

# ***Mini Hi-Fi Component System***

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Operating Instructions



***MHC-GNZ9D  
MHC-GNZ8D  
MHC-GNZ7D  
MHC-GNZ5D***

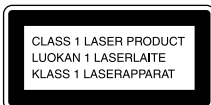
## WARNING

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

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

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

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



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



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

### ENERGY STAR®



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

DivX® is a video file compression technology, developed by DivXNetworks, Inc.

DivX, DivX Certified, and associated logos are trademarks of DivXNetworks, Inc. and are used under license.

™ and ® marks are omitted in this manual.

This system incorporates Dolby<sup>1)</sup> Digital, Dolby Pro Logic (II) adaptive matrix surround decoder, and DTS<sup>2)</sup> Digital Surround System.

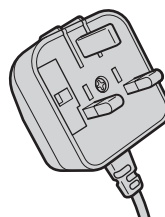
<sup>1)</sup> Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.

<sup>2)</sup> Manufactured under license from Digital Theater Systems, Inc. "DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

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

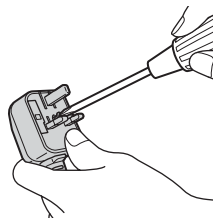
### For AC 220 V wall sockets:

- 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.)

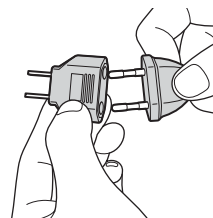


### For AC 127 V wall sockets

- 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).



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## How to use this manual

- This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the unit having the same or similar names.
- The OSD (on-screen display) may vary depending on the country model.
- The English OSD screen (on-screen display) is used for illustration purposes only.
- The Setup items may be different depending on the area or model.
- “DVD” may be used as a general term for DVD VIDEOS, DVD-Rs/DVD-RWs and DVD+Rs/DVD-RWs.
- The following symbols are used in this manual.

Symbol	Meaning
	Functions available for DVD VIDEOS, DVD-Rs/DVD-RWs in video mode, and DVD+Rs/DVD+RWs
	Functions available for DVD-RWs in VR (Video Recording) mode
	Functions available for VIDEO CDs (including Super VCDs or CD-Rs/CD-RWs in video CD format or Super VCD format)
	Functions available for music CDs or CD-Rs/CD-RWs in music CD format
	Functions available for DATA CDs (CD-ROMs/CD-Rs/CD-RWs containing MP3 audio tracks, JPEG image files and DivX <sup>®</sup> video files)
	Functions available for DATA DVDs (DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs) containing DivX video files

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

## Playable discs

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

### List of playable discs


Format of discs	Disc logo
DVD VIDEO	
DVD-RW	
VIDEO CD	
Audio CD	
CD-R/CD-RW (audio data/MP3 files/JPEG files)	 
	 

The “DVD VIDEO” logo and “DVD-RW” logo are trademarks.

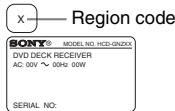
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## Region code of DVDs you can play on this system

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

DVDs labeled  will also be played on this system.

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



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## Discs that this system cannot play

- CD-ROMs/CD-Rs/CD-RWs other than those recorded in the following formats:
  - music CD format
  - video CD format
  - MP3 (MPEG1 Audio Layer-3)/JPEG/DivX<sup>2</sup>) format that conforms to ISO9660<sup>1</sup>) Level 1/Level 2 or Joliet
  - DivX format<sup>2</sup>)
- CD-ROMs recorded in PHOTO CD format
- Data part of CD-Extras
- Super Audio CDs
- DVD-ROMs/DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs other than those recorded in DivX format conforming to Universal Disk Format (UDF).<sup>2</sup>)
- DVD-ROMs/DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs recorded in Multi Session
- DVD-RAMs
- DVD Audio discs
- A DVD with a different region code.
- Discs with non-standard shapes (e.g., heart, square, star) cannot be played on this unit. Attempting to do so may damage the unit. Do not use such discs.

- A disc with paper or stickers on it.
  - A disc that has the adhesive, cellophane tape, or a sticker still left on it.
- 1) A logical format of files and folders on a CD-ROMs, defined by ISO (International Organization for standardization).
  - 2) Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

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## Notes about CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW

- In some cases, CD-Rs, CD-RWs, DVD-Rs, DVD-RWs, DVD+R or DVD+RW cannot be played on this system depending upon the recording quality or physical condition of the disc, or the characteristics of the recording device. Furthermore, the disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the recording device.
- A disc recorded in packet write format cannot be played.

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## Note on playback operations of DVDs and VIDEO CDs

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

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## Music discs encoded with copyright protection technologies

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

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## 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 the Compact Disc (CD) standard, playback on this product is not guaranteed.

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## Cautions when playing a disc that is recorded in Multi Session

- This system can play Multi Session CDs when an MP3 audio track is contained in the first session. Any subsequent MP3 audio tracks recorded in later sessions can also be played back.
- This system can play Multi Session CDs when a JPEG image file is contained in the first session. Any subsequent JPEG image files recorded in later sessions can also be played back.
- If audio tracks and images in music CD format or video CD format are recorded in the first session, only the first session will be played back.
- CD-R and CD-RW discs recorded in multi-session that have not ended by “closing the session” are not supported.
- With CD-ROMs/CD-Rs/CD-RWs that contain DivX video files in addition to MP3 audio tracks or JPEG image files, the system plays only the DivX video files.\*

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

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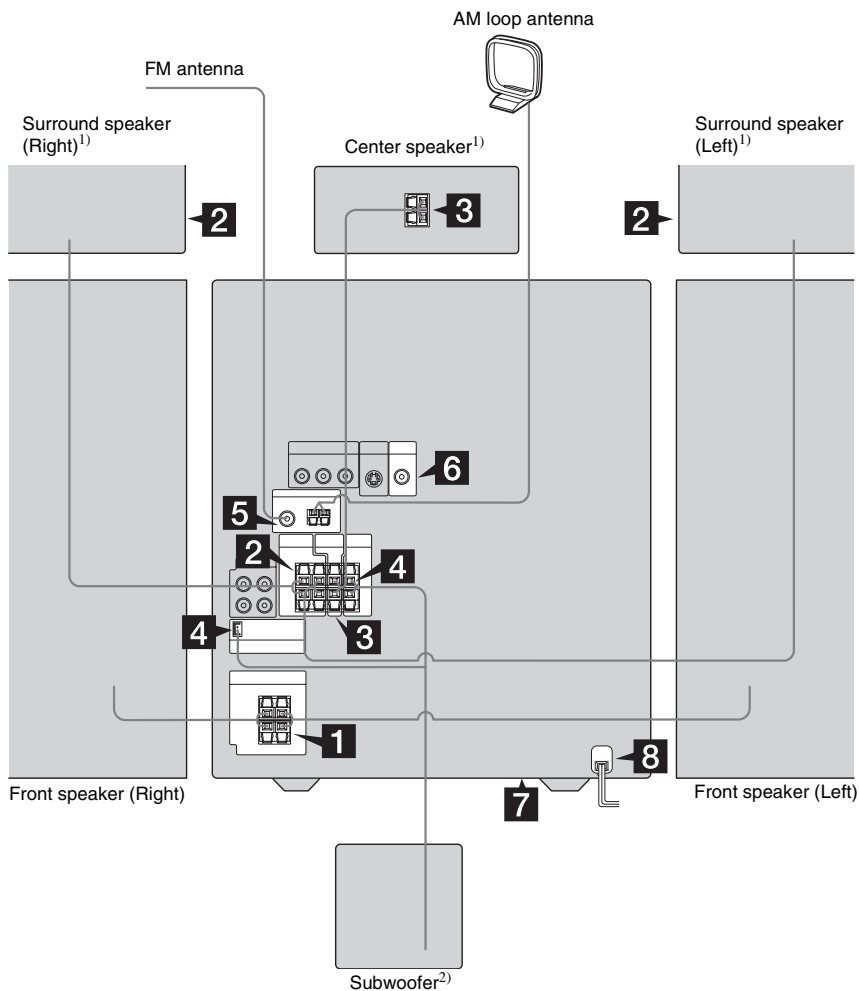
## Copyrights

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

## Getting Started

# Hooking up the system

Perform the following procedures **1** to **9** to hook up your system using the supplied cords and accessories. The type of speakers supplied varies according to the model you purchased (see “Specifications” on page 81). MHC-GNZ9D is used for illustration purposes.



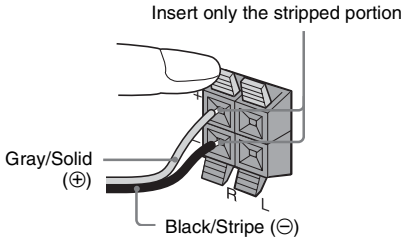
<sup>1)</sup> MHC-GNZ9D/GNZ8D only

<sup>2)</sup> MHC-GNZ9D only

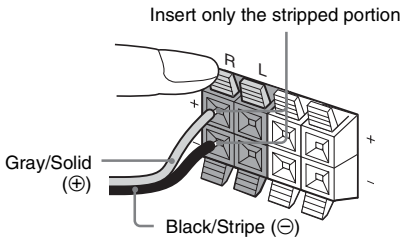
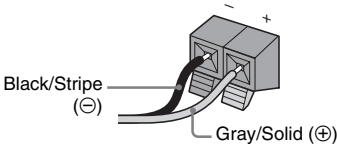


**1 Connect the front speakers.**

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

**2 Connect the surround speakers. (MHC-GNZ9D/GNZ8D only)**

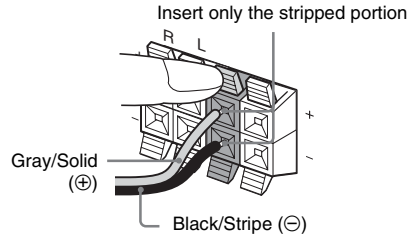
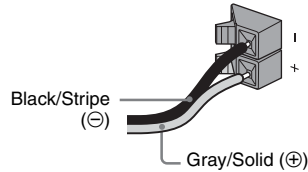
Connect the speaker cords to the SURROUND SPEAKER jacks as shown below.

**Main unit****Speakers****Note**

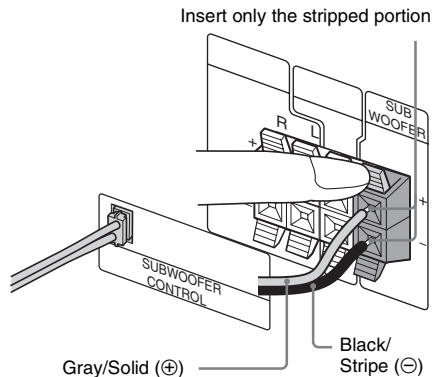
For MHC-GNZ9D, the speaker cords are attached to the surround speakers. Connect the surround speaker cords to the main unit only.

**3 Connect the center speaker. (MHC-GNZ9D/GNZ8D only)**

Connect the speaker cords to the CENTER SPEAKER jacks as shown below.

**Main unit****Speakers****4 Connect the subwoofer. (MHC-GNZ9D only)**

Connect the speaker cords to the SUBWOOFER jacks and SUBWOOFER CONTROL jack as shown below.

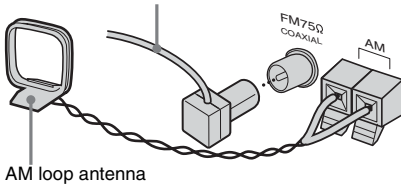


**5 Connect the FM and AM antennas.**

Set up the AM loop antenna, then connect it.



Extend the FM lead antenna horizontally

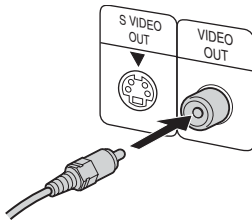


AM loop antenna

**Note**

Keep the antennas away from the speaker cords.

**6 Connect the video input jack of your TV to the VIDEO OUT jack with the supplied video cable.**

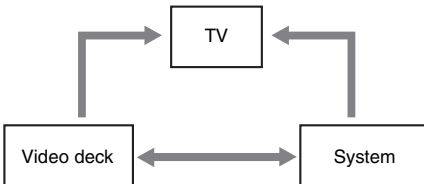


**When using a TV**

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

**When connecting a video deck**

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



If the picture has disturbance or there is noise in the audio when a TV, a video deck and this system are all connected at the same time, disconnect one of them.

**Note**

Do not place the TV on this system.

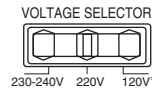
**Tip**

For even higher quality video images (except for MHC-GNZ5D):

- Use an optional component video cord to connect the COMPONENT VIDEO input jacks on your TV to the COMPONENT VIDEO OUT jacks of this system. If your TV is compatible with progressive format file signals, use this connection and set "PROGRESSIVE AUTO" or "PROGRESSIVE VIDEO" depending on your TV. For details, see "To change the type of signal output from the system" (page 40).
- You can use an optional S video cord to connect the S VIDEO input jack on your TV to the S VIDEO OUT jack.

**7 For models with a voltage selector, set VOLTAGE SELECTOR to the local power line voltage. The voltage selector is located at the bottom of the unit.**

Depending on the model, the VOLTAGE SELECTOR may differ.



\* Saudi Arabian model: 120 – 127 V

**8 Connect the power cord to a wall outlet.**

The demonstration appears in the display. When you press I/⏻, the system turns on and the demonstration automatically ends. If the supplied adapter on the plug does not fit your wall outlet, detach it from the plug (only for models equipped with an adapter).

- 9 (Except for Latin American model)**  
**Set the color system to PAL or NTSC depending on the color system of your TV.**

The color system is factory set to NTSC for region code 3 models, and PAL for other region code models. Each time you perform the procedure below, the color system changes as follows:

NTSC ↔ PAL

- 1** Press I/⏻ to turn off the system.
- 2** Press I/⏻ on the unit while holding down **II** on the unit.  
 The system turns on and the color system is changed.

#### Notes

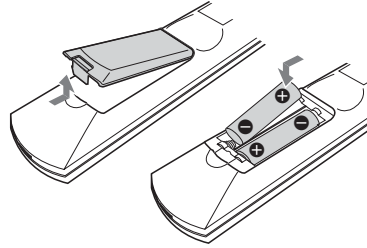
- Do not place the surround speakers on top of a TV.\* This may cause distortion of the colors in the TV screen.
- Be sure to connect both left and right surround speakers.\* Otherwise, the sound will not be heard.
- You cannot set the color system in Power Saving Mode (page 63).
- When you play back a VIDEO CD recorded in a different color system from the one you set to the unit, the picture image may be distorted.

\* MHC-GNZ9D/GNZ8D only

#### To connect optional components

See page 69.

### 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 to the bottom of the speakers to stabilize the speakers and prevent them from slipping.

#### For MHC-GNZ9D

- Small speaker pads for
- front speaker ((4) × 2)
  - surround speaker ((4) × 2)
  - center speaker (4)
- Large speaker pads for
- subwoofer (4)

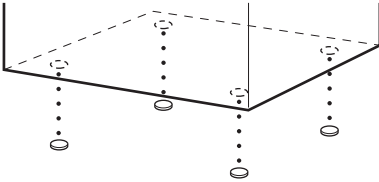
## For MHC-GNZ8D/GNZ7D/GNZ5D

Front speaker ((4) × 2)

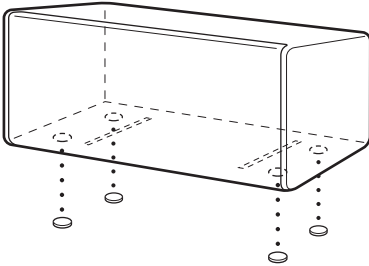
Center speaker<sup>1)</sup> (4)

Surround speaker<sup>1)</sup> ((4) × 2)

Front speaker  
Surround speaker<sup>2)</sup>  
Subwoofer<sup>2)</sup>



Center speaker<sup>3)</sup>  
Surround speaker<sup>1)</sup>



<sup>1)</sup> MHC-GNZ8D only

<sup>2)</sup> MHC-GNZ9D only

<sup>3)</sup> MHC-GNZ9D/GNZ8D only

### When carrying this system

Perform the following procedure to protect the DVD mechanism.

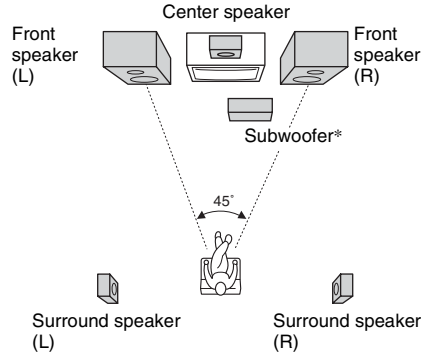
Use buttons on the unit for the operation.

- 1 Press I/⏻ to turn on the system, then press DVD.
- 2 Make sure that no disc is loaded in the system and check that "NO DISC" appears.
- 3 Hold down ■, then press DISC SKIP until "STANDBY" appears.  
Check that "MECHA LOCK" appears.
- 4 Unplug the power cord.

## Positioning the speakers

(MHC-GNZ9D/GNZ8D only)

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

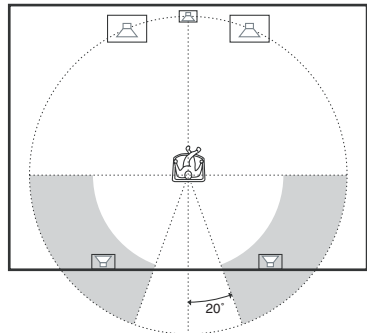


\* MHC-GNZ9D only

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

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

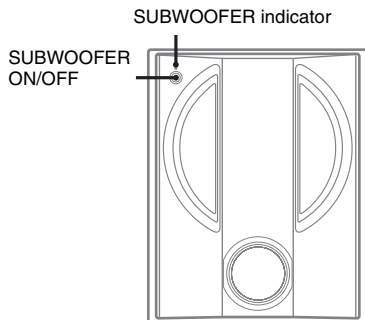
- 3 Place the surround speakers.



Position the surround speakers within the respective gray ranges.

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

- 4 Place the subwoofer (MHC-GNZ9D only), then press SUBWOOFER ON/OFF on the subwoofer.**



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

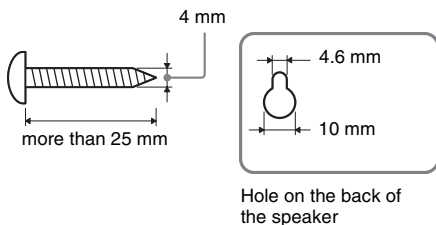
#### Notes

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

\* MHC-GNZ9D only

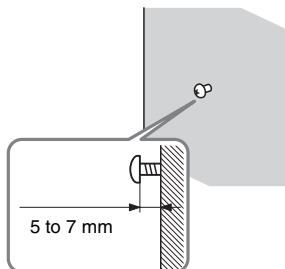
### To install the surround speakers on the wall (MHC-GNZ8D only)

- 1** Prepare screws (not supplied) that are suitable for the hole on the back of each speaker. See the illustrations below.



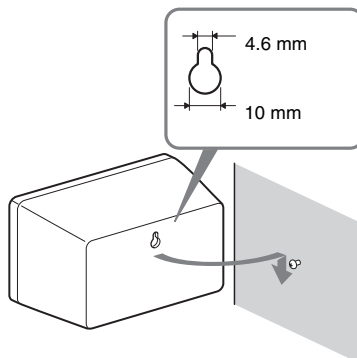
Hole on the back of the speaker

- 2** Fasten the screws to the wall. The screws should protrude 5 to 7 mm.



- 3** Hang the speakers on the screws.

Hole on the back of the speaker



#### Notes

- Use screws that are suitable for the wall material and strength. As a plaster board wall is especially fragile, attach the screws securely to a beam and fasten them to the wall. Install the satellite speakers on a vertical and flat wall where reinforcement is applied.
- Contact a screw shop or installer regarding the wall material or screws to be used.
- Sony is not responsible for accident or damage caused by improper installation, insufficient wall strength or improper screw installation, natural calamity, etc.

### Speaker settings (MHC-GNZ9D/ GNZ8D only)

To enjoy DVDs and other discs with multi-channel sound and Dolby surround effects, the speakers need to be adjusted. Set the distance from the listening position to the speakers, and the balance and level. Then use the test tone to adjust the volume of each speaker to the same level.

For details, see "Speaker settings" on page 43.

## Setting the clock

- 1 Press I/⏻ to turn on the system.
- 2 Press **TIMER MENU**.
- 3 Press **↑** or **↓** repeatedly to set the hour.
- 4 Press **ENTER**.
- 5 Press **↑** or **↓** repeatedly to set the minute.
- 6 Press **ENTER**.  
The clock starts working.

### To adjust the clock

- 1 Press **TIMER MENU**.
- 2 Press **↑** or **↓** to select “**CLOCK SET**”, then press **ENTER**.
- 3 Do the same procedures as step 3 to 6 above.

#### Notes

- The clock settings are canceled when you disconnect the power cord or if a power failure occurs.
- You cannot set the clock in Power Saving Mode (page 63).

## Performing the Quick Setup

You can set the initial settings of “OSD”, “TV TYPE” and “DISTANCE” (MHC-GNZ9D/ GNZ8D only) step by step. After performing the Quick Setup, the system is ready for playing back of movies, music CDs, etc. To perform further speakers settings, see “Speaker settings” on page 43. The Asian model is used for illustration purposes only.

### For MHC-GNZ9D/GNZ8D

- 1 Turn on the TV and select the video input.
- 2 Press I/⏻ to turn on the system.
- 3 Press **FUNCTION +** or **-** repeatedly (or **DVD** on the unit) to switch the function to **DVD**.

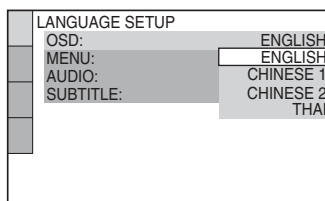
The guide message appears on the TV screen.

#### Notes

- When a disc is in the system or the disc tray opens, the guide message does not appear on the TV screen. Remove the disc.
- When you press **CLEAR**, the guide message disappears. When you need to perform the Quick Setup, see “To recall the Quick Setup display” (page 16).
- Disconnect the headphone and microphones when you perform the Quick Setup. You cannot operate steps after 9 with the headphone or microphones connected.

- 4 Press **ENTER**.

“**LANGUAGE SETUP**” appears.



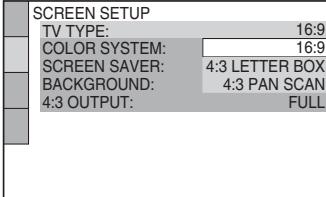
The language you select in “**LANGUAGE SETUP**” is for “**OSD**”, “**MENU**” and “**SUBTITLE**” (page 38).

- 5** Press **↑** or **↓** repeatedly to select a language used in the on-screen display.

The selectable language is different depending on the area.

- 6** Press **ENTER**.

The setting is selected and “SCREEN SETUP” appears.



- 7** Press **↑** or **↓** repeatedly to select the setting that matches your TV type.

