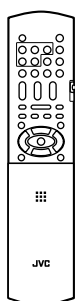
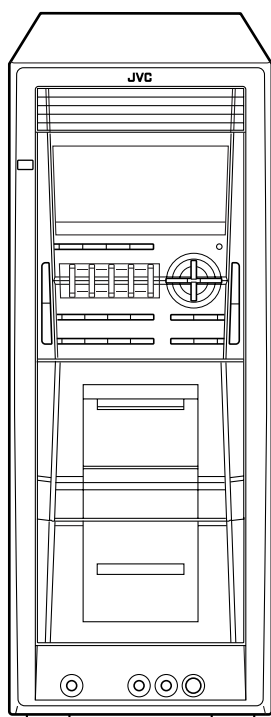


# JVC

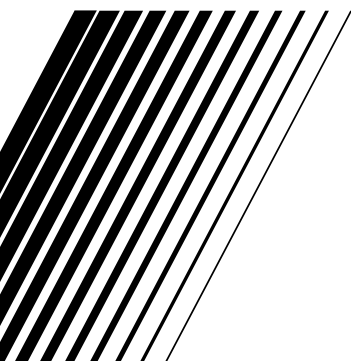


## COMPACT COMPONENT SYSTEM

# CA-DXT99



## INSTRUCTIONS



GVT0166-005A  
[A]

## Warnings, Cautions and Others

---

### **Caution— ⏻ (standby/on) button!**

Disconnect the mains plug to shut the power off completely (the STANDBY lamp goes off). When installing the apparatus, ensure that the plug is easily accessible. The ⏻ button in any position does not disconnect the mains line.

- When the System is on standby, the STANDBY lamp lights red.
  - When the System is turned on, the STANDBY lamp goes off.
- The power can be remote controlled.

### **IMPORTANT FOR LASER PRODUCTS**

---

1. CLASS 1 LASER PRODUCT
2. **CAUTION:** Do not open the top cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
3. **CAUTION:** Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.

### **CAUTION**

To reduce the risk of electrical shocks, fire, etc.:

1. Do not remove screws, covers or cabinet.
2. Do not expose this appliance to rain or moisture.

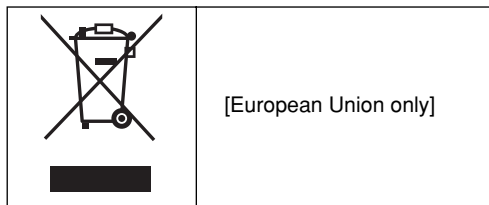
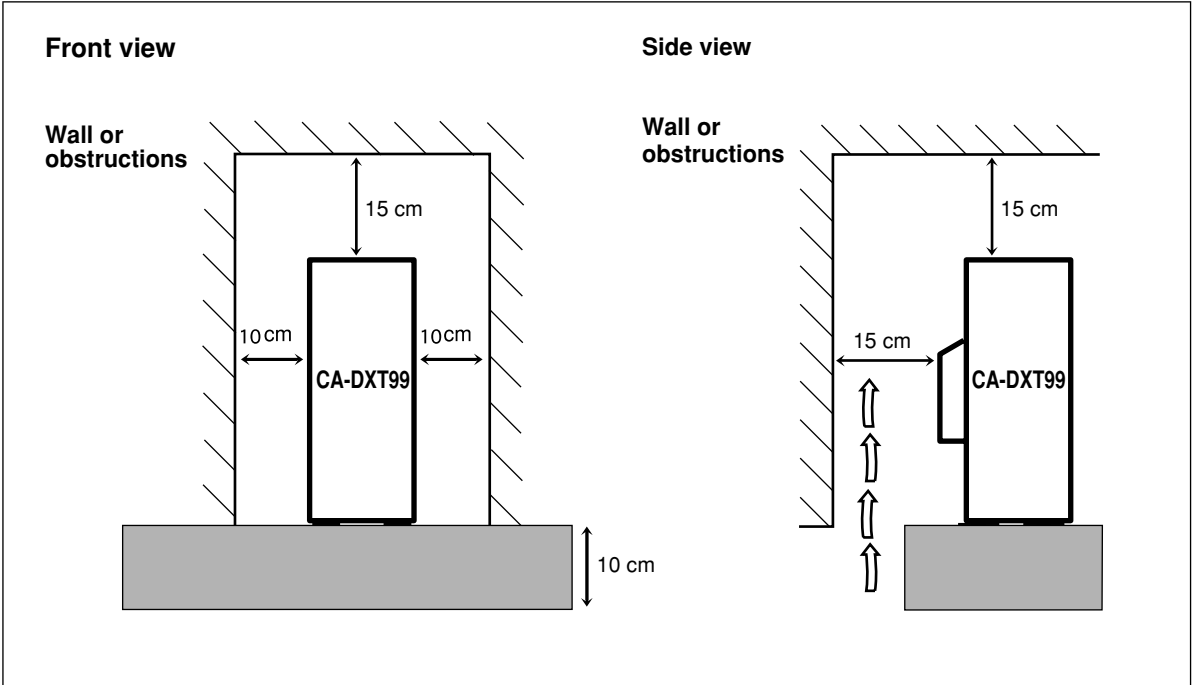
### **CAUTION**

- Do not block the ventilation openings or holes.  
(If the ventilation openings or holes are blocked by a newspaper or cloth, etc., the heat may not be able to get out.)
- Do not place any naked flame sources, such as lighted candles, on the apparatus.
- When discarding batteries, environmental problems must be considered and local rules or laws governing the disposal of these batteries must be followed strictly.
- Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

**Caution: Proper Ventilation**

To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:

1. Front: No obstructions and open spacing.
2. Sides/ Top/ Back: No obstructions should be placed in the areas shown by the dimensions below.
3. Bottom: Place on the level surface. Maintain an adequate air path for ventilation by placing on a stand with a height of 10 cm or more.



# Introduction

## Playable Disc Types

INFO



DVD Logo is a trademark of DVD Format/Logo Licensing Corporation.

- CD-R/-RW: Recorded in the Audio CD, Video CD, and SVCD formats. MP3, WMA, JPEG, MPEG-1, MPEG-2, ASF and DivX files written in accordance with the "ISO 9660" format can also be played.

- DVD-R/-RW/-ROM/+R/+RW: Recorded in the DVD Video or Video Recording (VR) format. MP3, WMA, JPEG, MPEG-1, MPEG-2, ASF and DivX files written in the UDF format can also be played.

In addition to the above discs/files, this System can playback audio data recorded on CD-Extra.

- The following discs cannot be played back: DVD-RAM, CD-I (CD-I Ready), CD-ROM, Photo CD, CD-G (CD-Graphics) and DVD/CD Text. Playing back these discs will generate noise and damage the speakers.
- In this manual, "file" and "track" are interchangeably used for MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX operations.
- It is possible to play back finalized +R/+RW (DVD Video Format only) discs. "DVD" lights on the front display panel when a +R/+RW disc is loaded.

### Caution for DualDisc playback:

The Non-DVD side of a "DualDisc" does not comply with the "Compact Disc Digital Audio" standard. Therefore, the use of Non-DVD side of a DualDisc on this product may not be recommended.

### About color system

This System accommodates both NTSC and PAL system and can playback discs recorded with either system. To change the color system, see page 6.

