Press to operate the THEATRE SYNC function.

B TV I/⏻ (on/standby) (page 21)
Press to turn the TV on or off.

I/⏻ (on/standby) (pages 17, 22, 74)
Press to turn the unit on or off.

C DISC SKIP (page 27)
Press to skip a disc.

D FUNCTION +/– (pages 26, 53, 55, 73)
Press to select a function.

E PICTURE NAVI (pages 36, 38)
Press to search for a scene or a file.

Continued ⟹

13GB

[6] REPEAT/FM MODE (pages 33, 54, 79)

Press to change the Repeat Play setting.
Press to select the FM monaural or stereo reception.

[7] AUDIO (pages 28, 62, 69)

Press to select the audio format.

[8] SUBTITLE/D.TUNING (pages 28, 54)

Press to turn off or change the language of the subtitle.
Press to enter direct tuning mode.

[9] ANGLE (page 28)

Press to change the angle.

[10] ▭ (pages 24, 27)

Press to select an album.

[11] DVD/TUNER MENU (pages 34, 38, 53)

Press to display the menu of the DVD player.
Press to preset a radio station.

[12] SOUND FIELD (page 59)

Press to select a sound field.

[13] TV VOL +/–* (page 21)

Press to adjust the TV volume.

VOLUME +/–* (pages 26, 65, 74)

Press to adjust the volume.

[14] ▭ DISPLAY (pages 31, 46, 63, 87)

Press to turn on or off or change the Control Menu display on the TV screen.

[15] TV CH +/– (page 21)

Press to select a TV channel.

PRESET +/– (page 53)

Press to select a preset station.

I◀◀ /▶▶I (go backward/go forward) (pages 27, 37, 56)

Press to go backward or go forward.

◀II STEP II▶ (page 27)

Press to watch one frame at a time.

REPLAY ◀•/ADVANCE •▶ (page 27)

Press to replay the previous scene or fast forward the current scene.

TUNING +/– (pages 53, 54)

Press to tune in a radio station.

SLOW ◀I /SLOW I▶ (page 27)

Press to watch frame by frame.

◀◀/▶▶ (rewind/fast forward (page 27)

Press to rewind or fast forward.

▷* (play) (pages 26, 55, 74)
II (pause) (pages 26, 55)
■ (stop) (pages 26, 53, 55)

Press to start, pause or stop playback.

[16] TV (page 21)

Hold down TV and press the button you want to operate the TV.

[17] � RETURN (pages 30, 36, 38)

Press to return to the previous display.

18 ↑/↓/←/→ (pages 22, 31, 53, 63, 65)

Press to select the settings.

ENTER (pages 22, 31, 53, 58, 65)

Press to enter the selection.

19 DVD TOP MENU (page 34)

Press to display the DVD title.

20 -/-- (page 21)

Press to enter a double digit channel number for TV.

CLEAR (pages 23, 24, 31, 38)

Press to cancel the play mode or clear a mistake when you press the incorrect numeric button.

21 Numeric buttons* (pages 21, 27, 43, 53)

Press to tune or preset a radio station, enter a track or file number, etc.

22 KEY CONTROL ♭/♯ (page 64)
SCORE (page 64)
KARAOKE MODE (page 62)
KARAOKE PON (page 64)

Press to enjoy the karaoke function.

23 DISPLAY (pages 67)

Press to display disc information in the front panel display or to change the front panel display during Power Saving Mode.

24 TIME/TEXT (pages 67, 69)

Press to check the elapsed playing time, remaining time, etc.

25 TV INPUT (page 21)

Press to switch the TV's input source.

SLEEP (pages 24, 65)

Press to activate the sleep timer.

26 TIMER MENU (pages 22, 65)

Press to set the time and timer.

* The numeric button 5, TV VOL +, VOLUME + and ▷ buttons have a tactile dot. Use the tactile dot as a reference when operating the system.

Hooking up the system

MHC-GNZ888D
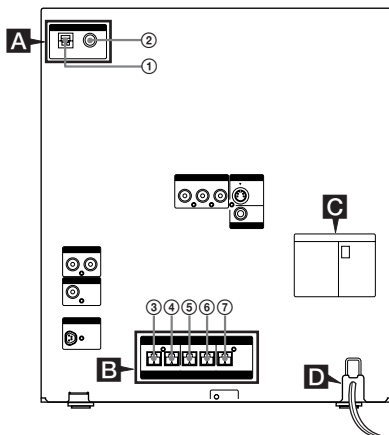
① To AM loop antenna
② To FM lead antenna
③ To front speaker (right)
④ To front speaker (left)
⑤ To surround speaker (right)
⑥ To surround speaker (left)
⑦ To center speaker

MHC-GNZ777D
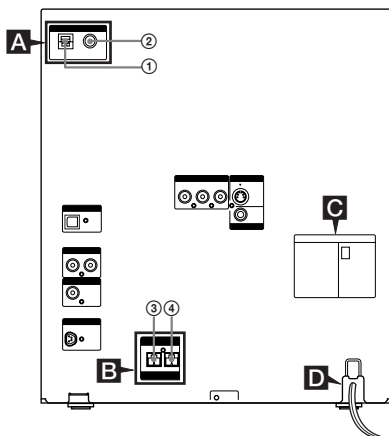
① To AM loop antenna
② To FM lead antenna
③ To front speaker (right)
④ To front speaker (left)

A Antennas

Set up the AM loop antenna, then connect it.

Extend the FM lead antenna horizontally

AM loop antenna
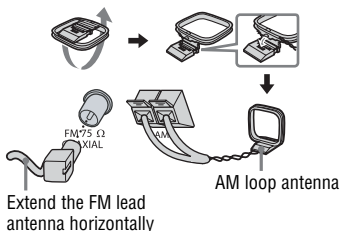
B Speakers

The speaker connectors are color-coded with their respective speaker terminals.

Front speakers

White

Red
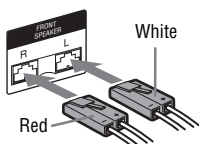
Center speaker (MHC-GNZ888D only)

Green
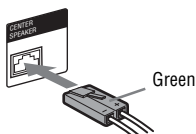
Surround speakers (MHC-GNZ888D only)

Blue

Grey
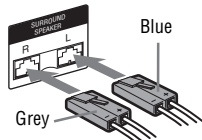
Tip

(MHC-GNZ888D only)
Connect the speaker cords to the terminals on the center and surround speakers.

Black (⊖) — Red (⊕)

Black (⊖) — Red (⊕)
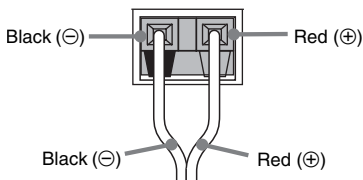
Notes

• Be sure to use only the supplied speakers.
• Be sure to connect the speakers securely and correctly. When connecting speaker cords, insert the connector straight into the terminals.

C VOLTAGE SELECTOR

For models equipped with a voltage selector, set VOLTAGE SELECTOR to the position of your local power line voltage.
Depending on the model, the VOLTAGE SELECTOR may differ.
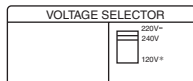
* Saudi Arabian model: 120 - 127V

D Power

Connect the power cord to a wall outlet. The demonstration appears in the display. When you press I/⏻ (or I/⏻ STANDBY on the unit), the system turns on and the demonstration automatically ends.
If the supplied adaptor on the plug does not fit your wall outlet, detach it from the plug (only for models equipped with an adaptor). For Saudi Arabian model, see "Note on power cord plug shapes" on page 2.

Inserting two R6 (size AA) batteries into the remote
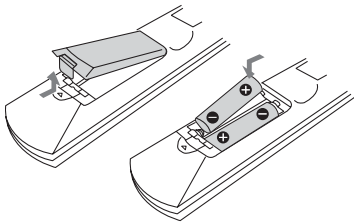
Note

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.

Tip

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

Attaching the speaker pads

Attach the supplied speaker pads at each corner on the bottom of the speakers to stabilize the speakers and to prevent them from slipping.

Example

Front speakers
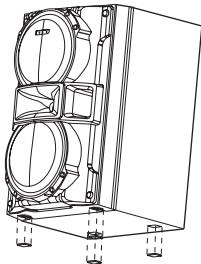
When carrying the unit

Do the following procedure to protect the disc mechanism.
Use the buttons on the unit for the operation.

1 Press I/⏻ STANDBY to turn on the system.

2 Press DVD.

3 Press ⏏ OPEN/CLOSE to open the disc tray and remove the disc. If there are more than one disc in the disc tray, press DISC SKIP/EX-CHANGE to remove the discs.

4 Press ⏏ OPEN/CLOSE again to close the disc tray. Wait until "DVD NO DISC" appears in the display.

5 Hold down DVD and then press I/⏻ STANDBY until "STANDBY" appears in the display. Then, "MECHA LOCK" appears in the display.

6 Unplug the AC power cord.

Hooking up the TV

Connect the video input jack of your TV to the VIDEO OUT jack with the supplied video cord.
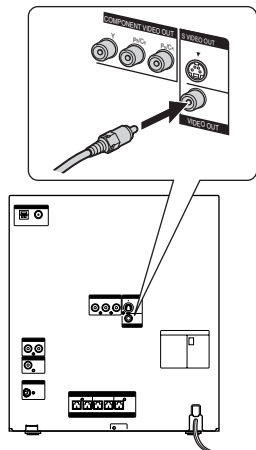
When connecting a video deck

Connect the video deck to the TV using a video cord (not supplied). However, do not connect this unit to the TV through the video deck. Otherwise, you may experience video leakage when watching video images from this system. Connect this unit directly to the TV as shown below.
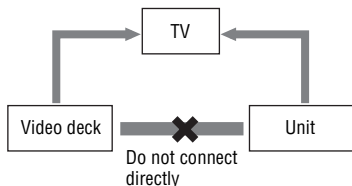
Changing the color system

(Except for Russian models)
Set the color system to PAL or NTSC depending on the color system of your TV.
The default setting for color system is different depending on the area.
Each time you perform the procedure below, the color system changes as follows:

NTSC ←→ PAL

Use the buttons on the unit for the operation.

1 Press I/⏻ STANDBY to turn on the system.

2 Press DVD.

3 Press I/⏻ STANDBY to turn off the system.

4 When demonstration appears, press I/⏻ STANDBY while holding down ❚❚.

The system turns on automatically and the color system is changed.
"COLOR NTSC" or "COLOR PAL" appears in the display.

Changing the format of the video signal from COMPONENT VIDEO OUT jacks

Progressive is a method for displaying TV images which reduces flickering and sharpens the image. To use this method, you need to connect to a TV that can accept progressive signals.
You can output video signals from COMPONENT VIDEO OUT jacks in INTERLACE or PROGRESSIVE format. Use the buttons on the unit for the operation.

1 Press DVD.

2 Hold down DVD and press DISPLAY repeatedly.

Select "P AUTO" or "P VIDEO" if your TV accepts progressive signals and the TV is connected to the COMPONENT VIDEO OUT jacks. Otherwise, select "INTERLACE".

P AUTO (PROGRESSIVE AUTO)

The system automatically detects the software type and selects the appropriate conversion method.

P VIDEO (PROGRESSIVE VIDEO)

The system fixes the conversion method to PROGRESSIVE VIDEO for video-based software.
Select this if the image is not clear when you select "P AUTO".

About DVD VIDEO software types and the conversion method

The DVD VIDEO software can be divided into 2 types:
• Film-based software
  Film-based software is derived from film and displays the images at 24 frames per second.
• Video-based software
  Video-based software is derived from TV, such as dramas and sitcoms and displays images at 30 frames or 60 fields per second.
Some DVD VIDEO contains both types of software. In order for these images to appear in your TV naturally when the video output is in progressive format, the progressive signals need to be converted to match your DVD VIDEO software.

Note
There would be no image on your TV or the image is not clear if your setting does not match your TV or connection.

When using a TV

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

Operating a Sony TV

You can use the following buttons to operate a Sony TV. These buttons have been marked in orange.

To	Hold down TV and press
Turn the TV on or off	TV I/(¹)
Switch the TV's input source between the TV and other input sources	TV INPUT
Select the TV channels	TV CH +/– or numeric buttons*
Adjust the volume of the TV speaker(s)	TV VOL +/–

* For double digit number, hold down TV and press -/--, then press the number. (For example, hold down TV, press -/--, then 2 and 5 for entering 25.)

Positioning the speakers

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

Ⓐ Front speaker (left)
Ⓑ Front speaker (right)
Ⓒ Center speaker[1]
Ⓓ Surround speaker (left)[1]
Ⓔ Surround speaker (right)[1]
Ⓕ Subwoofer (not supplied)[2]
Ⓖ Unit
Ⓗ TV
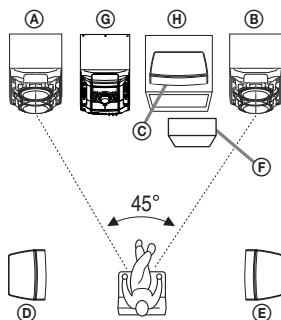
[1] MHC-GNZ888D only.
[2] When optional subwoofer is connected.

Notes

- Do not place the surround speakers on top of a TV. This may cause distortion of the colors in the TV screen.
- Do not place the surround speakers further away from your listening position than the front speakers.
- If you place the center speaker on the unit, be sure to place it at the front side of the unit.
- Place the subwoofer on solid floor where resonance is unlikely to occur so that a better bass reproduction could be obtained.
- Always place the subwoofer vertically, keeping it a few centimeters away from the wall.
- If the subwoofer is placed in the center of a room, the bass could be extremely weakened. This is due to the influence of the standing wave of the room. If this happens, move the subwoofer away from the center of the room or eliminate the cause of the standing wave, by placing a bookshelf against the wall, etc.

Speaker settings

To enjoy DVD VIDEOs and other discs with multi-channel sound and Dolby surround effects, you need to adjust the speaker settings.
For details, see "Setting the speakers[1] – SPEAKER SETUP" on page 50.

Setting the clock

1 Press I/⏻ (or I/⏻ STANDBY on the unit) to turn on the system.

2 Press TIMER MENU.

The hour indication flashes in the display.
If "PLAY SET" flashes in the display, press ↑ or ↓ repeatedly to select "CLOCK SET", then press ENTER.

3 Press ↑ or ↓ repeatedly to set the hour.

4 Press ENTER.

The minute indication flashes in the display.

5 Press ↑ or ↓ repeatedly to set the minute.

6 Press ENTER.

The clock starts functioning.

Note

The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

Performing QUICK SETUP

Before using the system, you can make the minimum basic adjustments in QUICK SETUP. If you do not want to perform QUICK SETUP, press CLEAR in step 3. The guide message will disappear from the TV screen.

1 Turn on your TV and select the video input.

2 Press I/⏻ (or I/⏻ STANDBY on the unit) to turn on the system.

Note

Make sure that the headphones or microphones are not connected. Otherwise, you cannot perform SPEAKER SETUP.

3 Press FUNCTION +/– repeatedly to select "DVD" (or press DVD on the unit).

The guide message appears at the bottom of the TV screen.

4 Press ENTER without opening the disc tray or inserting a disc.

The "LANGUAGE SETUP" display appears on the TV screen.

```
LANGUAGE SETUP
OSD:              ENGLISH
MENU:             ENGLISH
AUDIO:            FRENCH
SUBTITLE:         SPANISH
                  PORTUGUESE
```
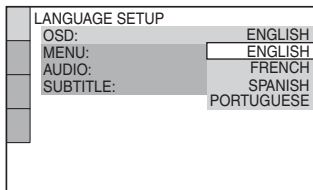
5 Press ✦ or ✦ repeatedly to select a language, then press ENTER.

Tips

- The selected language is for "OSD", "MENU" and "SUBTITLE".
- The selectable language is different depending on the area.

The setting is selected and the "SCREEN SETUP" display appears on the TV screen.

6 Press ✦ or ✦ repeatedly to select the setting that matches your TV type.

If you have a 4:3 standard TV:
Select 4:3 LETTER BOX or 4:3 PAN SCAN (page 48)

If you have a wide-screen TV or a 4:3 standard TV with wide-screen mode:
Select 16:9 (page 48)

7 Press ENTER.

■ For MHC-GNZ888D

The setting is selected and the "SPEAKER SETUP" display appears on the TV screen.

■ For MHC-GNZ777D

The setting is selected and "QUICK SETUP is complete" appears on the TV screen.

8 (MHC-GNZ888D only)
Press ↑ or ↓ repeatedly to select the front speaker distance from your listening position, then press ENTER.

Repeat this step to adjust the center and surround speaker distance.
The setting is selected and "QUICK SETUP is complete." appears on the TV screen.
The system is ready for playback.
If you want to change each setting individually, see "Using the DVD setup menu" on page 46.

To quit QUICK SETUP

Press ⊙ DISPLAY.

To recall QUICK SETUP

1 Press ⊙ DISPLAY when playback is stopped.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select ▣ (SETUP), then press ENTER.

3 Press ↑ or ↓ repeatedly to select "QUICK", then press ENTER.

Note
The guide message appears at the bottom of the TV screen when you turn on the system for the first time or after performing "RESET" (page 81).

Using the THEATRE SYNC function

THEATRE SYNC allows you to turn on your Sony TV and this system, changes the system's function to "DVD" and then switches the TV's input source you have set with just one button.

Preparing to use the THEATRE SYNC function

Install the unit near the TV, then register the TV's input source connected to this system.

Hold down SLEEP and press	To select the following TV's input source
0	No input source (Default)
1 to 8	VIDEO 1 to VIDEO 8
9	COMPONENT 1
CLEAR	COMPONENT 2
🗀 –	COMPONENT 3
🗀 +	COMPONENT 4

The selected TV's input source is memorized into the remote.

Operating the THEATRE SYNC function

Point the remote in the direction of the TV and this unit. Then, hold down THEATRE SYNC until the TV is turned on and the input source is changed correctly.