■ When you connect a 4:3 standard TV “4:3 LETTER BOX” or “4:3 PAN SCAN” (page 39)

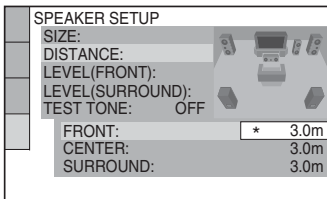
■ When you connect a wide-screen TV or a 4:3 standard TV with a wide-screen mode “16:9” (page 39)

- 8** Press **ENTER**.

The setting is selected and “SPEAKER SETUP” appears.

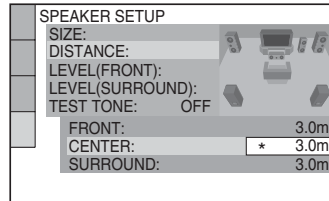
- 9** Press **↑** or **↓** repeatedly to select the front speaker distance from the listening position, then press **ENTER**.

You can set from 1.0 to 7.0 m.



- 10** Press **↑** or **↓** repeatedly to select the center speaker distance from the listening position, then press **ENTER**.

You can set from 0.0 to 7.0 m.

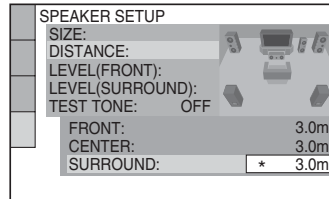


**Note**

The setting range changes depending on the front speaker setting.

- 11** Press **↑** or **↓** repeatedly to select the surround speaker distance from the listening position.

You can set from 0.0 to 7.0 m.



**Note**

The setting range changes depending on the front speaker setting.

- 12** Press **ENTER**.

The Quick Setup is complete.

## For MHC-GNZ7D/GNZ5D

- 1 Turn on the TV and select the video input.
- 2 Press **I/⏻** to turn on the system.
- 3 Press **FUNCTION + or –** repeatedly (or **DVD** on the unit) to switch the function to **DVD**.

The guide message appears on the TV screen.

### Notes

- When a disc is in the system or the disc tray opens, the guide message does not appear on the TV screen. Remove the disc.
- When you press **CLEAR**, the guide message disappears. When you need to perform the Quick Setup, see “To recall the Quick Setup display” (page 16).

- 4 Press **ENTER**.

“LANGUAGE SETUP” appears.

LANGUAGE SETUP	
OSD:	ENGLISH
MENU:	ENGLISH
AUDIO:	CHINESE 1
SUBTITLE:	CHINESE 2
	THAI

- 5 Press **↑** or **↓** repeatedly to select a language used in the on-screen display.

The selectable language is different depending on the area.

- 6 Press **ENTER**.

The setting is selected and “SCREEN SETUP” appears.

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

- 7 Press **↑** or **↓** repeatedly to select the setting that matches your TV type.

■ When you connect a 4:3 standard TV “4:3 LETTER BOX” or “4:3 PAN SCAN” (page 39)

■ When you connect a wide-screen TV or a 4:3 standard TV with a wide-screen mode

“16:9” (page 39)

- 8 Press **ENTER**.

The Quick Setup is complete.

### If you make a mistake

Press **◀◀**, then select the item again.

### To quit the Quick Setup

Press **☺** DISPLAY in any step.

### To recall the Quick Setup display

- 1 Press **☺** DISPLAY in stop mode.  
The Control Menu appears.
- 2 Press **↑** or **↓** repeatedly to select “SETUP”, then press **ENTER**.  
The options for “SETUP” appear.
- 3 Press **↑** or **↓** repeatedly to select “QUICK”, then press **ENTER**.  
The Quick Setup display appears.

### Note

If you want to change each setting, see “Using the Setup Display” (page 37).



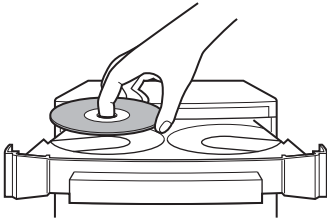
## DVD/VIDEO CD/CD/MP3/JPEG/DivX

– Play

### Loading a disc

Use buttons on the unit for the operation.

- 1 Press **▲ OPEN/CLOSE**.
- 2 Place a disc with the label side up on the disc tray.



To insert additional discs, press **DISC SKIP/EX-CHANGE** to rotate the disc tray.

- 3 Press **▲ OPEN/CLOSE** again to close the disc tray.

#### Notes

- Do not use a disc with tape, seals or paste on it as this may cause malfunction.
- Do not forcibly press the disc tray closed with your finger, as this may cause malfunction.
- Do not place two discs on a single tray.

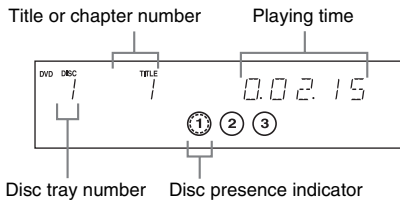
## Playing a disc



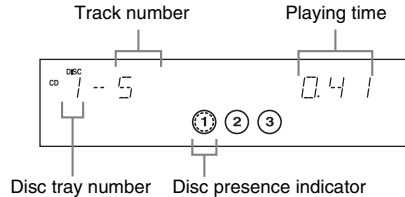
\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

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

#### Example: When a DVD disc is loaded



#### Example: When a CD disc is loaded



- 1 Press **FUNCTION +** or **-** repeatedly (or **DVD** on the unit) to switch the function to DVD.
- 2 Press **▷** (or **◀▶** on the unit).

## Other operations

To	Do this
Stop	Press <b>■</b> .
Pause	Press <b>II</b> . <sup>1)</sup> Press <b>II</b> again or press <b>▷</b> (or <b>◀▶</b> on the unit) to resume play.
Select a chapter, scene or track (Except for JPEG)	Press <b>◀◀</b> or <b>▶▶</b> repeatedly (or turn <b>◀◀ ▶▶</b> on the unit) during play or pause. Or, press the number buttons in stop mode, then press <b>ENTER</b> . <sup>2)</sup>
Select an album of DATA CDs/ DATA DVDs <sup>3)</sup>	Press <b>ALBUM +</b> or <b>-</b> repeatedly during play or pause.
Locate a point quickly in fast forward or fast reverse (Scan) (Except for JPEG)	Press <b>◀◀</b> or <b>▶▶</b> during play. Each time you press the button, searching speed changes cyclically as follows: Playback direction <sup>4)</sup> → <b>×2▶</b> <sup>5)</sup> → <b>1▶▶</b> → <b>2▶▶</b> → <b>3▶▶</b> <sup>6)</sup> Opposite direction <sup>4)</sup> → <b>×2◀</b> <sup>7)</sup> → <b>1◀◀</b> → <b>2◀◀</b> → <b>3◀◀</b> <sup>6)</sup> To return to Normal Play, press <b>▷</b> (or <b>◀▶</b> on the unit).
Watch frame by frame (Slow-motion Play) (DVD VIDEO/DVD-RW/VIDEO CD/ DivX <sup>3)</sup> only)	Press <b>II</b> during play, then press <b>◀◀ SLOW</b> or <b>SLOW ▶▶</b> . Each time you press the button, the playback speed changes as follows: Playback direction <sup>8)</sup> <b>2 ▶▶ ↔ 1 ▶▶</b> Opposite direction <sup>8)</sup> (DVD VIDEO/DVD-RW only) <b>2 ◀◀ ↔ 1 ◀◀</b> To return to Normal Play, press <b>▷</b> (or <b>◀▶</b> on the unit).
Play one frame at a time (Freeze frame) (DVD VIDEO/DVD-RW/VIDEO CD only)	Press <b>II</b> during play, then press <b>STEP ▶▶</b> to go to the next frame or press <b>◀◀ STEP</b> to go to the previous frame (DVD VIDEO/ DVD-RW only).
Replay the previous scene (Instant Replay) (DVD VIDEO/ DVD-RW only)	Press <b>◀◀ REPLAY</b> during play.

To	Do this
Briefly fast forward the current scene (Instant Advance) (DVD VIDEO/DVD-RW only)	Press <b>ADVANCE ●→</b> during play.
Select a disc	Press <b>DISC SKIP</b> (or <b>DISC 1 – 3</b> on the unit).
Switch to DVD function from another source	Press <b>DISC 1 – 3</b> on the unit (Automatic Source selection).
Exchange other discs while playing	Press <b>DISC SKIP/EX-CHANGE</b> on the unit.
Remove a disc	Press <b>▲ OPEN/CLOSE</b> on the unit.

1) There may be some disturbance in the video image.

2) Except for MP3/JPEG

3) Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

4) The **×2▶/×2◀** playback speed is about twice the normal speed. The **3▶▶/3◀◀** playback speed is faster than the **2▶▶/2◀◀** and the **2▶▶/2◀◀** playback speed is faster than the **1▶▶/1◀◀**.

5) DVD VIDEO/CD only.

6) DVD VIDEO/DVD-RW/VIDEO CD/DivX\*

7) DVD VIDEO only

8) The **2 ▶▶/2 ◀◀** playback speed is slower than **1 ▶▶/1 ◀◀**.

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

### Notes

- You cannot perform Instant Replay and Instant Advance in Repeat Play mode (page 22).
- You cannot search for a still picture on a DVD-RW in VR mode.
- Depending on the DVD or VIDEO CD, some operations may be restricted.
- 2 channel sound is heard when using headphones.
- The following discs take a longer time to start playback.
  - a disc recorded with complicated tree structure.
  - a disc recorded in Multi Session.
  - a disc to which data can be added (non-finalized disc).
- Some DVD-R/DVD-RW/DVD+R/DVD+RW or CD-Rs/CD-RWs cannot be played on this system depending on file format.

**Tips**

- The Instant Replay function is useful when you want to review a scene or dialogue that you missed.
- The Instant Advance function is useful when you want to pass over a scene that you do not want to watch.
- You may not be able to use the Instant Replay or Instant Advance function with some scenes.

---

## Resuming playback from the point you stopped the disc

### — Resume Play

This system memorizes the point where you stopped the disc so you can resume from that point. Resume Play is not canceled when you turn off the system (except for MP3/JPEG/DivX video).

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

“Resume” appears in the display.

If “Resume” does not appear, Resume Play is not available.

#### 2 Press ▷ (or ◀▶ on the unit).

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

**Notes**

- You cannot perform Resume Play during Shuffle Play or Program Play.
- Depending on where you stopped the disc, the system may resume playback from a different point.
- Resume play is canceled when:
  - you press ■ in stop mode.
  - you disconnect the power cord.
  - you eject the disc (except for DVD VIDEO/VIDEO CD when “MULTI-DISC RESUME” in “CUSTOM SETUP” is set to “ON”).
  - you change the play mode.
  - you change the settings on the Setup Display.
  - you turn off the system (MP3/JPEG/DivX video only).
  - you change the functions (CD/MP3/JPEG/DivX video only).

## To enjoy a disc that is played before by resume playback

### — Multi-disc Resume (DVD VIDEO/VIDEO CD only)

This system memorizes the point where you stopped the disc for up to 40 discs and resumes playback the next time you insert the same disc. If you store a resume playback point for the 41st disc, the resume playback point for the first disc is deleted.

To activate this function, set “MULTI-DISC RESUME” in “CUSTOM SETUP” to “ON” (page 42).

**Notes**

- If “MULTI-DISC RESUME” in “CUSTOM SETUP” is set to “OFF” (page 42), the resume point is cleared when you change the function.
- If “MULTI-DISC RESUME” in “CUSTOM SETUP” is set to “ON” (page 42) and you playback a recorded disc such as DVD-RW, the system may playback other recorded discs from the same resume point. To play from the beginning, press ■ twice, then press ▷ (or ◀▶ on the unit).

# Creating your own program

## — Program Play



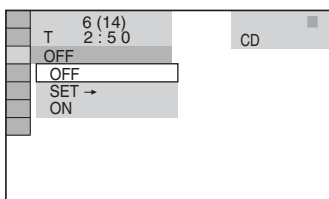
You can make a program of up to 99 steps.

- 1 Press **DISPLAY** in stop mode.

The Control Menu appears.

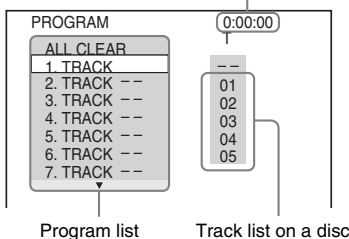
- 2 Press **↑** or **↓** repeatedly to select “PROGRAM”, then press **ENTER**.

The options for “PROGRAM” appear.



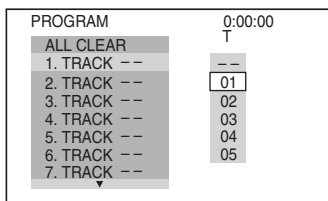
- 3 Press **↑** or **↓** repeatedly to select “SET →”, then press **ENTER**.

Total time of the programmed tracks



- 4 Press **→**.

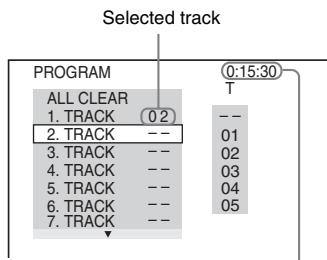
The cursor moves to the track list (in this case, “01”).



- 5 Press **↑** or **↓** repeatedly to select the track you want to program, then press **ENTER**.

The selected track is programmed and the cursor moves to the program list.

For example, select track “02”.



Total playing time of the programmed tracks

- 6 Repeat step 4 and 5 to program other tracks.

The programmed tracks are displayed in the selected order.

- 7 Press **▷** (or **◀▶** on the unit) to start Program Play.

Program Play starts.

### To cancel Program Play

Press **CLEAR**, or select “OFF” after step 3.

To play the same program again, select “ON” in step 3, then press **ENTER**.

### To change a programmed track

- 1 After step 3, press **↑** or **↓** repeatedly to select the programmed track you want to change in the program list, then press **→**.
- 2 Press **↑** or **↓** repeatedly to select the track you want to program, then press **ENTER**. The previously selected track is replaced by the newly selected track.

### To clear a programmed track

- 1 After step 3, press **↑** or **↓** repeatedly to select the programmed track you want to clear in the program list.
- 2 Press **CLEAR**. Or, press **→**, then press **↑** repeatedly to select “-” in the track list, and then press **ENTER**.

## To clear all the programmed tracks

In step 4, press **↑** repeatedly to select “ALL CLEAR” in the program list, then press ENTER.

### Notes

- All Discs Repeat is automatically changed into Program Repeat when you set to program play mode. You can only program the contents of the current disc.
- You cannot perform Program Play during PBC playback of VIDEO CDs (page 24).
- When you change the disc by pressing DISC SKIP (or DISC 1 – 3 on the unit), programmed tracks are canceled.

### Tip

You can perform Repeat Play or Shuffle Play of programmed tracks. During Program Play, follow the steps of Repeat Play (page 22) or Shuffle Play (page 21).

## Playing in random order

### — Shuffle Play



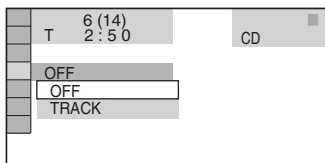
You can play tracks on a disc in random order by using the on-screen display.

#### 1 Press **⏏** DISPLAY in stop mode.

The Control Menu appears.

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

The options for “SHUFFLE” appear.



#### 3 Press **↑** or **↓** to select the item to be shuffled.

##### ■ When the disc is in Normal Play mode

TRACK: plays tracks on the current disc in random order.

##### ■ When the disc is in Program Play mode

ON: plays programmed tracks on the current disc in random order.

#### 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 is turned off.

### Note

You cannot perform Shuffle Play during PBC playback of VIDEO CDs and Super VCDs (page 24).

### Tip

You can set Shuffle Play in stop mode. After selecting the “SHUFFLE” option, press **▷** (or **◀▶** on the unit) to start Shuffle Play.

## Playing repeatedly

### — Repeat Play



\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

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

You can use a combination of Shuffle or Program Play modes.

## Using the front panel display

Press **REPEAT** repeatedly during play until “**REP**” or “**REP1**” appears.

**REP**: For all the titles/tracks/files<sup>1)2)</sup> on the disc(s) or a single title<sup>3)</sup>.

**REP1**: For chapter<sup>3)</sup>/track/DivX video file<sup>2)</sup> only.

<sup>1)</sup> For JPEG, during Slide show only

<sup>2)</sup> DivX video files can be played on except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D.

<sup>3)</sup> For DVD, you can check whether a title or chapter is being repeatedly played on the TV screen.

### To cancel Repeat Play

Press **REPEAT** repeatedly until both “**REP**” and “**REP1**” disappear.

#### Notes

- Depending on the DVD, you cannot perform Repeat Play.
- You cannot perform Repeat Play during PBC playback of VIDEO CDs (page 24).
- You cannot select “**REP1**” during Program Play and Shuffle Play.
- When you select “**REP1**”, that title/chapter/track/DivX video files\* is repeated endlessly until “**REP1**” is canceled.

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

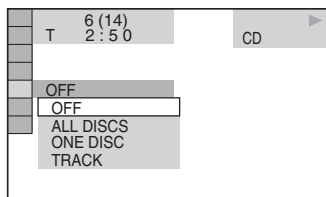
## Using the on-screen display

**1** Press **DISC** during play.

The Control Menu appears.

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

The options for “**REPEAT**” appear.



**3** Press **↑** or **↓** repeatedly to select the item to be repeated.

The default setting is underlined.

#### ■ When playing a DVD VIDEO/DVD-RW

- **OFF**: does not play repeatedly.
- **ALL DISCS**: repeats all of the discs.
- **ONE DISC\***: repeats all of the titles on the current disc.
- **TITLE**: repeats the current title.
- **CHAPTER**: repeats the current chapter.

\* When playing a DVD-RW in VR mode, “**ONE DISC**” repeats all of the titles of the selected type.

#### ■ When playing a CD/VIDEO CD without PBC function

- **OFF**: does not play repeatedly.
- **ALL DISCS**: repeats all of the discs.
- **ONE DISC**: repeats all of the tracks on the current disc.
- **TRACK**: repeats the current track.

## ■ When playing a DATA CD<sup>1)</sup>/DATA DVD<sup>1)</sup>

- **OFF**: does not play repeatedly.
- **ALL DISCS<sup>1)</sup>**: repeats all of the discs.
- **ONE DISC<sup>1)</sup>**: repeats all of the albums on the current disc.
- **ALBUM<sup>1)</sup>**: repeats the current album.
- **TRACK<sup>2)</sup>**: repeats the current track.
- **FILE<sup>1)3)</sup>**: repeats the current file.

<sup>1)</sup> DivX video files and the album(s) containing DivX video files can be played on except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D.

<sup>2)</sup> MP3 audio tracks only

<sup>3)</sup> DivX video files only


## 4 Press ENTER.

Repeat Play starts.

## To cancel Repeat Play

Press CLEAR, or select “OFF” in step 3.



## To turn off the Control Menu

Press  DISPLAY repeatedly until the Control Menu disappears.

### Notes

- You cannot perform Repeat Play during PBC playback of VIDEO CDs and Super VCDs (page 24).
- When “MODE (MP3, JPEG)” is set to “IMAGE (JPEG)” (page 29), you cannot select “TRACK”.

### Tips

- You can set Repeat Play in stop mode. After selecting the “REPEAT” option, press  (or  on the unit) to start Repeat Play.
- You can quickly display the “REPEAT” status by pressing REPEAT. Each time you press REPEAT, the “REPEAT” option changes.

## Playing DVDs using the menu



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

### • Using the DVD top menu

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

### • Using the DVD menu

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

## 1 Press TOP MENU or MENU.

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

## 2 Press /// or the number buttons to select the title or item you want to play.

## 3 Press ENTER.

## Selecting “ORIGINAL” or “PLAY LIST” on a DVD-RW



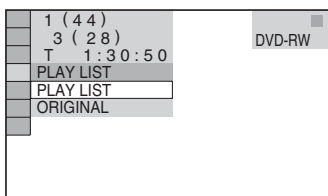
Some DVD-RWs in VR (Video Recording) mode have two types of titles for playback: originally recorded titles (“ORIGINAL”) and titles that can be created on recordable DVD players for editing (“PLAY LIST”). You can select the type of title to be played.

### 1 Press DISPLAY in stop mode.

The Control Menu appears.

### 2 Press or repeatedly to select “ORIGINAL/PLAY LIST”, then press ENTER.

The options for “ORIGINAL/PLAY LIST” appear.



### 3 Press or repeatedly to select the setting you want, then press ENTER.

- PLAY LIST: plays the titles created from “ORIGINAL” for editing.
- ORIGINAL: plays the titles originally recorded.

## Playing VIDEO CDs with PBC functions (Ver. 2.0)

### — PBC Play



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

\* PBC: Playback Control

### 1 Press (or on the unit) to start playing a VIDEO CD with PBC functions (Ver. 2.0).

The PBC menu appears on the TV screen.

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

### 3 Press ENTER.

### 4 Continue playback according to the instructions on the menus to enjoy interactive playback.

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

### To go back to a previous menu

Press RETURN.

#### Notes

- Depending on the VIDEO CD, the menu does not appear in step 1.
- Depending on the VIDEO CD, “Press ENTER” in step 3 may appear as “Press SELECT” in the operating instructions supplied with the disc. In this case, press (or on the unit).

#### Tip

You can cancel playback with PBC functions.

### 1 In stop mode, press or repeatedly or the number buttons to select a track.

### 2 Press (or on the unit).

“Play without PBC” appears on the TV screen and playback starts from the selected track. Still images, such as the menu screens, will not be shown.

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



# About MP3 audio tracks and JPEG image files



## What is MP3/JPEG?

MP3 is audio compression technology that satisfies the ISO/MPEG regulations. JPEG is image compression technology.

## Discs that the system can play

You can play back DATA CDs (CD-ROMs/CD-Rs/CD-RWs) recorded in MP3 (MPEG1 Audio Layer 3) and JPEG format. However, the discs must be recorded according to ISO9660 Level 1, Level 2 or Joliet format for the system to recognize the tracks (or files). You can also play discs recorded in Multi Session. See the instructions supplied with the CD-R/CD-RW drives and the recording software (not supplied) for details on the recording format.

## About the multi-session disc

If MP3 audio tracks or JPEG image files are recorded in the first session, the system will also play MP3 audio tracks or JPEG image files in other sessions. If audio tracks and images in audio CD format or video CD format are recorded in the first session, only the first session will be played back.

### Note

The system may not be able to play some DATA CDs created in the Packet Write format. In this case, you cannot view the JPEG images recorded.

## MP3 audio track or JPEG image file that the system can play

The system can play the MP3 audio tracks or JPEG image files:

- which have the extension “.MP3” (MP3 audio track) or “.JPG”/“.JPEG” (JPEG image file)
  - which conform to the DCF\* image file format
- \* “Design rule for Camera File system”: Image standards for digital cameras regulated by Japan Electronics and Information Technology Industries Association (JEITA).