### Note on Region Code

This System can play back only DVD Videos whose Region Code numbers include "4."

EX.:



## Audio formats

The System can playback the following digital audio formats.

- LPCM (Linear PCM), DIGITAL (Dolby Digital), DTS (Digital Theater Systems), MLP (Meridian Lossless Packing)

### IMPORTANT: Before playing a disc, make sure of the following...

- Turn on the TV and select an appropriate input mode on the TV to view the pictures or on-screen displays.
- For disc playback, you can change the initial setting to your preference. See "Setup Menu Operations" on page 36.

If "⊗" appears on the TV screen when you press a button, the disc cannot perform the operation you have tried to do.

## How to Read This Manual

- Button and control operations are explained in the table below.
- Some related tips and notes are explained later in the sections "Learning More about This System" and "Troubleshooting," but not in the same section explaining the operations ( indicates that the content has some information).

	Indicates that you press the button <b>briefly</b> .
	Indicates that you press the button <b>briefly and repeatedly</b> until an option you want is selected.
	Indicates that you press one of the buttons.
	Indicates that you <b>press and hold</b> the button for a specified period. The number inside the arrow indicates the period of press (in the example, 2 seconds).
	Indicates that you turn the control toward the specified direction(s).

	Indicates that this operation is only possible using the remote control.
	Indicates that this operation is only possible using the main unit.



## Precautions

### Installation

- Install the System in a location with adequate ventilation to prevent internal heat build-up in the System.



DO NOT install the System in a location near heat sources, or in a place subject to direct sunlight, excessive dust or vibration.

- Install in a place which is level, dry and neither too hot nor too cold—between 5°C and 35°C.
- Leave sufficient distance between the System and the TV.
- Keep the speakers away from the TV to avoid interference with the TV.

### Power sources

- When unplugging the System from the wall outlet, always pull on the plug, not the AC power cord.



DO NOT handle the AC power cord with wet hands.

### Moisture condensation

Moisture may condense on the lenses inside the System in the following cases:

- After starting to heat the room
- In a damp room
- If the System is brought directly from a cold to a warm place.

Should this occur, the System may malfunction. In this case, leave the System turned on for a few hours until the moisture evaporates, unplug the AC power cord, then plug it in again.

### Internal heat

- Make sure there is good ventilation around the unit. Poor ventilation could overheat and damage the unit.  
—A cooling fan is inside the unit to prevent heat build-up.



DO NOT block the ventilation openings or holes. If they are blocked by a newspaper or cloth, etc., the heat may not be able to get out.

### Others

- Should any metallic object or liquid fall into the System, unplug the AC power cord and consult your dealer before operating any further.



DO NOT disassemble the System since there are no user serviceable parts inside.

- If you are not going to operate the System for an extended period of time, unplug the AC power cord from the wall outlet.

If anything goes wrong, unplug the AC power cord and consult your dealer.

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# Connections

**Do not connect the AC power cord until all other connections have been made.**

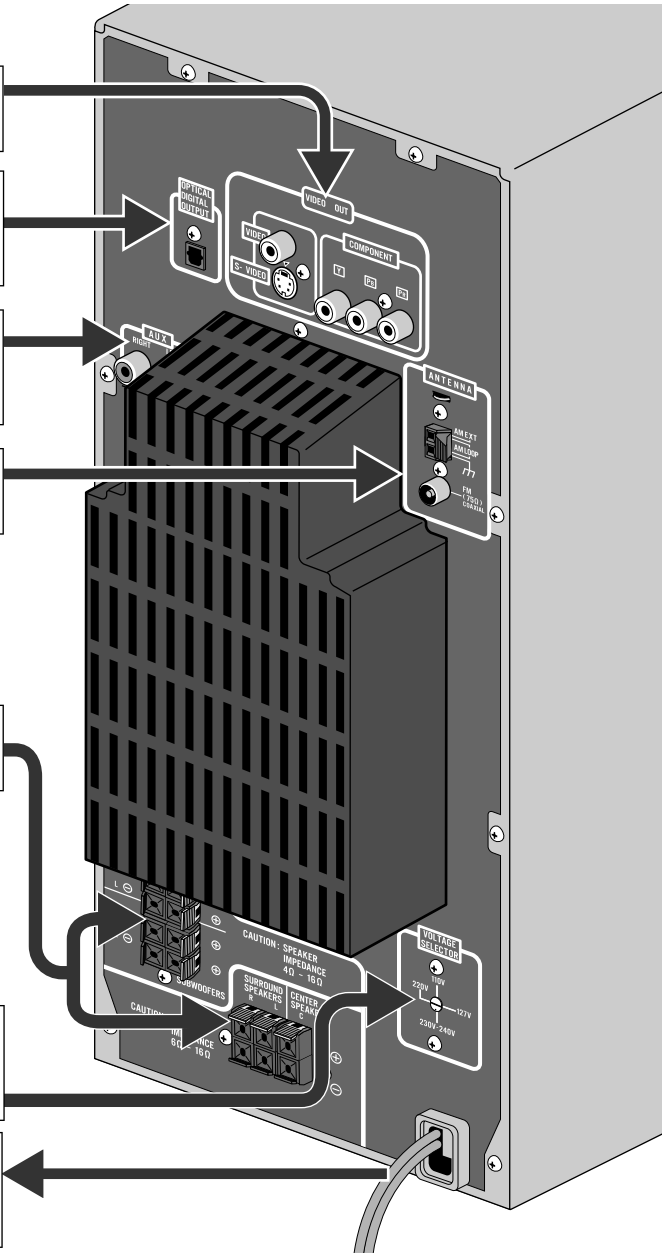
- Connect VIDEO OUT directly to the video input of your TV. Connecting VIDEO OUT to a TV via a VCR may interfere with your viewing when playing back a copy protected disc. Connecting VIDEO OUT to an integrated TV/VCR system may interfere with your viewing.

## Supplied accessories

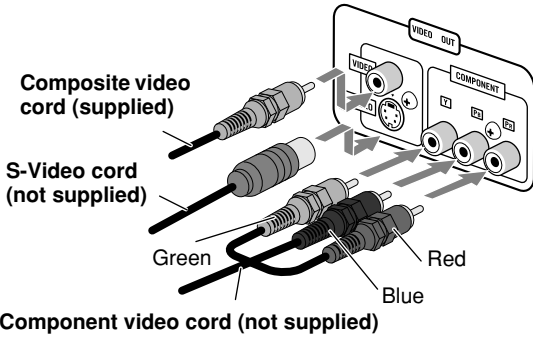
- FM antenna (x1)
- AM loop antenna (x1)
- Composite video cord (x1)
- Remote control (x1)
- Batteries (x2)

If any item is missing, consult your dealer immediately.

- 1 From the video input of TV/monitor**  
See page 4.
- 2 From the digital input of digital audio component such as CD recorder**  
See page 4.
- 3 From the analog audio output of auxiliary equipment (VCR, etc.)**  
See page 4.
- 4 From AM/FM antenna**  
See page 4.
- 5 From the speakers**  
See page 5.
- 6 Voltage selector**  
Before plugging in, confirm the position the voltage selector points at. See page 5.
- 7 To a wall outlet**  
Plug the AC power cord only after all connections are complete.