If this function does not work, change the transmission time. The transmission time varies depending on the TV.

To change the transmission time

Hold down ►►I and press	To select the following transmission time
1	0.5 (Default)
2	1
3	1.5
4	2
5	2.5
6	3
7	3.5
8	4

Disc

Playing a disc
— Normal Play

`DVD-V` `DVD-VR` `VIDEO CD` `C D` `DATA CD`
`DATA DVD`

Before playing a DVD VIDEO, a
DVD-R/-RW in VR mode, a VIDEO CD,
JPEG image files or DivX video files[1],
turn on your TV and select the video
input.
Depending on the DVD VIDEO or
VIDEO CD, some operations may be
different or restricted. Refer to the
operating instructions supplied with the
disc.

[1] MHC-GNZ777D Russian model only/MHC-
GNZ888D.

**Example: When playing a DVD
VIDEO:**

Elapsed playing time

Disc playing indicator
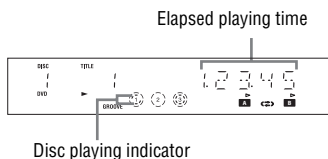
1 Press FUNCTION +/– repeatedly to select "DVD" (or press DVD on the unit).

2 Press ▲ OPEN/CLOSE on the unit.

3 Load a disc with the label side facing up on the disc tray.

When you play
back an 8 cm
disc such as a
CD single, place
it on the inner
circle of the tray
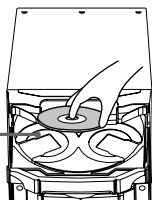
To load additional discs, press
DISC SKIP/EX-CHANGE on the unit
to rotate the disc tray.

4 Press ▲ OPEN/CLOSE on the unit to close the disc tray.

Do not forcibly push the disc tray to
close it as this may cause a
malfunction.

5 Press ▷ (or ◄► on the unit).

6 Press VOLUME +/– (or turn MASTER VOLUME on the unit) to adjust the volume.

Note
Depending on the system status, the volume
level may not appear on the TV screen.

Other operations

To	Do this
Stop playback	Press ■
Pause playback	Press ❙❙. Press ❙❙ again or ▷ (or ◄► on the unit) to resume playback.

To	Do this
Select a track[1], chapter or video file	• Press ⏮ or ⏭ repeatedly during playback, or • Turn ⏮ OPERATION DIAL ⏭ on the unit clockwise or counterclockwise during playback, or • Press the numeric buttons when the Control Menu is turned off, then press ENTER[2].
Select an album[3]	Press 🗂 +/– repeatedly during playback or when playback is paused.
Locate a point quickly in fast forward or fast reverse (Lock Search)[4][5]	Press ◀◀ or ▶▶ (or ▶▶⏭ or ◀◀⏮ on the unit) during playback. Each time you press ◀◀ or ▶▶ (or ▶▶⏭ or ◀◀⏮ on the unit), the playback speed changes cyclically. To return to normal playback, press ▷ (or ◀▶ on the unit).
Watch frame by frame (Slow-motion Play)[6]	Press SLOW ◀� SLOW ⏮▶ (or ▶▶⏭ or ◀◀⏮ on the unit) when playback is paused. Each time you press SLOW ◀⏮ or SLOW ⏮▶ (or ▶▶⏭ or ◀◀⏮ on the unit), the playback speed changes. To return to normal playback, press ▷ (or ◀▶ on the unit).

To	Do this
Play one frame at a time (Freeze Frame)[6]	Press STEP ⏸▶ to go to the next frame when playback is paused. Press ◀⏸ STEP[7] to go to the preceding frame when playback is paused. To return to normal playback, press ▷ (or ◀▶ on the unit).
Replay the previous scene (Instant Replay)[7]	Press REPLAY ←• during playback.
Briefly fast forward the current scene (Instant Advance)[7]	Press ADVANCE •→ during playback.
Select a disc	Press DISC SKIP on the remote (or one of the DISC 1 ~ 3 buttons on the unit).
Switch to DVD function from another source and start playback automatically	Press one of the DISC 1 ~ 3 buttons on the unit (Automatic Source Selection).
Exchange other discs while playing	Press DISC SKIP/ EX-CHANGE on the unit.

[1] You cannot select an audio track during Lock Search operation of MP3 audio tracks.
[2] DVD VIDEO, DVD-R/-RW in VR mode, VIDEO CD, AUDIO CD and DivX video files only.
[3] MP3 audio tracks, JPEG image files and DivX video files only.
[4] Except for JPEG image files.
[5] Depending on the disc, the actual speed may differ.
[6] DVD VIDEO, DVD-R/-RW in VR mode, DivX video files and VIDEO CD only.
[7] DVD VIDEO and DVD-R/-RW in VR mode only.

Disc

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Notes
• You cannot search for a still picture on a DVD-R/-RW in VR mode.
• You may not be able to use the Instant Replay or Instant Advance function in Repeat Play mode or with some scenes.

Displaying multi-angles and subtitles

Changing the angles

(DVD VIDEO only)
You can change the viewing angle while playing a DVD VIDEO on which various angles (multi-angles) for a scene are recorded.

Press ANGLE repeatedly during playback. Each time you press ANGLE, the angle changes.

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

Displaying the subtitles

(DVD VIDEO, DVD-R/-RW in VR mode and DivX video files only)
While playing a DVD VIDEO, DVD-R/-RW in VR mode or DivX video files, you can
– turn the subtitles on or off if the subtitles are recorded.
– change the language of the subtitles if multilingual subtitles are recorded.

Press SUBTITLE repeatedly during playback. Each time you press SUBTITLE, the subtitle language changes or turns off.

Notes
• Depending on the DVD VIDEO, you may not be able to change the subtitles even if multilingual subtitles are recorded. You also may not be able to turn the subtitles off.
• You can change the subtitles if the DivX video file has an ".AVI" or ".DivX" extension and contains subtitle information within the same file.

Other useful functions

Selecting the audio format

When playing a DVD VIDEO or a DivX video file recorded in multiple audio formats, you can select the audio format you want. If the DVD VIDEO is recorded with multilingual tracks, you can also change the language.
When playing a VIDEO CD, AUDIO CD or MP3 audio tracks, 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. For example, when playing a track with the vocals on the right channel and the instruments on the left channel, you can hear the instruments from both speakers by selecting the left channel.

Press AUDIO repeatedly during playback to select the audio signal you want.
The default settings are underlined.

When playing a DVD VIDEO:
Depending on the DVD VIDEO, the option of language and audio format varies.
When a 4-digit number is displayed, the digits represent a language code (see "Language code list" on page 90). When the same language is displayed two or more times, the DVD VIDEO is recorded in multiple audio formats. Note that the sound changes automatically depending on the disc.

When playing a DVD-R/-RW in VR mode:

The number of audio tracks recorded on a disc are displayed.

Example:
- 1: MAIN: the main sound of the audio track 1.
- 1: SUB: the sub sound of the audio track 1.
- 1: MAIN+SUB: the main and sub sound of the audio track 1.
- 2: MAIN*: the main sound of the audio track 2.
- 2: SUB*: the sub sound of the audio track 2.
- 2: MAIN+SUB*: the main and sub sound of the audio track 2.

* These items do not appear if only one audio stream is recorded on the disc.

When playing a DivX video file:

The options for audio format differ depending on the DivX video files.

When playing a VIDEO CD, AUDIO CD or MP3 audio track:
- STEREO: the standard stereo sound.
- 1/L: the sound of the left channel (monaural).
- 2/R: the sound of the right channel (monaural).

When playing a Super VCD:
- 1: STEREO: the stereo sound of the audio track 1.
- 1: 1/L: the sound of the left channel of the audio track 1 (monaural).
- 1: 2/R: the sound of the right channel of the audio track 1 (monaural).
- 2: STEREO: the stereo sound of the audio track 2.
- 2: 1/L: the sound of the left channel of the audio track 2 (monaural).
- 2: 2/R: the sound of the right channel of the audio track 2 (monaural).

Playing VIDEO CDs with PBC functions (Version 2.0) – PBC Playback

(VIDEO CD only)

You can use the PBC (Playback Control) 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 ▷ (or ◀▶ on the unit) to start playing a VIDEO CD with PBC functions (Version 2.0).

The PBC menu appears on the TV screen. Depending on the VIDEO CD, the menu may not appear.

2 Press the numeric buttons to select the item number you want.

3 Press ENTER.

Depending on the VIDEO CD, "Press ENTER" may appear as "Press SELECT" in the operating instructions supplied with the disc. In this case, press ▷ (or ◀▶ on the unit).

4 Continue playback according to the instructions on the menus.

Refer to the operating instructions supplied with the VIDEO CD, as the operating procedure may differ depending on the VIDEO CD.

To return to the previous menu

Press δ RETURN.

Note

PBC playback is canceled when Shuffle Play, Program Play or Repeat Play is activated.

To cancel playback with PBC functions

1 Press ◄◄ or ►►◄ repeatedly or press the numeric buttons to select a track when playback is stopped.

2 Press ▷ (or ◄▶ on the unit) or ENTER.

Playback starts from the selected track. Still images, such as the menu screens, will not be shown.

To return to PBC playback, press ■ twice, then press ▷ (or ◄▶ on the unit).

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 playback from that point. Resume Play is not canceled when you turn off the system except for MP3 audio tracks, JPEG image files and DivX video files.

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

"Resume" appears in the display.

2 Press ▷ (or ◄▶ on the unit).

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

Notes

• You cannot perform Resume Play during Shuffle Play or Program Play.
• This function may not work properly with some discs.
• Resume Play is canceled when you
  – press ■ when playback is stopped.
  – open the disc tray.
  – change the function.
  – change the settings in the Control Menu.
  – change the Parental Control level.

Tip

To play back from the beginning of the disc, press ■ twice, then press ▷ (or ◄▶ on the unit).

Resuming playback of a disc that was stopped – Multi-disc Resume

(DVD VIDEO and VIDEO CD only)
This system can store the point where you stopped the playback of the disc for up to 40 discs and resumes playback when you insert the same disc again. If you store a playback resume point for the 41st disc, the playback resume point for the first disc will be deleted.
To activate this function, set "MULTI-DISC RESUME" in "CUSTOM SETUP" to "ON" (page 49).

Note

If "MULTI-DISC RESUME" is set to "ON", the system may play back the next recorded disc such as a DVD-RW from the playback resume point for the current recorded disc.

Using play mode

Creating your own program

— Program Play

`VIDEO CD` `CD`

You can make a program of up to 99 steps in the order you want them to be played back.
You can only program the tracks from the current disc.

1 Press ⬜ DISPLAY.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select ▮ 🎵 (PROGRAM), then press ENTER.

The options for "PROGRAM" appear on the TV screen.

3 Press ↑ or ↓ repeatedly to select "SET→", then press ENTER.

```
PROGRAM                  0 : 00 : 00
                         T
ALL CLEAR
1. TRACK      – –          – –
2. TRACK      – –          01
3. TRACK      – –          02
4. TRACK      – –          03
5. TRACK      – –          04
6. TRACK      – –          05
7. TRACK      – –          06
        ▼
```
Tracks number
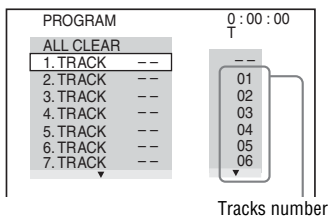
4 Press →.

The cursor moves to the track row "T" (in this case, "01").

```
PROGRAM                  0 : 00 : 00
                         T
ALL CLEAR
1. TRACK      – –          – –
2. TRACK      – –          01
3. TRACK      – –          02
4. TRACK      – –          03
5. TRACK      – –          04
6. TRACK      – –          05
7. TRACK      – –          06
        ▼
```
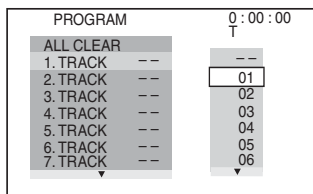
To change a programmed step:
Press ↑ or ↓ repeatedly to select the programmed step number you want to change. Then, press →.

To delete a programmed step:
Press ↑ or ↓ repeatedly to select the programmed step number you want to change. Then, press CLEAR.

To delete all of the programmed steps in the program list:
Press ↑ to select "ALL CLEAR". Then, press ENTER.

5 Select the track you want to program.

For example, select track "02".
Press ↑ or ↓ repeatedly to select "02" under "T", then press ENTER.

Selected track

```
PROGRAM                  0:15:30
                         T
ALL CLEAR
1. TRACK     (0 2)         – –
2. TRACK      – –          01
3. TRACK      – –          02
4. TRACK      – –          03
5. TRACK      – –          04
6. TRACK      – –          05
7. TRACK      – –          06
        ▼
```

Total time of the programmed tracks
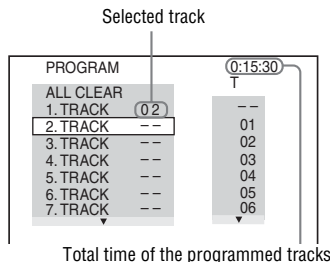
6 To program other tracks, repeat steps 4 to 5.

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7 Press ▷ (or ◀▶ on the unit).

Program Play starts.
When the Program Play ends, you can restart the same program by pressing ▷ (or ◀▶ on the unit).

To cancel Program Play

Press CLEAR or select "OFF" in step 3. To play back the same program again, select "ON" in step 3 and press ENTER or ▷ (or ◀▶ on the unit).

To turn off the Control Menu

Press ⊡ DISPLAY repeatedly until the Control Menu disappears from the TV screen.

Notes

• When Program Play is activated, the "REPEAT" setting is automatically changed to "ON" if the current setting is "ALL DISC", "ONE DISC" or "TRACK".
• You cannot perform Program Play with VIDEO CDs during PBC playback.
• Program Play is canceled and the program list is cleared when you
  – open the disc tray.
  – change the disc.
  – turn off the system.
  – change the function.

Playing in random order

— Shuffle Play

| VIDEO CD | CD | DATA CD | DATA DVD |

You can play back the tracks on the current disc in random order. Each time you perform Shuffle Play, the playing order may differs.
Shuffle Play is only available for the tracks on the current disc.

1 Press ⊡ DISPLAY during playback.

The Control Menu appears on the TV screen.

2 Press ▲ or ▼ repeatedly to select [🞐] (SHUFFLE), then press ENTER.

The options for "SHUFFLE" appear on the TV screen.

3 Press ▲ or ▼ repeatedly to select the setting you want.

When playing a VIDEO CD or AUDIO CD:

• TRACK: all tracks on the current disc is played back randomly.

When Program Play is activated:

• ON: all tracks in the program list is played back randomly.

When playing a DATA CD/DVD (except for DivX video files):

• ON (MP3): all MP3 audio tracks in the selected album on the current disc is played back randomly. When no album is selected, the first album is played back randomly.

4 Press ENTER.

Shuffle Play starts.
To cancel Shuffle Play, press CLEAR or select "OFF" in step 3.

To turn off the Control Menu

Press ⊡ DISPLAY repeatedly until the Control Menu disappears from the TV screen.

Notes

• You cannot perform Shuffle Play with VIDEO CDs during PBC playback.
• The same song may be played back repeatedly for MP3 audio tracks.
• Shuffle Play is canceled when you
  – open the disc tray.
  – change the disc.
  – turn off the system.
  – change the function.
  – perform Track/Index Search.
  – perform CD Synchro Recording.

You can also change the Shuffle Play setting
when playback is stopped.

Playing repeatedly

— Repeat Play

`DVD-V` `DVD-VR` `VIDEO CD` `C D` `DATA CD`
`DATA DVD`

You can play back all the titles, tracks,
files or a single title, chapter, track or file
on a disc repeatedly.
You can select Shuffle Play and Program
Play at the same time.

1 Press ⊙ DISPLAY during playback.

The Control Menu appears on the TV
screen.

2 Press ↑ or ↓ repeatedly to select [⇄] (REPEAT), then press ENTER.

The options for "REPEAT" appear on
the TV screen.

3 Press ↑ or ↓ repeatedly to select the setting you want.

- OFF (default setting)
- ALL DISCS
- ONE DISC
- TITLE (DVD VIDEO or
  DVD-R/-RW in VR mode)
- CHAPTER (DVD VIDEO or
  DVD-R/-RW in VR mode)
- TRACK[1] (AUDIO CD, VIDEO
  CD, DATA CD/DVD[2])
- ALBUM (DATA CD/DVD)
- FILE[3] (DATA CD/DVD)
- ON (Shuffle Play or Program Play).

4 Press ENTER.

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

[1] You cannot select "TRACK" when "MODE
(MP3, JPEG)" is set to "IMAGE (JPEG)".
[2] MP3 audio tracks only.
[3] DivX video files only.

To turn off the Control Menu

Press ⊙ DISPLAY repeatedly until the
Control Menu disappears from the TV
screen.

Notes

- You can also change the Repeat Play setting
  by pressing REPEAT repeatedly.
- Depending on the DVD VIDEO, you cannot
  perform Repeat Play.
- You cannot perform Repeat Play with VIDEO
  CDs during PBC playback.
- When playing a DATA CD/DVD which
  contains MP3 audio tracks and JPEG image
  files, the audio sound will not match the image
  if their playing time are different.
- Repeat Play is canceled when you
  – open the disc tray.
  – change the disc.
  – turn off the system.
  – change the function.
  – perform CD Synchro Recording.

Tip

You can also change the Repeat Play setting
when playback is stopped.

Disc

Searching/selecting a disc

Playing DVD VIDEOs using the menu

`DVD-V`

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

Using DVD TOP MENU

A DVD VIDEO contains a lot of sections of picture or music feature called "title". When you play back a DVD VIDEO which contains several titles, you can select the title you want using DVD TOP MENU.