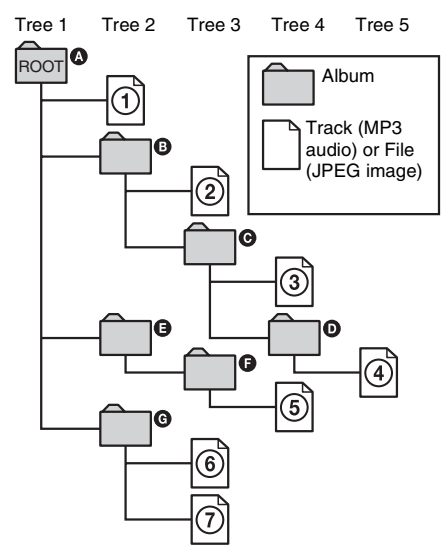
### Notes

- The system will play 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.
- The system does not conform to audio in MP3PRO format.



## Playback order of MP3 audio tracks or JPEG image files

The playback order of MP3 audio tracks or JPEG image files recorded on a DATA CD is as follows:

### ■ Structure of disc contents



continued

When you insert a DATA CD and press  (or  on the unit), the numbered tracks (or files) are played sequentially, from ① through ⑦. Any sub-albums/tracks (or files) contained within a currently selected album take priority over the next album in the same tree. (Example: **C** contains **D** so ④ is played before ⑤.)

When you press MENU and the list of album names appears (page 26), the album names are arranged in the following order:

**A** → **B** → **C** → **D** → **F** → **G**. Albums that do not contain tracks (or files) (such as album **E**) do not appear in the list.

#### Notes

- Depending on the software you use to create the DATA CD, the playback order may differ from the illustration.
- The playback order above may not be applicable if there are more than 200 albums and 300 files in each album.
- The system can recognize up to 200 albums (the system will count just albums, including albums that do not contain MP3 audio tracks and JPEG image files). The system will not play any albums beyond the 200th album.
- The system may take longer time to playback, when progressing to the following album or jump to other album.
- Some type of JPEG files cannot be played.

#### Tips

- If you add numbers (01, 02, 03, etc.) to the front of the track/file names when you store the tracks (or files) in a disc, the tracks and files will be played in that order.
- Since a disc with many trees takes longer to start playback, it is recommended that you create albums with no more than two trees.

## Playing DATA CDs with MP3 audio track and JPEG image files



MP3 audio tracks and JPEG image files recorded on DATA CDs (CD-ROMs/CD-Rs/CD-RWs) can be played on this system.

#### Notes

- When “MODE (MP3, JPEG)” is set to “AUTO”, the system can recognize up to 300 MP3 tracks and 300 JPEG files in a single album. When “MODE (MP3, JPEG)” is set to “AUDIO (MP3)” or “IMAGE (JPEG)”, the system can recognize up to 600 MP3 and 600 JPEG files in a single album. A maximum of 200 albums can be recognized regardless of the selected mode.
- Playback is possible up to 8 levels.
- An album that does not include an MP3 audio track or JPEG image file is skipped.
- If you put the extension “.MP3” to data not in MP3 format, the system cannot recognize the data properly and will generate a loud noise which could damage your speaker system.

#### Tips

- You can view the disc information while playing MP3 audio tracks and JPEG image files (page 64).
- You can select Repeat Play while playing MP3 audio tracks and JPEG image files (page 22) and “AUDIO” setting while playing an MP3 audio track (page 35).

## Selecting an album

### 1 Load a DATA CD.

The album list appears. When an album is being played, its title is shaded.



### 2 Press **↑** or **↓** repeatedly to select the album you want, then press **▷** (or **◀▶** on the unit).

For MP3, the system starts playing the selected album.

For JPEG, the system starts a slide show of the images in the selected album.

### To stop play

Press **■**.

### To turn on or off the album list

Press MENU.

### Note

The slide show stops when you press **↑** or **↓**.

### Tip

You can change the slide show duration (page 30) and effect (page 30) while playing JPEG image file.

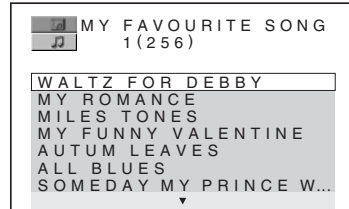
## Selecting an MP3 audio track

### 1 Load a DATA CD.

The albums list appears. When an album is being played, its title is shaded.

### 2 Press **↑** or **↓** repeatedly to select an album, then press ENTER.

The track list appears.



### 3 Press **↑** or **↓** repeatedly to select a track, then press ENTER.

The system starts playing the selected track.

### To stop play

Press **■**.

### To play the next or previous MP3 audio track

Press **◀◀** or **▶▶**. You can select the first track of the next album by pressing **▶▶** during playback of the last track of the current album.

Note that you cannot return to the previous album by pressing **◀◀**. To return to the previous album, select the album from the album list.

### To return to the previous display

Press **↶** RETURN.

### To turn on or off the album list

Press MENU.

## Selecting a JPEG image file

### 1 Load a DATA CD.

The albums list appears. When an album is being played, its title is shaded.

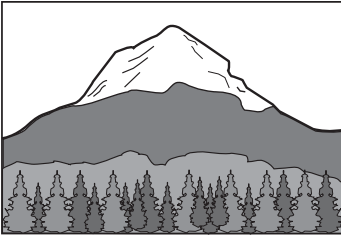
### 2 Press **↑** or **↓** repeatedly to select an album, then press **PICTURE NAVI**.

Images of files in the album appear in 16 subscreens.

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

To display the hidden image files, select the bottom image, then press **↓**. To return to the previous image, select the top image, then press **↑**.

### 3 Press **↑/↓/←/→** repeatedly to select the image you want to view, then press **ENTER**.



#### Note

PICTURE NAVI does not work when “MODE (MP3, JPEG)” is set to “AUDIO (MP3)” (page 29).

## To stop play

Press **■**.

## To play the next or previous JPEG image file

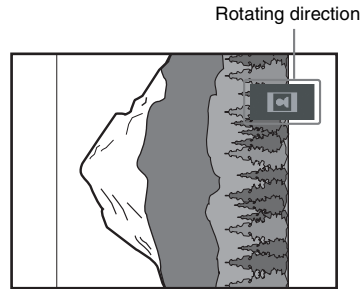
Press **←** or **→** when the Control Menu is not displayed. You can select the first file of the next album by pressing **→** during playback of the last file of the current album. Note that you cannot return to the previous album by pressing **←**. To return to the previous album, select the album from the album list.

## To rotate a JPEG image

When a JPEG image file is displayed on the TV screen, you can rotate the image by 90 degrees. Press **↑** or **↓** while viewing an image. Each time you press **↑**, the image rotates counterclockwise by 90 degrees.

Press **CLEAR** to return to normal view.

### Example: When you press **↑** once



#### Notes

- Nothing happens when you press **←** while playing the first image file of the album.
- If you press **←** or **→** to select the next or previous image, the “Rotating a JPEG image” function is canceled.

# Playing audio tracks and images as a slide show with sound

## DATA CD

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

### 1 Load a DATA CD.

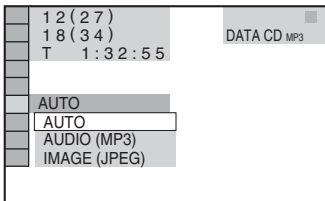
The album list appears.

### 2 Press DISPLAY repeatedly until the Control Menu disappears, then press DISPLAY once.

The Control Menu appears.

### 3 Press or repeatedly to select “MODE (MP3, JPEG)”, then press ENTER.

The options for “MODE (MP3, JPEG)” appear.



### 4 Press or repeatedly to select “AUTO”, then press ENTER.

The default setting is underlined.

- AUTO: Play back JPEG image files as a slideshow with sound (MP3 audio track).
- AUDIO (MP3): Play back MP3 audio tracks continuously.
- IMAGE (JPEG): Play back JPEG image files as a slideshow.

### 5 Press MENU.

The album list appears.

### 6 Press or repeatedly to select the album you want, then press (or on the unit).

The system starts a slide show with sound.

## To stop play

Press .


## To turn on or off the album list

Press MENU.

## To cancel slide show with sound

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

### Notes

- You cannot playback JPEG image files and MP3 audio tracks at the same time if they are not contained in the same album.
- When the JPEG image file’s playback duration is longer than the MP3 audio track, the slide show continues without sound.
- When the MP3 audio track is longer than the JPEG image file’s playback duration, the audio track continues with no slide show.
- If there are no MP3 audio tracks and JPEG image files in the DATA CD, the “No audio data” and “No image data” messages appear on the TV screen.
- PICTURE NAVI does not work when “MODE (MP3, JPEG)” is set to “AUDIO (MP3)”.
- If you play large MP3 audio track data and JPEG image data at the same time, the sound may skip. It is recommended that you set the MP3 bit rate to 128 kbps or lower when creating the file. If the sound still skips, then reduce the size of the JPEG file.
- All the Control Menu items cannot be displayed by pressing  DISPLAY once. In this case, press the button twice or more until the desired item appears.
- If you set “MODE” to “IMAGE (JPEG)” for a disc that contains only MP3 audio tracks, or if you set “MODE” to “AUDIO (MP3)” for a disc that contains only JPEG files, you may be unable to change the “MODE” setting.

### Tips

- You can change the slide show duration (page 30) and effect (page 30) while playing JPEG image files.
- If you want to play a slide show to the same audio track, set the track to Repeat Play (page 22).
- When “MODE (MP3, JPEG)” is set to “AUTO”, the system can recognize up to 300 MP3 tracks and 300 JPEG files in a single album. When “MODE (MP3, JPEG)” is set to “AUDIO (MP3)” or “IMAGE (JPEG)”, the system can recognize up to 600 MP3 and 600 JPEG files in a single album. A maximum of 200 albums can be recognized regardless of the selected mode.

## Specifying the slide show duration (JPEG only)

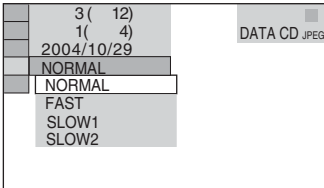
When you play JPEG image files using slide show, you can specify the duration for slides to appear on the screen.

- 1 Press **DISPLAY** repeatedly until the Control Menu disappears, then press **DISPLAY** once.

The Control Menu for JPEG appears.

- 2 Press **↑** or **↓** repeatedly to select "INTERVAL", then press **ENTER**.

The options for "INTERVAL" appear.



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

The default setting is underlined.

- NORMAL: sets the duration to about 6 to 9 seconds. (Images that are four million pixels or more will lengthen the duration.)
- FAST: sets the duration shorter than "NORMAL".
- SLOW1: Sets the duration longer than "NORMAL".
- SLOW2: Sets the duration longer than "SLOW1".

### Note

Some JPEG image files may take longer to display than others, which may make the duration seems longer that the option you selected. Especially progressive JPEG image files or JPEG image files of 3,000,000 pixels or more.

## Selecting an effect for image files in the slide show (JPEG only)

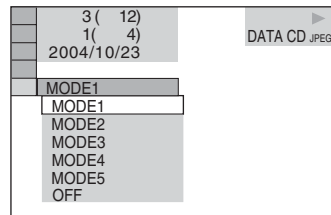
When you play a JPEG image file, you can select the effect to be used when viewing the slide show.

- 1 Press **DISPLAY** repeatedly until the Control Menu disappears, then press **DISPLAY** once.

The Control Menu for JPEG appears.

- 2 Press **↑** or **↓** repeatedly to select "EFFECT", then press **ENTER**.

The options for "EFFECT" appear.



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

The default setting is underlined.

- MODE1: The image sweeps in from top to bottom.
- MODE2: The image stretches out from left to right of the screen.
- MODE3: The image stretches out from the center of the screen.
- MODE4: The images randomly cycle through the effects.
- MODE5: The next image slides over the previous image.
- OFF: Turns off this function.

# Playing DivX<sup>®</sup> video files

*(Except for MHC-GN29D Latin American model, GN28D Latin American model, GN27D and GN25D)*



You can play DivX\* video files on DATA CDs (CD-ROMs/CD-Rs/CD-RWs) and DATA DVDs (DVD-Rs/DVD-RWs/DVD+Rs/DVD+RWs).

\* DivX is a video file compression technology, developed by DivXNetworks, Inc. This product is an official DivX Certified product.

## About playback order of data on DATA CDs or DATA DVDs

See “Playback order of MP3 audio tracks or JPEG image files” (page 25). Note that the playback order may not be applicable, depending on the software used for creating the DivX video file, or if there are more than 200 albums and 600 DivX video files in each album.

### Notes

- The system may not play a DivX video file when the file has been combined from two or more DivX video files.
- The system cannot play a DivX video file of size more than 720 (width) × 576 (height) or 2GB.
- Depending on the DivX video file, the picture may be unclear or the sound may skip.
- The system cannot play some DivX video files that are longer than 3 hours.
- If there are no DivX video files recorded on a DATA DVD, a message appears to indicate that the disc is not playable.
- Depending on the DivX video file, the picture may pause or be unclear. In which 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, however, this system does not conform to WMA (Windows Media Audio) format.

- Because of the compression technology used for DivX video files, it may take some time after you press  $\triangleright$  (or  $\blacktriangleleft$  on the unit) for the picture to appear.
- Depending on the DivX video file, the sound may not match the pictures on the screen.
- The playback order may differ depending on the software used for creating the DivX video file.
- The system can recognize up to 600 DivX video files in a single album. A maximum of 200 albums can be recognized.

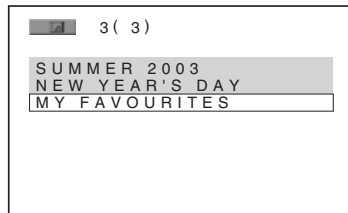
### Tip

You can view the disc information while playing a DivX video file (page 64).

## Selecting an album

### 1 Press MENU.

The album list appears. Only albums that contain DivX video files are listed.



### 2 Press $\uparrow$ or $\downarrow$ repeatedly to select the album you want, then press $\triangleright$ (or $\blacktriangleleft$ on the unit).

The system starts playing the selected album.

### To go to the next or previous page

Press  $\blacktriangleleft$  or  $\blacktriangleright$ .

### To turn off the display

Press MENU repeatedly.

### To stop play

Press  $\blacksquare$ .

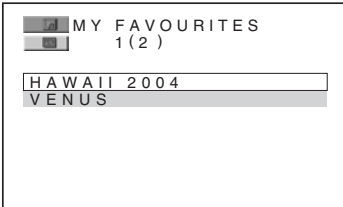
## Selecting a DivX video file

### 1 Press MENU.

The album list appears. Only albums that contain DivX video files are listed.

### 2 Press **↑** or **↓** repeatedly to select the album you want, then press ENTER.

The file list appears.



### 3 Press **↑** or **↓** repeatedly to select a file, then press ENTER.

The system starts playing the selected file.

## To go to the next or previous page

Press **←** or **→**.

## To return to the previous display

Press **↶** RETURN.

## To stop play

Press **■**.

## To play the next or previous DivX video file without turning on the file list

You can select the next or previous DivX video file in the same album by pressing **◀◀** or **▶▶**. You can also select the first file of the next album by pressing **▶▶I** during playback of the last file of the current album. Note that you cannot return to the previous album by pressing **◀◀**. To return to the previous album, select it from the album list.

### Tip

If the number of viewing times is preset, you can play the DivX video files as many times as the preset number. The following occurrences are counted:

- when the system is turned off.
- when the disc tray is opened.
- when another file is played.

## Using the on-screen display to search



\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

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

### 1 Press **⏏** DISPLAY.

For DATA CD with JPEG image files, press **⏏** DISPLAY twice.

The Control Menu appears.

### 2 Press **↑** or **↓** repeatedly to select the search method.

■ When playing a DVD VIDEO/DVD-RW  
“TITLE”, “CHAPTER” or “TIME/TEXT”  
Select “TIME/TEXT” to search for a starting point by inputting the time code.

■ When playing a VIDEO CD without PBC function  
“TRACK” or “INDEX”

■ When playing a VIDEO CD with PBC functions  
“SCENE”

■ When playing a CD  
“TRACK”

■ When playing an MP3 audio track  
“ALBUM” or “TRACK”

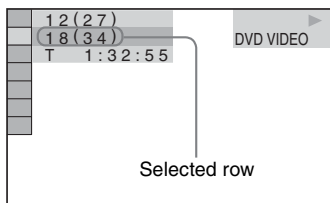
■ When playing a JPEG image file  
“ALBUM” or “FILE”



■ When playing a DivX video file (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D) “ALBUM” or “FILE”

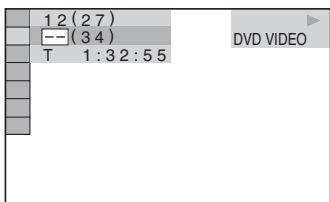
Example: when you select “CHAPTER” “\*\* (\*\*)” is selected (\*\* refers to a number).

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



### 3 Press ENTER.

“\*\* (\*\*)” changes to “-- (\*\*)”.




### 4 Press ↑ or ↓ repeatedly or press the number buttons to select the title, chapter, track, index, scene, etc., number you want to search for.

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

### 5 Press ENTER.

Playback starts from the selected number.

## To turn off the Control Menu

Press  DISPLAY repeatedly until the Control Menu disappears.

## To search for a particular point using the time code (DVD VIDEO/DVD-RW only)

### — Time Search

#### 1 In step 2, select “TIME/TEXT”.

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

#### 2 Press ENTER.

“T \*\*:\*\*:\*\*” changes to “T --:--:--”.

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

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

### Notes

- You cannot search for a scene on a DVD+RW using the time code.
- The title, chapter or track number displayed is the same number recorded on the disc.

### Tip

When the Control Menu display is turned off, you can search for a chapter (DVD VIDEO/DVD-RW), track (CD) or DivX video file\* (DATA CD (DivX video)/DATA DVD) by pressing the number buttons and ENTER.

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

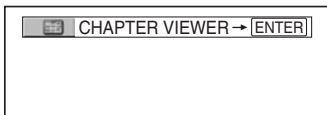
# Searching by scene

## — Picture Navigation



You can divide the screen into 9 subscreens and find the desired scene quickly.

### 1 Press PICTURE NAVI during play.



### 2 Press PICTURE NAVI repeatedly to select an item.

#### ■ When playing a DVD VIDEO

- TITLE VIEWER: displays the first scene of each title.
- CHAPTER VIEWER: displays the first scene of each chapter.

#### ■ When playing a VIDEO CD

- TRACK VIEWER: displays the first scene of each track.

### 3 Press ENTER.

The first scene of each chapter, title, or track appears as follows.

1	2	3	▼
4	5	6	
7	8	9	

When there are more than 9 titles, chapters or tracks, “▼” appears at the bottom right of the TV screen.

To display the hidden titles, chapters or tracks, select the bottom scene, then press ↓. To return to the previous scene, select the top scene, then press ↑.

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

Playback starts from the selected scene.

## To return to Normal Play

Press ⏪ RETURN or 📺 DISPLAY.

### Notes

- Depending on the disc, you may not be able to select some items.
- PICTURE NAVI does not work when “MODE (MP3, JPEG)” is set to “AUDIO (MP3)” (page 29).

# DVD/VIDEO CD/CD/MP3/JPEG/DivX

## – Various functions

### Changing the sound



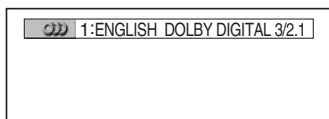
\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

When playing a DVD VIDEO or DATA CD/ DATA DVD (DivX video files) recorded in multiple audio formats (PCM, Dolby Digital, MPEG audio or DTS), you can change the audio format. If the DVD VIDEO is recorded with multilingual tracks, you can also change the language.

With VIDEO CDs, CDs or DATA CDs, you can select the sound from the right or left channel and listen to the sound of the selected channel through both the right and left speakers. For example, when playing a disc containing a song with the vocals on the right channel and the instruments on the left channel, you can hear the instruments from both speakers by selecting the left channel.

#### 1 Press AUDIO during play.

The following display appears.



#### 2 Press AUDIO repeatedly to select the desired audio signal.

##### ■ When playing a DVD VIDEO

Depending on the DVD VIDEO, the choice of language varies.

When 4 digits are displayed, they indicate a language code (see “Language code list” (page 84)). When the same language is displayed two or more times, the DVD VIDEO is recorded in multiple audio formats.

##### ■ When playing a DVD-RW

The types of sound tracks recorded on a disc are displayed.

The default setting is underlined.

Example:

- 1: MAIN (main sound)
- 1: SUB (sub sound)
- 1: MAIN+SUB (main and sub sound)
- 2: MAIN\*
- 2: SUB\*
- 2: MAIN+SUB\*

\* This is not displayed for a disc recorded with only one audio stream.

##### ■ When playing a VIDEO CD/CD/MP3 audio track

The default setting is underlined.

- 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 DivX video file (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)

The choice of DATA CD or DATA DVD audio signal formats differ, depending on the DivX video file contained on the disc. The format is shown in the TV screen.

##### ■ When playing a Super VCD

The default setting is underlined.

- 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)

##### Note

While playing a Super VCD on which the audio track 2 is not recorded, no sound is output when you select “2:STEREO”, “2:1/L” or “2:2/R”.

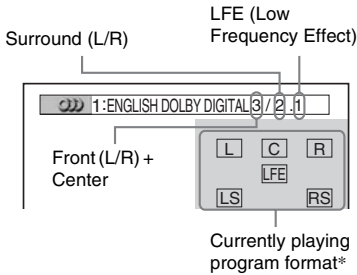
## Displaying the audio information of the disc (DVD/ DivX video\* only)

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

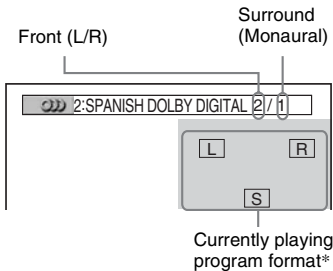
When you press AUDIO repeatedly during play, the format of the current audio signal (PCM, Dolby Digital, DTS, etc.) is displayed on the TV screen.

### ■ When playing a DVD VIDEO

Example: Dolby Digital 5.1 ch



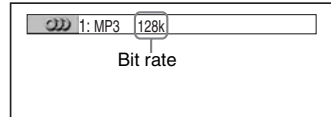
Example: Dolby Digital 3 ch



\* Does not appear on MHC-GNZ7D/GNZ5D.

■ When playing a DivX video file (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)

Example: MP3 audio



### About audio signals

Audio signals recorded in a disc contain the sound elements (channels) shown below. Each channel is output from a separate speaker.

- Front (L)
- Front (R)
- Center
- Surround (L)
- Surround (R)
- Surround (Monaural): This signal can be either the Dolby Surround Sound processed signals or the Dolby Digital sound's monaural Surround audio signals.
- LFE (Low Frequency Effect) signal

## Adjusting the delay between the picture and sound

### — A/V SYNC



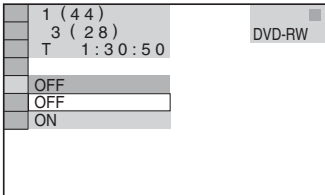
\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

When the sound does not match the pictures on the TV screen, you can adjust the delay between the picture and sound.