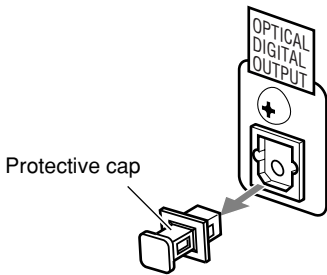


## 1 TV/monitor



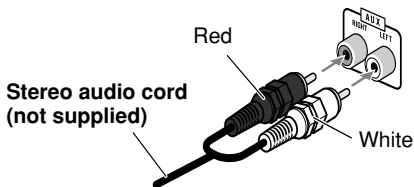
- To select progressive scanning mode (see page 6), use COMPONENT jacks.
- Connect the VIDEO jack, S-VIDEO jack, or COMPONENT jacks whichever you want to use.

## 2 Digital audio component



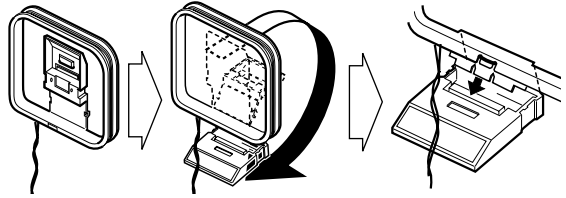
- Set "DIGITAL AUDIO OUTPUT" in the "AUDIO" menu correctly according to the connected digital audio equipment (see page 37). If the setting is incorrect, loud noise may be generated causing damage to the speakers.
- The digital signal through the DIGITAL AUDIO OUTPUT terminal is output only when the DVD/CD is selected as the source.

## 3 Auxiliary equipment

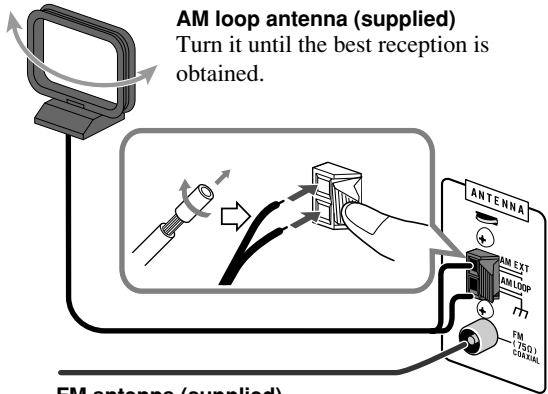


## 4 AM/FM antenna

To assemble the AM loop antenna



To connect AM/FM antenna

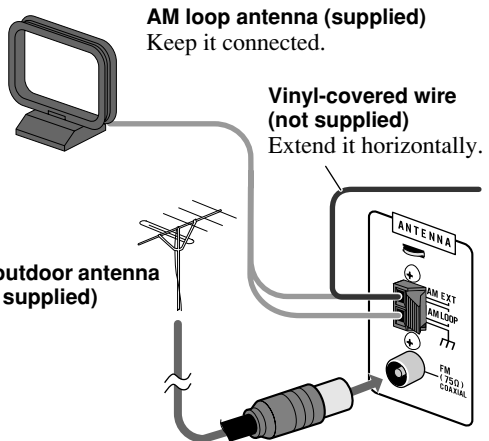


**AM loop antenna (supplied)**  
Turn it until the best reception is obtained.

**FM antenna (supplied)**

Extend it so that you can obtain the best reception.

For better AM/FM reception



**AM loop antenna (supplied)**  
Keep it connected.

**Vinyl-covered wire (not supplied)**  
Extend it horizontally.

- Disconnect the supplied FM antenna, and connect to an outdoor FM antenna using a 75 Ω wire with coaxial type connector (IEC or DIN45325).
- Make sure the antenna conductors do not touch any other terminals, connecting cords or the power cord. Also, keep the antennas away from metallic parts of the System, connecting cords, and the AC power cord. This could cause poor reception.

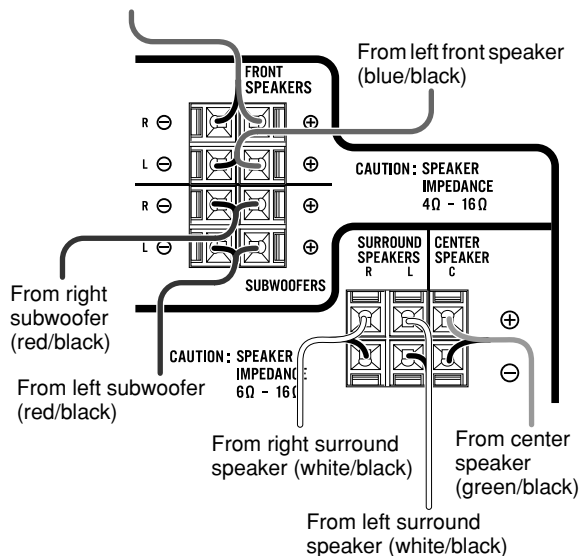
## 5 Speakers

To connect the speaker cords



- When connecting the speaker cords, match their polarity with that of the speaker terminals: blue/red/green/white to (+) and black to (-).

From right front speaker (blue/black)



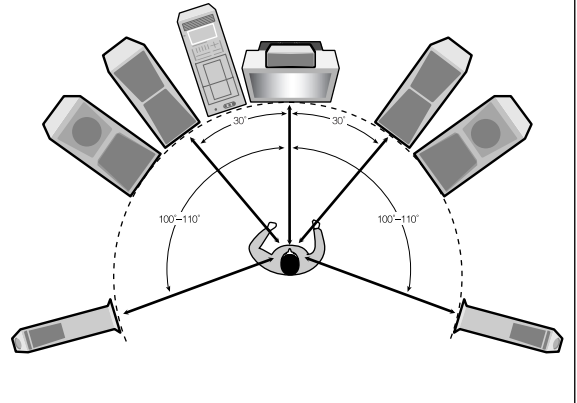
- Use only speakers with the same speaker impedance as indicated by the speaker terminals on the rear of the System.
- The front and center speakers are magnetically shielded to avoid color distortions on TVs. However, if not installed properly, it may cause color distortions. So, pay attention to the following when installing the speakers.
  - When placing the speakers near a TV set, turn off the TV's main power switch or unplug it before installing the speakers.
  - Then wait at least 30 minutes before turning on the TV's main power switch again.
  - Some TVs may still be affected even though you have followed the above instruction. If this happens, move the speakers away from the TV.



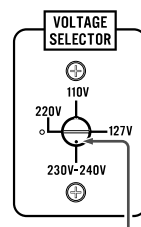
- DO NOT connect more than one speaker to each terminal.
- DO NOT push or pull the speakers as this will damage the foot spacers at the bottom of the speakers.

## Speaker layout

To enjoy multi-channel sound, locate the speakers as follows. If you cannot locate like this, adjust the speaker setting by using the SPK.SETTING menu (see page 37).



## 6 To adjust the voltage selector



Voltage mark

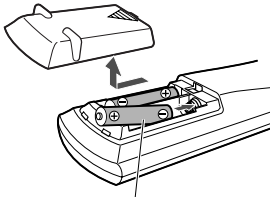
Use a screwdriver to rotate the voltage selector so that the voltage mark is pointing at the same voltage as where you are plugging in the unit. (See also the back cover page.)