Using DVD MENU

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

1 Press DVD TOP MENU or DVD MENU.

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

2 Press ↑ and ↓ or ← and → or the numeric buttons to select the title or item you want to play back.

3 Press ENTER.

Selecting "ORIGINAL" or "PLAY LIST" on a DVD-R/-RW in VR mode

`DVD-VR`

This function is only available for DVD-R/-RW in VR mode with a playlist created.

1 Press ⊙ DISPLAY when playback is stopped.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select ▮ ⊡ (ORIGINAL/PLAY LIST), then press ENTER.

The options for "ORIGINAL/PLAY LIST" appear on the TV screen.

3 Press ↑ or ↓ repeatedly to select the setting you want.

- PLAY LIST: play back according to the playlist created on the disc.
- ORIGINAL: play back according to the originally recorded sequence.

4 Press ENTER.

Using the on-screen display to search for a title/chapter/scene/track/index/album/file

`DVD-V` `DVD-VR` `VIDEO CD` `C D` `DATA CD` `DATA DVD`

You can search by different information recorded on a disc, such as title, track and album. Each item is assigned a unique number on the disc, and you can select the numbered item you want from the Control Menu. You can also search for a particular point using the time code (Time Search) (DVD VIDEO and DVD-R/-RW in VR mode only).

1 Press ⊙ DISPLAY. (When playing a DATA CD/DVD with JPEG image files, press ⊙ DISPLAY twice.)

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select the search item.

Example: when you select ▦ (CHAPTER)

"** (**)" is selected (** refers to a number). The number in parentheses indicates the total number of titles, chapters, tracks, indexes, scenes, albums or files.

```
  1 2 ( 2 7 )
  1 8 ( 3 4 )            DVD VIDEO
  T   1 : 3 2 : 5 5



          Selected row
```
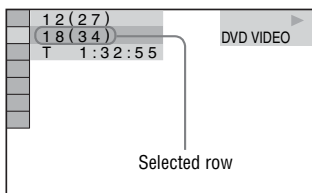
3 Press ENTER.

"** (**)" change to "– – (**)".

4 Press ↑ or ↓ repeatedly or the numeric buttons to select the title number, track number, etc.

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

5 Press ENTER.

The system starts playback from the selected title, track, etc.

To turn off the Control Menu

Press ⊙ DISPLAY repeatedly until the Control Menu disappears from the TV screen.

Tip

When the Control Menu display is turned off, you can search for a chapter (DVD VIDEO and DVD-R/-RW in VR mode), track (AUDIO CD and VIDEO CD) or file (DivX video files in DATA CD/DVD) by pressing the numeric buttons and ENTER.

To search for a particular point using the time code – Time Search

(DVD VIDEO and DVD-R/-RW in VR mode only)

1 Press ⊙ DISPLAY.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select ⊙ (TIME/TEXT).

"T **:**:**" (elapsed playing time of the current title) is selected.

3 Press ENTER.

"T **:**:**" changes to "T--:--:--".

4 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, enter "2:10:20".
If you make a mistake, press CLEAR to cancel the number.

Note

Depending on the disc, you cannot perform Time Search.

Searching by scene

— Picture Navigation

`DVD-V` `VIDEO CD`

1 Press PICTURE NAVI repeatedly to select the VIEWER format you want to search in.

- CHAPTER VIEWER (DVD VIDEO)
- TITLE VIEWER (DVD VIDEO)
- TRACK VIEWER (VIDEO CD or Super VCD)

2 Press ENTER.

The first scene of the first 9 chapters, titles or tracks appears on the TV screen. If there are more than 9 chapters, titles or tracks, "▼" appears at the bottom right of the screen.

1	2	3	
4	5	6	
7	8	9	▼

3 Press ↑/↓/←/→ to select a chapter, title or track, then press ENTER.

The system starts playing from the selected scene. During Picture Navigation, "VIEWER" appears in the display.

To cancel searching

Press ⟲ RETURN or ⬚ DISPLAY.

Note

Depending on the disc, you may not be able to select some items.

Tip

To display the remaining chapters, titles, or tracks, select a scene at the bottom row and press ↓. To return to the previous scene, select a scene at the top row and press ↑.

Playing MP3/JPEG discs

`DATA CD` `DATA DVD`

Notes

- The system can recognize up to 200 albums, even if the albums do not contain MP3 audio tracks and JPEG image files.
- The system will play back any data with the extension ".MP3", ".JPG" or ".JPEG" even if they are not in MP3 or JPEG format. Playing this data may generate a loud noise which could damage your speaker system.
- Depending on the encoding/writing software, recording device, or the recording media used to record an MP3 audio track, you may encounter problems such as cannot play back, sound interruptions and noise.
- The following discs/situations can increase the time it takes to start playback:
  – a disc recorded with a complicated tree structure.
  – a disc recorded in Multi Session.
  – a disc to which data can be added (non-finalized disc).
  – when the tracks or files in another album have just been played back.
- Some CD-Rs/-RWs or DVD-Rs/-RWs/+Rs/+RWs cannot be played back on the system depending on the file format.

Playing an MP3 audio track or album

1 **Load a disc on the disc tray.**

The list of albums appears on the TV screen.

```
         3 ( 30 )

R O C K   B E S T   H I T
K A R A O K E
M Y   F A V O U R I T E   S O N G
R & B
J A Z Z
C L A S S I C
S A L S A   O F   C U B A
B O S S A   N O V A
                    ▼
```

2 **Press ↑ or ↓ repeatedly to select an album.**

Playing an album:

Press ▷ (or ◀▶ on the unit).
The system starts playback from the first track of the selected album.

Playing a track:

1 Press ENTER.

The list of MP3 audio tracks of the selected album appears on the TV screen.

```
        MY  FAVOURITE  SONG
         1 ( 2 5 6 )

W A L T Z   F O R   D E B B Y
M Y   R O M A N C E
M I L E S   T O N E S
M Y   F U N N Y   V A L E N T I N E
A U T U M N   L E A V E S
A L L   B L U E S
S O M E D A Y   M Y   P R I N C E   W . . .
                    ▼
```
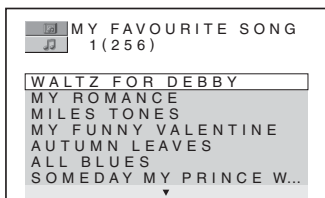
2 Press ↑ or ↓ repeatedly to select the MP3 audio track you want, then press ENTER.

The system starts playing the selected MP3 audio track.

To display the next or previous page of track list or album list

Press ← or → repeatedly when the track list or album list is displayed.

To play back the next album of MP3 audio tracks

You can select the next album by pressing ▶▶I repeatedly until the last track of the current album, then press ▶▶I once. The first track of the next album is selected. However, you cannot select the previous album by pressing I◀◀ repeatedly. To select the previous album, select the album from the album list.

To return to the album list display when the track list is displayed

Press ♂ RETURN.

To turn on or off the display of album list or track list

Press DVD MENU repeatedly.

Playing a JPEG image file or album

1 Load a disc on the disc tray.

The list of albums appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select an album.

Playing an album:
Press ▷ (or ◀▶ on the unit).
The system starts a slide show from the first image file of the selected album.

Playing a file:

1 Press PICTURE NAVI.
Thumbnail picture for the first 16 JPEG image files in the selected album is displayed on the TV screen.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

If there are more than 16 image files in the selected album, the scroll bar appears at the right.

2 Press ↑/↓/←/→ to select the image you want to view, then press ▷ (or ◀▶ on the unit).
The slide show starts from the selected image file.

To display the next or previous page of album list

Press ← or → repeatedly when the album list is displayed.

To display the next or previous JPEG image file

Press ← or → repeatedly during the slide show.

To play back the next album of JPEG image files

You can select the next album by pressing → repeatedly until the last file of the current album, then press → once. The first file of the next album is selected. However, you cannot select the previous album by pressing ← repeatedly. To select the previous album, select the album from the album list.

To turn on or off the display of album list or file list

Press DVD MENU repeatedly.

To rotate a JPEG image file

When a JPEG image file is displayed on the TV screen, you can rotate the image by 90 degrees.
Press ↑ or ↓ repeatedly while viewing an image.
Press CLEAR to return to the original view.

Notes

- The PICTURE NAVI button does not work when "MODE (MP3, JPEG)" is set to "AUDIO (MP3)".
- When you press ← or → to select the next or previous image, the image will return to its original view even if you have rotated the image previously.
- The slide show stops when you press ↑ or ↓.

Playing MP3 audio tracks and JPEG image files as a slide show with sound

`DATA CD` `DATA DVD`

You can play back a slide show with sound by first placing both JPEG image files and MP3 audio tracks in the same album on a DATA CD/DVD.

1 Load a DATA CD/DVD on the disc tray.

The list of albums appears on the TV screen.

2 Press ⊙ DISPLAY.

The Control Menu appears on the TV screen.

3 Press ↑ or ↓ repeatedly to select ⊙ (MODE (MP3, JPEG)), then press ENTER.

The options for "MODE (MP3, JPEG)" appear on the TV screen.
- AUTO: (default setting) play back both JPEG image files and MP3 audio tracks in the same album as a slide show with sound.
- AUDIO (MP3): play back MP3 audio tracks continuously.
- IMAGE (JPEG): play back JPEG image files as a slide show.

4 Press ↑ or ↓ repeatedly to select "AUTO", then press ENTER.

5 Press DVD MENU.

The list of albums appears on the TV screen.

6 Press ↑ or ↓ repeatedly to select the album you want, then press ▷ (or ◁► on the unit).

The slide show with sound starts from the selected album.

To turn on or off the display of album list

Press DVD MENU repeatedly.

To cancel slide show with sound

Select "AUDIO (MP3)" or "IMAGE (JPEG)" in step 4.

Notes

- In some cases, you cannot change the "MODE (MP3, JPEG)" setting when "MODE (MP3, JPEG)" has been set to
  – "IMAGE (JPEG)" and the selected disc only contains MP3 audio tracks.
  – "AUDIO (MP3)" and the selected disc only contains JPEG image files.
- The maximum number of MP3 audio tracks or JPEG image files on an album which this system can recognize is:
  – 600 when "MODE (MP3, JPEG)" is set to "AUDIO (MP3)" or "IMAGE (JPEG)".
  – 300 when "MODE (MP3, JPEG)" is set to "AUTO".
- If there are no MP3 audio tracks in the disc and "MODE (MP3, JPEG)" is set to "AUDIO (MP3)", "No audio data" appears on the TV screen and the disc cannot be played back.
- If there are no JPEG image files in the disc and "MODE (MP3, JPEG)" is set to "AUDIO (MP3)", "No image data" appears on the TV screen and the disc cannot be played back.

Disc

• If you play back a large data size of MP3 audio tracks and JPEG image files at the same time, the sound may skip. It is recommended that you reduce the data size by creating the MP3 audio tracks with a bit rate of 128 kpbs or lower. If the skipping sound still occurs, reduce the data size of JPEG image files by creating the JPEG image files in smaller size or lower resolution.

Specifying the slide show speed

(JPEG image files only)

1 Press ⊙ DISPLAY repeatedly until the Control Menu for JPEG image files appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select ▭ (INTERVAL), then press ENTER.

The options for "INTERVAL" appear on the TV screen.

3 Press ↑ or ↓ repeatedly to select the transition interval you want.

The intervals become longer in the order from "FAST", "NORMAL" (default setting), "SLOW 1" to "SLOW 2".

4 Press ENTER.

The selected setting takes effect.

Note

Some JPEG image files (especially progressive JPEG image files or JPEG image files with 3,000,000 pixels or more) may take a longer time to display than others, which may make the transitions seem longer than the option you selected.

Selecting a transition effect for image files in the slide show

(JPEG image files only)

1 Press ⊙ DISPLAY repeatedly until the Control Menu for JPEG image files appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select ▭ (EFFECT), then press ENTER.

The options for "EFFECT" appear on the TV screen.

3 Press ↑ or ↓ repeatedly to select the setting you want.

• MODE 1: (default setting) the image sweeps in from top to bottom of the screen.
• MODE 2: the image sweeps in from left to right of the screen.
• MODE 3: the image stretches out from the center of the screen.
• MODE 4: the images appear with random effects.
• MODE 5: the next image slides over the current image.
• OFF: turns off this function.

4 Press ENTER.

The selected setting takes effect.

Enjoying DivX® video files

DATA CD   DATA DVD

(MHC-GNZ777D Russian model only/MHC-GNZ888D)

Notes

- The system may not play back a DivX video file when the file has been combined from two or more DivX video files.
- The system cannot play back a DivX video file size of more than 720 (width) x 576 (height)/2GB.
- Depending on the DivX video file, the picture may be unclear or the sound may skip.
- The system cannot play back some DivX video files that are longer than 3 hours.

Playing a DivX video file or album

1 Load a disc on the disc tray.

The list of the albums appears on the TV screen.
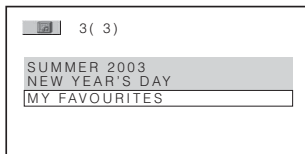
```
    🖻  3( 3)

   SUMMER 2003
   NEW YEAR'S DAY
   MY FAVOURITES
```

2 Press ↑ or ↓ repeatedly to select an album.

Playing an album:

Press ▷ (or ◀▶ on the unit).
The system starts playback from the first file of the selected album.

Playing a file:

1 Press ENTER.

The list of DivX video files of the selected album appears on the TV screen.

```
   🖻  MY FAVOURITES
   🖻    1 ( 2 )

   HAWAII 2004
   VENUS
```
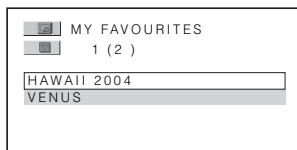
2 Press ↑ or ↓ repeatedly to select the DivX video file you want, then press ENTER.
The system starts playing the selected DivX video file.

To display the next or previous page of file list or album list

Press ← or → repeatedly when the file list or album list is displayed.

### To play back the next album of DivX video files

You can select the next album by pressing ▶▶I repeatedly until the last file of the current album, then press ▶▶I once. The first file of the next album is selected. However, you cannot select the previous album by pressing I◀◀ repeatedly. To select the previous album, select the album from the album list.

To return to the album list display when the file list is displayed

Press ⟲ RETURN.

To turn on or off the display of album list or file list

Press DVD MENU repeatedly.

Notes
- Depending on the DivX video file, the picture may pause or be unclear. In this case, it is recommended that you create the file at a lower bit rate. If the sound is still noisy, MP3 is the recommended audio format. Note that, this system does not conform to WMA (Windows Media Audio) format.
- Due to the compression technology used for DivX video files, it may take some time after you press ⊳ (or ◄► on the unit) for the picture to appear.
- Depending on the DivX video file, the sound may not match the pictures on the screen.

Tip
If the number of viewing times has been preset, you can play back the DivX video files as many times as the preset number. The following occurrences are counted:
– when the system is turned off.
– when another DivX video file is played back.

Adjusting the delay between the picture and sound
— A/V SYNC

DVD-V DVD-VR VIDEO CD DATA CD DATA DVD

When the sound does not synchronize with the pictures on the screen, you can adjust the delay between the picture and sound.
A/V SYNC does not work for MP3 audio tracks and JPEG image files in DATA CD/DVD.

1 Press ⊙ DISPLAY.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select ▯ ▨ (A/V SYNC), then press ENTER.

The options for "A/V SYNC" appear on the TV screen.

3 Press ↑ or ↓ repeatedly to select the setting you want.

- OFF: (default setting) does not adjust.
- ON: adjusts the difference between picture and sound.

4 Press ENTER.

Note
Depending on the input stream, this function may not be effective.

Restricting playback of the disc

— CUSTOM PARENTAL CONTROL, PARENTAL CONTROL

`DVD-V` `VIDEO CD` `CD`

You can set 2 types of playback restrictions for the disc you want.

Custom Parental Control
You can set playback restrictions so that the system will not play back inappropriate discs.

Parental Control
You can limit the playback of some DVD VIDEOs according to a predetermined level such as the age of the users. When a limited scene is played back, that scene may be skipped or replaced with different scenes.

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

Preventing playback of specific discs

— CUSTOM PARENTAL CONTROL

You can set the same Custom Parental Control password for up to 40 discs. When you set the 41st-disc, the playback restriction for the first disc is canceled.

1 Insert the disc you want to set the playback restriction.

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

2 Press ⬚ DISPLAY when playback is stopped.

The Control Menu appears on the TV screen.

3 Press ✚ or ✚ repeatedly to select (PARENTAL CONTROL), then press ENTER.

The options for "PARENTAL CONTROL" appear on the TV screen.

4 Press ✚ or ✚ repeatedly to select "ON →", then press ENTER.

To turn off the Custom Parental Control function, select "OFF →", then press ENTER.

If you have not entered a password:
The display for registering a new password appears on the TV screen.

```
PARENTAL CONTROL

Enter a new 4-digit password,
then press ENTER .

  ▪    ▪    ▪    ▪
```
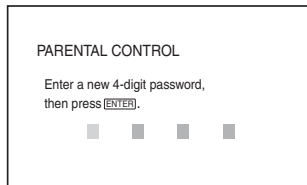
Enter a 4-digit password using the numeric buttons, then press ENTER. The display for confirming the password appears on the TV screen.

When you have already registered a password:
The display for entering the password appears on the TV screen.

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

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

If you make a mistake when entering your password

Press ← repeatedly to delete the number you have entered, then re-enter your password again.

To play back a 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 on the TV screen.

```
CUSTOM PARENTAL CONTROL

Custom parental control is already
set. To play, enter your password
and press ENTER .

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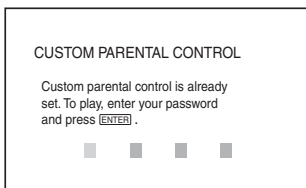
2 Enter your 4-digit password using the numeric buttons, then press ENTER.

The system is ready for playback.

Tip

If you forget 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 for children

— PARENTAL CONTROL

(DVD VIDEO only)
You can limit the playback of some DVD VIDEOs according to a predetermined level such as the age of the users.

1 Press ⊡ DISPLAY when playback is stopped.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select ⟨🔒⟩ (PARENTAL CONTROL), then press ENTER.

The options for "PARENTAL CONTROL" appear on the TV screen.

3 Press ↑ or ↓ repeatedly to select "PLAYER →", then press ENTER.

If you have not entered a password:
The display for registering a new password appears on the TV screen.