**1** Press **DISPLAY** in stop mode.  
The Control Menu appears.

**2** Press **↑** or **↓** repeatedly to select “A/V SYNC”, then press **ENTER**.

The options for “A/V SYNC” appear.



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

- OFF: does not adjust.
- ON: adjusts the difference between picture and sound.

#### Note

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

## Using the Setup Display

By using the Setup Display, you can make various adjustments to items such as picture and sound. You can also set a language for the subtitles and the Setup Display, among other things. For details on each Setup Display item, see pages from 38 to 45. For an overall list of Setup Display items, see page 85. Asian model is used for illustration purposes only.

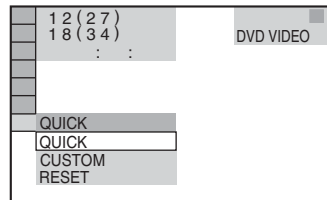
#### Note

Playback settings stored in the disc take priority over the Setup Display settings and not all the functions described may work.

**1** Press **DISPLAY** in stop mode.  
The Control Menu appears.

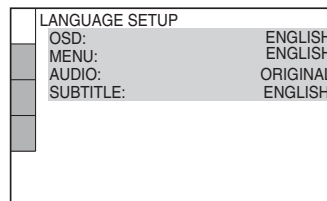
**2** Press **↑** or **↓** repeatedly to select “SETUP”, then press **ENTER**.

The options for “SETUP” appear.



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

The Setup Display appears.

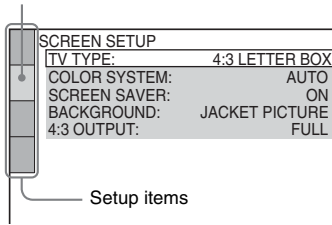


- 4** Press **↑** or **↓** repeatedly to select the setup item from the displayed list, then press **ENTER**.

The setup item is selected.

Example: “SCREEN SETUP”

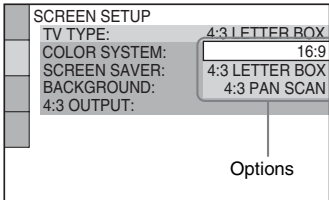
Selected item



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

The options for the selected item appear.

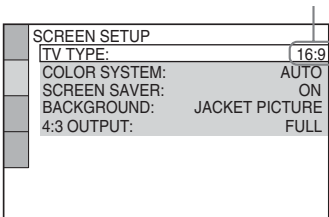
Example: “TV TYPE”



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

The setting is selected and setup is complete.

Selected setting



**Tip**

You can reset all the DVD settings except for Parental Control by performing the operations described under “To return the DVD setup to the default settings\*, perform reset as follows:” (page 77).

\* Except for Parental Control setting

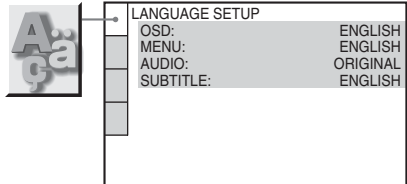
## Setting the display or sound track language

### — LANGUAGE SETUP

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

**Select “LANGUAGE SETUP” in the Setup Display.**

To use the Setup Display, see “Using the Setup Display” (page 37).



**■ OSD (on-screen display)**

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

**■ MENU (DVD VIDEO only)**

You can select the desired language for the disc’s 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.

**■ SUBTITLE (DVD VIDEO only)**

Switches the language of the subtitle recorded on the DVD VIDEO. When you select “AUDIO FOLLOW”, the language for the subtitles changes according to the language you selected for the sound track.

**Note**

When you select a language in “MENU”, “AUDIO” or “SUBTITLE” that is not recorded on the DVD VIDEO, one of the recorded languages will be automatically selected (depending on the disc, the language may not be selected automatically).

**Tip**

If you select “OTHERS →” in “MENU”, “AUDIO” and “SUBTITLE”, select and enter a language code from “Language code list” (page 84) using the number buttons.

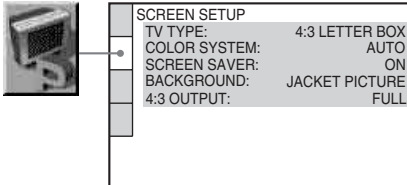
# Settings for the display

## — SCREEN SETUP

Select settings according to the TV to be connected.

### Select “SCREEN SETUP” in the Setup Display.

To use the Setup Display, see “Using the Setup Display” (page 37).



### ■ TV TYPE

Selects the aspect ratio of the connected TV. The default setting varies, depending on the country model.

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

- 16:9



- 4:3 PAN SCAN



- 4:3 LETTER BOX



### Note

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

### ■ COLOR SYSTEM (except for Latin American model)

Select the color system when you play a VIDEO CD.

The default setting is underlined.

<u>AUTO</u>	Outputs the video signal in the system of the disc, either PAL or NTSC. If your TV uses a DUAL system, select “AUTO”.
PAL	Changes the video signal of an NTSC disc and outputs it in the PAL system.
NTSC	Changes the video signal of a PAL disc and outputs it in the NTSC system.

### Notes

- You cannot change the color system of the disc itself.
- Except for Latin American model, you can change the color system of this unit according to the connected TV (page 11).

### ■ SCREEN SAVER

Turns on and off the screen saver. If you turn on the TV screen saver, the screen saver image appears when you leave the system in pause or stop mode for 15 minutes, or when you play back an audio CD or MP3 audio track for more than 15 minutes. The screen saver will help prevent your display device from becoming damaged (ghosting). Press  $\triangleright$  (or  $\blacktriangleleft$  on the unit) to turn off the screen saver. The default setting is underlined.

<u>ON</u>	Turns on the screen saver.
OFF	Turns off the screen saver.

## ■ BACKGROUND

Selects the background color or picture on the TV screen in stop mode or while playing an audio CD or MP3 audio track.

The default setting is underlined.

<u>JACKET PICTURE</u>	The jacket picture (still picture) appears in the background, but only when the jacket picture is already recorded on the disc (CD-EXTRA, etc.). If the disc does not contain a jacket picture, the "GRAPHICS" picture appears.
<u>GRAPHICS</u>	A preset picture stored in the system appears.
<u>BLUE</u>	The background color is blue.
<u>BLACK</u>	The background color is black.

## ■ BLACK LEVEL (Latin American model only)

Selects the black level (setup level) for the video signals output from the jacks other than COMPONENT VIDEO OUT.

The default setting is underlined.

<u>ON</u>	Sets the black level of the output signal to the standard level.
OFF	Lowers the standard black level. Use this when the picture becomes too white.

## ■ BLACK LEVEL (COMPONENT OUT) (MHC-GNZ9D/GNZ8D/GNZ7D Latin American model only)

Selects the black level (setup level) for the video signals output from the COMPONENT VIDEO OUT jacks.

"BLACK LEVEL (COMPONENT OUT)" setting is not available when the system outputs progressive signal.

The default setting is underlined.

<u>OFF</u>	Sets the black level of the output signal to the standard level.
ON	Raise the standard black level. Use this when the picture becomes too black.

## ■ 4:3 OUTPUT (except for MHC-GNZ5D)

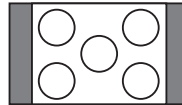
This setting is effective only when:

- you set "TV TYPE" in "SCREEN SETUP" to "16:9" (page 39).
- the type of signal output from the system is set to "PROGRESSIVE AUTO" or "PROGRESSIVE VIDEO" (page 40).

Adjust this 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, not the system.

The default setting is underlined.

<u>FULL</u>	Select this when you can change the aspect ratio on your TV.
<u>NORMAL</u>	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

## To change the type of signal output from the system

### — PROGRESSIVE (except for MHC-GNZ5D)

Progressive is the method for displaying TV images which reduces flickering, and sharpens the image. To display using this method, you need to connect to a TV that accepts progressive signals.

Press DVD and DISPLAY on the unit at the same time.

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

PROGRESSIVE AUTO\* → PROGRESSIVE VIDEO\* → NORMAL (INTERLACE)

\* "P AUTO" or "P VIDEO" appears in the front panel display when the system outputs progressive signals.



### ■ PROGRESSIVE AUTO

Select this setting when your TV accepts progressive signals and the TV is connected to the COMPONENT VIDEO OUT jacks.

Normally select this setting under the above condition. This setting automatically detects the software type, and selects the appropriate conversion method.

Note that the picture will not be clear or no picture will appear if you select these settings when either of the above conditions is not met.

### ■ PROGRESSIVE VIDEO

Select this setting when your TV accepts progressive signals and the TV is connected to the COMPONENT VIDEO OUT jacks and you want to fix the conversion method to PROGRESSIVE VIDEO for video-based software.

Select this setting if the image is not clear when you select “PROGRESSIVE AUTO”.

Note that the picture will not be clear or no picture will appear if you select these settings when either of the above conditions is not met.

### ■ NORMAL (INTERLACE)

Select this setting when your TV does not accept progressive signals or your TV is connected to the VIDEO OUT jacks.

## About DVD software types and the conversion method

DVD software can be divided into 2 types: film-based software and video-based software.

Video-based software is derived from TV, such as dramas and sit-coms, and displays images at 30 frames/60 fields per second. Film-based software is derived from film and displays images at 24 frames per second. Some DVD software contains both video and film.

In order for these images to appear natural on your screen when output in progressive format, the progressive signals need to be converted to match the type of DVD software that you are watching.

### Note

When you play video-based software in progressive signal format, sections of some types of images may appear unnatural due to the conversion process when output through the COMPONENT VIDEO OUT jacks. Even though you set to “PROGRESSIVE AUTO” or “PROGRESSIVE VIDEO,” images from the VIDEO OUT jack are unaffected as they are output in the interlace format.

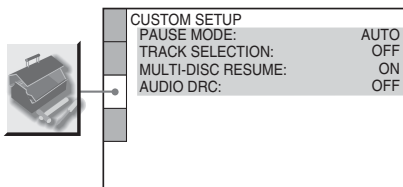
# Custom settings

## — CUSTOM SETUP

Use “CUSTOM SETUP” to set up playback related and other settings.

### Select “CUSTOM SETUP” in the Setup Display.

To use the Setup Display, see “Using the Setup Display” (page 37).



### ■ PAUSE MODE (DVD VIDEO/DVD-RW only)

Selects the picture in pause mode. The default setting is underlined.

<u>AUTO</u>	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 the priority to the sound track which contains the highest number of channels when you play a DVD VIDEO on which multiple audio formats (PCM, DTS, MPEG audio or Dolby Digital format) are recorded. The default setting is underlined.

<u>OFF</u>	No priority given.
AUTO	Priority given.

### Notes

- When you set the item to “AUTO”, the language may change. The “TRACK SELECTION” setting has higher priority than the “AUDIO” settings in “LANGUAGE SETUP” (page 38). (Depending on the disc, this function may not work.)
- If PCM, DTS, Dolby Digital sound and MPEG audio tracks have the same number of channels, the system selects PCM, DTS, Dolby Digital sound and MPEG audio tracks in this order.

### ■ MULTI-DISC RESUME (DVD VIDEO/VIDEO CD only)

Switches the Multi-disc Resume setting on or off. Resume playback point can be stored in memory for up to 40 different DVD VIDEO/VIDEO CD discs (page 19).

The default setting is underlined.

<u>ON</u>	Stores the resume settings in memory for up to 40 discs.
OFF	Does not store the resume settings in memory. Playback restarts at the resume point only for the current disc in the system.

### ■ AUDIO DRC (Dynamic Range Compression) (DVD VIDEO/DVD-RW only)

Narrows the dynamic range of the sound track. Useful for watching movies at low volume late at night.

The default setting is underlined.

<u>OFF</u>	No compression of dynamic range.
STANDARD	Reproduces the sound track with the kind of dynamic range that the recording engineer intended.
MAX	Compresses dynamic range at the maximum.

### Note

“AUDIO DRC” only applies to Dolby Digital sources.

### ■ DivX (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)

Displays the registration code for this system. For more information, go to <http://www.divx.com> on the Internet.

# Speaker settings

## — SPEAKER SETUP (except for MHC-GNZ5D)

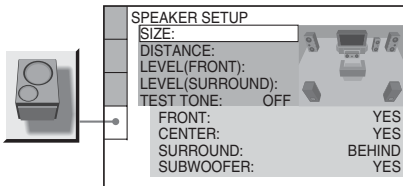
To obtain the best possible surround sound, set for the size of the speakers you have connected and their distance from your listening position. Then use the test tone to adjust the level of the speakers to the same level.

### Select “SPEAKER SETUP” in the Setup Display.

To use the Setup Display, see “Using the Setup Display” (page 37).

#### Note

You cannot operate these setup items when you connect headphones and microphones to the system.



### To return to the default setting

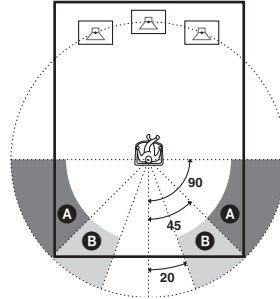
Select the item, then press CLEAR. Note that only the “SIZE” setting does not return to the default setting.

#### ■ SIZE

If you do not connect center, surround speakers or subwoofer or you move the surround speakers, set the parameters for “CENTER”, “SURROUND” and “SUBWOOFER” and specify the surround speaker position. Since the front speaker setting is fixed, you cannot change them.

The default setting is underlined.

Position diagram



FRONT	<u>YES</u>
CENTER*	<u>YES</u> : Normally select this. NONE: Select this if no center speaker is used.
SURROUND*	<u>BEHIND</u> : Select this if surround speakers are located in section <b>B</b> . SIDE: Select this if surround speakers are located in section <b>A</b> . NONE: Select this if no surround speaker is used.
SUBWOOFER	<u>YES</u> : Select this when a subwoofer is used. NONE: Select this when a subwoofer is not used.

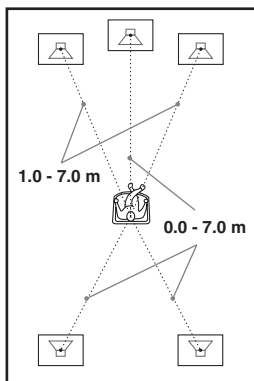
\* MHC-GNZ9D/GNZ8D only

#### Notes

- When you select an item, the sound may cut off for a moment.
- Depending on the settings of other speakers, the subwoofer may output excessive sound.
- When connecting a subwoofer, make sure to set the “SUBWOOFER” setting to “YES”. If set to “NONE”, no sound is output from the subwoofer.
- When you play a DVD that does not have subwoofer output recorded, note that no sound is produced from the subwoofer, even if “SUBWOOFER” is set to “YES”.

## ■ DISTANCE (MHC-GNZ9D/GNZ8D only)

The default distance setting for the speakers in relation to the listening position is shown below. When you set the distance using the Quick Setup (page 14), the settings is automatically displayed.



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

Any items that are set to “NONE” in the “SIZE” setting will not appear.

The default settings are underlined.

<u>FRONT</u> <u>3.0 m</u> <sup>1)</sup>	Front speaker distance from the listening position can be set in 0.2 meter increments from 1.0 to 7.0 meters.
<u>CENTER</u> <u>3.0 m</u> <sup>1)</sup>	Center speaker distance from the listening position can be set in 0.2 meter increments from 0.0 to 7.0 meters. <sup>2)</sup>
<u>SURROUND</u> <u>3.0 m</u> <sup>1)</sup>	Surround speaker distance from the listening position can be set in 0.2 meter increments from 0.0 to 7.0 meters. <sup>2)</sup>

<sup>1)</sup> When you perform the Quick Setup (page 14), the default settings are changed.

<sup>2)</sup> The setting range changes depending on the front speaker setting.

## Notes

- When you set the distance, the sound may cut off for a moment.
- If all front and surround speakers are not placed at an equal distance from your listening position, set the distance according to the closest speaker.
- Do not place the surround speakers farther away from your listening position than the front speakers.
- Depending on the input stream, the “DISTANCE” setting may not be effective.

## ■ LEVEL (FRONT)

You can vary the level of front speakers as follows. Be sure to set “TEST TONE” to “ON” for easy adjustment.\*

<u>L</u> <u>0 dB</u>	Set this between -6 dB and 0 dB in 1 dB increments.
<u>R</u> <u>0 dB</u>	Set this between -6 dB and 0 dB in 1 dB increments.
<u>CENTER</u> <sup>1)</sup> <u>0 dB</u>	Set this between -6 dB and +6 dB in 1 dB increments.
<u>SUBWOOFER</u> <u>0 dB</u>	MHC-GNZ9D: Set this between -6 dB and +6 dB in 1 dB increments. MHC-GNZ8D <sup>2)</sup> : Set this between -10 dB and +10 dB in 1 dB increments. MHC-GNZ7D: Set this by selecting from -10 dB, -4 dB or 0 dB.

<sup>1)</sup> MHC-GNZ9D/GNZ8D only

<sup>2)</sup> Depending on the subwoofer type, sound output can be smaller than that of other speakers during using the test tone.

## ■ LEVEL (SURROUND) (MHC-GNZ9D/GNZ8D only)

You can vary the level of surround speakers as follows. Be sure to set “TEST TONE” to “ON” for easy adjustment.

Any items that are set to “NONE” in the “SIZE” setting will not appear.

The default settings are underlined.


<u>L</u> <u>0 dB</u>	Set this between -6 dB and +6 dB in 1 dB increments.
<u>R</u> <u>0 dB</u>	Set this between -6 dB and +6 dB in 1 dB increments.

## To adjust the volume of all the speakers at one time

Press VOLUME + or - (or turn VOLUME control on the unit).

## Adjusting the speaker level by using the test tone

(MHC-GNZ9D/GNZ8D only)

- 1** Press  **DISPLAY** in stop mode.  
The Control Menu appears.
- 2** Press **↑** or **↓** repeatedly to select “**SETUP**”, then press **ENTER**.  
The options for “**SETUP**” appear.
- 3** Press **↑** or **↓** repeatedly to select “**CUSTOM**”, then press **ENTER**.  
The Setup Display appears.
- 4** Press **↑** or **↓** repeatedly to select “**SPEAKER SETUP**”, then press **ENTER**.
- 5** Press **↑** or **↓** repeatedly to select “**TEST TONE**”, then press **ENTER**.
- 6** Press **↑** or **↓** repeatedly to select “**ON**”, then press **ENTER**.  
For MHC-GNZ9D, you will hear the test tone from each speaker in sequence.  
For MHC-GNZ8D, you will hear the test tone from each speaker in sequence except for subwoofer.
- 7** Press **↑/↓/←/→** repeatedly to adjust the value of “**LEVEL (FRONT)**” and “**LEVEL (SURROUND)**” from your listening position.  
The test tone is emitted from only the speaker which you are adjusting.
- 8** Press **ENTER** when you have finished adjusting.
- 9** Press **←**, and press **↑** or **↓** repeatedly to select “**TEST TONE**”, then press **ENTER**.
- 10** Press **↑** or **↓** repeatedly to select “**OFF**”, then press **ENTER**.

**Note**

When adjusting the speaker settings, the sound may cut off for a moment.

## Restricting disc playback


— **CUSTOM PARENTAL CONTROL/ PARENTAL CONTROL**

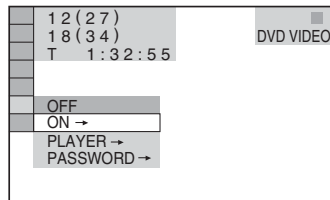


### Preventing playback of specific discs

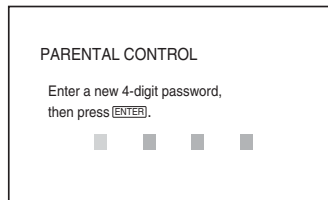
— **CUSTOM PARENTAL CONTROL**

You can set the playback restrictions so that the system will not play inappropriate discs. You can set the same Custom Parental Control password for up to 40 discs. When you set the 41st disc, the playback restriction for the first disc is canceled.

- 1** Load the disc you want to lock.  
If the disc is playing, press **■** to stop play.
- 2** Press  **DISPLAY** in stop mode.  
The Control Menu appears.
- 3** Press **↑** or **↓** repeatedly to select “**PARENTAL CONTROL**”, then press **ENTER**.  
The options for “**PARENTAL CONTROL**” appear.



- 4** Press **↑** or **↓** repeatedly to select “**ON→**”, then press **ENTER**.  
**■** If you have not entered a password  
The display for registering a new password appears.



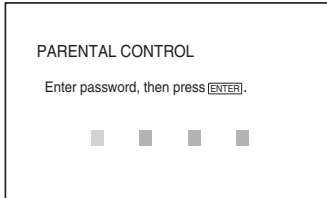
continued

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

The display for confirming the password appears.

■ **When you have already registered a password**

The display for entering the password appears.



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

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

**If you make a mistake entering your password**

Press ◀ repeatedly to select the wrong number before you press ENTER and input the correct number.

**To turn off the Control Menu**

Press [DISPLAY] repeatedly until the Control Menu disappears.

**To turn off the Custom Parental Control function**

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

**To change the password**

- 1 In step 4, select “PASSWORD→”, then press ENTER.  
The display for entering the password appears.
- 2 Enter your 4-digit password using the number buttons, then press ENTER.
- 3 Enter a new 4-digit password using the number buttons, then press ENTER.

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

**To play a disc for which Custom Parental Control is set**

- 1 Load the disc for which Custom Parental Control is set.  
The “CUSTOM PARENTAL CONTROL” display appears.
- 2 Enter your 4-digit password using the number buttons, then press ENTER.  
The system is ready for playback.

**Tip**

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

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**Limiting playback by children (DVD VIDEO only)**

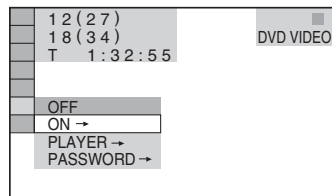
**— PARENTAL CONTROL**

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

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

- 1 Press [DISPLAY] in stop mode.  
The Control Menu appears.
- 2 Press ↑ or ↓ repeatedly to select “PARENTAL CONTROL”, then press ENTER.

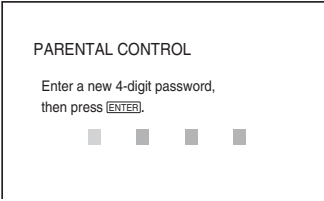
The options for “PARENTAL CONTROL” appear.



**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.

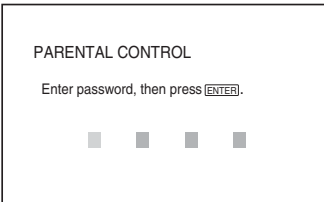


Enter a 4-digit password using the number buttons, then press **ENTER**.

The display for confirming the password appears.

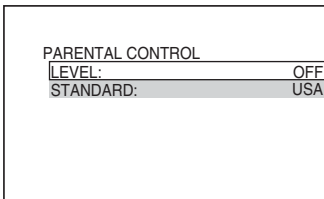
■ **When you have already registered a password**

The display for entering the password appears.