DO NOT plug in before setting the voltage selector and all connection procedures are completed.



## Preparing the remote control



R6(SUM-3)/AA(15F)

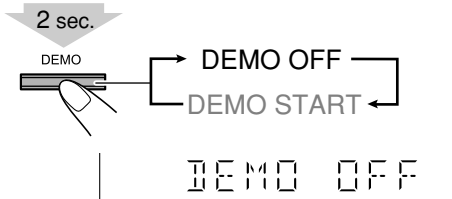
When using the remote control, point the top of the remote control toward the remote sensor as directly as possible. If you operate it from a diagonal position, the operating range (approx. 5 m) may be shorter.

- Dispose of batteries in the proper manner, according to federal, state, and local regulations.



DO NOT recharge, short, disassemble, heat the battery or dispose of it in a fire.

## Canceling the Demonstration



To start the demonstration, select DEMO START.

## Changing the Color System and

### Scanning Mode

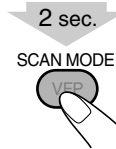


INFO

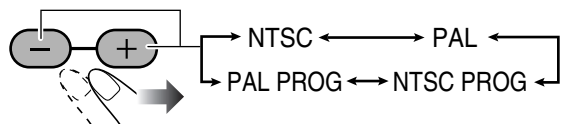
You can select the video output to match it to the color system of your TV (NTSC or PAL).

- If you connect a progressive TV through the COMPONENT jacks, you can enjoy a high quality picture from the built-in DVD player by selecting progressive scanning mode.
- You can change the setting only while the disc playback is stopped.

### 1 Enter the color system setting mode.

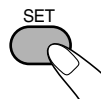


### 2 Select the color system and scanning mode.



<b>NTSC / PAL</b>	NTSC or PAL Interlaced scanning. For a conventional PAL or NTSC TV.
<b>NTSC / PAL PROG</b>	NTSC or PAL Progressive scanning. For a progressive NTSC or PAL TV.

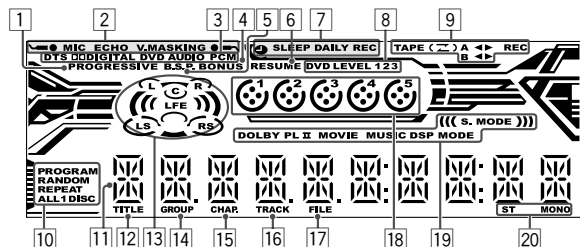
### 3 Store the setting.



# Display Indication

The indications on the display tell you a lot of things while you are operating the System.

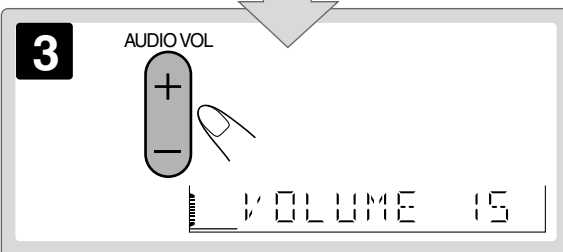
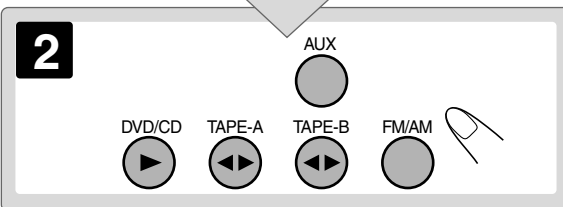
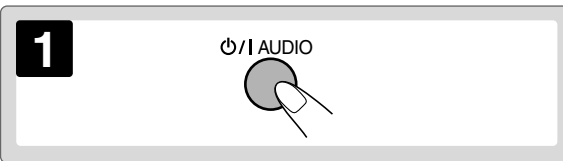
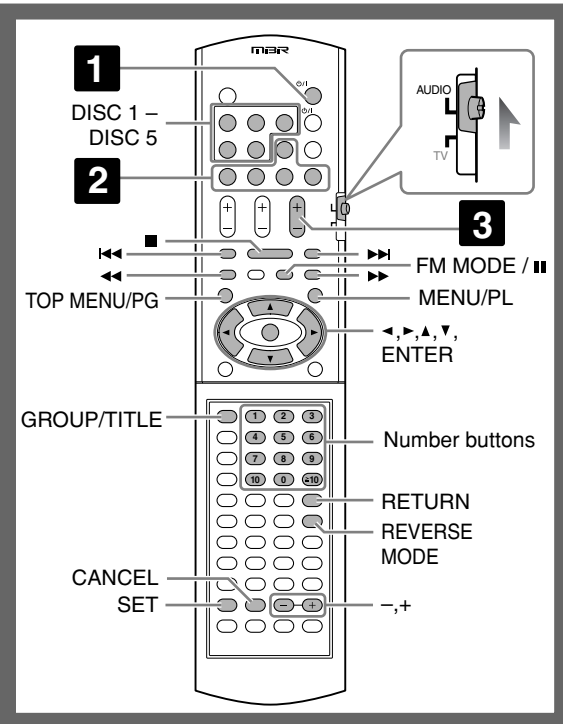
Before operating the System, be familiar with when and how the indicator illuminates on the display.



- 1 PROGRESSIVE indicator
  - Lights when the progressive scanning mode is selected.
- 2 Karaoke operation indicators
  - : lights when the Mic Mixing Mode is activated; flashes when scoring function is in use.
  - MIC: lights when the Mic Mixing Mode is activated; flashes when scoring function is in use.
  - ECHO: lights when the echo effect is activated.
  - V.MASKING: lights when the Vocal Masking Mode is activated.
- 3 Source signal indicators
  - DTS: lights when a source signal is DTS.
  - DIGITAL: lights when a source signal is Dolby Digital.
  - DVD: lights when DVD Video is detected.
  - DVD AUDIO: lights when DVD Audio is detected.
  - PCM: lights when a source signal is linear PCM.
- 4 BONUS indicator
  - Lights when DVD Audio with bonus group is detected.
- 5 B.S.P. indicator
  - Lights when browsable still pictures on DVD Audio are available.
- 6 RESUME indicator
  - Lights when Resume is activated.
- 7 Timer indicators
  - : lights when Daily Timer or Recording Timer stands by or is working or being set.
  - SLEEP: lights when the Sleep Timer is activated.
  - DAILY: lights when the Daily Timer is on standby; flashes while working or being set.
  - REC: lights when the Recording Timer is on standby; flashes while working or being set.
- 8 DVD LEVEL 1/2/3 indicators
  - Lights to indicate the DVD Video increase level.
- 9 Tape operation indicators
  - TAPE: lights when a tape is loaded in either deck A or B.
  - (Reverse Mode): lights to indicate the current Reverse Mode.
  - A: lights when a tape is in deck A.
  - B: lights when a tape is in deck B.
  - (tape direction):
    - Lights to indicate the current tape running direction.
    - Flashes slowly during playback and recording.
    - Flashes quickly while rewinding a tape.
  - REC: lights while recording.
- 10 Disc operation indicators
  - PROGRAM: lights when Program Play is activated.
  - RANDOM: lights when Random Play is activated.
  - REPEAT: lights when Repeat Play is activated.
  - ALL DISC: lights when All Disc Repeat is activated.
  - 1 DISC: lights when One Disc Repeat is activated.
  - 1: lights when One Track/Chapter/Step Repeat is activated.
- 11 Main display
- 12 TITLE indicator
  - Lights to indicate the title number for DVD Video.
- 13 Audio signal indicators
  - L/R/C/LS/RS/LFE: lights to indicate the incoming audio channel signals.
  - : lights to indicate the speakers from which sound is emitted.
- 14 GROUP indicator
  - Lights to indicate the group number.
- 15 CHAP. indicator
  - Lights to indicate the chapter number.
- 16 TRACK indicator
  - Lights to indicate the track number.
- 17 FILE indicator
  - Lights to indicate the file number.
- 18 Disc indicators
  - 1 – 5: lights to indicate the current disc tray.
  - : lights when a disc is detected on the disc tray; rotates during playback or paused.
- 19 Sound Mode/Surround Mode indicators
  - DOLBY PL II MOVIE/MUSIC: lights when Dolby Pro Logic Modes (Movie or Music) is activated.
  - S.MODE: lights when one of the Sound Modes/Surround Modes is activated.
  - DSP MODE: lights when one of the DSP Modes is activated.
- 20 FM reception indicators
  - ST (stereo): lights while an FM stereo station with sufficient signal strength is tuned in.
  - MONO: lights while receiving an FM stereo station in monaural.