```
PARENTAL CONTROL

Enter a new 4-digit password,
then press ENTER .

   ▪     ▪     ▪     ▪
```
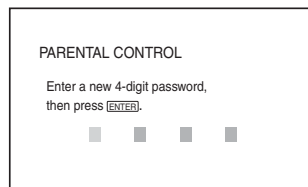
Enter a 4-digit password using the numeric buttons, then press ENTER. The display for confirming the password appears on the TV screen.

When you have already registered a password:
The display for entering the password appears on the TV screen.

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

The display for setting the playback limitation level appears on the TV screen.

```
PARENTAL CONTROL
LEVEL:              OFF
STANDARD:           USA
```
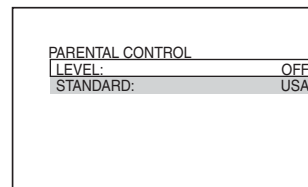
5 Press ↑ or ↓ repeatedly to select "STANDARD", then press ENTER.

The options for "STANDARD" appear on the TV screen.

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 →", enter the area code for the geographic area you want according to the "Parental Control area code list" on page 91 by using the numeric buttons.

7 Press ↑ or ↓ repeatedly to select "LEVEL", then press ENTER.

The options for "LEVEL" appear on the TV screen.

8 Press ↑ or ↓ repeatedly to select the level you want, then press ENTER.

Parental Control setting is completed. The lower the value, the stricter the limitation.
To turn off the Parental Control function, set "LEVEL" to "OFF".

If you make a mistake when entering your password

Press ← repeatedly to delete the number you have entered, then re-enter your password again.

To play back a disc for which Parental Control is set

1 Insert the disc and press ▷ (or ◀▶ on the unit).

The display for entering your password appears on the TV screen.

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

The system starts playback.

Notes
- The Control Menu display will show different items depending on the disc type.
- When you play back DVD VIDEOs which do not have the Parental Control function, playback cannot be limited on this system.
- Depending on the DVD VIDEO, you may be asked to change the parental control level while playing the disc. In this case, enter your password, then change the level. If Resume Play is canceled, the level returns to the original level.

Tip
If you forget your password, remove the disc and repeat steps 1 to 3 of "Limiting playback for 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, reload the disc and press ▷ (or ◀▶ on the unit). When the display for entering your password appears, enter your new password.

Disc

Changing the password

1 Press ⊡ DISPLAY when playback is stopped.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select [🔒] (PARENTAL CONTROL), then press ENTER.

The options for "PARENTAL CONTROL" appear on the TV screen.

3 Press ↑ or ↓ repeatedly to select "PASSWORD →", then press ENTER.

The display for entering the password appears on the TV screen.

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

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

6 To confirm your password, re-enter it using the numeric buttons, then press ENTER.

If you make a mistake when entering your password

Press ← repeatedly to delete the number you have entered, then re-enter your password again.

Using the DVD setup menu

By using the DVD setup menu, you can make various adjustments to items such as picture and sound.

Note

Playback settings stored in the disc take priority over the DVD setup menu settings. Therefore, some of the DVD setup menu settings may not be performed.

1 Press ⊡ DISPLAY when playback is stopped.

The Control Menu appears on the TV screen.

**2 Press ↑ or ↓ repeatedly to select [📷] (SETUP), then press ENTER.**

The options for "SETUP" appear on the TV screen.

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

The Setup menu appears on the TV screen.

4 Press ↑ or ↓ repeatedly to select the setup item from the displayed list: "LANGUAGE SETUP", "SCREEN SETUP", "CUSTOM SETUP", or "SPEAKER SETUP". Then press ENTER.

The setup item is selected.
Example: SCREEN SETUP

Selected item

```
SCREEN SETUP
TV TYPE:                        16:9
COLOR SYSTEM (VIDEO CD):        AUTO
SCREEN SAVER:                     ON
BACKGROUND:          JACKET PICTURE
4:3 OUTPUT:                     FULL
```
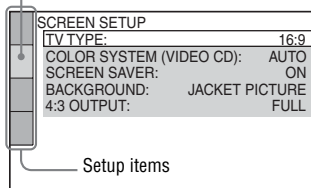
Setup items

5 Press ↑ or ↓ repeatedly to select the item you want, then press ENTER.

The options for the selected item appear on the TV screen.
Example: TV TYPE

```
SCREEN SETUP
TV TYPE:                        16:9
COLOR SYSTEM (VIDE          16:9
SCREEN SAVER:          4:3 LETTER BOX
BACKGROUND:            4:3 PAN SCAN
4:3 OUTPUT:                     FULL
```
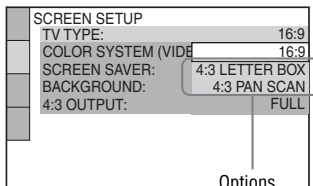
Options

6 Press ↑ or ↓ repeatedly to select the setting you want, then press ENTER.

The setting is selected and setup is completed.

```
SCREEN SETUP
TV TYPE:                4:3 LETTER BOX
COLOR SYSTEM (VIDEO CD):        AUTO
SCREEN SAVER:                     ON
BACKGROUND:          JACKET PICTURE
4:3 OUTPUT:                     FULL
```

Selected setting
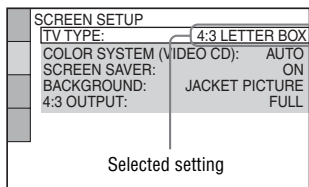
DVD setup menu item list

The default settings are underlined.

Setting the language – LANGUAGE SETUP

Set various languages for the on-screen display or sound track.

```
LANGUAGE SETUP
OSD:                         ENGLISH
MENU:                        ENGLISH
AUDIO:                      ORIGINAL
SUBTITLE:                    ENGLISH
```
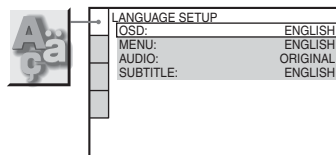
OSD

(On-Screen Display) Switches the language of the on-screen display.

MENU*

(DVD VIDEO only) Select the language for the DVD menu.

AUDIO*

(DVD VIDEO only) Switches the language of the sound track.
When you select "ORIGINAL", the language given priority in the disc is selected.

47^{GB}

Disc

SUBTITLE*

(DVD VIDEO only) Switches the language of the subtitle.
When you select "AUDIO FOLLOW", the language for the subtitles changes according to the language you selected for the sound track.

* When you select a language in "MENU", "SUBTITLE", or "AUDIO" that is not recorded on the DVD VIDEO, one of the recorded language is automatically selected. However, depending on the disc, the language may not be selected automatically. If you select "OTHERS →" in "MENU", "SUBTITLE", and "AUDIO", enter a language code from the "Language code list" (page 90) using the numeric buttons.

Setting the TV screen – SCREEN SETUP

Choose the settings according to the TV you connected.

```
SCREEN SETUP
TV TYPE:                         16:9
COLOR SYSTEM (VIDEO CD):         AUTO
SCREEN SAVER:                      ON
BACKGROUND:          JACKET PICTURE
4:3 OUTPUT:                       FULL
```
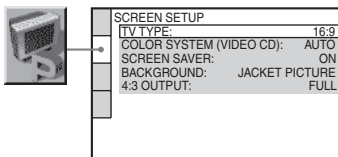
TV TYPE[1]

(DVD VIDEO only)
16:9: Select this when you connect a wide-screen TV or a TV with a wide mode function.
4:3 LETTER BOX[2]: Select this when you connect a 4:3 screen TV. This setting displays a wide picture with bands on the upper and lower portions of the screen.
4:3 PAN SCAN[2]: 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.

COLOR SYSTEM (VIDEO CD)

(Except for Russian models) Select the color system when you play back a VIDEO CD.
AUTO: Output the video signal according to the color system of the disc, either PAL or NTSC.
PAL: Change the video signal of an NTSC disc and output it in PAL system.
NTSC: Change the video signal of a PAL disc and output it in NTSC system.

SCREEN SAVER

The screen saver will help prevent your display device from becoming damaged (ghosting). Press ▷ (or ◁▷ on the unit) to turn off the screen saver.
ON: The screen saver image appears when playback is stopped or paused for 15 minutes or when you play back an AUDIO CD or MP3 audio tracks for more than 15 minutes.
OFF

BACKGROUND

Selects the background color or picture to be displayed on the TV screen. The background color or picture is displayed when playback is stopped or while playing an AUDIO CD and MP3 audio tracks.
JACKET PICTURE: The jacket picture (still picture) appears in the background, but only when the jacket picture is already recorded on the disc (DVD VIDEO, CD-EXTRA, etc.). If the disc does not contain a jacket picture, the "GRAPHICS" picture appears.
GRAPHICS: A preset picture stored in the system appears in the background.
BLUE
BLACK

4:3 OUTPUT[3)]

Change this setting to watch 4:3 aspect ratio progressive signals. If you can change the aspect ratio on your progressive format (525p/625p) compatible TV, change the setting on your TV.

FULL: Select this when you can change the aspect ratio on your TV.

NORMAL: Select this when you cannot change the aspect ratio on your TV. Shows a 16:9 aspect ratio signal with black bands on left and right sides of the image.
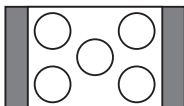
16:9 aspect ratio TV

[1)] The default setting varies depending on the country.
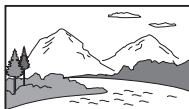
16:9

4:3 LETTER BOX
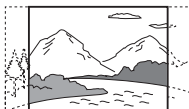
4:3 PAN SCAN

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

[3)] This setting is effective only when
– you set "TV TYPE" in "SCREEN SETUP" to "16:9".
– "P AUTO" or "P VIDEO" is selected (page 20).

Setting playback options – CUSTOM SETUP

```
CUSTOM SETUP
PAUSE MODE:              AUTO
TRACK SELECTION:        OFF
MULTI-DISC RESUME:       ON
AUDIO DRC:              OFF
DivX:        Registration Code →
```
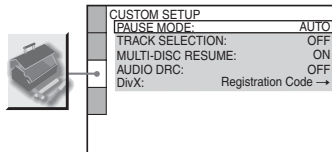
PAUSE MODE

(DVD VIDEO and DVD-R/-RW in VR mode only)

AUTO: The picture, including subjects that move dynamically, is output with no jitter. Normally select this position.

FRAME: The picture, including subjects that do not move dynamically, is output in high resolution.

TRACK SELECTION

(DVD VIDEO only) Gives priority to the sound track which contains the highest number of channels when you play back a DVD VIDEO on which multiple audio format (PCM, DTS, MPEG audio, or Dolby Digital formats)[1)] are recorded.

OFF: No priority given.

AUTO[2)]: Priority given.

MULTI-DISC RESUME

(DVD VIDEO and VIDEO CD only)

ON: See page 30.

OFF: Does not store the resume playback point in the memory. Playback starts at the resume playback point only for the current disc in the system.

Disc

AUDIO DRC[3]) (Dynamic Range Compression)

(DVD VIDEO and DVD-R/-RW in VR mode only) Useful for watching movies at low volume late at night.

OFF: No compression of dynamic range.

STANDARD: Reproduces the sound track with the kind of dynamic range that the recording engineer intended.

MAX: Narrows the dynamic range fully.

DivX
(MHC-GNZ777D Russian model only/ MHC-GNZ888D)

Display the registration code for this system.

For more information, go to http://www.divx.com on the Internet.

[1] If each audio sound track has the same number of channels, the system selects the audio sound track in the order from PCM, DTS, Dolby Digital to MPEG.

[2] When you set "TRACK SELECTION" to "AUTO", the language may change. The "TRACK SELECTION" setting has higher priority than the "AUDIO" settings in "LANGUAGE SETUP" (page 47). However, depending on the disc, this function may not be performed.

[3] AUDIO DRC can only be performed with Dolby Digital sources.

Setting the speakers[1) – SPEAKER SETUP

For MHC-GNZ888D

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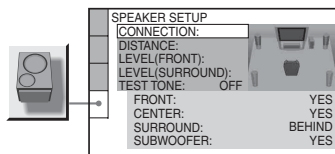
CONNECTION

FRONT: YES

CENTER:

YES: Normally select this.

NONE: Select this if the center speaker is not connected.

SURROUND:

BEHIND: Select this if the surround speakers are located in section **B**.

SIDE: Select this if the surround speakers are located in section **A**.

NONE: Select this if the surround speakers are not connected.
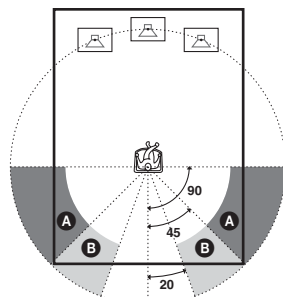
Position diagram

SUBWOOFER[2):

YES: Select this if an optional subwoofer is connected.

NONE: Select this if an optional subwoofer is not connected.

DISTANCE[3)

FRONT 3.0 m[4): Front speaker distance from the listening position can be set in 0.2 meter increments from 1.0 to 7.0 meters.

CENTER 3.0 m[5): Center speaker distance from the listening position can be set in 0.2 meter increments from 0.0 to 7.0 meters.

SURROUND 3.0 m[4)5): Surround speaker distance from the listening position can be set in 0.2 meter increments from 0.0 to 7.0 meters.

LEVEL (FRONT)[6)

Be sure to set "TEST TONE" to "ON" for easy adjustment.

L 0.0 dB: Set this between -6.0 dB and 0.0 dB in 1.0 dB increments.

R 0.0 dB: Set this between -6.0 dB and 0.0 dB in 1.0 dB increments.

CENTER 0.0 dB: Set this between -6.0 dB and +6.0 dB in 1.0 dB increments.

SUBWOOFER 0.0 dB: Set this between -10.0 dB and +10.0 dB in 1.0 dB increments. Depending on the subwoofer, the sound output may be smaller compared to other speakers when you adjust this level during the test tone.

LEVEL (SURROUND)[7)

Be sure to set "TEST TONE" to "ON" for easy adjustment.

L 0.0 dB: Set this between -6.0 dB and +6.0 dB in 1.0 dB increments.

R 0.0 dB: Set this between -6.0 dB and +6.0 dB in 1.0 dB increments.

TEST TONE[8)

OFF: The test tone is not emitted from the speakers.

ON: The test tone is emitted from each speaker in sequence.[9)

The test tone is emitted from the selected speakers when you select "LEVEL (FRONT)" or "LEVEL (SURROUND)".

1 Press ↑/↓/← repeatedly to select the desired speaker or the level.

2 Press ENTER.

3 Repeat steps 1 and 2 to adjust the speaker level for other speakers. Press ↑/↓/← repeatedly to set "TEST TONE" to "OFF" when you have finished adjusting the speaker level.

Disc

For MHC-GNZ777D

CONNECTION

FRONT: <u>YES</u>
SUBWOOFER[2]:
YES: Select this if an optional subwoofer is connected.
NONE: Select this if an optional subwoofer is not connected.

LEVEL (FRONT)[6]

L <u>0.0 dB</u>: Set this between -6.0 dB and 0.0 dB in 1.0 dB increments.
R <u>0.0 dB</u>: Set this between -6.0 dB and 0.0 dB in 1.0 dB increments.
SUBWOOFER <u>0.0 dB</u>: Set this between -10.0 dB and +10.0 dB in 1.0 dB increments.

[1] To return to the default setting when changing a setting, press CLEAR before you press ENTER. However, you cannot return the setting of "CONNECTION" to default setting.
Note that you cannot perform SPEAKER SETUP when you connect headphones or microphones to the unit.

[2] Depending on the settings of other speakers, the subwoofer may output excessive sound.

[3] The items that are set to "NONE" in "CONNECTION" cannot be selected. Depending on the input stream, the "DISTANCE" setting may not be effective. When you perform QUICK SETUP (page 23), the default settings are changed.

[4] If each left and right speakers are not placed at an equal distance from your listening position, set the distance according to the closest speaker.

[5] The setting range changes depending on the front speaker setting.

[6] The items that are set to "NONE" in "CONNECTION" cannot be selected.

[7] This setting cannot be selected when "SURROUND" is set to "NONE" in the "CONNECTION" setting.

[8] When you adjust the speaker settings, the sound may cut off for a moment.

[9] The test tone is not emitted from the subwoofer.

Tuner

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 radio station

1 **Press FUNCTION +/– repeatedly to select "TUNER FM" or "TUNER AM" (or press TUNER/ BAND on the unit repeatedly to select "FM" or "AM").**

2 **Press and hold TUNING +/– until the frequency indication changes and then release.**

"AUTO" lights up in the display. Scanning stops automatically when a station is tuned in and "TUNED" lights up in the display. When a FM stereo program is tuned in, "STEREO" lights up in the display.
If the scanning does not stop, press TUNING +/– repeatedly to tune in the station you want.

3 **Press TUNER MENU.**

"MEMORY" flashes in the display.

4 **Press ENTER.**

A preset number flashes in the display. The stations are stored from preset number 1.

Preset number