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

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

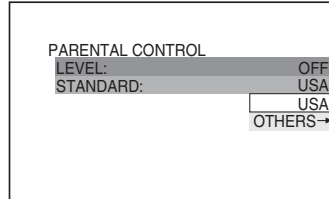


**If you make a mistake entering your password**

Press **←** repeatedly to select the wrong number before you press **ENTER** and input the correct number.

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

The options for “STANDARD” appear.



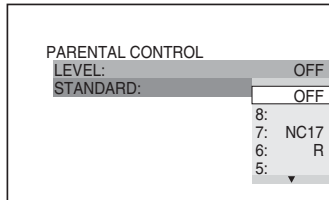
**6** Press **↑** or **↓** repeatedly to select a geographic area as the playback limitation level, then press **ENTER**.

The area is selected.

When you select “OTHERS→”, select and enter the standard code in the table on page 48 using the number buttons.

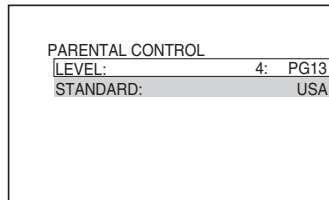
**7** Press **↑** or **↓** repeatedly to select “LEVEL”, then press **ENTER**.

The options for “LEVEL” appear.



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

The Parental Control setting is completed.



The lower the value, the more strict the limitation.

**To turn off the Parental Control function**

Set “LEVEL” to “OFF” in step 8.

## To change the password

- 1 In step 3, select “PASSWORD→”, then press ENTER.  
The display for entering the password appears.
- 2 Follow step 3 to enter a new password.

## To play a disc for which Parental Control is set

- 1 Load the disc for which Parental Control is set.
- 2 Press ▷ (or ◀▶ on the unit).  
The “PARENTAL CONTROL” display appears.
- 3 Enter your 4-digit password using the number buttons, then press ENTER.  
Playback starts.

### Notes

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

### Tip

If you forgot your password, remove the disc and repeat steps 1 to 3 of “Limiting playback by children (DVD VIDEO only)” (page 46). When you are asked to enter your password, enter “199703” using the number buttons, then press ENTER. The display will ask you to enter a new 4-digit password. After you enter a new 4-digit password, replace the disc in the system and press ▷ (or ◀▶ on the unit). When the “PARENTAL CONTROL” display appears, enter your new password.

## Area code

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



## Changing the angles

DVD-V

If various angles (multi-angles) for a scene are recorded on a DVD VIDEO, you can change the viewing angle.

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

### Press ANGLE during play.

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-V

DVD-RW

DATA CD

DATA DVD \*

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

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

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

### Press SUBTITLE during play.

Each time you press SUBTITLE, the subtitle language changes.

#### Notes

- Depending on the DVD VIDEO, you may not be able to change the subtitles even if multilingual subtitles are recorded on the DVD VIDEO. 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 (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D).

## Presetting radio stations

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

### Automatic tuning preset

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

- 1 Press **FUNCTION + or – (or TUNER/BAND on the unit)** repeatedly to select “TUNER FM” or “TUNER AM”.
- 2 Press and hold **TUNING + or –** until “AUTO” appears.

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

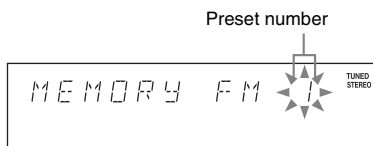


#### If “TUNED” does not appear and the scanning does not stop

Set the frequency of the desired radio station as described in “Manual tuning preset”.

- 3 Press **MENU**.  
“MEMORY” appears.
- 4 Press **ENTER**.

A preset number flashes. Perform steps 5 and 6 while the preset number flashes.



- 5 Press **↑ or ↓** repeatedly to select the desired preset number.
- 6 Press **ENTER**.  
“COMPLETE” appears.
- 7 Repeat steps 1 through 6 to store other stations.

### Manual tuning preset

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

- 1 Press **FUNCTION + or – (or TUNER/BAND on the unit)** repeatedly to select “TUNER FM” or “TUNER AM”.
- 2 Press **TUNING + or –** repeatedly to tune in the desired station.
- 3 Press **MENU**.  
“MEMORY” appears.
- 4 Press **ENTER**.  
A preset number flashes. Perform steps 5 and 6 while the preset number flashes.
- 5 Press **↑ or ↓** repeatedly to select the desired preset number.
- 6 Press **ENTER**.  
“COMPLETE” appears.
- 7 Repeat steps 1 through 6 to store other stations.

### Other operations

To	Do this
Tune in a station with a weak signal	Follow the procedure described in “Manual tuning preset”.
Set another station to the existing preset number	Start over from step 1. After step 4, press <b>↑</b> or <b>↓</b> repeatedly to select the preset number you want to store the other station.

## To change the AM tuning interval (except for Saudi Arabian model)

The AM tuning interval is factory-preset to 9 kHz (or 10 kHz for some areas). To change the AM tuning interval, tune in any AM station first, then turn off the system. While holding TUNING + on the unit, press I/⏻ on the unit. When you change the interval, all the AM preset stations are erased. To reset the interval, repeat the same procedure.

### Note

You cannot change the AM tuning interval in Power Saving Mode (page 63).

### Tips

- The preset stations are retained for about a half day even if you disconnect the power cord or if a power failure occurs.
- To improve broadcast reception, adjust the supplied antennas, or connect a commercially available external antenna.

## Listening to the radio

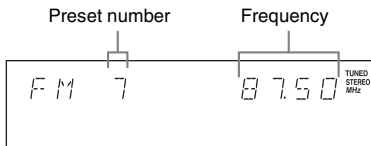
You can listen to a radio station either by selecting a preset station, or by manually tuning in the station.

## Listening to a preset station

### — Preset Tuning

Preset radio stations in the tuner's memory first (see "Presetting radio stations" on page 50).

- 1 Press **FUNCTION + or – (or TUNER/BAND on the unit)** repeatedly to select "TUNER FM" or "TUNER AM".
- 2 Press **PRESET + or –** repeatedly to select the desired preset station.



### Tip

You can also select the desired preset station by pressing the number buttons and ENTER in step 2.

## Listening to non-preset radio station

### — Manual Tuning

- 1 Press **FUNCTION + or – (or TUNER/BAND on the unit)** repeatedly to select "TUNER FM" or "TUNER AM".
- 2 Press **TUNING + or –** repeatedly to tune in the desired station.

### Note

The OSD does not appear on the TV screen except for DVD function.

### Tips

- To improve broadcast reception, adjust the supplied antennas, or connect a commercially available external antenna.
- When an FM stereo program has static noise, press FM MODE repeatedly until "MONO" appears. There will be no stereo effect, but the reception will improve.
- Press and hold TUNING + or – in step 2 above. The frequency indication changes and scanning stops when the system tunes in a station (Automatic Tuning).
- To record the radio programs, use manual recording (pages 54 and 62).

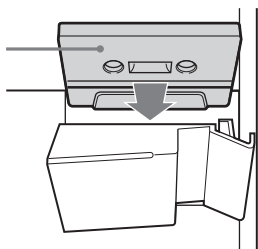
## Tape – Play

### Loading a tape

Use buttons on the unit for the operation.

- 1 Press **▲** PUSH.
- 2 Load a recorded/recordable tape in deck A or B with the side you want to play/record facing forward.

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



- 3 Close the tape deck.

### Playing a tape

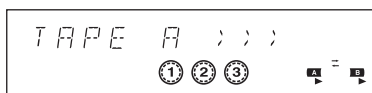
You can use TYPE I (normal) tape.  
Use buttons on the unit for the operation.

- 1 Load a tape.
- 2 Press **TAPE A/B** repeatedly to select “TAPE A” or “TAPE B”.
- 3 Press **DIRECTION** repeatedly to select “**→**” to play one side. Select “**↔**”<sup>1)</sup> to play both sides.

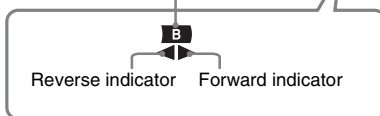
To play both decks in succession, press **DIRECTION** repeatedly until “RELAY” (Relay Play)<sup>2)</sup> appears in the display.

- 4 Press **◀▶** (or **▷** on the remote).

Press the button again to play the reverse side.<sup>3)</sup> The tape starts playing.



Tape presence indicator



- <sup>1)</sup> TAPE B only. The tape deck stops automatically after repeating the sequence five times. The TAPE A plays front side only.
- <sup>2)</sup> Relay Play always follows this cyclic sequence up to five times, then stops:  
TAPE A (front side) → TAPE B (front side) → TAPE B (reverse side)
- <sup>3)</sup> TAPE B only

### Other operations

To	Do this
Stop play	Press <b>■</b> .
Pause	Press <b>  </b> . Press <b>  </b> again to resume play.
Fast-forward or rewind	Press <b>◀▶</b> or <b>▷▶</b> .
Remove a tape	Press <b>▲</b> PUSH.

### Tip

If you select either TAPE A or B and press **◀▶** (or **▷** on the remote), **||**, **◀◀** or **▶▶** when no tape is in that deck, the system automatically switches to the tape in the other deck and starts that operation.

# Recording your favorite CD tracks on a tape

### — CD-TAPE Synchro Recording

You can record a whole disc (VIDEO CD and CD) on a tape.

You can use TYPE I (normal) tape. The recording level is adjusted automatically. Use buttons on the unit for the operation.

**1 Load a recordable tape into deck B, then press TAPE A/B repeatedly to select “TAPE B”.**

**2 Press ◀▶ (or ▷ on the remote) repeatedly to select recording side, then press ■.**

If you select both sides recording or front side recording, press ◀▶ (or ▷ on the remote) to light up the ▶ indicator, then press ■. If you record on the reverse side, press ◀▶ repeatedly to light up the ◀ indicator, then press ■.

**3 Press DIRECTION repeatedly to select “↔” to record on one side. Select “↔↔” (or “RELAY”) to record on both sides.**

**4 Press DVD and load a disc you want to record.**

If you have already loaded the disc, press DISC 1 – 3 to select the disc. If the selected disc automatically starts playback, press ■ twice to cancel Resume Play.

**5 Press CD SYNC.**

Deck B stands by for recording. “SYNC” lights up and “REC” flashes.

**6 Press REC PAUSE/START.**

Recording starts.

### To stop recording

Press ■.

### Notes

- CD Synchro Recording is not available with DVDs, DATA CDs and DATA DVDs.
- You cannot listen to other sources while recording.
- When you press CD SYNC in step 5, the surround effect may automatically change (see “Selecting the surround effect” on page 55).
- If the play mode is set to Shuffle Play, Program Play or Repeat Play, it automatically switches to Normal Play in step 5.
- When you record from a VIDEO CD, playback with PBC functions is automatically canceled.
- The sound cuts off for a moment during recording when:
  - you connect or disconnect the microphones
  - you turn on or off the karaoke mode
- CD SYNC only works in DVD function.
- Do not eject the tape during recording, as this may cause irreparable damage to the tape and the tape deck.

### Tips

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

# Recording on a tape manually

## — Manual Recording

You can record just the portions you like from a disc (DVD, VIDEO CD, DATA CD and DATA DVD), tape or radio program on a tape.

You can also record from connected components (see “Hooking up optional components” on page 69).

Use buttons on the unit for the operation.

**1 Load a recordable tape into deck B, then press TAPE A/B repeatedly to select “TAPE B”.**

**2 Press ◀▶ (or ▷ on the remote) repeatedly to select recording side, then press ■.**

If you select both sides recording or front side recording, press ◀▶ (or ▷ on the remote) to light up the ▶ indicator, then press ■. If you record on the reverse side, press ◀▶ repeatedly to light up the ◀ indicator, then press ■.

**3 Press DIRECTION repeatedly to select “↔” to record on one side. Select “↔↔” (or “RELAY”) to record on both sides.**

**4 Press one of the following buttons to select the desired source to record.**

- DVD: To record from this system’s CD/DVD player. When the system automatically starts playback, press ■ to stop the playback.
- TAPE A/B: To record from this system’s tape deck A.
- TUNER/BAND: To record from this system’s tuner.
- VIDEO\*: To record from the optional component connected to VIDEO INPUT AUDIO L/R jacks.
- TV/SAT\*: To record from the optional component connected to TV/SAT IN L/R jacks.

\* Except for MHC-GNZ5D

**5 Press REC PAUSE/START.**

Deck B stands by for recording.

“REC” flashes.

**6 Press REC PAUSE/START, then start playing the desired source to record.**

Recording starts.

## To stop recording

Press ■.

### Notes

- You cannot listen to other sources while recording.
- When you press REC PAUSE/START in step 5, the surround effect may automatically change (see “Selecting the surround effect” on page 55).
- Do not eject the tape during recording, as this may cause irreparable damage to the tape and the tape deck.
- The sound cuts off for a moment during recording when:
  - you connect or disconnect the microphones
  - you turn on or off the karaoke mode

### Tips

- 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 the reverse side.
- For recording from the tuner:
  - If noise is heard while recording from the tuner, move the respective antenna to reduce the noise.
- If “TAPE B” is selected in step 4, silence is recorded.
- You can “mix” sounds by playing one of the audio sources in step 4 and singing or speaking into a microphone. The mixed sound can be recorded on a tape.

## Sound Adjustment

### Adjusting 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.

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

GROOVE ON\* → V-GROOVE ON\* → GROOVE OFF

\* The volume switches to power mode, the equalizer curve changes, and the “GROOVE” or “V-GROOVE” lights up.

### Selecting the sound effect

Press PRESET EQ on the unit repeatedly to select the preset you want.

The preset name appears in the display.

#### To cancel the sound effect

Press PRESET EQ on the unit repeatedly until “FLAT” appears in the display.

#### Sound effect options

EQ	Effect
ROCK	Standard music sources
POP	
JAZZ	
DANCE	
SOUL	
MP3 EQ	
USER EQ 1	User preset music sources (see “Adjusting the graphic equalizer and storing” on page 57)
USER EQ 2	
USER EQ 3	

### Selecting the surround effect

Press SOUND FIELD repeatedly to select the effect you want.

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

#### ■ For MHC-GNZ9D/GNZ8D

When the headphones are not connected

SBS MULTI\* → A.F.D. AUTO\* → PRO LOGIC\* → PLII MOVIE\* → PLII MUSIC\* → V.M.DIM\* → LINK → 2CH STEREO

When the headphones are connected

HP 2CH ↔ HP VIRTUAL\*

#### ■ For MHC-GNZ7D/GNZ5D

When the headphones are not connected

2CH STEREO → 2CH SURROUND → VIRTUAL A\* → VIRTUAL B\*

When the headphones are connected

HP 2CH → HP SURROUND → HP VIRTUAL\*

\* These sound fields can be selected during DVD function except when

- the system is in stand by for recording or is recording.
- karaoke mode is selected.

- A.F.D. AUTO: Auto Format Direct Auto
- HP VIRTUAL: This mode outputs the sound as surround from headphone L/R. This mode is effective only when a multi channel source is played.
- HP 2CH: This mode outputs the sound from headphone L/R. Standard 2 channel (stereo) sources completely bypass the sound field processing. Multi channel surround formats are downmixed to two channels.
- LINK: The front speaker channels are output at both the front and surround speaker.

- **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.
- **PLII MUSIC:** Performs the Pro Logic II music mode decoding. This setting is ideal for normal stereo sources such as CDs.
- **PRO LOGIC:** Performs Pro Logic decoding. The source recorded in 2 channels is decoded into 4.1 channels.
- **SBS MULTI:** Sound Broad System Multi mode. This mode lets you enjoy audio playback of all types of discs from multiple speakers.
- **VIRTUAL A:** Creates three sets of virtual surround speakers from the sound of the actual front speakers (L/R).
- **VIRTUAL B:** Creates one set of virtual surround speakers from the sound of the front speakers (L/R) without using actual surround speakers.  
This mode is effective when the distance between the front L and R speakers is short.
- **V.M.DIM:** Creates an array of virtual surround speaker positions higher than the listener from a single set of actual surround speakers. This mode creates 5 pairs of virtual speakers surrounding the listener at approximately a 30° angle of elevation. The effect differs according to the “BEHIND” or “SIDE” setting of the surround speakers (page 43).
- **2CH STEREO:** This mode outputs the sound from the left and right speakers. Standard 2 channel (stereo) sources completely bypass the sound field processing. Multi channel surround formats are downmixed to two channels.  
This allows you to play any source using the left and right speakers.
- **2CH SURROUND/HP SURROUND:** This mode outputs sound with reverberations.

**Note**

For some discs, the surround effect may not be as much as expected.

**Tip**

As the sound field for DVD function differs from that of other functions, you might find different sound field when you switch to other functions from DVD function.



## Adjusting the graphic equalizer and storing

You can adjust the sound by raising or lowering the levels of specific frequency ranges, then store up to three USER EQ in the memory. Before operation, first select the audio emphasis you want for your basic sound. Use buttons on the unit for the operation.

- 1 Press **EQ BAND/MEMORY** repeatedly to select a frequency band, then turn **◀◀ ▶▶** to adjust the level.



- 2 Press and hold **EQ BAND/MEMORY**. USER EQ number appears.
- 3 Turn **◀◀ ▶▶** to select **USER EQ 1 – 3** you want to store the equalizer setting.
- 4 Press **EQ BAND/MEMORY**. “COMPLETE” appears. This setting is automatically stored as the USER EQ you selected in step 3.


### Other operations

To	Press
Call up a USER EQ	PRESET EQ repeatedly to select the desired USER EQ number.
Cancel a USER EQ	PRESET EQ repeatedly until “FLAT” appears.

## Singing along: Karaoke

You can enjoy karaoke (singing along with a disc) by setting the system to karaoke mode. You can connect the optional microphone(s) to the system.

### Setting the system to karaoke mode

- 1 Press **☐ DISPLAY**. The Control Menu appears.
- 2 Turn **MIC LEVEL** on the unit to **MIN** to turn down the microphone control level.
- 3 Connect a microphone to **MIC jack**. Karaoke mode is automatically activated and “” appears at the upper right of TV screen. You can also activate the Karaoke mode by pressing **KARAOKE MODE**, without connecting the microphone(s). For DVDs or Super VCDs, press **AUDIO** repeatedly to select the audio setting (page 35). For CDs or VIDEO CDs, the audio setting automatically switches to “1/L” and the singer’s voice turns down. If the singer’s voice does not turn down, press **AUDIO** repeatedly to select the audio setting (page 35).
- 4 Turn **MIC LEVEL** on the unit to adjust the microphone volume.
- 5 (Except for MHC-GNZ5D) Turn **ECHO LEVEL** on the unit to adjust the microphone echo.
- 6 Press **AUDIO** repeatedly to select the audio setting.

For details on the audio setting, see “Changing the sound” (page 35).

### To cancel karaoke mode

Disconnect the microphone(s) or press **KARAOKE MODE** repeatedly until “KARAOKE MODE: OFF” appears.

## Notes

- When the headphones are connected, you cannot activate karaoke mode.
- The sound input from the microphone is not output from the DIGITAL OUT OPTICAL (MHC-GNZ7D/ GNZ5D only).

## Tip

If howling occurs:

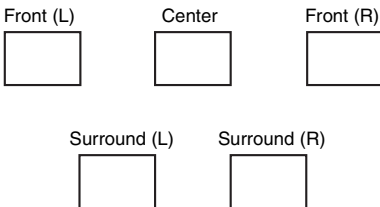
- move the microphone away from the speakers.
- change the direction of the microphone.
- lower the MIC LEVEL or ECHO LEVEL (except for MHC-GNZ5D).
- turn VOLUME control counterclockwise.

---

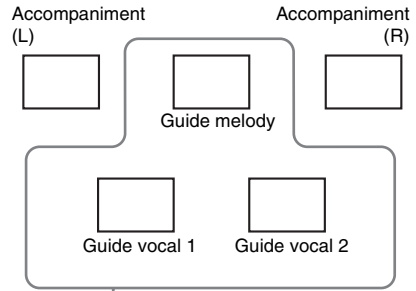
## Dolby Digital Karaoke format (DVD VIDEO only)

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 the player is in karaoke mode.

## Speaker output in normal Dolby Digital format (5 channel surround)



## Speaker output in Dolby Digital Karaoke format



You can select any of these. These are output from the front speakers (L, R).

To check the audio information, press AUDIO. When playing a Dolby Digital Karaoke disc, “♪” appears at the current audio format.

Example:

DOLBY DIGITAL ♪ 3/2

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

## Changing the Key

### — Key Control

You can change the key to suit your vocal range.

**Press KEY CONTROL # or b to suit your vocal range in karaoke mode.**

You can adjust the key higher or lower in 15 steps (b7 – #7).

#### Note

Depending on the discs, you may not be able to change the key.

#### Tips

- The key automatically returns to the original key when:
  - You turn off the system.
  - You open the disc tray or change the disc.
  - The title or track changes.
- You can change the key using “KEY CONTROL” in the Control Menu display.

## Playing Karaoke with any stereo disc

### — Karaoke Pon

You can enjoy karaoke with a stereo-recorded disc, even if it is a non-karaoke disc, by reducing the sound of the vocals.

**Press KARAOKE PON while playing a disc in karaoke mode.**

### To cancel Karaoke Pon mode

Press KARAOKE PON again.

#### Notes

- This function may not work well in the following cases:
  - Only a few instruments are playing
  - A duet is playing
  - The vocals on the disc deviate from the center
  - Monaural-recorded discs (the accompaniment is also reduced)
  - Multiplex
  - DivX video files\*
- During Karaoke Pon mode, the stereo effect is reduced.

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

#### Tip

You can turn Karaoke Pon mode on and off by using “KARAOKE PON” in the Control Menu display.

## Turning the vocals on and off



### — Vocal (DVD VIDEO/VIDEO CD/CD only)

When playing a DVD with the Dolby Digital Karaoke format in karaoke mode, you can turn on or off the guide vocal recorded in the karaoke track.



When playing a VIDEO CD/CD in karaoke mode, you can listen to the vocals.

**1 Press  DISPLAY twice while playing a disc in karaoke mode.**

The Control Menu appears.

**2 Press  or  to select “VOCAL”, then press ENTER.**

The options for “VOCAL” appears.

**3 Press  or  to select “ON”, then press ENTER.**

#### ■ When playing a DVD VIDEO

You can listen to the guide vocal recorded in the Dolby Digital Karaoke format track.

#### ■ When playing a VIDEO CD or CD

You can listen to the vocals.

## To cancel the Vocal function

Select “OFF” in step 3.

#### Notes

- The Vocal function works only with the Dolby Digital Karaoke format.
- If the guide vocal is not recorded on the disc, you cannot use the Vocal function.
- When you turn the Vocal function on and off while playing a Super VCD, the sound may cut off for a moment.

#### Tip

The Vocal function is canceled when:

- you turn off the system.
- you change the function.
- you open the disc tray or change the disc.
- you turn Karaoke Pon mode on.
- you cancel karaoke mode.