# Daily Operations—Playback

In this manual, the operations using the remote control are mainly explained; however, you can use the buttons and controls on the main unit if they have the same (or similar) name and marks.



## 1 Turn on the power.

The STANDBY lamp on the main unit goes off.

- Without pressing AUDIO, the System also turns on by pressing one of the source select buttons in the next step.

## 2 Select the source.

Playback automatically starts if the selected source is ready to start playback.

- If you press AUX, start playback on the external component.

## 3 Adjust the volume.

## 4 Operate the target source as explained later.

### To turn off (standby) the system

- AUDIO
- The STANDBY lamp on the main unit lights in red.
- A small amount of power is always consumed even while on standby.

### For private listening

Connect a pair of headphones to the PHONES jack on the main unit. The sound will no longer come out of the speakers. **Be sure to turn down the volume before connecting or putting on the headphones.**

- Disconnecting the headphones will activate the speakers again.



DO NOT turn off (standby) the System with the volume set to an extremely high level; otherwise, the sudden blast of sound can damage your hearing, speakers and/or headphones when you turn on the System or start playback.

### Adjusting the Volume

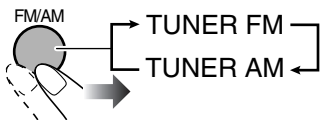
The volume level can be adjusted in 32 steps (VOLUME MIN, VOLUME 1 – VOLUME 30, and VOLUME MAX).

Remote control:	Main unit:

## Listening to the Radio

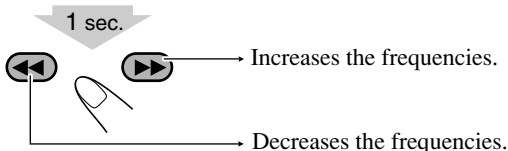
INFO

### To select the band (FM/AM)



### To tune in to a station

While FM or AM is selected...



Frequency starts changing on the display.

When a station (frequency) with sufficient signal strength is tuned in, the frequency search stops.

- In the stereo mode, sound will come out only when ST indicator lights on.
- When you repeatedly press the button, the frequency changes step by step.

To stop searching manually, press either button.

### If the FM station has poor reception



The MONO indicator lights on the display. Reception will improve though stereo effect is lost—monaural reception mode.

To restore the stereo effect, press the button again (the MONO indicator goes off).

- Initial setting is FM and stereo mode.

## To preset stations



You can preset 30 FM and 15 AM stations.

- To cancel the operation during procedure, press CANCEL.

### 1 Tune in to a station you want to preset.

- You can also store the monaural reception mode for FM preset stations if selected.

### 2 Start presetting.



- Finish the following process while the indication on the display is flashing.

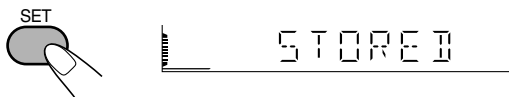
### 3 Select a preset number.

#### Examples:

- 1 2 3 To select preset number 5, press 5.
- 4 5 6 To select preset number 10, press 10.
- 7 8 9 To select preset number 15, press  $\approx$  10, 1, then 5.
- 10 0  $\approx$  10 To select preset number 30, press  $\approx$  10, 3, then 0.
- You can also use +/- or  $\ggg$ / $\lll$  buttons.

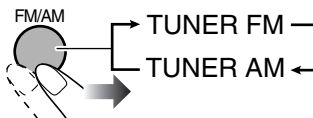


### 4 Store the station.



## To tune in to a preset station

### 1 Select the band (FM or AM).



### 2 Select a preset number.

- 1 2 3 Examples:
- 4 5 6 To select preset number 5, press 5.
- 7 8 9 To select preset number 10, press 10.
- 10 0  $\approx$  10 To select preset number 15, press  $\approx$  10, 1, then 5.
- To select preset number 30, press  $\approx$  10, 3, then 0.

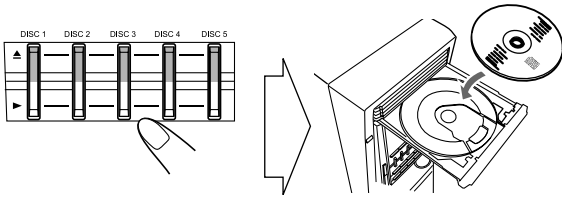
- You can also use  $\ggg$ / $\lll$  buttons on the remote control or on the main unit.

## Playing Back a Disc INFO

Before operating a disc, be familiar how a disc is recorded.

- DVD Video comprises of “Titles” which includes “Chapters,” DVD Audio/MP3/WMA/MPEG-1/MPEG-2/ASF/DivX comprise of “Groups” which includes “Tracks,” JPEG comprises of “Groups” which includes “Files,” and CD/SVCD/VCD comprise of only “Tracks.”
- For MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX playback, see page 27.

### To insert discs



- When using an 8 cm disc, place it on the inner circle of the disc tray.

**To close the disc tray,** press the same ▲ again.

- If you press ► for the same tray, the disc tray closes automatically and playback starts.

To start:	To pause:	To stop:
<p>Playback of the current disc starts.</p>	<p>To release it, press DVD/CD ►.</p>	

**While playing DVD/SVCD/VCD/MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX:** This System can store the stop point, and when you start playback again by pressing DVD/CD ►, it starts from the position where you have stopped—Resume Play. (RESUME indicator lights up when you stop playback.)

**To stop completely while Resume is activated,** press ■ twice. (To cancel Resume, see “RESUME” on page 37.)

### On-screen guide icons

- During disc playback, the following icons may appear for a while on the TV screen:

Appears at the beginning of a scene containing multi-angle views.

Appears at the beginning of a scene containing multi-audio languages.

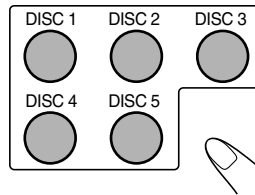
Appears at the beginning of a scene containing multi-subtitle languages.