```
MEMORY  FM        TUNED
                  STEREO
GROOVE
```

5 **Press ↑ or ↓ repeatedly to select the preset number you want.**

6 **Press ENTER.**

"COMPLETE" appears in the display. The station is stored.

7 **Repeat steps 1 to 6 to store other stations.**

You can preset up to 20 FM stations and 10 AM stations.
The preset stations are retained for half a day even if you unplug the power cord or if a power failure occurs.

8 **To listen to a preset station, press PRESET +/– repeatedly (or turn I◄◄ OPERATION DIAL ►►I on the unit clockwise or counterclockwise) to select the preset station you want.**

You can also press the numeric buttons, then press ENTER to select a preset station.

To stop automatic scanning
Press ■.

To cancel presetting
Press TUNER MENU.

Listening to a non-preset radio station

You can use manual tuning to tune in a station with a weak signal and direct tuning if you know the frequency of the station.

1 **Press FUNCTION +/– repeatedly to select "TUNER FM" or "TUNER AM" (or press TUNER/BAND on the unit repeatedly to select "FM" or "AM").**

2 **Tune in the station you want.**

For manual tuning:
Press TUNING +/– repeatedly.

For direct tuning:
Press D.TUNING, then use the numeric buttons to enter the frequency of the station you want. For example, press 1, 0, 2, 5 and 0 to enter the frequency of FM 102.50 MHz. Press ENTER. If you cannot tune in the station, make sure you have entered the right frequency. If you still cannot tune in the station, the frequency is not used in your area.

To cancel direct tuning
Press D.TUNING.

To change the AM tuning interval

(Except for Saudi Arabian and Russian models) The factory setting for AM tuning interval is 9 kHz (or 10 kHz for some areas).
Use the buttons on the unit for the operation.

1 Press TUNER/BAND repeatedly to select "AM".

2 Press I/⏻ STANDBY to turn off the system.

3 When demonstration appears, hold down ILLUMINATION and then press I/⏻ STANDBY to turn on the system.
"AM 9K STEP" or "AM 10K STEP" appears in the display.

When you change the interval, all the AM preset stations are erased.

Tips
- To improve broadcast reception, adjust the supplied antennas, or connect an external antenna.
- When an FM stereo program has static noise, press FM MODE repeatedly until "MONO" lights up in the display. There will be no stereo effect, but the reception will improve.

Tape

Playing a tape

You can use TYPE I (normal) tape.

1 Select a tape deck.

Press FUNCTION +/– (or TAPE A/B on the unit) repeatedly to select "TAPE A" or "TAPE B".

2 Insert a tape.

Press ▲ PUSH on deck A or deck B of the unit to open the selected deck.

Insert a tape into the deck with the side you want to play back or record facing forward.
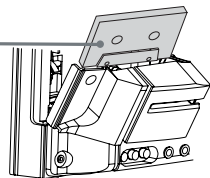
3 Press DIRECTION on the unit repeatedly to select "⇌" to play back one side, "⟳"[1] to play back both sides or "RELAY"[2] (Relay Play) to play back both decks in succession.

4 Press ▷ (or ◄► on the unit).

The tape starts playing.
Press ▷ (or ◄► on the unit) again to play back the reverse side.[3]

TAPE A

Front side indicator   Reverse side indicator

[1] (For the tape in deck B only)
The playback stops automatically after repeating the sequence five times.
[2] Relay Play follows this sequence, then stops:
Deck A (front side) → Deck B (front side) → Deck B (reverse side)
[3] You can only play back front side of the tape in deck A.

Other operations

To	Do this
Stop playback	Press ■.
Pause playback	Press ‖. Press ‖ again to resume playback.
Fast-forward or rewind	Press ◄◄ or ►► (or ◄◄ ◄‖ or ►► ‖► on the unit). To return to normal playback, press ▷ (or ◄► on the unit).
Remove a tape	Push ▲ PUSH on deck A or deck B of the unit when playback is stopped.

Tip
If you press ▷ (or ◄► on the unit) when the TAPE A function is selected and there is no tape in Deck A, the system automatically switches to the TAPE B function when there is a tape in Deck B and vice versa. Then, playback will start.

Tape

Recording onto a tape

There are three ways to record on a TYPE I (normal) tape. Use the buttons on the unit for the operation.

CD Synchro Recording:
You can record an entire VIDEO CD or AUDIO CD onto a tape. The recording level is adjusted automatically.

Manual Recording:
You can record just the portion you want from a sound source, including connected audio components.

Sound Mixing:
You can "mix" sound from any one of the sound sources and singing or speaking into a microphone (not supplied). The mixed sound can be recorded onto a tape.

1 **Load a recordable tape into Deck B.**

When recording on the reverse side, press TAPE A/B repeatedly until "TAPE B" appears in the display. Press ▷ (or ◀▶ on the unit) repeatedly until the TAPE B reverse side indicator lights up to start playback of the reverse side. Press ■ at the point you want to start recording.

2 **Prepare the recording source.**

For CD Synchro Recording:
Press DVD and load the disc you want to record.

For Manual Recording and Sound Mixing:
Press the function button to select the source you want to record. For Sound Mixing, if you want to record your voice through the microphone only, you can do so by selecting the TAPE A function and not playing any tape.

3 **Set Deck B to stand by for recording.**

For CD Synchro Recording:
Press CD SYNC. "SYNC" lights up in the display and "REC" flashes in the display.

For Manual Recording and Sound Mixing:
Press REC PAUSE/START. "REC" flashes in the display.

4 **Press DIRECTION repeatedly to select "⇌" to record on one side or "⊂⇄⊃" (or "RELAY") to record on both sides.**

When recording on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side. When recording from the radio, move the respective antenna to reduce noise. For Manual Recording, when recording from a disc, press ◀◀ or ▶▶ repeatedly (or turn ◀◀ OPERATION DIAL ▶▶ clockwise or counterclockwise) to select tracks.

5 **Press REC PAUSE/START.**

"REC" lights up in the display. Recording starts. You cannot listen to other sources while recording. CD Synchro Recording stops when the current disc finishes playback.

6 **For Manual Recording and Sound Mixing, start playing the source to be recorded.**

7 **For Sound Mixing, start singing along with the music and adjust the microphone volume by turning MIC 1 LEVEL or MIC 2 LEVEL.**

After you have finished, turn MIC 1 LEVEL or MIC 2 LEVEL to "MIN".

To stop recording

Press ■.

Notes
- If you connect or disconnect a microphone or headphone during recording, the sound may cut off for a moment.
- When DVD is selected, Karaoke Mode is automatically turned on when you connect an optional microphone to MIC 1 or MIC 2 jack.
- When you press CD SYNC or REC PAUSE/ START or when you connect microphone during DVD function, the sound field is automatically changed to
  (MHC-GNZ888D only)
  – LINK if the headphones are not connected.
  – HP 2CH if the headphones are connected.

  (MHC-GNZ777D only)
  – 2CH STEREO if the headphones are not connected.
  – HP 2CH if the headphones are connected.

Tip
When high level sound signals are input, the system automatically adjusts the recording level to prevent distortion of the recorded sound signals (Auto Level Control Function).

Adjusting the sound

Reinforcing the sound

You can reinforce the bass and create a more powerful sound.
The GROOVE setting is ideal for music sources, and the V-GROOVE setting is ideal for video sources (movie, etc.).

Press GROOVE on the unit repeatedly.

GROOVE ON* → V-GROOVE ON* →
GROOVE OFF → GROOVE ON → …
* The volume switches to power mode and the equalizer curve changes.

Tip
The default setting is "GROOVE ON".

Selecting the preset effect

Use the buttons on the unit for the operation.

Press PRESET EQ repeatedly to select the preset effect you want.

Preset effect options

Effect	Category
ROCK, POP, JAZZ, DANCE, SOUL, TECHNO, HIP HOP	Standard music sources
MP3 EQ	MP3 audio tracks
FLAT	Original music source (cancel the preset effect)
USER EQ 1, 2, 3	User equalizer setting (see below)

Adjusting the graphic equalizer and storing the user equalizer setting

You can adjust the sound by raising or lowering the level of specific frequency band, then store up to three user equalizer settings in the memory.
Use button on the unit for the operation.

1 Press EQ BAND/MEMORY repeatedly to select a frequency band.

Frequency band   Frequency level

2 Turn ◄◄ OPERATION DIAL ►►◄ clockwise or counterclockwise to adjust the level.

3 Repeat steps 1 and 2 to adjust the level of frequency band "MID".

4 Repeat steps 1 and 2 to adjust the level of frequency band "HIGH".

5 Press EQ BAND/MEMORY.
A user equalizer number flashes in the display.

6 Turn ◄◄ OPERATION DIAL ►►◄ clockwise or counterclockwise to select a user equalizer number (1~3) you want to store the equalizer setting. Select "EXIT" to cancel storing.

7 Press EQ BAND/MEMORY.
This setting is automatically stored as the user equalizer setting you selected in step 5.
The previous setting stored at this memory location is erased and replaced by the new setting.

Selecting the sound field

You can take advantage of the surround sound simply by selecting one of the sound fields.
They bring the exciting and powerful sound of movie theaters into your home.

1 Press SOUND FIELD.

The last selected sound field appears in the display.

**2 Press ↑/↓ or ←/→ or SOUND FIELD repeatedly (or turn
I◄◄ OPERATION DIAL ►►I on the unit clockwise or counterclockwise)
when the last selected sound field appears in the display to select the
sound field you want.**

The selectable sound fields differ depending on the function you have activated.
However, the sound field changes if you connect the headphones. For details, refer to the
following table.

Function	Sound field (When the headphones are not connected)	Sound field (When the headphones are connected)
DVD	**MHC-GNZ888D only** SBS MULTI ←→ A.F.D. AUTO ←→ PRO LOGIC ←→ PLII MOVIE ←→ PLII MUSIC ←→ V.M.DIM. ←→ LINK ←→ 2CH STEREO	**MHC-GNZ888D only** HP 2CH ←→ HP VIRTUAL
	MHC-GNZ777D only 2CH STEREO ←→ 2CH SUR ←→ VIRTUAL A ←→ VIRTUAL B	**MHC-GNZ777D only** HP 2CH ←→ HP SUR ←→ HP VIRTUAL
DVD And, one of the following operations is performed: – Activate the Karaoke Mode. – Recording or system stands by for recording. – Connect a microphone.	**MHC-GNZ888D only** LINK ←→ LINK SUR ←→ 2CH SUR ←→ 2CH STEREO	**MHC-GNZ888D only** HP 2CH
	MHC-GNZ777D only 2CH STEREO ←→ 2CH SUR	**MHC-GNZ777D only** HP 2CH ←→ HP SUR
TUNER TAPE A TAPE B TV SAT VIDEO	**MHC-GNZ888D only** LINK ←→ LINK SUR ←→ 2CH SUR ←→ 2CH STEREO	**MHC-GNZ888D only** HP 2CH
	MHC-GNZ777D only 2CH STEREO ←→ 2CH SUR	**MHC-GNZ777D only** HP 2CH ←→ HP SUR

Sound Adjustment

When the headphones are not connected:

SBS MULTI (Sound Broadcasting System Multi mode)

Performs suitable decoding based on the source to maximize the sound field effect. This mode lets you enjoy audio playback of all types of discs from multiple speakers.

A.F.D. AUTO (Auto Format Direct Auto)

The number of sound channels depends on the source. When 2 channel sources such as AUDIO CD, VIDEO CD and MP3 audio tracks are played back, only 2 sound channels would be output. However, the number of sound channels output during DVD VIDEO playback would depend on the audio format selection. This setting is ideal when you want to listen to the original sound from the source.

PRO LOGIC

Performs Pro Logic decoding. The source recorded in 2 channels is decoded into 4.1 channels.

PLII MOVIE

Performs Pro Logic II Movie mode decoding. This setting is ideal for movies encoded in Dolby Surround. In addition, this mode can reproduce sound in 5.1 channels when watching videos of overdubbed or old movies. The source recorded in 2 channels is decoded into 5.1 channels.

PLII MUSIC

Performs Pro Logic II Music mode decoding. This setting is ideal for normal stereo sources such as AUDIO CDs. The source recorded in 2 channels is decoded into 5.1 channels.

V.M.DIM. (Virtual Multi Dimension)

Performs DCS (Digital Cinema Sound) decoding. The source recorded in 2 channels is decoded into 5.1 channels.

LINK

Reproduces the surround channels from the front channels.

LINK SUR

Reproduces the surround channels from the front channels with surround effect.

2CH STEREO

Reproduces stereo output from multi channel sources such as DVD VIDEOs during DVD function. The system outputs the original sound during functions other than DVD and during playback of stereo sources such as AUDIO CD, VIDEO CD and MP3 audio tracks.

VIRTUAL A

Creates 3 sets of virtual surround speakers from the sound of the actual front speakers. This sound field is only effective when you play back multi channel sources.

VIRTUAL B

Creates 1 set of virtual surround speakers from the sound of the front speakers without using actual surround speakers. This mode is effective when the distance between the front speakers is short. This sound field is only effective when you play back multi channel sources.

2CH SUR

Reproduces stereo output with surround effect from multi channel sources such as DVD VIDEO during DVD function. The system outputs the original sound with surround effect during functions other than DVD.

When the headphones are connected:

HP 2CH

The normal sound field for headphones.

HP SUR

The sound field for headphones with surround effect.

HP VIRTUAL

The sound field for headphones with virtual surround effect. This sound field is only effective when you play back multi channel sources.

Note

Depending on the disc, the surround effect may not be as much as expected.

Singing along: Karaoke

DVD-V   DVD-VR   VIDEO CD   C D   DATA CD
DATA DVD

You can sing along with any multiplex AUDIO CD, multiplex VIDEO CD or DVD VIDEO in Dolby Digital Karaoke format.

Preparing for karaoke

(DVD VIDEO, DVD-R/-RW in VR mode, VIDEO CD, AUDIO CD, MP3 audio tracks and DivX video files only)

1 Press FUNCTION +/– repeatedly to select "DVD" (or press DVD on the unit).

2 Turn MIC 1 LEVEL or MIC 2 LEVEL on the unit to "MIN" to reduce the microphone volume and turn ECHO LEVEL on the unit to "MIN" to cancel the echo effect.

3 **Connect an optional microphone to MIC 1 or MIC 2 jack on the unit.**

Connect another optional microphone if you want to sing in duet.
The Karaoke Mode is turned on.
"KARAOKE MODE: ON" appears on the TV screen.
When you turn on the Karaoke Mode, the sound field is automatically changed to
(MHC-GNZ888D only)
– LINK if the headphones are not connected.
– HP 2CH if the headphones are connected.

(MHC-GNZ777D only)
– 2CH STEREO if the headphones are not connected.
– HP 2CH if the headphones are connected.

4 **Start playing the music and adjust the volume.**

DVD VIDEO, DVD-R/-RW in VR mode or DivX video files:
The system outputs the audio format that you have selected.

AUDIO CD, VIDEO CD or MP3 audio tracks:
The audio setting automatically changes to "1/L" and the system outputs the left channel audio on both front and surround channels.

If you want to hear vocal:
Press AUDIO repeatedly to select another audio channel.

5 **Start singing along with the music.**

Other operations

To	Turn
adjust the microphone volume	MIC 1 LEVEL or MIC 2 LEVEL on the unit.
adjust the microphone echo	ECHO LEVEL on the unit.
cancel the echo effect	ECHO LEVEL on the unit to "MIN".

To turn off the Karaoke Mode
Disconnect all the microphones or press KARAOKE MODE. "KARAOKE MODE: OFF" appears on the TV screen.

Note
• You can also turn on Karaoke Mode by pressing KARAOKE MODE.
• Karaoke Mode is automatically turned off when you:
  – turn off the system.
  – change the function.
  – connect the headphones.
  – turn on the test tone.

Dolby Digital Karaoke format
The Dolby Digital format, which reproduces surround sound using 5 channels, can also contain the "Dolby Digital Karaoke" format which is specialized for karaoke. In the Dolby Digital Karaoke format discs, guide melody and guide vocal tracks are recorded in addition to the accompaniment. You can select them when Karaoke Mode is turned on.

Speaker output in normal Dolby Digital format (5.1 channel)

Front (L)	Center	Front (R)

Surround (L)	Surround (R)
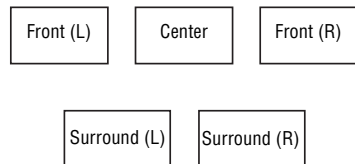
Speaker output in Dolby Digital Karaoke format

Accompaniment (L)

Accompaniment (R)

Guide melody

Guide vocal 1　　Guide vocal 2
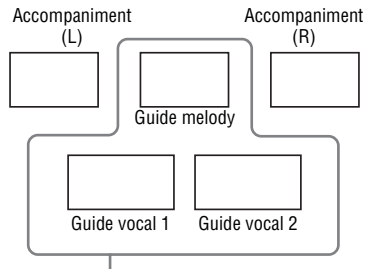
You can select any of these. These are output from the speakers.

You can check the audio information by pressing AUDIO (page 28). When playing a Dolby Digital Karaoke disc, "♪" appears at the current audio format (page 69).
Example:

DOLBY DIGITAL ♪ 3 / 2

2/0: Recorded only with accompaniment.
3/0: Recorded with guide melody.
3/1: Recorded with guide melody and one guide vocal.
3/2: Recorded with guide melody and two guide vocals.

Enjoying karaoke using the control menu

1 **Press ⬚ DISPLAY once or twice when Karaoke Mode is turned on while playing a disc.**

The Control Menu for Karaoke Mode appears on the TV screen.

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

The Karaoke item is selected.

3 **Press ↑ or ↓ repeatedly to select the setting you want, then press ENTER.**

Setting the Karaoke Mode
The default settings are underlined.

KARAOKE PON[1]

ON: Enjoy karaoke with any disc, even if it is not a karaoke or multiplex disc by reducing the sound of the vocal.
OFF: Cancel the "KARAOKE PON" effect.

KEY CONTROL[2]

Adjust the pitch of the music to suit your vocal range.
Select "♮" to cancel the "KEY CONTROL" effect.

VOCAL SELECT[3]

(DVD VIDEO, VIDEO CD, AUDIO CD only)

When playing a DVD VIDEO:

OFF: Cancel the guide vocal.
1+2: Guide vocal 1+2.
1: Guide vocal 1.
2: Guide vocal 2.

When playing a VIDEO CD or AUDIO CD:

OFF: Cancel the guide vocal.
L+R: The same sound is output from both speakers.
STEREO: The standard stereo sound.

When playing a Super VCD:

OFF: Cancel the guide vocal.
1: L+R: Same sound of the audio track 1 is output from both speakers.
1: STEREO: The stereo sound of the audio track 1.
2: L+R: Same sound of the audio track 2 is output from both speakers.
2: STEREO: The stereo sound of the audio track 2.

Sound Adjustment

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GUIDE MELODY[4)]

(DVD VIDEO only)

ON: Turn on the guide melody.

OFF: Turn off the guide melody.

SCORE MODE[5)]

When Karaoke Mode is turned on, you can select this.

Your score is calculated by comparing your voice with the music source.

EASY: Beginner or intermediate level.

NORMAL: Advance or professional level.

DEMO: Demonstration mode. Consistently displays a high score for every song.

1 Press SCORE before singing a song in Karaoke Mode.

The previous highest score appears on the TV screen.

2 After singing for more than a minute, press SCORE again to view your score.

Your score is calculated from a scale of 0 to 99.

[1)] The singer's voice may not be reduced when:
  – only a few instruments are playing.
  – a duet is being played back.
  – the source has strong echoes or chorus.
  – the singer's voice deviates from the center.
  – the voice on the source is singing in high soprano or tenor.

You can also change the "KARAOKE PON" setting by pressing KARAOKE PON when the Karaoke Mode is turned on.

The "KARAOKE PON" setting is automatically changed to "OFF" when you set "VOCAL" to "ON".

[2)] You can also change the "KEY CONTROL" setting by pressing KEY CONTROL ♭ to reduce the key and KEY CONTROL ♯ to increase the key when the Karaoke Mode is turned on.

The "KEY CONTROL" setting is automatically changed to default setting when you change the track, title or perform Lock Search.

Depending on the disc, you may not be able to do the above operation.

[3)] When playing a DVD VIDEO, the function only works for Dolby Digital Karaoke format.

The "VOCAL SELECT" setting is automatically changed to "OFF" when you set "KARAOKE PON" to "ON".

For DVD VIDEOs with 1 guide vocal recorded, you cannot change the vocal.

Depending on the disc, you may not be able to change the vocal.

[4)] When playing a DVD VIDEO, the function only works for Dolby Digital Karaoke format.

For DVD VIDEOs without guide melody, you cannot hear the guide melody even if you set the setting to "ON".

[5)] The highest score is reset when the system is turned off.

If you press other buttons on the remote, the score calculating function may be canceled.

In some cases, you may not be able to use the scoring mode.

Notes

• The "SCORE MODE" setting is automatically changed to "EASY" when the system is turned off.

• Each Karaoke setting in the table above except Score Mode is automatically changed to "OFF" or to the default setting when you:

– turn off the system.

– change the function.

– connect the headphones.

– turn on the test tone.

– turn off the Karaoke Mode.

– open the disc tray.

– change the disc.

Other Operations

Using the timer

Falling asleep to music

— Sleep Timer

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

Press SLEEP repeatedly.
The minute display (turn-off time) changes.

Tips
- To check the remaining time, press SLEEP once.
- You can use the Sleep Timer even if you have not set the clock.

Setting the timer

— Play Timer/Recording Timer

You cannot activate both the Play Timer and the Recording Timer at the same time. Make sure you have set the clock.

Play Timer:
You can wake up to music at a preset time.

Recording Timer:
You can record from a preset radio station at a specified time.

1 Prepare the sound source.

For Play Timer:
Load a disc or a tape with the side you want to play back facing forward or tune in the preset station you want. Then press VOLUME +/– (or turn MASTER VOLUME on the unit) to adjust the volume.

For Recording Timer:
Tune in the preset radio station you want.

2 Press TIMER MENU.

3 Press ✦ or ✦ repeatedly to select "PLAY SET" or "REC SET", then press ENTER.

"ON" appears and the hour indication flashes in the display.

4 Set the time to start playback or recording.

Press ✦ or ✦ repeatedly to set the hour, then press ENTER.
The minute indication flashes in the display. Use the procedure above to set the minute. "OFF" appears and the hour indication flashes in the display.

5 Set the time to stop playback or recording using the same procedure as step 4.

Other Operations

6 Select the sound source or prepare the tape.

For Play Timer:
Press ↑ or ↓ repeatedly until the music source you want appears in the display, then press ENTER. The display will show the timer settings.

For Recording Timer:
The display will show the timer settings. Load a recordable tape into Deck B. Press DIRECTION on the unit repeatedly to select "⇌" to record on one side or "⊂⇄⊃" (or "RELAY") to record on both sides. When recording from the reverse side, press FUNCTION +/– (or TAPE A/B on the unit) repeatedly to select "TAPE B". Then, press ▷ (or ◀▶ on the unit) repeatedly until the TAPE B reverse side indicator lights up to start playback of the reverse side. Press ■ at the point where you want to start recording.
When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of reverse side.

7 Press I/⏻ (or I/⏻ STANDBY on the unit) to turn off the system.

Other operations

To	Do this
Check the setting	**1** Press TIMER MENU. "TIMER SELECT" flashes in the display.
	2 Press ENTER.
	3 Press ↑ or ↓ repeatedly to select "PLAY SELECT" or "REC SELECT", then press ENTER.
Change the setting	Start from step 1.
Cancel the Play Timer or Recording Timer	**1** Press TIMER MENU. "TIMER SELECT" flashes in the display.
	2 Press ENTER.
	3 Press ↑ or ↓ repeatedly to select "TIMER OFF", then press ENTER.

Notes
• If you use the Play Timer or Recording Timer and the Sleep Timer at the same time, the Sleep Timer has priority.
• The Play Timer and Recording Timer will not be activated if the system is turned on or if "STANDBY" flashes in the display.
• The system turns on 30 seconds before the preset time. Do not operate the system from the time the system turns on until the recording starts.
• The volume is reduced to minimum during Recording Timer.

Changing the display

Turning off the display

— Power Saving Mode

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

Press DISPLAY repeatedly while the system is turned off.

Demonstration[1] → No display (Power Saving Mode) → Clock[2] → Demonstration → …

[1] The display changes and the indicators flash even when the system is turned off.
[2] The clock display automatically turns to Power Saving Mode after 8 seconds.

Note
You cannot perform the following operations during Power Saving Mode:
– Setting the clock (page 22).
– Changing the AM tuning interval (page 54).
– Turning on the system by pressing DVD, TUNER/BAND, TAPE A/B, TV/SAT or VIDEO on the unit.
– Changing the color system (page 19).

Changing the power illuminator

Press ILLUMINATION on the unit repeatedly to select the power illuminator you want when the system is turned on.

PATTERN 1 → PATTERN 2 → PATTERN 3 → PATTERN OFF → PATTERN 1 → …

Notes
• When you press VOLUME +/– (or turn MASTER VOLUME on the unit), the power illuminator shows the current volume level.
• During the demonstration display, you can turn on or off the power illuminator by pressing ILLUMINATION on the unit.

Viewing information about the disc

Viewing information about the disc in the front panel display

Press DISPLAY repeatedly.

Each time you press DISPLAY, the display changes from ① → ② → ③ → ① → …
① Disc information
② Clock display (for 8 seconds)
③ Effect name (for 8 seconds)

Checking the elapsed playing time, remaining time and titles
Press TIME/TEXT repeatedly during playback. Each time you press TIME/TEXT, the display changes from ① → ② → … → ① → …

When playing a DVD VIDEO or DVD-R/-RW in VR mode:
• When the menu or the title without a chapter is played back
  ① Elapsed playing time of the menu or the current title
  ② Title of the disc[1]
• When a chapter other than above condition is played back
  ① Elapsed playing time of the current title
  ② Remaining time of the current title
  ③ Elapsed playing time of the current chapter
  ④ Remaining time of the current chapter
  ⑤ Title of the disc[1][2]

Other Operations

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When playing an AUDIO CD or VIDEO CD without PBC function:
① Elapsed playing time of the current track
② Remaining time of the current track
③ Elapsed playing time of the current disc[3]
④ Remaining time of the current disc[3]
⑤ Title of the disc[1][5]

When playing a VIDEO CD with PBC function/Super VCD:
① Elapsed playing time of the current scene/track
② Title of the disc[1][5]

When playing MP3 audio tracks or DivX video files on a DATA CD/DVD:
① Elapsed playing time of the current track/file
② Title of the track/file[4]

Checking the total playing time and titles

Press TIME/TEXT repeatedly when playback is stopped.
Each time you press TIME/TEXT, the display changes from ① → ② → ① → …

DVD VIDEO or DVD-R/-RW in VR mode:
① Total number of titles on the disc
② Title of the disc[1]

VIDEO CD without PBC playback or AUDIO CD:
① Total number of the tracks on the disc and the total playing time of the disc
② Title of the disc[1]

VIDEO CD with PBC playback:
① Total number of scene on the disc
② Title of the disc[1]

[1] "NO TEXT" appears in the display if the DVD VIDEO is not a DVD-TEXT disc, the AUDIO CD is not a CD-TEXT disc or the VIDEO CD does not have text information.
[2] The current chapter number and the current title number are displayed for 2 seconds before the display returns to elapsed playing time when you press TIME/TEXT during display of title of the disc.
[3] When Program Play or Shuffle Play is turned on, the elapsed playing time and the remaining time of the disc would be skipped.
[4] When playing DivX video files, the current album number and the current file number are displayed for 2 seconds before the display returns to elapsed playing time when you press TIME/TEXT during display of title of the file.
[5] The current track number and the current index number (for a disc without PBC function) or the current scene number (for a disc with PBC function) is displayed for 2 seconds before the display returns to elapsed playing time when you press TIME/TEXT during display of the title of the disc.

Notes
• If you play back a disc containing JPEG image files only, "JPEG" or "No Audio" appears in the display.
• You cannot use TIME/TEXT to change the display of disc information when:
  – a JPEG image file is played back.
  – playback is stopped for DATA CD/DVD with MP3 audio tracks and/or JPEG image files.
  – playback is stopped for DATA CD/DVD with DivX video files.
• If the MP3 audio track title contains characters which cannot be displayed, these characters will be displayed as "*".
• The elapsed playing time of MP3 audio tracks and DivX video files may not be displayed correctly.

Viewing information about the disc in the on-screen display

Press TIME/TEXT repeatedly during playback.

Each time you press TIME/TEXT while playing the disc, the display changes from
① → ② → … → ① → …
The time and title display that you can view on the TV screen depends on the disc you are playing.

T: title or track
C: chapter
D: disc
Bit rate