---

## Selecting the vocals

### — *Vocal Select (DVD VIDEO/VIDEO CD/CD only)*

After you set “VOCAL” to “ON”, you can change the guide vocal channel. You can select different kinds of vocals when using the Vocal function.

**1** Press  **DISPLAY** twice while playing a disc in karaoke mode.

The Control Menu appears.

**2** Press **↑** or **↓** to select “VOCAL SELECT”, then press **ENTER**.

The options for “VOCAL SELECT” appears.

**3** Press **↑** or **↓** repeatedly to select the desired vocal channel.

The output channel changes as follows. The default settings are underlined.

#### ■ When playing a DVD VIDEO

- 1+2: Guide vocal 1+2
- 1: Guide vocal 1
- 2: Guide vocal 2

#### ■ When playing a VIDEO CD/CD

- L+R: Same sound is output from both speakers.
- STEREO: The standard stereo sound

#### ■ When playing a Super VCD

- 1:L+R
- 1:STEREO: The stereo sound of the audio track 1
- 2:L+R
- 2:STEREO: The stereo sound of the audio track 2

#### Notes

- When playing a DVD VIDEO, the function works only with the Dolby Digital Karaoke format.
- Depending on the discs, you may not be able to change the guide vocal channel.

#### Tips

- The channel returns to the default setting when:
  - you turn off the system.
  - you change the function.
  - you open the disc tray or change the disc.
  - you cancel karaoke mode.
- When playing a DVD VIDEO recorded only with one kind of guide vocal, select “1”.

---

## Turning the guide melody on and off

### — *Guide Melody (DVD VIDEO only)*

You can listen to the guide melody.

**1** Press  **DISPLAY** twice while playing a disc in karaoke mode.

The Control Menu appears.

**2** Press **↑** or **↓** to select “GUIDE MELODY”, then press **ENTER**.

The options for “GUIDE MELODY” appear.

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

### To cancel the guide melody

Select “OFF” in step 3.

#### Notes

- The Guide Melody function works only with the Dolby Digital Karaoke format.
- If no guide melody is recorded on the disc, you cannot hear the guide melody.

#### Tip

- The channel returns to the default setting when:
- you turn off the system.
  - you change the function.
  - you open the disc tray or change the disc.
  - you cancel karaoke mode.

## Falling asleep to music

### — Sleep Timer

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

#### Press SLEEP.

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

90MIN → 80MIN → 70MIN → ... → 10MIN  
→ OFF

#### Other operations

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

#### Tip

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

## Waking up to music

### — Play Timer

You can wake up to music at a preset time. Make sure you have set the clock (see "Setting the clock" on page 14).

#### 1 Prepare the sound source you want to play.

- DVD: Load a disc.
- Tape: Load a tape.
- Tuner: Tune in the preset radio station (see "Listening to the radio" on page 51).

#### 2 Press VOLUME + or – to adjust the volume.

#### 3 Press TIMER MENU.

#### 4 Press ↑ or ↓ repeatedly to select "PLAY SET", then press ENTER.

"ON" appears and the hour indication flashes.

#### 5 Set the time to start playing.

Press ↑ or ↓ repeatedly to set the hour, then press →.

The minute indication flashes.

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

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

#### 7 Press ↑ or ↓ repeatedly until the desired sound source appears.

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



#### 8 Press ENTER.

The type of timer ("PLAY TIMER"), the start time, the stop time, and the sound source appear in turn, before the original display returns.

#### 9 Press I/⏻ to turn off the system.

## Other operations

To	Do this
Check the setting	<ol style="list-style-type: none"><li>1 Press TIMER MENU.</li><li>2 Press <b>↑</b> or <b>↓</b> repeatedly until "TIMER SELECT" appears, then press ENTER.</li><li>3 Press <b>↑</b> or <b>↓</b> repeatedly until "PLAY SELECT" appears, then press ENTER.</li></ol>
Change the setting	Start over from step 1.
Cancel the timer	<ol style="list-style-type: none"><li>1 Press TIMER MENU.</li><li>2 Press <b>↑</b> or <b>↓</b> repeatedly until "TIMER SELECT" appears, then press ENTER.</li><li>3 Press <b>↑</b> or <b>↓</b> repeatedly until "TIMER OFF" appears, then press ENTER.</li></ol>

### Notes

- You cannot activate the Play Timer and Rec Timer at the same time.
- If you use the Play Timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- The system turns on 30 seconds before the preset time. Do not operate the system from the time the system turns on until the play starts.
- If the system is on or "STANDBY" is blinking in the display 30 seconds before the preset time, the Play Timer will not be activated.
- You cannot use the optional component connected to TV/SAT IN L/R or VIDEO INPUT jacks as the sound source for Play Timer (except for MHC-GNZ5D).

## Timer recording radio programs

### — Rec Timer

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

To timer record, you must first preset the radio station (see "Presetting radio stations" on page 50) and set the clock (see "Setting the clock" on page 14).

- 1 Tune in the preset radio station (see "Listening to a preset station" on page 51).**
- 2 Press TIMER MENU.**
- 3 Press **↑** or **↓** repeatedly to select "REC SET", then press ENTER.**  
"ON" appears and the hour indication flashes.
- 4 Set the time to start recording.**  
Press **↑** or **↓** repeatedly to set the hour, then press **→**.  
The minute indication flashes.  
Press **↑** or **↓** repeatedly to set the minute, then press ENTER.
- 5 Set the time to stop recording following the same procedure as step 4.**  
The type of timer ("REC TIMER"), the start time, the stop time, and the preset radio station to be recorded (e.g., "TUNER FM 5") appear in turn, before the original display returns.
- 6 Load a recordable tape into deck B.**
- 7 Press **I/⏏** to turn off the system.**

## Other operations

To	Do this
Check the setting	<ol style="list-style-type: none"><li>1 Press TIMER MENU.</li><li>2 Press <b>↑</b> or <b>↓</b> repeatedly until "TIMER SELECT" appears, then press ENTER.</li><li>3 Press <b>↑</b> or <b>↓</b> repeatedly until "REC SELECT" appears, then press ENTER.</li></ol>
Change the setting	Start over from step 1.
Cancel the timer	<ol style="list-style-type: none"><li>1 Press TIMER MENU.</li><li>2 Press <b>↑</b> or <b>↓</b> repeatedly until "TIMER SELECT" appears, then press ENTER.</li><li>3 Press <b>↑</b> or <b>↓</b> repeatedly until "TIMER OFF" appears, then press ENTER.</li></ol>

### Notes

- You cannot activate the Play Timer and Rec Timer at the same time.
- If you use the Rec Timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- The system turns on 30 seconds before the preset time. Do not operate the system from the time the system turns on until the play starts.
- If the system is on or "STANDBY" is blinking in the display 30 seconds before the preset time, the Rec Timer will not be activated.
- The volume is reduced to minimum during recording.

## Display

### Turning off the display

#### — Power Saving Mode

The demonstration display (display window flashing even when the system power is off) and the clock display can be turned off to minimize the amount of power consumed during standby (Power Saving Mode).

**Press DISPLAY repeatedly while the system is off until the demonstration display or the clock display disappears.**

#### To cancel Power Saving Mode

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

Demonstration display → Clock display\* → No display (Power Saving Mode)

\* The clock is displayed only if you set the clock.

#### Tips

- The timer continues to operate in Power Saving Mode.
- I/⏻ indicator lights up even in Power Saving Mode.

## Changing the Power illuminator

*(Except for MHC-GNZ5D)*

**Press ILLUMINATION on the unit.**

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

PATTERN 1 → PATTERN 2 →  
PATTERN 3 → PATTERN OFF

## Viewing information about the disc in the display

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

### Checking the remaining time and titles (DVD/VIDEO CD/CD/MP3/DivX)

**Press TIME/TEXT repeatedly during Normal Play.**

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

#### ■ When playing a DVD VIDEO/DVD-RW

Elapsed playing time of the current title → Remaining time of the current title → Elapsed playing time of the current chapter → Remaining time of the current chapter → Disc name<sup>1)</sup> → Title and chapter number (for two seconds)

#### ■ When playing a CD/VIDEO CD without PBC function

Elapsed playing time of the current track → Remaining time of the current track → Elapsed playing time of the disc<sup>2)</sup> → Remaining time of the disc<sup>2)</sup> → Disc name<sup>1)</sup> → Track and index number (for two seconds)<sup>3)</sup>

#### ■ When playing a VIDEO CD with PBC functions (Ver. 2.0)

Elapsed playing time on the current scene<sup>4)</sup> → Disc name<sup>1)</sup> → Current scene number (for two seconds)

#### ■ When playing an MP3

Elapsed playing time of the current track → Track title<sup>1)</sup>

#### ■ When playing a DivX video file (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)

Elapsed playing time of the current file → File name<sup>1)</sup> → Album and file number (for two seconds)

- 1) Only alphabet letters and numbers can be displayed. Other characters appear as “\*”. In addition, “NO TEXT” is displayed for discs without DVD/CD text and file name.
- 2) These are not displayed during Shuffle Play or Program Play.
- 3) VIDEO CD without PBC function only.
- 4) May not appear with still images.

#### Notes

- Playing timer of MP3 audio tracks and DivX video files\* may not be displayed correctly.
  - If you play a disc containing JPEG image files only, “JPEG” or “NO AUDIO” appears in the display.
- \* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

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

**Press TIME/TEXT in stop mode.**

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

#### ■ When a DVD VIDEO/DVD-RW is in Normal Play mode

Total title number of the current disc → Disc name\*

#### ■ When a CD/VIDEO CD without PBC function is in Normal Play mode

Total playing time of the current disc → Disc name\*

#### ■ When a VIDEO CD with PBC functions (Ver. 2.0) is in Normal Play mode

Total scene number of the current disc → Disc name\*

- \* Only alphabet letters and numbers can be displayed. Other characters appear as “\*”. In addition, “NO TEXT” is displayed for discs without DVD/CD text and file name.



**Notes**

- Playing timer of MP3 audio tracks and DivX video files\* may not be displayed correctly.
  - If you play a disc containing JPEG image files only, “JPEG” or “NO AUDIO” appears in the display.
  - If you play a disc containing MP3 audio tracks only, “NO IMAGE” appears in the display.
  - Depending on the DVD, the disc information may not be displayed.
  - Depending on the disc, some DVD/CD text information may not appear.
- \* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

**Tip**

You can check the playing time of the disc using the Control Menu (see “Viewing information about the disc in the on-screen display” on page 65).

**Checking the effect status**

**Press DISPLAY.**

Each time you press the button, the display changes cyclically as follows:  
 Disc information → Clock display (for a few seconds) → Effect status (for a few seconds)

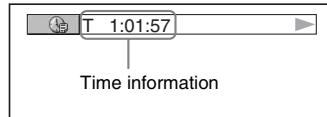
**Note**

You can check the effect status in any function.

**Viewing information about the disc in the on-screen display**

You can check the playing time and remaining time of the current title, chapter or track. You can also check the DVD/CD text and file/album name recorded on the disc.

**1 Press TIME/TEXT during play.**



**2 Press TIME/TEXT to change the time information.**

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

**■ When playing a DVD VIDEO/DVD-RW**

- T \*\*.\*\*:\*\* Elapsed playing time of the current title
- T\_\*\*.\*\*:\*\* Remaining time of the current title
- C \*\*.\*\*:\*\* Elapsed playing time of the current chapter
- C\_\*\*.\*\*:\*\* Remaining time of the current chapter

**■ When playing a VIDEO CD with PBC functions (Ver. 2.0)**

- \*\*.\*\*:\*\* Elapsed playing time of the current scene

■ **When playing a CD/VIDEO CD without PBC function**

- T \*\*:.\*\* Elapsed playing time of the current track
- T\_\*\*:\*\* Remaining time of the current track
- D \*\*:.\*\* Elapsed playing time of the current disc
- D\_\*\*:\*\* Remaining time of the current disc

■ **When playing an MP3 audio track**

- T \*\*:.\*\* Elapsed playing time of the current track

■ **When playing a DivX video file (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)**

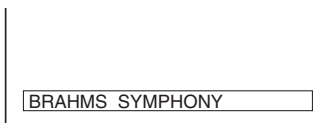
- \*\*:.\*\* Elapsed playing time of the current file

**Notes**

- Only alphabet letters and numbers can be displayed.
- Depending on the disc being played, the system can only display a limited number of characters. Also, depending on the disc, all text characters are not displayed.
- With formats other than ISO9660 level 1 and 2, folder names or file names may not be displayed correctly.

**To check DVD/CD text**

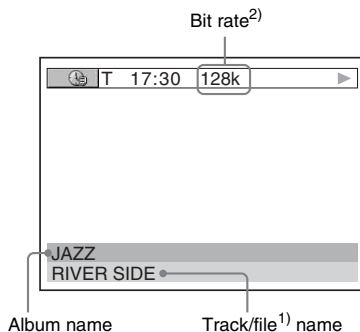
Press TIME/TEXT repeatedly in step 2 to display text recorded on the DVD/CD. The DVD/CD text appears only when text is recorded in the disc. You cannot change the text. If the disc does not contain text, “NO TEXT” appears.



**To check DATA CD (MP3 audio track/DivX video file<sup>1)</sup>/DATA DVD<sup>1)</sup> (DivX video file) text**

Press TIME/TEXT while playing MP3 audio tracks on a DATA CD or DivX video files<sup>1)</sup> on a DATA CD/DATA DVD<sup>1)</sup>.

The name of the album/track/file, and the audio bit rate (the amount of data per second of the current audio) appear on the TV screen.



<sup>1)</sup> Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

<sup>2)</sup> Appears when:

- playing an MP3 audio track on a DATA CD.
- playing a DivX video file that contains MP3 audio signals on a DATA CD/DATA DVD (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D).

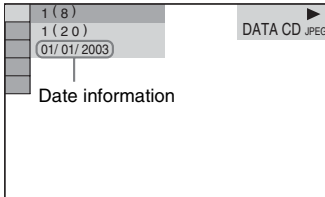
## Checking the date information

### JPEG

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

Press **[MENU]** **DISPLAY** twice during play.

The Control Menu for JPEG appears.



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

### Notes

- If there is no date information or data is damaged on the disc, the system cannot display the date information.
- Date information differs depending on the area.

## Optional Components

### Controlling the TV with the remote

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

To	Press
Turn the TV on or off	TV I/⏻ while holding down the TV button
Switch the TV's input source between the TV and other input sources	TV/VIDEO while holding down the TV button
Change the TV channels	TV CH +/- or the number buttons while holding down the TV button
Adjust the volume of the TV speaker(s)	TV VOL +/- while holding down the TV button

The keys using for TV operation is in orange.

### Using the THEATRE SYNC function

THEATRE SYNC allows you to turn on your SONY TV and this system, change the system mode to "DVD", and then switch the TV's input source you set with one button push.

Use the remote for the operation.

- 1 Press and hold TV/VIDEO while entering the code for the TV's input source connected to this system (see the table below) using the number buttons.**

TV's input source is selected.

Number	TV's input source
0	No input source (Default)
1	VIDEO1
2	VIDEO2
3	VIDEO3
4	VIDEO4
5	VIDEO5
6	VIDEO6
7	VIDEO7
8	VIDEO8
9	COMPONENT 1 INPUT
CLEAR	COMPONENT 2 INPUT
ALBUM -	COMPONENT 3 INPUT
ALBUM +	COMPONENT 4 INPUT

- 2 Press and hold TV CH + while entering the code for transmit time (see the table below) using the number buttons.**

The transmit time from the remote is selected.

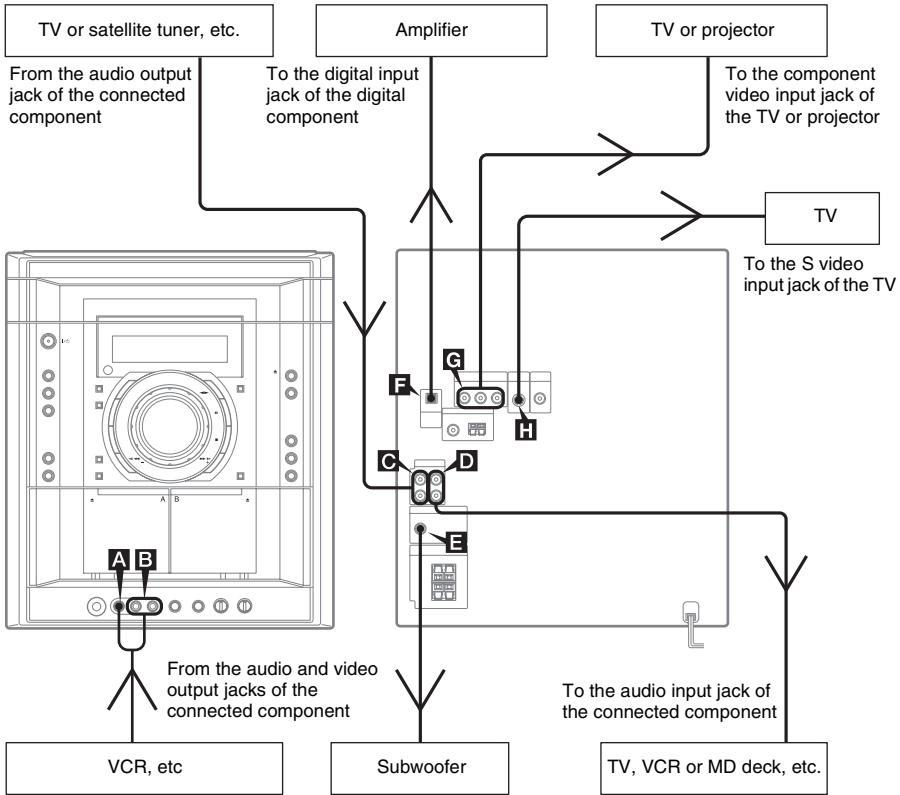
Number	Transmit time
1	0.5 (Default)
2	1
3	1.5
4	2
5	2.5
6	3
7	3.5
8	4

#### Notes

- This function is only for SONY TV series, however, some TV products may also not work.
- If this function does not work, change the transmit time. The transmit time varies depending on the TV.
- If distance between the TV and this system is too far, this function may not work. Install the system near the TV.
- Keep the remote pointed in the direction of the TV and this system.

# Hooking up optional components

To enhance your system, you can connect optional components. Refer to the operating instructions provided with each component. MHC-GNZ7D is used for illustration purposes.



## **A VIDEO INPUT VIDEO jack (except for MHC-GNZ5D)**

Use a video cable (not supplied) to connect the video output of the optional analog component (VCR, etc) to this jack.

## **B VIDEO INPUT AUDIO L/R jacks (except for MHC-GNZ5D)**

Use audio cords (not supplied) to connect the audio output of the optional analog component (VCR, etc) to these jacks. You can then output audio through this system.

## **Note**

The image of the optional component connected to VIDEO INPUT VIDEO jack may appear on the TV screen even if the system is turned off.

## **C TV/SAT IN L/R jacks (except for MHC-GNZ5D)**

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

## **D TV/SAT OUT L/R jacks (except for MHC-GNZ5D)**

Use audio cords (not supplied) to connect an optional analog component (TV, VCR or MD deck, etc.) to these jacks. You can then output audio to the component from this system.

### **Note**

If you press AUDIO, SOUND FIELD or the buttons related to karaoke mode, or if you connect or disconnect microphones or headphones, the sound cuts off for a moment.

## **E SUBWOOFER OUT jack (MHC-GNZ8D/GNZ7D only)**

Use an audio cord (not supplied) to connect an optional subwoofer\* to this jack. You can then output audio to the component from this system. Refer to the operating instructions supplied with the connected subwoofer.

\* SA-GNV111 is recommended. In some areas, SA-GNV111 is not available.

### **Note**

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

## **F DIGITAL OUT OPTICAL jack (MHC-GNZ7D/GNZ5D only)**

Use a digital optical cord (square, not supplied) to connect an amplifier with a digital optical input jack. Sound is then output when the system function is set to DVD. By connecting this system to the optical input jack of the optional amplifier equipped with Dolby Digital or DTS decoder, you can enjoy the 5.1 channel sound. If the jack is covered with a cap, remove it before use.

### **Note**

If you press AUDIO, SOUND FIELD or the buttons related to karaoke mode, or if you connect or disconnect microphones or headphones, the sound cuts off for a moment.

## **G COMPONENT VIDEO OUT jacks (except for MHC-GNZ5D)**

Use an optional video cord to connect a TV. If your TV accept progressive format file signals, you must use this connection and set the PROGRESSIVE setting to "PROGRESSIVE AUTO" or "PROGRESSIVE VIDEO" (page 40).

### **Note**

You cannot output component video using VIDEO INPUT VIDEO jack.

## **H S VIDEO OUT jack (except for MHC-GNZ5D)**

Use an S video cord (not supplied) to connect an optional TV to this jack. You can enjoy higher quality video images.

### **Note**

You cannot output S video using VIDEO INPUT VIDEO jack.

## **Listening to audio from a connected component**

*(Except for MHC-GNZ5D)*

Use buttons on the unit for the operation.

### **1 Connect audio cords.**

See "Hooking up optional components" on page 69.

### **2 Press one of the following buttons to switch the function.**

- TV/SAT: To listen to audio from an optional component connected to TV/SAT IN L/R jacks.  
The function switches to TV or SAT.
- VIDEO: To listen to audio from an optional component connected to VIDEO INPUT AUDIO L/R jacks.  
The function switches to VIDEO.

### **3 Start playing the connected component.**

## Notes

- If you cannot select “SAT” by pressing TV/SAT repeatedly, hold down TV/SAT and then press I/⏻ while the power is on. The function will change from “TV” to “SAT”, and “SAT” will appear in the display. To change back to “TV”, repeat the same procedure.
- If the sound is distorted or too loud when “TV” is selected or you want to switch back to “SAT”, repeat the operation described above to switch to “SAT”.
- You cannot switch the TV/SAT function in Power Saving Mode (page 63).

## Enjoying the 5.1 channel sound with the optional amplifier

(MHC-GNZ7D/GNZ5D only)

- 1 Connect a digital optical cord.**  
See “Hooking up optional components” on page 69.
- 2 Connect 6 speakers to an AV amplifier equipped with a decoder.**  
For the speaker placement, refer to the operating instructions supplied with the connected amplifier.
- 3 Switch the output to 5.1 channel Dolby Digital sound or 5.1 channel DTS sound.**  
See “Changing the sound” on page 35.

### Tip

You cannot use the surround effect of this system.

## Recording audio from a connected component

(Except for MHC-GNZ5D)

- 1 Connect audio cords.**  
See “Hooking up optional components” on page 69.
- 2 Start recording manually.**  
See “Recording on a tape manually” on page 54.

## Recording on a connected component

(Except for MHC-GNZ5D)

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### Making an analog recording

- 1 Connect audio cords.**  
See “Hooking up optional components” on page 69.
- 2 Start recording.**  
Refer to the operating instructions provided with the connected component.