- The following icons will be also shown on the TV screen to indicate your current operation.



- To deactivate the on-screen guide icons, see “ON SCREEN GUIDE” in “OTHERS” menu on page 37.

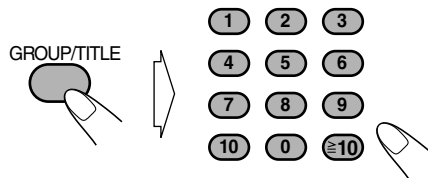
### To select a disc



Playback starts.

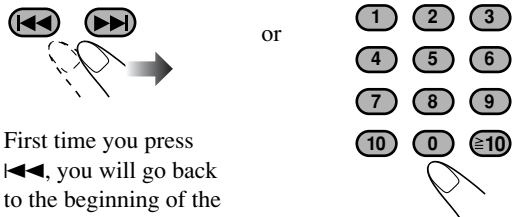
### To select a title/group

While playing a disc...



### To select a chapter/track

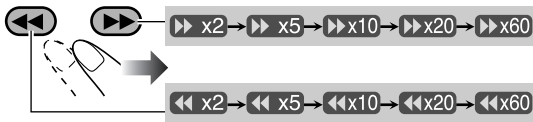
While playing a disc...



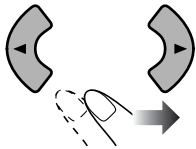
- First time you press ◀◀, you will go back to the beginning of the current chapter/track.

## To locate a particular portion

While playing a disc...



- Search speed changes as illustrated above except for MP3/WMA/DivX discs. For MP3/WMA/DivX discs, search speed and the indications on the TV are different.
- No sound comes out if searching is carried out while showing the moving picture.
- For DivX discs, each time you press the  $\blacktriangleright$  or  $\blacktriangleleft$  button, you can skip to a scene for 30 seconds or 5 minutes depending on the DivX file.



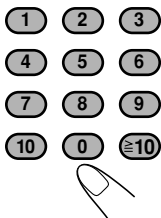
To return to normal playback, press DVD/CD  $\blacktriangleright$ .

## To select an item directly



You can select a title/chapter/track directly and start playback.

- For DVD Video, you can select a **title before starting playback**, while you can select a **chapter after starting playback**.



### Examples:

- To select number 5, press 5.
- To select number 10, press 10.
- To select number 15, press  $\approx 10$ , 1, then 5.
- To select number 30, press  $\approx 10$ , 3, then 0.
- To select number 110, press  $\approx 10$ , 1, 1, then 0.

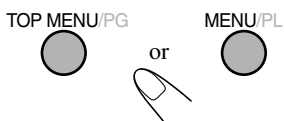
## To playback by using the disc menu



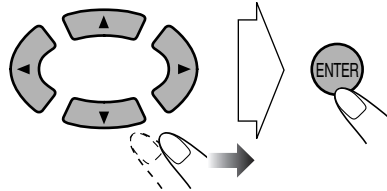
You can operate the disc play using the disc menu.

### ■ For DVD Video/DVD Audio

#### 1 Show the disc menu.



#### 2 Select an item on the disc menu.

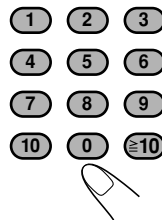


- On some discs, you can also select items by entering the number using the number buttons.

#### ■ For SVCD/VCD with PBC

While playing a disc with PBC, “PBC” appears on the display instead of the playing time.

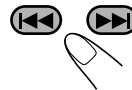
When disc menu appears on the TV screen, select an item on the menu. Playback of the selected item starts.



### Examples:

- To select number 5, press 5.
- To select number 10, press 10.
- To select number 15, press  $\approx 10$ , 1, then 5.
- To select number 30, press  $\approx 10$ , 3, then 0.

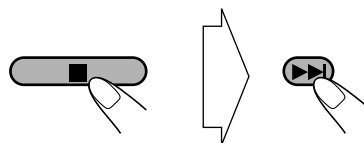
To move to the next or previous page of the current menu:



To return to the previous menu:



#### To cancel PBC



You can also cancel PBC by pressing the number buttons to start playback when disc menu is not shown on the TV screen.

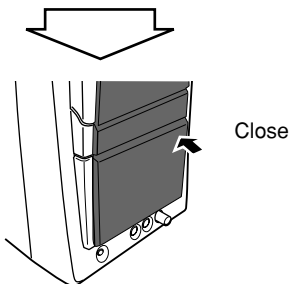
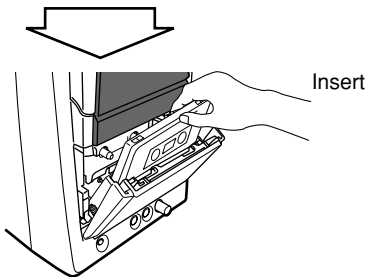
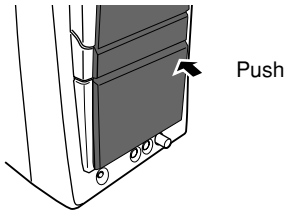
To reactivate PBC, press  $\blacksquare$ , then press  $\lll$ .

## Playing Back a Tape

### To insert a tape

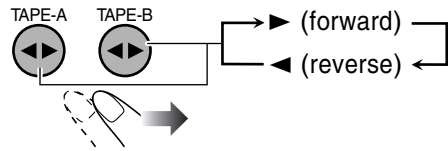
You can playback type I tapes.

- The use of C-120 or longer tape is not recommended.

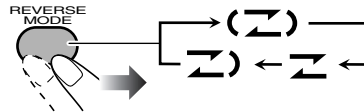


To start:	To stop:
To rewind or fast-forward tape:	

### To change the tape running direction



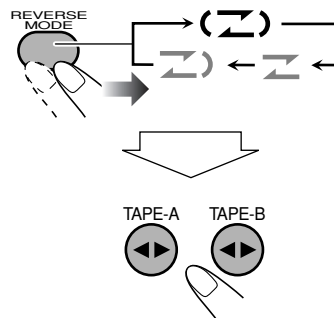
### To reverse the tape automatically



- Tape is reversed, and playback repeats until you stop it.
- Tape is not reversed. When the current side of the tape reaches its end, playback stops.
- Tape is reversed once.

### To play back both decks A and B continuously —Relay Play

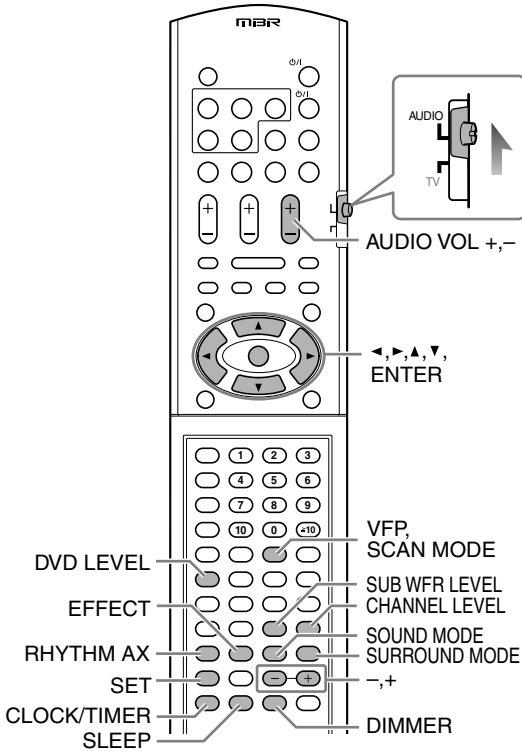
When the cassettes are inserted in both decks...