```
 🕐 T  17:30  128k              ▶
```

Time information

JAZZ
RIVER SIDE

Album Title   Disc/track/file title
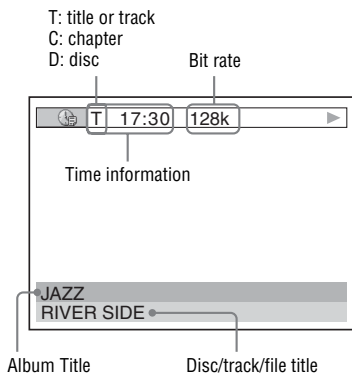
When playing a DVD VIDEO or DVD-R/-RW in VR mode:
① Elapsed playing time of the current title
② Remaining time of the current title
③ Elapsed playing time of the current chapter
④ Remaining time of the current chapter
⑤ Elapsed playing time of the current title and title of the disc

When playing a VIDEO CD with PBC function/Super VCD:
Elapsed playing time of the current scene/track and title of the disc

When playing an AUDIO CD or VIDEO CD without PBC function:
① Elapsed playing time of the current track
② Remaining time of the current track
③ Elapsed playing time of the current disc
④ Remaining time of the current disc
⑤ Elapsed playing time of the current track and title of the disc

When playing a DATA CD/DVD:
Elapsed playing time of the current track/file and title of the album/track/file

Notes
• Only alphabet letters, numbers and some symbols can be displayed.
• Depending on the disc, the system can only display a limited number of characters.
• For MP3 audio tracks with format other than ISO 9660 Level 1 and Level 2, album title and track title may not be displayed.

Displaying the audio information of the disc

(DVD VIDEO and DivX video files only)
When you press AUDIO repeatedly during playback, the format of the current audio signal is displayed on the TV screen.

When playing a DVD VIDEO:

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

Surround (L/R)   LFE (Low Frequency Effect)

〔 ◯◯ │ 1 :ENGLISH DOLBY DIGITAL│3 / 2 .1│ 〕

Front (L/R)+
Center

L	C	R
	LFE	
LS		RS

The audio format of
current track*
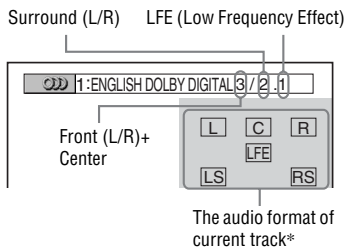
* This information appears for MHC-GNZ888D only.

The symbols shown on the TV screen represent the audio signal channels which are output from different speakers.
• L: Front Left
• R: Front Right
• C: Center
• LS: Surround Left
• RS: Surround Right
• S: Surround signal which is produced from Dolby Surround Sound processing or monaural surround audio signal.
• LFE: Low Frequency Effect

Example:
For Dolby Digital 5.1 channel:

2 Surround components

DOLBY DIGITAL │3│/│2│.│1│

2 Front component +
1 Center component

1 LFE (Low Frequency
Effect) component
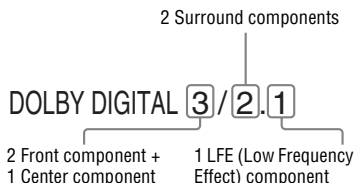
When playing a DivX video file:
Example:
MP3 audio track

〔 ◯◯ │1 : MP3│ 128k│ 〕

Bit rate
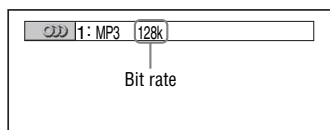
Checking the date information of JPEG image files

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

Press ⊙ DISPLAY repeatedly during playback until the Control Menu for JPEG image files appears on the TV screen.

1 (8)	▶
1 (2 0)	DATA CD JPEG
〔01/ 01/ 2003〕	
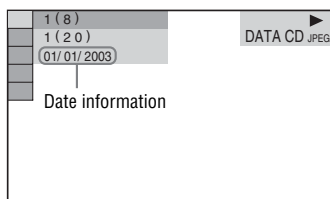
Date information

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

Notes
• If there is no date information or the data is damaged on the disc, the system cannot display the date information.
• The date information format varies depending on the area.

Hooking up the optional components

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

Front panel

Rear panel
MHC-GNZ888D

MHC-GNZ777D
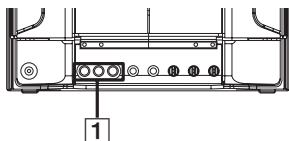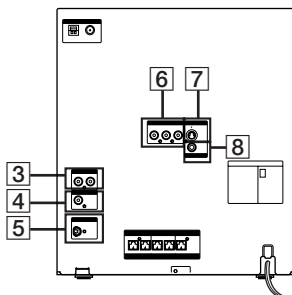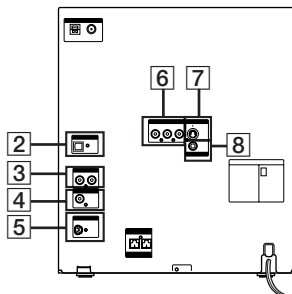
A **VIDEO INPUT VIDEO and AUDIO L/R jacks**

Use an audio/video cord to connect to the video and audio output jacks of a VCR.

B **DVD DIGITAL OUT jack**
(MHC-GNZ777D only)
Use a digital optical cord (square, not supplied) to connect the digital optical input jack of the amplifier to this jack. The sound is output through this system when DVD function is selected. You can enjoy 5.1 channel sound, if the connected amplifier equipped with Dolby Digital or DTS decoder. If the jack is covered with a cap, remove it before use.

Note
If you press AUDIO, SOUND FIELD or any karaoke button, or if you connect or disconnect microphones or headphones, the sound cuts off for a moment.

C **TV/SAT AUDIO IN L/R jacks**

Use an audio cord to connect to the audio output jacks of an optional component (such as a TV or satellite tuner).

D **SUBWOOFER OUT jack**

Use an audio cord (not supplied) to connect to the audio input jack of an optional subwoofer* to this jack.
* SA-GNV111D is recommended.
  In some areas, the SA-GNV111D may not yet be available.

Note
The effect may be limited or noise may occur depending on the connected subwoofer or the type of music being played back. For details, consult your nearest Sony dealer.

Other Operations

5 **D-LIGHT SYNC OUT jack**

Connect the D-LIGHT SYNC controller. You need to connect the D-LIGHT SYNC controller to a lighting device* (not supplied). The lighting device will react according to the control signals transmitted by the D-LIGHT SYNC controller upon receiving music source from the system. For details on the use of the D-LIGHT SYNC controller and lighting device, refer to the operating instructions supplied with the respective device.

D-LIGHT SYNC
controller cord
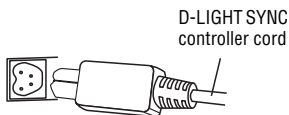
* Refer to the operating instructions supplied with the D-LIGHT SYNC controller for the recommended lighting device.

Note

The lighting effect may be different depending on the connected lighting device or the type of music being played back.

6 **COMPONENT VIDEO OUT jacks**

Use a component video cords to connect to the component video input jacks of a TV or projector. If your TV accepts progressive format signals, you must use this connection. You can enjoy higher quality video images.

Note

You cannot output the video signal from the VIDEO INPUT VIDEO jack through the COMPONENT VIDEO OUT jacks of this unit.

7 **S VIDEO OUT jack**

Use an S video cord to connect to the S video input jack of a TV. You can enjoy higher quality video images.

Note

You cannot output the video signal from the VIDEO INPUT VIDEO jack through the S VIDEO OUT jack of this unit.

8 **VIDEO OUT jack**

Use a video cord to connect to the video input jack of a TV.

Listening to a connected TV or satellite tuner

Press FUNCTION +/– repeatedly (or press TV/SAT on the unit) to select "TV" or "SAT".

To switch between the "TV" and "SAT" function

Use the buttons on the unit for the operation.
Hold down TV/SAT and press I/(¹) STANDBY while the system is turned on. Release I/(¹) STANDBY first, then release TV/SAT. The system switches the function from "TV" to "SAT" or vice versa.

Note

If the sound is distorted or too loud when "TV" is selected, change the function to "SAT".

Listening to a connected VCR

Press FUNCTION +/– repeatedly to select "VIDEO" (or press VIDEO on the unit) and start playing the connected VCR.

Note

The video signal from the connected VCR is only output through the VIDEO OUT jack of this unit.

Enjoying the multi channel sound with the optional amplifier

(MHC-GNZ777D only)

1 Connect the speakers to an optional amplifier equipped with a decoder.
For the speakers placement, refer to the operating instructions supplied with the connected amplifier.

2 Start playing a Multi Channel source, such as a DVD VIDEO.

3 Select the audio format you want.

Other Operations

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Troubleshooting

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

1 Make sure the power cord and speaker cords are connected correctly and firmly.

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.
Note that if service personnel changes some parts during repair, these parts may be retained.

When the I/⏻ STANDBY indicator flashes

Immediately unplug the power cord and check the following items.
• If your unit have a voltage selector, is the voltage selector set to the correct voltage?
Check the voltage for your region, then make sure the voltage selector is set correctly.
• Are the + and – speaker cords short-circuited?
• Are you using the supplied speakers?
• Is anything blocking the ventilation holes on the rear of the unit?

After checking the above items and fixing any problems, plug in the power cord again and turn on the unit. If the I/⏻ STANDBY indicator still flashes, or if the cause of the problem cannot be found even after checking all the above items, consult your nearest Sony dealer.

General

The display starts flashing as soon as you plug in the power cord even though you have not turned on the system.
• The demonstration mode started. Press I/⏻ (or I/⏻ STANDBY on the unit) (page 17).

The clock or timer setting is canceled.
• The power cord is disconnected or a power failure occurred. Redo "Setting the clock" (page 22). If you have set the timer, redo "Setting the timer" (page 65).

"– –:– –" appears in the display.
• The clock is not set. Set the clock (page 22).
• A power failure has occurred. Set the clock (page 22) and timer settings (page 65) again.

There is no sound.
• Press VOLUME + repeatedly (or turn MASTER VOLUME on the unit clockwise).
• The headphones are connected to the PHONES jack.
• Check the speaker connections (page 17).
• There is no audio output during Timer Recording.
• The system is in pause mode, in Slow-motion Play or in Lock Search. Press ▷ (or ◀◀▶ on the unit) to start the playback.

There is no microphone sound.
• Press VOLUME + repeatedly (or turn MASTER VOLUME on the unit clockwise) or turn MIC 1 LEVEL or MIC 2 LEVEL on the unit clockwise to adjust the microphone volume.
• Make sure the microphone is connected to the MIC 1 or MIC 2 jack correctly.

There is severe hum or noise.
• A TV or VCR is placed too close to the unit. Move the unit away from the TV or VCR.
• Move the unit away from the source of noise.
• Connect the unit to a different wall outlet.
• Install a noise filter (commercially available) to the power cord.

The timer does not function.
• Check the timer setting and set the correct time (page 65).
• Cancel the Sleep Timer function (page 65).
• You cannot select the Play Timer and the Timer Recording at the same time.

The remote does not function.
• Remove the obstacles between the remote and the unit.
• Move the remote closer to the unit.
• Point the remote at the unit's sensor.
• Replace the batteries (R6/size AA).
• Move the unit away from the fluorescent light.

There is acoustic feedback.
• Reduce the volume.
• Move the microphone away from the speakers or change the direction of the microphone.

The color irregularity on a TV screen persists.
• Turn off the TV at once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV.

The sound from the component connected to the TV/SAT AUDIO IN L/ R jacks is distorted.
• If "TV" appears in the display when you press TV/SAT on the unit, switch to "SAT" function (see "To switch between the "TV" and "SAT" function" on page 73).

THEATRE SYNC function does not work.
• If the distance between the TV and this unit is too far, this function may not work. Install the unit near the TV.

Speakers

Sound comes from one channel or unbalanced left and right volume.
• Place the speakers as symmetrically as possible.
• Check that the speaker are connected securely and correctly.
• The source being played back is monaural.
• Adjust the level of each speaker (page 51).

The sound comes from the center speaker only (MHC-GNZ888D).
• Depending on the disc, the sound may come from the center speaker only.

There is no sound from the connected optional subwoofer.
• Set the subwoofer level to the appropriate level.
• No sound is produced from the subwoofer when you play back a DVD VIDEO that does not have subwoofer output recorded.
• The software being played back has limited sound effects.
• Check that the subwoofer is connected securely and correctly.
• Make sure that "SUBWOOFER" is set to "YES" (page 51).

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Additional Information

There is no sound from the center/surround speaker (MHC-GNZ888D only).
- Set the center/surround speaker level to the appropriate level.
- The software being played back has limited sound effects. Check the volume with the test tone (page 51).
- Check that the center/surround speakers are connected securely and correctly.
- Make sure that "SURROUND" is set to "SIDE" or "BEHIND" (page 50).
- Make sure that "CENTER" is set to "YES" (page 50).

Sound lacks bass.
- Check that the speaker's + and – terminals are connected correctly.

Disc Player

The disc tray does not open and "LOCKED" appears in the display.
- Consult your nearest Sony dealer or local authorized Sony service facility.

The disc tray does not close.
- Load the disc correctly.
- Always close the disc tray by pressing ▲ OPEN/CLOSE on the unit. Do not forcibly push the disc tray to close it as this may cause a malfunction.

The disc does not eject.
- You cannot eject the disc during CD Synchro Recording. Press ■ to cancel the CD Synchro Recording, then press ▲ OPEN/CLOSE on the unit to eject the disc.
- Consult your nearest Sony dealer.

Playback does not start.
- Open the disc tray and check whether a disc is loaded.
- Wipe the disc clean (page 83).
- Reload the disc.
- Load the disc that this system can play back (page 5).
- Load the disc on the disc tray with the label side facing 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 ▷ (or ◀▶ on the unit) to start playback.
- The region code on the DVD VIDEO does not match the system.
- Cancel the Custom Parental Control function (page 43).

The sound skips.
- Wipe the disc clean (page 83).
- Reload the disc.
- Move the unit to a place without vibration (e.g., on top of a stable stand).
- Move the speakers away from the unit, or place 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.

Playback does not start from the first track.
- The system is in Program Play or Shuffle Play mode. Turn off Program Play and Shuffle Play.
- Resume Play has been selected. Press ■ twice. Then, press ▷ (or ◀▶ on the unit) to start playback (page 30).
- The title of DVD VIDEO or PBC menu automatically appears on the TV screen.

Playback starts automatically.
- The DVD VIDEO features an auto playback function.

Playback stops automatically.

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

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

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

The DATA CD/DVD (MP3 audio track/JPEG image file/DivX video file[1]) cannot be played back.

• The DATA CD is not recorded in a format that conforms to ISO 9660 Level 1, Level 2, or Joliet (expansion format).
• The DATA DVD is not recorded in a format that conforms to UDF (Universal Disk Format).
• The MP3 audio track does not have the extension ".MP3".
• The data is not stored in the respective format.
• The MP3 audio tracks in format other than MPEG 1 Audio Layer 3 cannot be played back.
• The system can playback to a depth of 8 folders only.
• For MP3 audio tracks/JPEG image files, check the "MODE (MP3, JPEG)" setting (page 39).
• The disc contains more than 200 albums.
• The album contains more than 600 tracks/files.
• For MP3 audio tracks/JPEG image files, the album contains more than 300 tracks/files when the "MODE (MP3, JPEG)" is set to "AUTO".
• When the DATA CD/DVD contains a DivX video files and MP3 audio tracks/JPEG image files, only DivX video file will be played back.
• The JPEG image files does not have the extension ".JPG" or ".JPEG".

• The JPEG image file is larger than 3,072 (width) × 2,048 (height) in normal mode, or more than 2,000,000 pixels in Progressive JPEG mode which is mainly used on the Internet website.
• JPEG image files and DivX video files with a high width to length ratio cannot be played back.
• The DivX video file does not have the extension ".AVI" or ".DIVX".

The MP3 audio tracks take a longer time to play back than others.

• After the system reads all the tracks on the disc, playback may take more time than usual if:
  – the number of albums or tracks on the disc is very large.
  – the album and track organization structure is very complex.

The disc title, album title, track title, CD-TEXT and DVD-TEXT characters do not appear properly.

• Use a disc that conforms to the ISO 9660 Level 1, Level 2, or Joliet (expansion format).
• The character code that can be displayed by this system are as follows:
  – Upper cases (A to Z)
  – Numbers (0 to 9)
  – Symbols (< > * +, ? / [ ] \ _)
Other characters may not be displayed correctly.

Additional Information

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

- Make sure the sound field is set properly (page 59).
- Check the speaker connections and settings (pages 17 and 50).
- Depending on the DVD VIDEO, the output signal may not be the entire 5.1 channel. It may be monaural or stereo, even if the sound track is recorded in Dolby Digital or MPEG audio format.

The sound loses stereo effect when you play back an AUDIO CD, VIDEO CD, MP3 audio track, DivX video file or DVD VIDEO.

- Unplug the microphone or press KARAOKE MODE repeatedly until "◆" disappears from the display.
- Make sure the system is connected properly.

[1] MHC-GNZ777D Russian model only/ MHC-GNZ888D.

Picture

There is no picture.

- Press FUNCTION +/– repeatedly to select "DVD" (or press DVD on the unit).
- Check that the system is connected securely.
- The video cord is damaged. Replace it with a new one.
- Make sure you connect the unit to the video input jack of your TV (page 19).
- Make sure you turn on the TV and operate the TV correctly.

- You have set to progressive format but your TV cannot accept the signal in progressive format. In this case, set to interlace format (the default setting) (page 20).
- Even if your TV is compatible with progressive format (525p/625p) signals, the image may be affected when you set to progressive format. In this case, set to interlace format (the default setting) (page 20).
- Make sure you select the video input on the TV so that you can view the pictures from the system.
- Make sure you set the color system correctly, according to your TV's color system.

Picture noise appears.

- Clean the disc.
- If video signal from your system has to go through your VCR to your TV, the copy-protection applied to some DVD VIDEO programs could affect the picture quality. If you still experience problems after checking your connections, connect your unit directly to your TV's S Video input (page 19).
- Keep the speaker cords away from the antennas.
- When you play back a VIDEO CD recorded in a different color system from the one you set to the system, the picture image may be distorted (page 19, 48).
- When you connect your TV to the COMPONENT VIDEO OUT jacks and play back video-based software in progressive signal format, some sections of the image may appear unnatural due to the conversion process.
- Set the color system to match your TV (pages 19, 48).

The aspect ratio of the TV screen cannot be changed even though you can set "TV TYPE" under "SCREEN SETUP" in the Setup Menu when you play back a wide picture.
• The aspect ratio is fixed on your DVD VIDEO.
• If you connect the unit with the S Video cord, connect directly to the TV. Otherwise, you may not change the aspect ratio.
• Depending on the TV, you may not change the aspect ratio.

Messages do not appear on the TV screen in the language you want.
• Select the language you want for the on-screen display in "OSD" under "LANGUAGE SETUP" in the Setup Menu (page 47).

The language for the sound track cannot be changed.
• Multilingual tracks are not recorded on the DVD VIDEO being played back.
• The DVD VIDEO prohibits changing the language for the sound track.

The subtitles language cannot be changed.
• Multilingual subtitles are not recorded on the DVD VIDEO being played back.
• The DVD VIDEO prohibits changing the subtitles.

The subtitles cannot be turned off.
• The DVD VIDEO prohibits turning off subtitles.

The angles cannot be changed.
• Multi-angles are not recorded on the DVD VIDEO being played back.
• The DVD VIDEO prohibits changing the angles.

Tuner

The radio presetting is canceled.
• The power cord is disconnected or a power failure occurred for longer than half a day. Redo "Listening to a preset radio station" (page 53).

There is severe hum or noise. ("TUNED" or "STEREO" flashes in the display)
• Set the proper band and frequency (page 53).
• Connect the antenna properly (page 17).
• Find a place and an orientation that provide good reception, then set up the antenna again. If you cannot obtain good reception, we recommend that 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.
• Try turning off the surrounding electrical equipment.

A stereo FM program cannot be received in stereo.
• Press FM MODE repeatedly until "MONO" disappears from the display.

Additional Information

Tape deck

The tape does not record or playback, or there is a decrease in sound level.
- The tape heads are dirty (see "Cleaning the tape heads" on page 84).
- The record/playback heads are magnetized (see "Demagnetizing the tape heads" on page 84).

The tape does not erase completely.
- The record/playback heads are magnetized (see "Demagnetizing the tape heads" on page 84).

There is excessive wow or flutter, or the sound drops out.
- The capstans or pinch rollers are dirty (see "Cleaning the tape heads" on page 84).

Noise increases or the high frequencies are erased.
- The record/playback heads are magnetized (see "Demagnetizing the tape heads" on page 84).

The tape does not record.
- No tape is loaded. Load a tape.
- The tab has been removed from the tape. Cover the broken tab with adhesive tape (page 83).
- The tape has reeled to the end.

Optional components

There is no sound.
- Refer to General item "There is no sound." (page 74) and check the condition of the system.
- Connect the component properly (page 71) 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.

If the system still does not operate properly after performing the above measures or other troubles not described above occur, reset the system as follows:

Use the buttons on the unit for the operation.

1 Unplug the power cord.

2 Plug the power cord back in.

3 Press I/⏻ STANDBY to turn on the system.

4 Press ■, ILLUMINATION and I/⏻ STANDBY at the same time.
"COLD RESET" appears in the display.

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

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

1 Press ⊡ DISPLAY when playback is stopped.

The Control Menu appears on the TV screen.

2 Press ↑ or ↓ repeatedly to select 🖳 (SETUP), then press ENTER.

3 Press ↑ or ↓ repeatedly to select "RESET", then press ENTER.

4 Press ↑ or ↓ repeatedly to select "YES", then press ENTER.

It takes a few seconds to complete. Do not press I/⏻ (or I/⏻ STANDBY on the unit) when resetting the system.

* Except for Parental Control settings

Note

Turn off the subwoofer before you reset the system.

Self-diagnosis Function

(When letters/numbers appear in the display)
When the self-diagnosis function is activated to prevent the system from malfunctioning, a 5-character service number (e.g. C 13 50) with a combination of a letter and 4 digits appears on the TV screen and the front panel display. In this case, check the following table.

First 3 characters of the service number	Cause and corrective action
C 13	This disc is dirty. • Clean the disc with a soft cloth (page 83).
C 31	The disc is not inserted correctly. • Restart the system, then 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

When displaying the version number on the TV screen

When you turn on the system, the version number [VER.X.XX] (X is a number) may appear on the TV screen. Although this is not a malfunction and for Sony service use only, normal system operation will not be possible. Turn off the system, and then turn on the system again to operate.