---

### Making an analog recording from a VIDEO CD to a video tape

- 1 Connect optional audio cords from the TV/SAT OUT L/R (audio) jacks and the supplied video cable from the VIDEO OUT jack to your VCR.**
- 2 Start recording.**  
Refer to the operating instructions provided with the connected component.

### Note

If the picture has disturbance or there is noise in the audio when a TV, a video deck and this system are all connected at the same time, disconnect one of them.

## Troubleshooting

### Problems and remedies

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

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

If the problem persists after doing all of the above, consult your nearest Sony dealer.

#### When the I/⏻ indicator flashes

Immediately unplug the power cord and check the following items.

- Are the + and – speaker cords short-circuited?
- Are you using the supplied speakers?
- Is anything blocking the ventilation holes on the rear of the system?

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

#### General

**The display starts flashing as soon as you plug in the power cord even though you have not turned on the system (see step 8 of “Hooking up the system” (page 8)).**

- Press DISPLAY twice while the system is off. The demonstration disappears.

**“---” appears in the display.**

- A power interruption has occurred. Set the clock (page 14).

**The clock setting/radio presetting/timer is canceled.**

- Redo the following:
  - “Setting the clock” (page 14)
  - “Presetting radio stations” (page 50)
  - “Falling asleep to music” and “Waking up to music” (page 61)
  - “Timer recording radio programs” (page 62)

**There is no sound.**

- Press VOLUME + or turn VOLUME control on the unit clockwise.
- Make sure the headphones are not connected.
- Check the speaker connections (page 9).
- There is no audio output during Rec Timer.
- The system is in pause mode or in slow-motion play mode. Press ▷ (or ◀▶ on the unit) to return to normal play mode.
- Fast forward or fast reverse is performed. Press ▷ (or ◀▶ on the unit) to return to normal play mode.

**There is severe hum or noise.**

- Move the system away from the source of noise.
- Connect the system to a different wall outlet.
- Install a noise filter (commercially available) to the power cord.

**The timer cannot be set.**

- Set the clock again (page 14).

**The timer does not function.**

- Check the timer setting and set the correct time (pages 61 and 62).
- Cancel the Sleep Timer Function (page 61).

**The remote does not function.**

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

**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 set once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV set.



---

**The sound from the connected source is distorted.**

- If “TV” appears in the display when you press TV/SAT on the unit, switch the display to “SAT” (see “Listening to audio from a connected component” on page 70).

---

**“CANNOT LOCK” appears in the display.**

- Press I/⏻ to turn off the system and press again to turn on. Then follow the same procedures in “When carrying this system” (page 12). If “CANNOT LOCK” still appears in the display, contact your Sony dealer or local authorized Sony service facility.
- 

**Speakers**

---

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

- Check the speaker connection and speaker placement.
- The source being played back is monaural.

---

**The sound comes from the center speaker only. (MHC-GNZ9D/GNZ8D only)**

- Depending on the disc, the sound may come from the center speaker only.

---

**There is no sound from the subwoofer. (MHC-GNZ9D only)**

- Make sure that the SUBWOOFER setting is set to “YES” (page 43).
- No sound is produced from the subwoofer when you play a DVD that does not have subwoofer output recorded.

---

**There is no sound from the center speaker. (MHC-GNZ9D/GNZ8D only)**

- Set the center speaker level to the appropriate level.

---

**There is no sound from the surround speakers. (MHC-GNZ9D/GNZ8D only)**

- Set the surround speakers level to the appropriate level.
- The software being played back has limited sound effects. Check the volume with the test tone.

---

**Sound lacks bass.**

- Check that the speaker’s + and – jacks are connected correctly.
- 

**DVD/VIDEO CD/CD/MP3/JPEG/DivX player**

---

**The disc tray does not open and “LOCKED” appears.**

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

---

**The disc tray does not close.**

- Place the disc correctly.
- Always close the tray by pressing ▲ OPEN/CLOSE on the unit. Trying to press the tray closed with your fingers may cause problems with the player.

---

**Play does not start.**

- Open the disc tray and check whether a disc is loaded.
- Wipe the disc clean (page 80).
- Replace the disc.
- Place the disc that this system can play (page 5).
- Place the disc correctly.
- Place the disc in the tray with the label side up.
- Remove the disc and wipe away the moisture on the disc, then leave the system turned on for a few hours until the moisture evaporates.
- Press ▷ (or ◀▶ on the unit) to start play.
- The region code on the DVD does not match the system.
- Cancel the Custom Parental Control function (page 45).

---

**The sound skips.**

- Wipe the disc clean (page 80).
- Replace the disc.
- Try moving the system to a place without vibration (e.g., on top of a stable stand).
- Try moving the speakers away from the system, or placing them on separate stands. When you listen to a track with bass sounds at high volume, the speaker vibration may cause the sound to skip.

---

**Play does not start from the first track.**

- Shuffle Play (page 21), Program Play (page 20), or Repeat Play (page 22) is selected.
- Resume Play has been selected. Press ■ in stop mode, then start playback (page 19).
- The title, DVD or PBC menu automatically appears on the TV screen.

---

**Playback starts automatically.**

- The DVD features an auto playback function.
-

---

**Playback stops automatically.**

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

---

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

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

---

**Karaoke mode cannot be set to on.**

- You cannot set the Karaoke mode to on when the headphones are connected to the system. Disconnect the headphones.

---

**MP3 audio track cannot be played back.**

- Recording was not performed according to the ISO9660 Level 1/Level 2 format, or Joliet in the expansion format.
- The MP3 audio track does not have the extension “.MP3”.
- The data is not stored in MP3 format.
- Discs containing files other than MPEG1 Audio Layer-3 files cannot be played.
- The system cannot play audio tracks in MP3PRO format.
- The “MODE (MP3, JPEG)” setting is set to “IMAGE (JPEG)” (page 29).
- The DATA CD contains a DivX video file. (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)
- This system cannot play MP3 audio files recorded on DATA DVDs. (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)
- Playback is possible up to 8 levels.
- The disc contains more than 200 albums (the maximum number of MP3 audio tracks that can be contained on an album is 300).

---

**MP3 audio tracks take longer to play back than others.**

- After the system reads all tracks on the discs, 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 JPEG image file cannot be played.**

- The DATA CD is not recorded in JPEG format that conforms to ISO9660 Level 1/Level 2 or Joliet.
- The JPEG image file does not have the extension “.JPG” or “.JPEG”.
- The data is not formatted in JPEG even though it has the extension “.JPG” or “.JPEG”.
- It is larger than 3,072 (width) × 2,048 (height) in normal mode, or more than 3,300,000 pixels in Progressive JPEG.
- It does not fit the screen (those images are reduced).
- The “MODE (MP3, JPEG)” setting has been set to “AUDIO (MP3)” (page 29).
- The DATA CD contains a DivX video file. (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)
- This system cannot play JPEG image files recorded on DATA DVDs. (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)
- Playback is possible up to 8 levels.
- JPEG image files with a high width to length ratio cannot be played.
- The disc contains more than 200 albums (the maximum number of JPEG image files that can be contained on an album is 300).

---

**The MP3 audio tracks and JPEG image file starts playing simultaneously.**

- “AUTO” is selected in “MODE (MP3, JPEG)” (page 29).

---

**The DivX video file cannot be played. (except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D)**

- The file is not created in DivX format.
- The file has an extension other than “.AVI” or “.DIVX.”
- The DATA CD (DivX video)/DATA DVD is not created in a DivX format that conforms to ISO9660 Level 1/Level 2 or, Joliet/UDF.
- The DivX video file is larger than 720 (width) × 576 (height).

---

**The disc title, album title and track title are not displayed correctly.**

- Use a disc that conforms with ISO9660 Level 1/ Level 2, or Joliet in the expansion format.
- The character codes that can be displayed by this system are numbers and alphabet only. Other characters appear as “\*?”.
- ID3 tag information cannot be displayed on this system.

---

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

- Press KARAOKE PON to cancel Karaoke Pon mode (page 59).
- Make sure the system is connected appropriately.

---

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

- Make sure the sound field function is on (page 55).
- Check the speaker connections and setting (pages 8 and 43).
- Depending on the DVD, the output signal may not be the entire 5.1 channel. It may be monaural or stereo even if the sound track is recorded in Dolby Digital or MPEG audio format.

---

**The recording was not done properly when making a digital recording from the CD/DVD player of this system to an optional component connected to the DIGITAL OUT OPTICAL jack. (MHC-GNZ7D/GNZ5D only)**

- The DIGITAL OUT OPTICAL jack of this system is not to be used for recording. Make an analog recording on an optional component connected to the VIDEO/SAT OUT L/R jacks.

---

**The Control Menu item “MODE” cannot be set for an MP3 disc.**

- Play a disc that contains a file which can be played back, or turn the power off and then on again.

---

**The Control Menu item “MODE” cannot be set for a JPEG disc.**

- Play a disc that contains a file which can be played back, or turn the power off and then on again.
- 

## Picture

---

**There is no picture.**

- Press DVD on the unit.
- Check that the system is connected securely.
- The video cable is damaged. Replace it with a new one.
- Make sure you connect the system to the video input jack of your TV (page 10).
- Make sure you turn on the TV and operate the TV correctly.
- Make sure you select the video input on the TV so that you can view the pictures from the system.
- When you play a VIDEO CD, make sure you set the color system correctly, according to your TV (color) system (except for Latin American model).
- Make sure you connect the system and your TV using only the supplied video cable so that you can view game images.
- You have set progressive format but your TV cannot accept the signal in progressive format. In this case, return the setting to interlace format (the default setting) (page 40).
- Even if your TV is compatible with progressive format (525p/625p) signals, the image may be affected when you set progressive format. In this case, return the setting to interlace format (the default setting) (page 40).

---

**Picture noise appears.**

- Clean the disc.
- If video from this system has to go through your VCR to get to your TV, the copy-protection applied to some DVD programs could affect picture quality. If you still experience problems after checking your connections, please try connecting this system directly to your TV’s S video-input, if your TV is equipped with this input (page 10).
- When you play a VIDEO CD, the color system is different. Set the color system to match your TV (page 11) (except for Latin American models).

---

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

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

---

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

- Select the language you want for the on-screen display in “OSD” under “LANGUAGE SETUP” in the Setup Display (page 38).

---

**The language for the sound track cannot be changed.**

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

---

**The subtitle language cannot be changed.**

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

---

**The subtitle cannot be turned off.**

- The DVD prohibits turning off subtitles.

---

**The angles cannot be changed.**

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

---

**Tuner**

---

**Severe hum or noise/stations cannot be received. (“TUNED” or “STEREO” flashes in the display)**

- Set the proper band and frequency (page 50).
- Connect the antenna properly (page 10).
- Find a place and an orientation that provide good reception, then set up the antenna again. If you cannot obtain good reception, we recommend you connect a commercially available external antenna.
- The supplied FM lead antenna receives signals along its entire length, so make sure you extend it fully.
- Locate the antennas as far away from the speaker cords as possible.
- Consult your nearest Sony dealer if the supplied AM antenna has come off the plastic stand.
- Try turning off surrounding electrical equipment.

---

**A stereo FM program cannot be received in stereo.**

- Press FM MODE repeatedly until “MONO” disappears.

---

**Tape deck**

---

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

- The heads are dirty. Clean them (page 80).
- The record/playback heads are magnetized. Demagnetize them (page 80).

---

**The tape does not erase completely.**

- The record/playback heads are magnetized. Demagnetize them (page 80).

---

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

- The capstans or pinch rollers are dirty. Clean them (page 80).

---

**Noise increases or the high frequencies are erased.**

- The record/playback heads are magnetized. Demagnetize them (page 80).

---

**The tape does not record.**

- No cassette is loaded. Load a cassette.
- The tab has been removed from the cassette. Cover the broken tab with adhesive tape (page 80).
- The tape has wound to the end.

---

**Optional components**

---

**There is no sound.**

- Refer to General item “There is no sound.” (page 72) and check the condition of the system.
- Connect the component properly (page 69) 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.

## Self-diagnosis function

*(When letters/numbers appear in the display)*

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



First three characters of the service number	Cause and/or corrective action
C 13	The disc is dirty. ➔ Clean the disc with a soft cloth (page 80).
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

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

Use buttons on the unit for the operation.

- 1 Disconnect the power cord.
- 2 Reconnect the power cord.
- 3 Press **■**, DISPLAY and DISC 1 at the same time.
- 4 Press I/⏻ to turn on the system.

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 in stop mode.
- 2 Press **↑** or **↓** repeatedly to select "SET UP", 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/⏻ when resetting the system.

### Note

Turn off the subwoofer before you reset the system when you connect the subwoofer (MHC-GNZ8D/GNZ7D only).

\* Except for Parental Control settings

## Messages

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

### DVD/VIDEO CD/CD/MP3/JPEG/DivX

#### CANNOT PLAY

- A disc that cannot be played was inserted.
- A disc with an unsupported Region code was inserted.

#### C-31-00

The disc is not inserted correctly. Restart the system, then re-insert the disc correctly.

#### DATA ERROR

- The MP3 audio track/JPEG image file/DivX video file\* you want to play is broken.
- The data is not MPEG1 Audio Layer 3 data.
- The JPEG image file format does not conform to DCF.
- The JPEG image file has the extension “.JPG” or “.JPEG,” but is not in JPEG format.
- The file you want to play has the extension “.AVI” or “.DIVX” but is not in DivX format, or is in DivX format but does not conform to a DivX Certified profiles.\*

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

#### NO DISC

There is no disc in the unit.

#### NOT IN USE

You pressed DISC SKIP while the disc tray is open or you pressed an invalid button.

#### PASSWORD

Custom Parental Control or Parental Control is set.

#### PUSH STOP

You press CD SYNC on the unit during play.

#### READING

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

## Tuner

#### COMPLETE

The preset operation ended normally.

## Tape

#### NO TAB

You cannot record the tape because the tab has been removed from the cassette.

#### NO TAPE

There is no tape in the tape deck.

## Timer

#### OFF TIME NG

The Play Timer start and end times are set to the same time.

#### SET CLOCK

You tried to select the timer with the clock not set.

#### SET TIMER

You tried to select the timer with the timer not set.

## Additional Information

### Precautions

#### On operating voltage

- Before operating the system, check that the operating voltage of your system is identical with the voltage of your local power supply.
- The voltage selector is located at the bottom of the apparatus (page 10).

#### On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the power cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the system, unplug the system and have it checked by qualified personnel before operating it any further.
- AC power cord must be changed only at the qualified service shop.

#### On placement

- Do not place the system in an inclined position.
- Do not place the system in locations where it is;
  - Extremely hot or cold
  - Dusty or dirty
  - Very humid
  - Subject to vibrations
  - Subject to direct sunlight.
- Use caution when placing the unit or speakers on surfaces that have been specially treated (with wax, oil, polish, etc.) as staining or discoloration of the surface may result.

#### On heat buildup

- Although the system heats up during operation, this is not a malfunction.
- Place the system in a location with adequate ventilation to prevent heat buildup in the system.
- If you continuously use this system at a high volume, the cabinet temperature of the top, side and bottom rises considerably. To avoid burning yourself, do not touch the cabinet.
- To prevent a malfunction, do not cover the ventilation hole for the cooling fan.

#### In case color irregularity is observed on nearby a TV screen

With the magnetically shielded type of speaker system, the speakers can be installed near a TV set. However, color irregularity may still be observed on the TV screen depending on the type of your TV set.

#### If color irregularity is observed...

Turn off the TV set once, then turn it on after 15 to 30 minutes.

#### If color irregularity is observed again...

Place the speakers farther away from the TV set.

#### IMPORTANT NOTICE

Caution: This system is capable of holding a still video image or on-screen display image on your television screen indefinitely. If you leave the still video image or on-screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen. Projection televisions are especially susceptible to this.

#### On operation

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

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

## Notes on discs

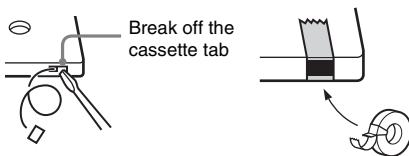
- Before playing, clean the disc with a cleaning cloth. Wipe the disc from the center out.
- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.
- Do not use discs encircled with a protection ring. This may cause a malfunction to the system.
- When using discs that have glue or similar tacky substance on the label side of the disc or that used a special ink when the label was printed, there is a chance that the disc or label may become attached to parts inside this unit. When this occurs, it may not be possible to remove the disc, and may also cause this unit to malfunction. Be sure to check that the label side of the disc is not sticky before using.  
The following types of disc should not be used:
  - Rental or used discs with attached seals where the glue extends beyond the seal. The perimeter of the seal on the disc is tacky.
  - Discs that have labels printed using a special ink that feels tacky when touched.

## Cleaning the cabinet

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

## To save a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated.



If you later want to reuse the tape for recording, cover the broken tab with adhesive tape.

## Before placing a cassette in the tape deck

Take up any slack in the tape. Otherwise, the tape may get entangled in the parts of the tape deck and become damaged.

## When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding frequently. The tape may get entangled in the tape deck.

## Cleaning the tape heads

Clean the tape heads after every 10 hours of use. Be sure to clean the tape heads before you start an important recording or after playing an old tape. Use a separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

## Demagnetizing the tape heads

Demagnetize the tape heads and the metal parts that have contact with the tape after every 20 to 30 hours of use with a separately sold demagnetizing cassette. For details, refer to the instructions of the demagnetizing cassette.



# Specifications

## Main unit

### Amplifier section

#### MHC-GNZ9D

The following measured at AC 120, 127, 220, 230 – 240 V, 50/60 Hz

Continuous RMS power output (reference)

Front speaker: 115 + 115 watts  
(6 ohms at 1 kHz, 10% THD)

Center speaker: 50 watts (6 ohms at 1 kHz, 10% THD)

Surround speaker: 50 + 50 watts  
(6 ohms at 1 kHz, 10% THD)

Subwoofer: 170 watts (4 ohms at 100 Hz, 10% THD)

#### MHC-GNZ8D

The following measured at AC 120, 127, 220, 230 – 240 V, 50/60 Hz

Continuous RMS power output (reference)

Front speaker: 100 + 100 watts  
(6 ohms at 1 kHz, 10% THD)

Center speaker: 40 watts (6 ohms at 1 kHz, 10% THD)

Surround speaker: 40 + 40 watts  
(6 ohms at 1 kHz, 10% THD)

#### MHC-GNZ7D

The following measured at AC 120, 127, 220, 230 – 240 V, 50/60 Hz

Continuous RMS power output (reference)

100 + 100 watts  
(6 ohms at 1 kHz, 10% THD)

#### MHC-GNZ5D

The following measured at AC 120, 127, 220, 230 – 240 V, 50/60 Hz

Continuous RMS power output (reference)

50 + 50 watts  
(6 ohms at 1 kHz, 10% THD)

#### Inputs

TV/SAT IN (audio) (phono jacks)<sup>1)</sup>:  
voltage 450/250 mV,  
impedance 47 kilohms

VIDEO INPUT VIDEO (phono jack)<sup>1)</sup>:  
1 Vp-p, 75 ohms

VIDEO INPUT AUDIO (phono jacks)<sup>1)</sup>:  
voltage 250 mV,  
impedance 47 kilohms

MIC 1/MIC 2/MIC<sup>2)</sup> (phone jacks):  
sensitivity 1 mV,  
impedance 10 kilohms

#### Outputs

TV/SAT OUT (audio) (phono jacks)<sup>1)</sup>:  
voltage 250 mV,  
impedance 1 kilohm

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

S VIDEO OUT (4-pin/mini-DIN jack)<sup>1)</sup>:  
Y: 1 Vp-p, unbalanced,  
Sync negative,  
C: 0.286 Vp-p, load  
impedance 75 ohms

COMPONENT VIDEO OUT<sup>1)</sup>:  
Y: 1 Vp-p, 75 ohms  
Pb, Pr: 0.7 Vp-p, 75 ohms

DIGITAL OPTICAL OUT<sup>3)</sup> (Square optical connector  
jack, rear panel)

Wavelength 660 nm

PHONES (stereo mini jack):  
accepts headphones of  
8 ohms or more

FRONT SPEAKER: Use only the supplied  
speaker SS-GNZ9D.

SURROUND SPEAKER<sup>4)</sup>:  
Use only the supplied  
speaker SS-RS9D for  
MHC-GNZ9D, SS-RS8D  
for MHC-GNZ8D.

CENTER SPEAKER<sup>4)</sup>: Use only the supplied  
speaker SS-CT9D for  
MHC-GNZ9D, SS-CT8D  
for MHC-GNZ8D.

SUBWOOFER/SUBWOOFER CONTROL<sup>5)</sup>:  
Use only the supplied  
speaker SA-WG9D.