You can start playback of either deck A or B.

# Daily Operations—Sound & Other Adjustments

## Remote Control



## Adjusting the Speaker Output

Level

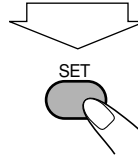
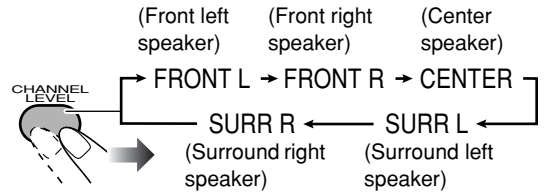


INFO

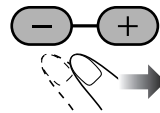
You can adjust the speaker output level from  $-6$  (dB) to  $+6$  (dB).

- You can also use the setup menu to adjust the speaker output level (see page 37).

### 1 Select the speaker you want to adjust.

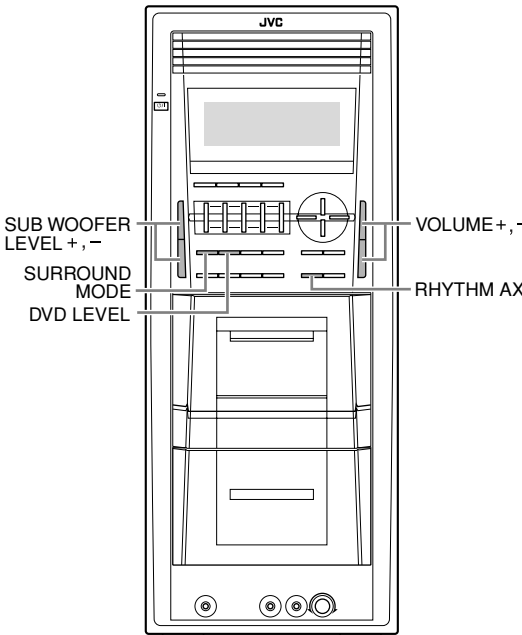


### 2 Adjust the output level.



### 3 Repeat steps 1 and 2 to adjust other speakers.

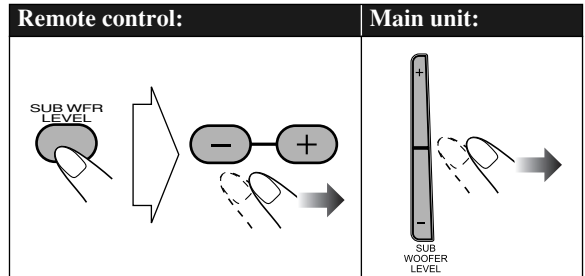
## Main unit



## Reinforcing the Bass Sound

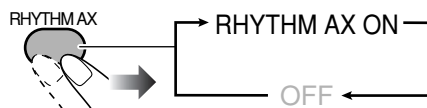
### To adjust the bass level gradually

You can select the subwoofer level from level 0 (minimum) to level 4 (maximum).



### To emphasize rhythmical feeling—RHYTHM AX

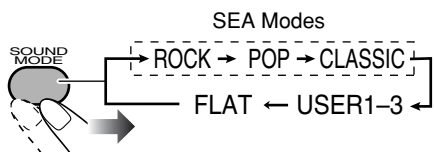
This function emphasizes the bass attack feeling.





## Selecting the Sound Modes

You can select one of the preset Sound Modes.



SEA (Sound Effect Amplifier) Modes	
<b>ROCK</b>	Boosts low and high frequency. Good for acoustic music (initial setting).
<b>POP</b>	Good for vocal music.
<b>CLASSIC</b>	Good for classical music.
User Modes	
<b>USER1/2/3</b>	Your individual mode stored in memory. See the next column "Creating Your Own Sound Modes—User Mode."

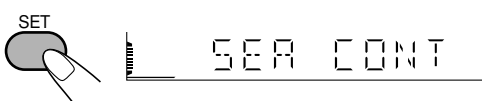
To cancel the Sound Mode, select "FLAT."

## Creating Your Own Sound Modes—User Mode

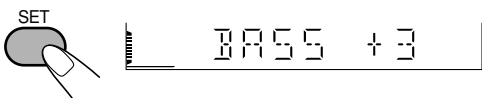
You can adjust the preset Sound Modes to create your own Sound Modes which suit your taste. The changed settings can be stored as the USER1, USER2 and USER3 Modes.

While "USER1," "USER2," or "USER3" is shown on the display...

### 1 Enter the SEA Control Mode.

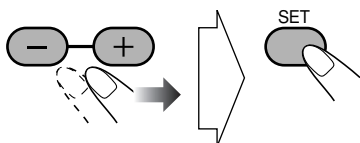


### 2



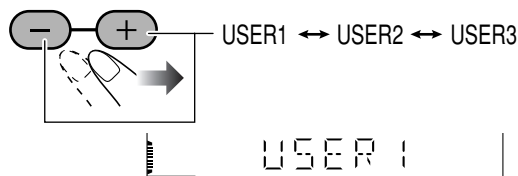
### 3 Adjust the SEA pattern.

- ① Adjust BASS.
- ② Adjust TREBLE.
- ③ Adjust SWBASS (subwoofer bass.)



- You can adjust the bass and treble level from -3 to +3 and subwoofer bass level from 0 to +3.

### 4 Select one of the User Modes.



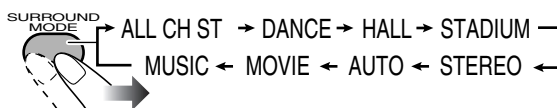
### 5 Store the setting.



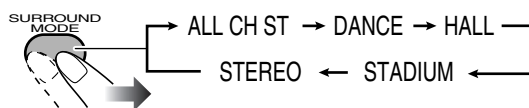
- The Sound Mode changes to the one you have stored.
- You can adjust the SEA pattern temporarily by doing the operation on steps 1 to 3. The adjustment is cleared when you change the sound mode to another mode.

## Selecting the Surround Modes

- For DVD/CD, TAPE-A, TAPE-B, AUX:



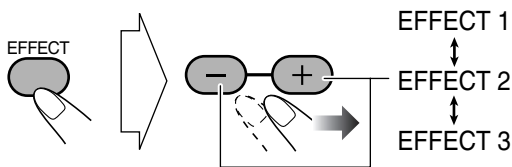
- For FM/AM:



DSP Modes	
<b>ALL CH ST</b>	All Channel Stereo; Creates larger stereo sound field using all the connected speakers (initial setting).
<b>DANCE</b>	Increases resonance and bass.
<b>HALL</b>	Adds depth and brilliance to the sound.
<b>STADIUM</b>	Adds clarity and spreads the sound, as in an outdoor stadium.
Stereo Mode	
<b>STEREO</b>	Cancels the Surround Mode.
Auto Surround Mode	
<b>AUTO</b>	<ul style="list-style-type: none"> <li>• When multi-channel surround signal comes in, multi-channel surround mode is activated.</li> <li>• When Dolby Surround signal comes in, MOVIE (Dolby Pro Logic II Movie) mode is selected.</li> <li>• When 2-channel signal comes in, STEREO mode is selected.</li> </ul>
Dolby Pro Logic II Modes	
<b>MOVIE</b>	Creates 5.1-channel surround field from 2-ch source (suitable for movie source).
<b>MUSIC</b>	Creates 5.1-channel surround field from 2-ch source (suitable for music source).