```
 \ \ | | | / /
= VER.X.XX =
 / / | | | \ \
```

Additional Information

Messages

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

CANNOT PLAY
- A disc that cannot be played back was inserted.
- A DVD VIDEO with unsupported region code was inserted.

DATA ERROR
- The MP3 audio track, JPEG image file and DivX video file you want to play back is damaged.
- The MP3 audio track does not conform to MPEG 1 Audio Layer 3 format.
- The JPEG image file does not conform to DCF format.
- The DivX video file does not conform to a DivX Certified profiles.
- The MP3 audio track has the extension ".MP3" but it is not in MP3 format.
- The JPEG image file has the extension ".JPG" or ".JPEG" but it is not in JPEG format.
- The DivX video file has the extension ".AVI" or ".DIVX" but it is not in DivX format.

INVALID
You have pressed an invalid button.

NO DISC
There is no disc on the disc tray.

NO TAB
You cannot record the tape because the tab has been removed from the tape.

NO TAPE
There is no tape in the tape deck.

NOT IN USE
You have pressed a button whose operation is not allowed or invalid at that time.

OFF TIME NG
The on time and off time of Play Timer or Recording Timer is the same.

PASSWORD
Custom Parental Control or Parental Control is set.

PLEASE WAIT
The system is doing initialization process.

PUSH STOP
You have pressed the buttons whose operation is only possible when playback is stopped.

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

Precautions

Discs that this system CANNOT play
- Discs of non-standard shape (for example, heart, square, star).
- Discs that have adhesive tape, paper, or sticker attached to them.
- Rental or used discs with attached seals where the glue extends beyond the seal.
- Discs that have labels printed using ink that feels tacky when touched.

Notes on discs
- Before playing, wipe the disc with a cleaning cloth from the center out to the edge.
- Do not clean discs with solvents, such as benzine thinner, or commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose discs to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.

On safety
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall socket, even if the unit itself has been turned off.
- Completely disconnect the power cord (mains lead) from the wall socket (mains) if it is not going to be used for an extended period of time. When unplugging the unit, always grip the plug. Never pull the cord itself.
- Should any solid object or liquid get into the system, unplug the system, and have it checked by qualified personnel before operating it again.
- The AC power cord can be changed only by a qualified service facility.

On placement
- Do not place the system in an inclined position or in locations that are extremely hot, cold, dusty, dirty, or humid or lacking adequate ventilation, or subject to vibration, direct sunlight or a bright light.
- Be careful when placing the unit or speakers on surfaces that have been specially treated (for example, with wax, oil, polish) as staining or discoloration of the surface may result.

- 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 unit, and cause the system to malfunction. In this situation, remove the disc, and leave the system turned on for about an hour until the moisture evaporates.

On heat buildup
- Heat buildup on the unit during operation is normal and is not a cause for alarm.
- Do not touch the cabinet if it has been used continuously at a high volume because the cabinet may have become hot.
- Do not obstruct the ventilation holes.

On the speaker system
Although the front and center speakers are magnetically shielded, the picture on a nearby TV may become magnetically distorted. In this situation, turn off the TV, wait 15 to 30 minutes, and turn it back on. If there is no improvement, move the speakers far away from the TV.


IMPORTANT NOTICE

Caution: If you leave a still video image or on-screen display image displayed on your TV for an extended period of time via this system, you risk permanent damage to your TV screen. Projection TVs are especially susceptible to this.

Cleaning the cabinet
Clean this system with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent, such as thinner, benzine, or alcohol.

To prevent a tape from being accidentally recorded over
Break off the cassette's overwrite protection tab from side A or B as illustrated.

Break off the cassette tab
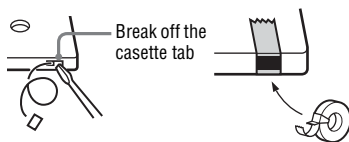
To later reuse the tape for recording, cover the broken tab with adhesive tape.

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About a tape longer than 90 minutes

The use of the tape with more than 90 minutes of play time is not recommended except for long, continuous recording or playback.

Cleaning the tape heads

Use a dry- or wet-type cleaning cassette (available separately) after every 10 hours of use, before you start an important recording, or after playing an old tape. Failure to clean the tape heads can cause degraded sound quality or an inability of the unit to record or play tapes. For details, refer to the instructions of the cleaning cassette.

Demagnetizing the tape heads

Use a demagnetizing cassette (available separately) after every 20 to 30 hours of use. Failure to demagnetize the tape heads can cause an increase in noise and a loss of high frequency sound and an inability to completely erase tapes. For details, refer to the instructions of the demagnetizing cassette.

Specifications

Amplifier section

MHC-GNZ888D (HCD-GNZ888D)

The following are measured at AC 120, 127, 220, 240V 50/60 Hz

Power Output (rated)

Front speaker:
    130 W + 130 W (4 Ω, 1 kHz, 1% THD)

RMS output power (reference)

Front speaker:
    160 W + 160 W (per channel at 4 Ω, 1 kHz, 10% THD)

Center speaker:
    50 W (per channel at 8 Ω, 1 kHz, 10% THD)

Surround speaker:
    50 W + 50 W (per channel at 8 Ω, 1 kHz, 10% THD)

MHC-GNZ777D (HCD-GNZ777D)

The following are measured at AC 120, 127, 220, 240V 50/60 Hz

Power Output (rated)

Front speaker:
    130 W + 130 W (4 Ω, 1 kHz, 1% THD)

RMS output power (reference)

Front speaker:
    160 W + 160 W (per channel at 4 Ω, 1 kHz, 10% THD)

Inputs

VIDEO INPUT:
    VIDEO: 1 Vp-p, 75 ohms
    AUDIO L/R: Voltage 250 mV, impedance 47 kilohms

TV/SAT AUDIO IN L/R:
    Voltage 250 mV/450 mV, impedance 47 kilohms

MIC 1 or 2:
    Sensitivity 1 mV, impedance 10 kilohms

Outputs

SUBWOOFER OUT:
    Voltage 250 mV, impedance 1 kilohm
VIDEO OUT:
    Max. output level 1 Vp-p, unbalanced,
    Sync. negative load impedance
    75 ohms
COMPONENT VIDEO OUT:
    Y: 1 Vp-p, 75 ohms
    P_B/C_B: 0.7 Vp-p, 75 ohms
    P_R/C_R: 0.7 Vp-p, 75 ohms
S VIDEO OUT:
    Y: 1 Vp-p, unbalanced, Sync. negative
    C: 0.286 Vp-p, load impedance
    75 ohms
DVD DIGITAL OUT (MHC-GNZ777D
only):
    Wavelength: 660 nm
PHONES:
    accepts headphones of 8 ohms or more

Disc player section

System
    Compact disc and digital audio and
    video system
Laser
    Semiconductor laser (DVD: λ =
    650 nm, CD: λ = 790 nm)
    Emission duration: continuous
Frequency response
    DVD (PCM 48 kHz): 2 Hz – 22 kHz
    ($\pm$1 dB)
    CD: 2 Hz – 20 kHz ($\pm$0.5 dB)
Video color system format
    Russian models: PAL
    Other models: NTSC and PAL

Tape deck section

Recording system
    4-track 2-channel stereo
Frequency response
    50 – 13,000 Hz ($\pm$3 dB),
    using Sony TYPE I tape
Wow and flutter
    $\pm$0.35% W.Peak (IEC)
    0.3% W.RMS (NAB)
    $\pm$0.4% W.Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range
    87.5 – 108.0 MHz (50 kHz step)
Antenna
    FM lead antenna
Antenna terminals
    75 ohms unbalanced
Intermediate frequency
    10.7 MHz

AM tuner section

Tuning range
    Saudi Arabian and Russian models:
    531 – 1,602 kHz (with the interval set
    at 9 kHz)
    Other models:
    531 – 1,602 kHz (with the interval set
    at 9 kHz)
    530 – 1,610 kHz (with the interval set
    at 10 kHz)
Antenna
    AM loop antenna
Antenna terminals
    External antenna terminal
Intermediate frequency
    450 kHz

Additional Information

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Speaker

Front speaker SS-GNZ888D

Speaker system
> 3-way, 3-unit, bass-reflex type, magnetically shielded

Speaker units
> Subwoofer: 13 cm, cone type
> Woofer: 13 cm, cone type
> Tweeter: 4 cm, horn type

Rated impedance
> 4 ohms

Dimensions (w/h/d)
> Approx. 235.8 × 359.4 × 270 mm

Mass
> Approx. 4.7 kg net per speaker

Surround speaker SS-RSX888D (MHC-GNZ888D only)

Speaker system
> Full range, 1-units, bass-reflex type

Speaker units
> Woofer: 8 cm, cone type

Rated impedance
> 8 ohms

Dimensions (w/h/d)
> Approx. 174 × 95.5 × 114 mm

Mass
> Approx. 0.6 kg net per speaker

Center Speaker SS-CT888D (MHC-GNZ888D only)

Speaker system
> Full range, 1-unit, bass-reflex type, magnetically shielded

Speaker units
> Full range, 8 cm, cone type

Rated impedance
> 8 ohms

Dimensions (w/h/d)
> Approx. 229.8 × 95.5 × 114 mm

Mass
> Approx. 0.9 kg

General

Power requirements
> Saudi Arabian model: 120 – 127 V, 220 – 240 V AC, 50/60 Hz, adjustable with voltage selector
> Thai model: 220 V AC, 50/60 Hz
> Russian and Indian models: 220 – 240 V AC, 50/60 Hz
> Other models: 120 V, 220 – 240 V AC, 50/60 Hz, adjustable with voltage selector

Power consumption
> MHC-GNZ888D   120 W
> MHC-GNZ777D   90 W

Dimensions (w/h/d) (Approx.)
> 280 × 323.5 × 373.5 mm

Mass (Approx.)
> HCD-GNZ888D   7.1 kg
> HCD-GNZ777D   6.9 kg

Supplied accessories:
> Remote Commander (1)
> R6 (size AA) batteries (2)
> AM loop antenna (1)
> FM lead antenna (1)
> Video cord (1)
> Front speaker pads (8)
> Surround speaker pads (8)*
> Center speaker pads (4)*
> Speaker cords (10 m) (2)*
> Speaker cord (3 m) (1)*
> Karaoke DVD disc (2)**
> Microphone (1)***

*   MHC-GNZ888D only.
**   Russian model only.
*** Russian and Philippines models only.

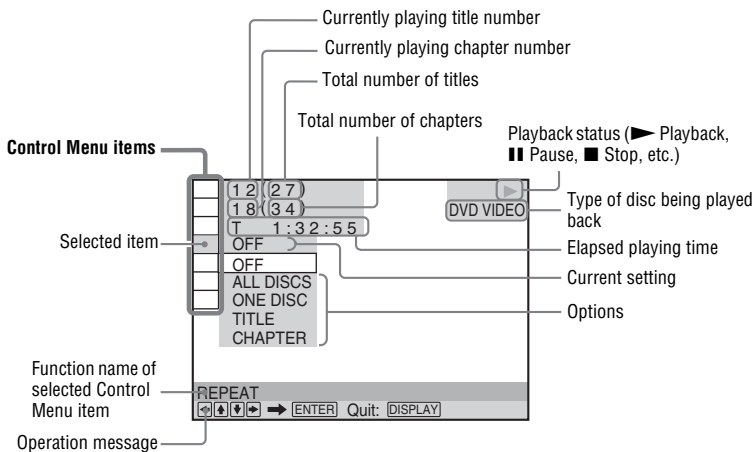Design and specifications are subject to change without notice.

Guide to the Control Menu display

Use the Control Menu to select a function and to view related information. Press ⊙ DISPLAY repeatedly to turn on, turn off or change the Control Menu display as follows:

Control Menu display 1 → Control Menu display 2 (appears for certain discs only) → Control Menu display off → Control Menu display 1 → …

Control Menu display

The Control Menu display 1 and 2 will show different items depending on the disc type. Example: Control Menu display 1 when playing a DVD VIDEO.

Currently playing title number

Currently playing chapter number

Total number of titles

Total number of chapters

Playback status (▶ Playback, ‖ Pause, ■ Stop, etc.)

Control Menu items

Selected item

Type of disc being played back

Elapsed playing time

Current setting

Options

Function name of selected Control Menu item

Operation message