SUBWOOFER OUT<sup>6)</sup> voltage 1 V,  
impedance 1 kilohm

<sup>1)</sup>Except for MHC-GNZ5D

<sup>2)</sup>MHC-GNZ5D only

<sup>3)</sup>MHC-GNZ7D/GNZ5D only

<sup>4)</sup>MHC-GNZ9D/GNZ8D only

<sup>5)</sup>MHC-GNZ9D only

<sup>6)</sup>MHC-GNZ8D/GNZ7D only

## Disc player section

System	Compact disc and digital audio and video system
Laser	Semiconductor laser (DVD: $\lambda=650$ nm, CD: $\lambda=790$ nm) Emission duration: continuous
Frequency response	DVD (PCM 48 kHz): 2 Hz – 22 kHz ( $\pm 1$ dB) CD: 2 Hz – 20 kHz ( $\pm 1$ dB)
Video color system format	Latin American model: NTSC Other models: NTSC, PAL

## Tape deck section

Recording system	4-track 2-channel stereo
Frequency response	40 – 13,000 Hz ( $\pm 3$ dB), using Sony TYPE I cassette
Wow and flutter	$\pm 0.15\%$ W.Peak (IEC) 0.1% W.RMS (NAB) $\pm 0.2\%$ 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	
Latin American models:	530 – 1,710 kHz (with the interval set at 10 kHz) 531 – 1,710 kHz (with the interval set at 9 kHz)

Saudi Arabian model:

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

Other models:

530 – 1,710 kHz  
(with the interval set at  
10 kHz)  
531 – 1,602 kHz  
(with the interval set at  
9 kHz)

Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

## Speaker

### Front speaker SS-GNZ9D for MHC-GNZ9D/ GNZ8D/GNZ7D

Speaker system	2-way, 2-unit, bass-reflex type, magnetically shielded type
Speaker units	
Woofer:	18 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 240 × 346.5 × 235 mm
Mass	Approx. 4.0 kg net per speaker

### Surround speaker SS-RS9D for MHC-GNZ9D

Speaker system	2-way, 2-unit, bass-reflex type
Speaker units	
Woofer:	18 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 240 × 346.5 × 215 mm
Mass	Approx. 3.7 kg net per speaker

### Surround speaker SS-RS8D for MHC-GNZ8D

Speaker system	1-way, 1-unit, bass-reflex type
Speaker units	
Full-range:	8 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 175 × 94.5 × 101 mm
Mass	Approx. 0.6 kg net per speaker

### Center speaker SS-CT9D/CT8D for MHC-GNZ9D/GNZ8D

Speaker system	1-way, 1-unit, bass-reflex type, magnetically shielded type
Speaker units	
Full-range:	8 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 235 × 94.5 × 101 mm
Mass	Approx. 0.9 kg

## Subwoofer speaker SS-WG9D for MHC-GNZ9D

Speaker system	1-way, 1-unit, bass-reflex, magnetically shielded type
Speaker unit	20 cm, cone type
Nominal impedance	4 ohms
Dimensions (w/h/d)	Approx. 260 × 326,5 × 363.5 mm
Mass	Approx. 7.0 kg net per speaker

## Front speaker SS-GNZ5D for MHC-GNZ5D

Speaker system	3-way, 3-unit, bass-reflex type
Speaker units	
Super tweeter:	2 cm, dome type
Woofer:	13 cm, cone type
Tweeter:	5 cm, cone type
Normal impedance	6 ohms
Dimensions (w/h/d)	Approx. 202 × 327 × 230 mm
Mass	Approx. 3.0 kg net per speaker

## General

Power requirements	
Australian model:	230 – 240 V AC, 50/60 Hz
Saudi Arabian model:	120 – 127 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Indian model:	220 – 240 V AC, 50/60 Hz
Mexican model:	127 V AC, 60 Hz
Thai model:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption	
MHC-GNZ9D	400 watts
MHC-GNZ8D	280 watts
MHC-GNZ7D	210 watts
MHC-GNZ5D	180 watts

Dimensions (w/h/d) (excl. speakers)	
MHC-GNZ9D	Approx. 280 × 326 × 400 mm
MHC-GNZ8D/GNZ7D	Approx. 280 × 326 × 380 mm
MHC-GNZ5D	Approx. 280 × 326 × 365 mm

Mass (excl. speakers)	
MHC-GNZ9D	Approx. 14 kg
MHC-GNZ8D	Approx. 12 kg
MHC-GNZ7D	Approx. 11 kg
MHC-GNZ5D	Approx. 9.5 kg

Supplied accessories:	Remote Commander (1) R6 (size AA) batteries (2) AM loop antenna (1) FM lead antenna (1) Video cable (1) Speaker pads MHC-GNZ9D (24) MHC-GNZ8D (20) MHC-GNZ7D/GNZ5D (8) Surround speaker cable (MHC-GNZ8D only) (2) Center speaker cable (MHC-GNZ9D/GNZ8D only) (1)
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Design and specifications are subject to change without notice.

## Language code list
















For details, see page 35.








The language spellings conform to the ISO639: 1988 (E/F) standard.

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

# List of items that can be displayed and selected by disc type


When you press  DISPLAY, the following control menu items are displayed.

	Control Menu items	Function
	<b>TITLE</b> (DVD only) <b>SCENE</b> (VIDEO CD in PBC playback only) <b>TRACK</b> (VIDEO CD only)	Selects the title (DVD), or track (VIDEO CD) to be played. Displays the scene (VIDEO CD in PBC playback).
	<b>CHAPTER</b> (DVD only) <b>INDEX</b> (VIDEO CD only)	Selects the chapter (DVD) or index (VIDEO CD) to be played.
	<b>TRACK</b> (CD or MP3 only)	Selects the track to be played.
	<b>ORIGINAL/PLAY LIST</b> (DVD-RW only)	Selects the type of titles (DVD-RW) to be played, the "ORIGINAL" one, or an edited "PLAY LIST".
	<b>TIME/TEXT</b>	Checks the elapsed time and the remaining playback time. Input the time code for picture and music searching. Displays the DVD/CD text or the MP3 track name.
	<b>PROGRAM</b> (VIDEO CD or CD only)	Selects the track to play in the order you want.
	<b>SHUFFLE</b> (VIDEO CD or CD only)	Plays the track in random order.
	<b>REPEAT</b>	Plays the entire disc (all titles/all tracks/all albums) repeatedly or one title/chapter/track/album repeatedly, or contents of program repeatedly.
	<b>AV SYNC</b>	Adjusts the delay between the picture and sound.
	<b>PARENTAL CONTROL</b> (DVD VIDEO, VIDEO CD or CD only)	Sets the disc to prohibit playback.
	<b>SETUP</b>	"QUICK" Setup Use Quick Setup to choose the desired language of the on-screen display, the aspect ratio of the TV, and the size of the speakers you are using. "CUSTOM" Setup In addition to the Quick Setup setting, you can adjust various other settings. "RESET" Returns the settings in "SETUP" to the default setting.
	<b>ALBUM</b> (DATA CD or DATA DVD* only)	Selects the album to be played.
	<b>FILE</b> (DATA CD or DATA DVD* only)	Selects the JPEG image file or DivX video file* to be played.
	<b>DATE</b> (JPEG only)	Displays the date the picture was taken by a digital camera.
	<b>INTERVAL</b> (JPEG only)	Specifies the duration for which the slides are displayed on the screen.

	<b>Control Menu items</b>	<b>Function</b>
	<b>EFFECT</b> (JPEG only)	Selects the effects to be used for changing slides during a slide show.
	<b>MODE (MP3, JPEG)</b> (MP3 or JPEG only)	Selects the data type; MP3 audio track (“AUDIO”), JPEG image file (“IMAGE”) or both (“AUTO”) to be played when playing a DATA CD.
	<b>KEY CONTROL</b>	Changes the key to suit your vocal range.
	<b>KARAOKE PON</b>	Enjoys karaoke with a stereo-recorded disc, even if it is a non-karaoke disc, by reducing the sound of the vocals.
	<b>VOCAL</b> (DVD VIDEO, VIDEO CD or CD only)	When playing a DVD with the Dolby Digital Karaoke format in karaoke mode, you can turn on or off the guide vocal. When playing a VIDEO CD/CD in karaoke mode, you can listen to the vocals.
	<b>VOCAL SELECT</b> (DVD VIDEO, VIDEO CD or CD only)	Selects different kind of vocals recorded in the disc.
	<b>GUIDE MELODY</b> (DVD VIDEO only)	Listens to the guide melody.

\* Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

### Tips

- All the Control Menu items cannot be displayed by pressing  DISPLAY once. In this case, press the button twice or more until the desired item appears.
- The Control Menu items differ depending on the disc.
- The following Control Menu icon indicators light up in green when you select any item except “OFF” “PROGRAM”/“SHUFFLE”/“REPEAT”/“A/V SYNC”/“KARAOKE PON”/“VOCAL”/“GUIDE MELODY”
- The “ORIGINAL/PLAY LIST” indicator lights up in green when you select “PLAYLIST”.

## System setup item list

The default settings are underlined.

### LANGUAGE SETUP (page 38)

OSD	Select the language you want to use from the displayed language list.
MENU	Select the language you want to use from the displayed language list.
AUDIO	Select the language you want to use from the displayed language list.
SUBTITLE	Select the language you want to use from the displayed language list.

### SCREEN SETUP (page 39)

TV TYPE <sup>1)</sup>	<u>16:9</u> 4:3 LETTER BOX 4:3 PANSCAN
COLOR SYSTEM <sup>2)</sup>	<u>AUTO</u> PAL NTSC
SCREEN SAVER	<u>ON</u> OFF
BACKGROUND	<u>JACKET PICTURE</u> GRAPHICS BLUE BLACK
BLACK LEVEL <sup>3)</sup>	<u>ON</u> OFF
BLACK LEVEL (COMPONENT OUT) <sup>3)</sup>	<u>OFF</u> ON
4:3 OUTPUT (except for MHC-GNZ5D)	<u>FULL</u> NORMAL

### CUSTOM SETUP (page 42)

PAUSE MODE	<u>AUTO</u> FRAME
TRACK SELECTION	<u>OFF</u> AUTO
MULTI-DISC RESUME	<u>ON</u> OFF
AUDIO DRC	<u>OFF</u> STANDARD MAX
DivX <sup>4)</sup>	Registration Code

### SPEAKER SETUP (page 43) (Except for MHC-GNZ5D)

SIZE	FRONT	<u>YES</u>
	CENTER <sup>5)</sup>	<u>YES</u> NONE
	SURROUND <sup>5)</sup>	<u>BEHIND</u> SIDE NONE
	SUBWOOFER	<u>YES</u> NONE
DISTANCE <sup>5)</sup>	FRONT	<u>3.0m</u> (1.0 m – 7.0 m)
	CENTER	<u>3.0m</u> (0.0 m – 7.0 m)
	SURROUND	<u>3.0m</u> (0.0 m – 7.0 m)
LEVEL (FRONT)	L	<u>0 dB</u> (-6 dB – 0 dB)
	R	<u>0 dB</u> (-6 dB – 0 dB)
	CENTER <sup>5)</sup>	<u>0 dB</u> (-6 dB – +6 dB)
	SUBWOOFER	<u>0 dB</u> (MHC-GNZ9D: -6 dB – +6 dB) (MHC-GNZ8D/ GNZ7D: -10 dB/-4dB/0 dB)
LEVEL (SURROUND) <sup>5)</sup>	L	<u>0dB</u> (-6 dB – +6 dB)
	R	<u>0dB</u> (-6 dB – +6 dB)
TEST TONE <sup>5)</sup>	<u>OFF</u> ON	

<sup>1)</sup> The default setting varies, depending on the country model.

<sup>2)</sup> Except for Latin American model

<sup>3)</sup> Latin American models only

<sup>4)</sup> Except for MHC-GNZ9D Latin American model, GNZ8D Latin American model, GNZ7D and GNZ5D

<sup>5)</sup> MHC-GNZ9D/GNZ8D only

## Glossary

### **Album**

Section of a music piece on a data CD containing MP3 audio tracks or JPEG image files.

### **Auto Pause**

An automatical pauses according to the signal encoded on the disc while playing a VIDEO CD. If the CD/DVD player does not resume play for a long time, press  $\triangleright$  (or  $\blacktriangleleft$  on the unit) to resume play manually.

### **Chapter**

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

### **Digital Cinema Sound (DCS)**

This is the generic name of the surround sound produced by digital signal processing technology developed by Sony. Unlike previous surround sound fields mainly directed at the reproduction of music, Digital Cinema Sound is designed specifically for the enjoyment of movies.

### **DivX®**

Digital video technology created by DivXNetworks, Inc. Videos encoded with DivX technology are among the highest quality with a relatively small file size.

### **Dolby Digital**

This movie theater 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**

Dolby Pro Logic II creates five full-bandwidth output channels from two-channel sources. This is done using an advanced, high-purity matrix surround decoder that extracts the spatial properties of the original recording without adding any new sounds or tonal colorations.

### **Movie mode**

The Movie mode is for use with stereo television shows and all programs encoded in Dolby Surround. The result is enhanced soundfield 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 decoding Dolby Surround, Dolby Surround Pro Logic produces four channels from two-channel sound. Compared with the former Dolby Surround system, Dolby Surround Pro Logic reproduces left-to-right panning more naturally and localizes sounds more precisely. To take full advantage of Dolby Surround Pro Logic, you should have one pair of surround speakers and a center speaker. The surround speakers output monaural sound.

### **DTS**

Digital audio compression technology that the Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround. The surround channel is stereo and there is discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio. The good channel separation is realized because the all channel data is recorded discrete and processed in digital.

### **DVD**

A disc that contains up to 8 hours of moving pictures even though its diameter is the same as a CD.

The data capacity of a single-layer and single-sided DVD, at 4.7 GB (Giga Byte), is 7 times that of a CD. Furthermore, the data capacity of a dual-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD 9.4 GB, and a dual-layer and double-sided DVD 17 GB.



The picture data uses the MPEG 2 format, one of the worldwide standards of digital compression technology. The picture data is compressed to about 1/40 of its original size. The DVD also uses the variable rate coding technology that changes the data to be allocated according to the status of the picture.

The audio data is recorded in Dolby Digital as well as in PCM, allowing you to enjoy more realistic audio presence.

Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD.

### **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.

### **File**

A JPEG image recorded on a DATA CD or a DivX video on a DATA CD/DATA DVD\*. ("File" is an exclusive definition for this system.) A single file consists of a single image or movie.

### **Film based software, Video based software**

DVDs can be classified as Film based or Video based software. Film based DVDs contain the same images (24 frames per second) that are shown at movie theaters. Video based DVDs, such as television dramas or sit-coms, displays images at 30 frames (or 60 fields) per second.

### **Index (CD) / Video Index (VIDEO CD)**

A number that divides a track into sections to easily locate the point you want on a VIDEO CD or a CD. Depending on the disc, no indexes may be recorded.

### **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.

### **Menu Playback**

Playback using the menu screens recorded on VIDEO CDs with PBC functions. You can enjoy simple interactive software using the menu playback function.

### **Multi-angle function**

Various angles, or viewpoints of the video camera, for a scene are recorded on some DVDs.

### **Multilingual function**

Several languages for the sound or subtitles in a picture are recorded on some DVDs.

### **Multi Session**

This is a recording method that enables adding of data using the Track-At-Once method. Conventional CDs begin at a CD control area called the Lead-in and end at an area called Lead-out. A Multi Session CD is a CD having multiple sessions, with each segment from Lead-in to Lead-out regarded as a single session. CD-Extra: This format records audio (audio CD data) on the tracks in session 1 and data on the tracks in session 2.

### **Parental Control**

A function of the DVD to limit playback of the disc by the age of the users according to the limitation level in each country/region. The limitation varies from disc to disc; when it is activated, playback is completely prohibited, violent scenes are skipped or replaced with other scenes and so on.

### **Playback Control (PBC)**

Signals encoded on VIDEO CDs (Version 2.0) to control playback. By using menu screens recorded on VIDEO CDs with PBC functions, you can enjoy playing simple interactive programs, programs with search functions, and so on.

This system conforms to Ver. 1.1 and Ver. 2.0 of VIDEO CD standards. You can enjoy two kinds of playback depending on the disc type.

**VIDEO CDs without PBC functions  
(Ver. 1.1 discs)**

Enjoy video playback (moving pictures) as well as music.


**VIDEO CDs with PBC functions  
(Ver. 2.0 discs)**

Play interactive software using menu screens displayed on the TV screen (PBC Playback), in addition to the video playback functions of Ver. 1.1 discs. Moreover, you can play high-resolution still pictures, if they are included on the disc.

**Progressive format  
(sequential scanning)**

In contrast to the Interlace format, the progressive format can reproduce 50 to 60 frames per second by reproducing all scanning lines (525 lines for the NTSC system, 625 lines for the PAL system). The overall picture quality increases and still images, text, and horizontal lines appear sharper. This format is compatible with the 525 or 625 progressive format.

**Region Code**

This system is used to protect copyrights. A region number is allocated on each DVD system or DVD disc according to the sales region. Each region code is shown on the system as well as on the disc packaging. The system can play the discs that match its region code. The system can also play discs with the “” mark. Even when the region code is not shown on the DVD, the region limit may still be activated.

**Scene**

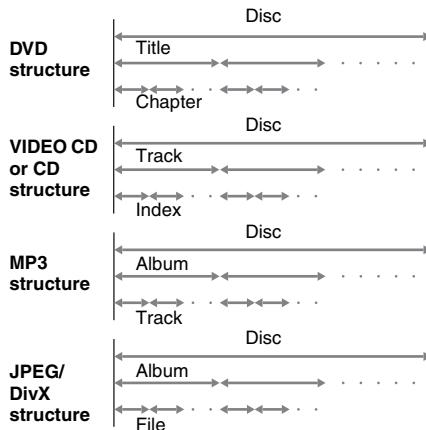
On a VIDEO CD with PBC functions (page 24), the menu screens, moving pictures, and still pictures are divided into sections called “scenes”. Each scene is assigned a scene number enabling you to locate the scene you want.

**Title**

The longest sections of a picture or a music piece on a DVD; a movie, etc., for a picture piece on video software; or an album, etc., for a music piece on audio software. Each title is assigned a title number enabling you to locate the title you want.

**Track**

Sections of a picture or a music piece on a CD, VIDEO CD, MP3 or JPEG. Each track is assigned a track number enabling you to locate the track you want.



**VIDEO CD**

A compact disc that contains moving pictures. The picture data uses the MPEG 1 format, one of the worldwide standards for digital compression technology. The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures.

VIDEO CDs also contain compact audio data. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. VIDEO CDs can hold 6 times the audio information of conventional audio CDs.

There are 2 versions of VIDEO CDs.

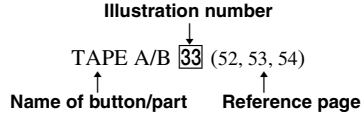
- Version 1.1: You can play only moving pictures and sounds.
- Version 2.0: You can play high-resolution still pictures and enjoy PBC functions.

This system conforms to both versions.

# List of button locations and reference pages

## How to use this page

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



## Main unit

### ALPHABETICAL ORDER

#### A - Q

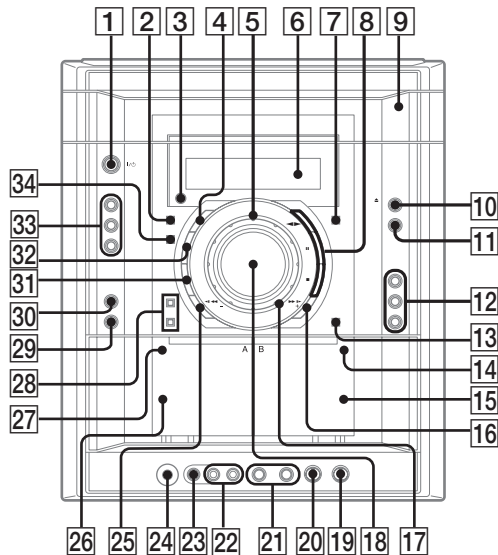
- CD SYNC **28** (for MHC-GNZ9D/GNZ8D/GNZ7D) **30** (for MHC-GNZ5D) (53)  
 Deck A **26** (52, 54)  
 Deck B **15** (52, 53, 54, 62)  
 DIRECTION **13** (52, 53, 54)  
 DISC 1 - 3 **12** (18, 21, 53, 77)  
 DISC SKIP/EX-CHANGE **11** (12, 17, 18, 21, 53)  
 Disc tray **9** (17)  
 DISPLAY **2** (40, 63, 65, 77)  
 Display window **6**  
 DVD **33** (12, 40, 53)  
 ECHO LEVEL<sup>2)</sup> **19** (57)  
 EQ BAND/MEMORY **4** (57)  
 GROOVE **31** (55)  
 ILLUMINATION **34**<sup>2)</sup> (63)  
 MIC 1/2 jack **21**<sup>1)</sup> (57)  
 MIC LEVEL **20** (57)  
 Operation Dial (⏮◀▶▶⏭) **5** (57)  
 PHONES jack **24**  
 Power illuminator **17** (63)  
 PRESET EQ **32** (55, 57)

#### R - Z

- REC PAUSE/START **28** (for MHC-GNZ9D/GNZ8D/GNZ7D) **29** (for MHC-GNZ5D) (53, 54)  
 Remote sensor **3**  
 SOUND FIELD **7** (55)  
 TAPE A/B **33** (52, 53, 54)  
 TUNER/BAND **33** (50, 51, 54)  
 TUNING + **16** (50, 51)  
 TUNING - **25** (50, 51)  
 TV/SAT **30**<sup>2)</sup> (54, 70)  
 VIDEO **29**<sup>2)</sup> (54, 70)  
 VIDEO INPUT AUDIO L/R jacks **22** (54, 69)  
 VIDEO INPUT VIDEO jack **23** (69)  
 VOLUME control **18** (44, 58)

### BUTTON DESCRIPTIONS

- I/⏻ (power) **1** (10, 51, 61, 68, 77)  
 ◀▶ (play) **8** (17, 39, 52, 53)  
 || (pause) **8** (11, 18, 52)  
 ■ (stop) **8** (12, 18, 45, 52, 53, 77)  
 ▲ OPEN/CLOSE **10** (17)  
 ▲ PUSH (deck B) (eject) **14** (52)  
 ▶▶ (fast forward) **16** (18, 52)  
 ▼▼ (slow forward) **16** (18)  
 ◀◀ (rewind) **25** (18, 52)  
 ▶▶ (slow rewind) **25** (18)  
 ▲ PUSH (deck A) (eject) **27** (52)  
<sup>1)</sup> MHC-GNZ5D has only one MIC jack.  
<sup>2)</sup> Except for MHC-GNZ5D



continued

# Remote control

## ALPHABETICAL ORDER

### A - Q

- ALBUM +/- **24** (18, 68)
- ANGLE **5** (49)
- AUDIO **4** (35, 57, 70)
- CLEAR **32** (14, 20, 21, 23, 28, 33, 43)
- DISC SKIP **20** (18, 21)
- DISPLAY **17** (63, 65)
- ENTER **12** (14, 23, 20, 21, 23, 24, 27, 29, 32, 33, 34, 37, 45, 50, 59, 61, 62, 77)
- FM MODE **22** (51)
- FUNCTION +/- **2** (14, 17, 50, 51)
- KARAOKE MODE **15** (57)
- KARAOKE PON **16** (59)
- MENU **6** (23, 26, 27, 29, 31, 50)
- Number buttons\* **14** (24, 46)
- PICTURE NAVI **3** (28, 34)
- PRESET + **26** (51)
- PRESET - **30** (51)

### R - Z

- REPEAT **22** (22)
- SLEEP **18** (61)
- SOUND FIELD **21** (55, 70)
- SUBTITLE **23** (49)
- THEATRE SYNC **19** (68)
- TIMER MENU **35** (14, 61, 62)
- TIME/TEXT **34** (64, 65)
- TOP MENU **13** (23)
- TUNING + **9** (50, 51)
- TUNING - **11** (50, 51)
- TV **28** (68)
- TV CH + **26** (68)
- TV CH - **30** (68)
- TV/VIDEO **18** (68)
- TV VOL +/-\* **7** (68)
- VOLUME +/-\* **7** (44, 61)

## BUTTON DESCRIPTIONS

- I/⏻ (power) **1** (10, 61, 68, 77)
- TV I/⏻ **1** (68)
- ◀•• REPLAY/ADVANCE ••▶ / ◀◀ STEP/STEP ▶▶ **8** (18)
- SLOW ▶▶ **9** (18)
- ▶▶ (fast forward) **9** (18, 52)
- ⏸ (pause) **10** (18, 52)
- ◀◀ SLOW **11** (18)
- ◀◀ (rewind) **11** (18, 52)
- ⬆/⬇/⬅/➡ **12** (14, 20, 37, 59, 61, 77)
- ☰ DISPLAY **25** (21, 45, 65, 67)
- ▶▶ (go forward) **26** (18)
- (stop) **27** (52)
- ◀◀ (go back) **30** (18)
- ▷ (play)\* **29** (17, 39)
- ↶ RETURN **31** (24)
- /-- **32**
- KEY CONTROL #/b **33** (59)

\* The ▷, number 5 and VOLUME + (TV VOL +) buttons have tactile dots. Use the tactile dots as references when operating the system.