```
1 2  (2 7)                    ▶
1 8  (3 4)          DVD VIDEO
T    1 : 3 2 : 5 5
OFF
  OFF
  ALL DISCS
  ONE DISC
  TITLE
  CHAPTER
REPEAT
◄ ▲ ▼ ► ➡ ENTER  Quit: DISPLAY
```

List of Control Menu items

Item	Item Name, Relevant Disc Type, Function			
🎬	**TITLE/SCENE/TRACK** Select the title, scene, or track to be played back.	DVD-V	DVD-VR	VIDEO CD
🎬	**CHAPTER/INDEX** Select the chapter or index to be played back.	DVD-V	DVD-VR	VIDEO CD

Item	Item Name, Relevant Disc Type, Function
[♫ icon]	**TRACK** `CD` `DATA CD` `DATA DVD` Selects the track to be played back.
[icon]	**ORIGINAL/PLAY LIST** `DVD-VR` Selects the playback sequence either to the originally recorded sequence or to the playlist created on the disc.
[icon]	**TIME/TEXT** `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD` Checks the elapsed playing time and the remaining time. Input the time code for picture and music searching. Displays the text information on the CD-TEXT discs, DVD TEXT discs and MP3 audio tracks.
[icon]	**PROGRAM** `VIDEO CD` `CD` Play back the track in the order you want.
[icon]	**SHUFFLE** `VIDEO CD` `CD` `DATA CD` `DATA DVD` Play back the track in random order.
[icon]	**REPEAT** `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD` Play back all discs repeatedly, the entire disc (all titles/all tracks/all albums) repeatedly or one title/chapter/track/album/file repeatedly.
[icon]	**A/V SYNC** `DVD-V` `DVD-VR` `VIDEO CD` `DATA CD` `DATA DVD` Sets the delay time between the sound and display.
[icon]	**PARENTAL CONTROL** `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD` Set to prohibit playback on this system.
[icon]	**SETUP** `DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD` **QUICK Setup** Use QUICK SETUP to choose the language of the on-screen display, the aspect ratio of the TV and the distance of the speakers you are using. **CUSTOM Setup** In addition to the Quick Setup setting, you can adjust other settings. **RESET** Returns the settings in "SETUP" to the default setting.
[icon]	**ALBUM** `DATA CD` `DATA DVD` Selects the album to be played back.
[icon]	**FILE** `DATA CD` `DATA DVD` Selects the JPEG image file or DivX video file to be played back.

Item	Item Name, Relevant Disc Type, Function	
	DATE	`DATA CD` `DATA DVD`
	Displays the date when the picture was taken by a digital camera.	
	INTERVAL	`DATA CD` `DATA DVD`
	Specifies the duration for which the slides are displayed on the TV screen.	
	EFFECT	`DATA CD` `DATA DVD`
	Selects the transition effects to be used for changing slides during a slide show.	
	MODE (MP3, JPEG)	`DATA CD` `DATA DVD`
	Selects the data type: MP3 audio track (AUDIO), JPEG image file (IMAGE) or both (AUTO) to be played back when playing a DATA CD/DVD.	
	KEY CONTROL*	`DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD`
	Changes the key to suit your vocal range.	
	SCORE MODE*	`DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD`
	Selects the level for scoring mode.	
	KARAOKE PON*	`DVD-V` `DVD-VR` `VIDEO CD` `CD` `DATA CD` `DATA DVD`
	Enjoys karaoke with the stereo-recorded disc by reducing the sound of the vocals.	
	VOCAL SELECT*	`DVD-V` `VIDEO CD` `CD`
	Selects the guide vocal recorded on the Dolby Digital Karaoke Format disc (DVD VIDEO only). Selects the vocal type recorded on the disc (VIDEO CD, AUDIO CD only).	
	GUIDE MELODY*	`DVD-V`
	Turns on or off the guide melody for Dolby Digital Karaoke Format disc.	

* This function is only available during karaoke mode.

Additional Information

Language code list

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		

Parental Control area code list

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

Additional Information

Glossary

DivX®

Digital video technology created by DivX, Inc. Videos encoded with DivX technology are among the highest quality with a relatively small file size.

Dolby Digital

This sound format for movie theaters is more advanced than Dolby Surround Pro Logic. In this format, the surround speakers output stereo sound with an expanded frequency range and a subwoofer channel for deep bass is independently provided. This format is also called "5.1" because the subwoofer channel is counted as 0.1 channel (since it functions only when a deep bass effect is needed). All six channels in this format are recorded separately to realize superior channel separation. Furthermore, since all the signals are processed digitally, less signal degradation occurs.

Dolby Pro Logic II

This technology converts 2 channel stereo recorded audio into 5.1 channels for playback. There is a MOVIE mode for movies and MUSIC mode for stereo sources such as music. Old movies encoded in traditional stereo format can be enhanced with 5.1 channel surround sound.

Movie mode

The Movie mode is for use with stereo television shows and all the programs encoded in Dolby Surround. The result is enhanced sound field directionality that approaches the quality of discrete 5.1-channel sound.

Music mode

The Music mode is for use with any stereo music recordings, and provides a wide and deep sound space.

Dolby Surround Pro Logic

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

DTS

Digital audio compression technology that the DTS, Inc. developed. This technology conforms to 5.1-channel surround. The surround channel is stereo and there is discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio. The good channel separation is realized because the all channel data is recorded discrete and processed in digital.

DVD VIDEO

A disc that contains up to 8 hours of moving pictures even though its diameter is the same as a AUDIO CD.
The data capacity of a single-layer and single-sided DVD VIDEO, at 4.7 GB (Giga Byte), is 7 times that of an AUDIO CD. Furthermore, the data capacity of a dual-layer and single-sided DVD VIDEO is 8.5 GB, a single-layer and double-sided DVD VIDEO 9.4 GB, and a dual-layer and double-sided DVD VIDEO 17 GB. The picture data uses the MPEG 2 format, one of the worldwide standards for digital compression technology. The picture data is compressed to about 1/40 of its original size. The DVD VIDEO also uses variable rate coding technology that changes the data to be allocated according to the status of the picture.
The audio data is recorded in Dolby Digital as well as in PCM, allowing you to enjoy more realistic audio presence. Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD VIDEO.

DVD-RW

A DVD-RW is a recordable and rewritable disc that is the same size as a DVD VIDEO. The DVD-RW has two different modes: VR mode and Video mode. DVD-RWs created in Video mode have the same format as a DVD VIDEO, while discs created in VR (Video Recording) mode allow the contents to be programmed or edited.

DVD+RW

A DVD+RW (plus RW) is a recordable and rewritable disc. DVD+RWs use a recording format that is comparable to the DVD VIDEO format.

Film based software, Video based software

DVD VIDEOs can be classified as Film based or Video based software. Film based DVD VIDEOs contain the same images (24 frames per second) that are shown at movie theaters. Video based DVD VIDEOs, such as television dramas or sitcoms, displays images at 30 frames (or 60 fields) per second.

Interlace format (Interlaced scanning)

The Interlace format is the NTSC standard method for displaying TV images at 30 frames per second. Each frame is scanned twice-alternately between the even numbered scanning lines and then odd numbered scanning lines, at 60 times per second.

Multi-angle function

Various angles, or viewpoints of the video camera, for a scene are recorded on some DVD VIDEOs.

Multilingual function

Several languages for the sound or subtitles in a picture are recorded on some DVD VIDEOs.

Parental Control

A function of the DVD VIDEO 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.

Progressive format (sequential scanning)

In contrast to the Interlace format, the progressive format can reproduce 50 – 60 frames per second by reproducing all scanning lines (525 lines for the NTSC system, 625 lines for PAL system). The overall picture quality increases and still images, text and horizontal lines appear sharper.

Region Code

This system is used to protect copyrights. A region code is allocated on each DVD system or DVD VIDEO according to the sales region. Each region code is shown on the unit as well as on the disc packaging. The system can play back the discs that match its region code. The system can also play back discs with the " ⊕ " mark. Even when the region code is not shown on the DVD VIDEO, the region limit may still be activated.

VIDEO CD

A compact disc that contains moving pictures.
The picture data uses the MPEG 1 format, one of the worldwide standards for digital compression technology. The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures.
VIDEO CDs also contain compact audio data.
Sound 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 back only moving pictures and sounds.
• Version 2.0: You can play back high-resolution still pictures and enjoy PBC functions.
This system conforms to both versions.

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Numerics

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