## To adjust the DSP effect level

When one of the DSP Modes (except for “ALL CH ST”) is selected...



- The initial setting is “EFFECT 3.”

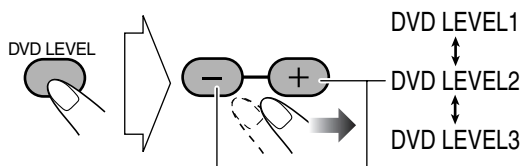
## Presetting Automatic DVD Video

### Sound Increase Level

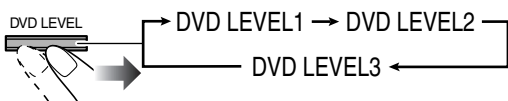
The DVD Video sound is sometimes recorded at a lower level than other discs and sources. You can set the increase level for the currently loaded DVD Video, so you do not have to adjust the volume when you change the source.

- This only functions for DVD Video disc.

#### Remote control:



#### Main unit:



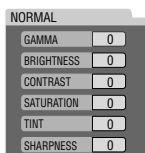
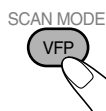
- As the number increases, sound level also increases.
- The initial setting is “DVD LEVEL3.”

## Changing a Playback Picture

While viewing a playback picture on the TV, you can select the preset picture tone, or adjust it and store your own preference.

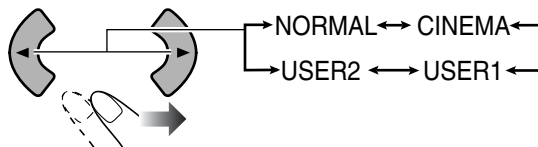
### To select a preset picture tone

#### 1 While playing, display VFP setting screen.



On the TV screen

#### 2 Select a preset picture tone.



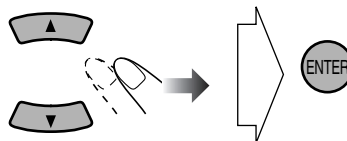
<b>NORMAL</b>	Normally select this.
<b>CINEMA</b>	Suitable for a movie source.
<b>USER1/USER2</b>	You can adjust parameters and can store the settings (see below).

### To adjust the picture tone

#### 1 Select “USER1” or “USER2.”

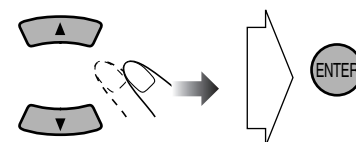
- Follow steps 1 and 2 above.

#### 2 Select a parameter you want to adjust.



<b>GAMMA</b>	Adjust if the neutral color is bright or dark. The brightness of dark and bright portions is maintained (−3 to +3).
<b>BRIGHTNESS</b>	Adjust if the picture is bright or dark as a whole (−8 to +8).
<b>CONTRAST</b>	Adjust if the far and near position is unnatural (−7 to +7).
<b>SATURATION</b>	Adjust if the picture is whitish or blackish (−7 to +7).
<b>TINT</b>	Adjust if the human skin color is unnatural (−7 to +7).
<b>SHARPNESS</b>	Adjust if the picture is indistinct (−8 to +8).

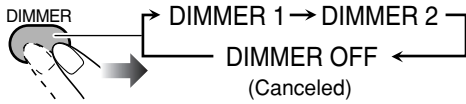
#### 3 Adjust the parameter.



#### 4 Repeat steps 2 to 3 to adjust other parameters.

To erase the VFP screen, press VFP again.

## Changing the Display Brightness Remote ONLY »»



<b>DIMMER 1</b>	Dims the display and the illumination* on the main unit.
<b>DIMMER 2</b>	Dims the display (same as DIMMER 1) and turns off the illumination* on the main unit.

\* Except for the RHYTHM AX and KARAOKE SCORING lamps.

## Setting the Clock Remote ONLY »» INFO

Without setting the built-in clock, you cannot use any timers.

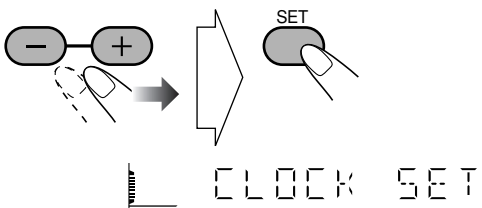
- To exit from the clock setting, press CLOCK/TIMER as required.
- To correct a misentry during the process, press CANCEL. You can return to the previous step.

### 1 Activate clock setting mode.



- If you have already adjusted the clock before, press the button repeatedly until the clock time starts flashing.

### 2 Adjust the hour, then minute.

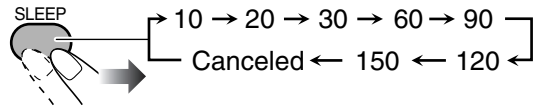


Now the built-in clock starts working.

## Turning Off the Power Automatically Remote ONLY »»

With Sleep Timer, you can fall asleep while listening to music.

### 1 Specify the time (in minutes).



### 2 Wait until the set time goes off.

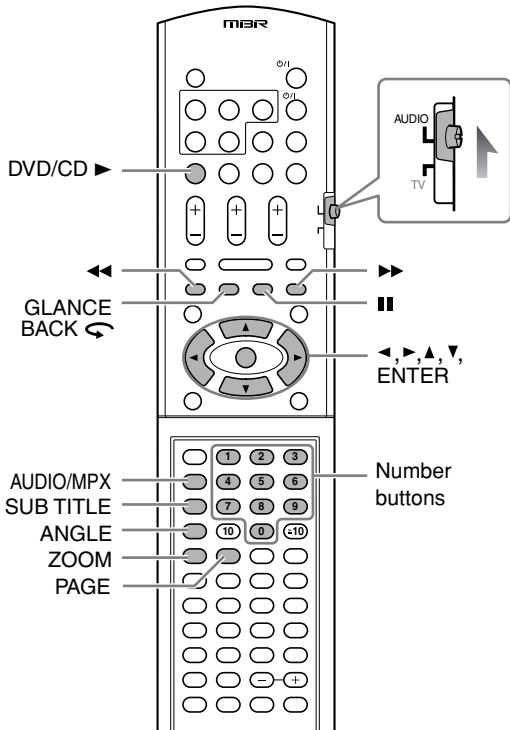
To check the time remaining until the shut-off time



- If you press the button repeatedly, you can change the shut-off time.

# Unique DVD/VCD Operations

## Remote Control



## Selecting the Sound Track



**For DVD Video/DivX:** While playing back a chapter containing audio languages, you can select the language to listen to.

**For DVD Audio:** While playing back a track containing audio channels, you can select the audio channel to listen to.

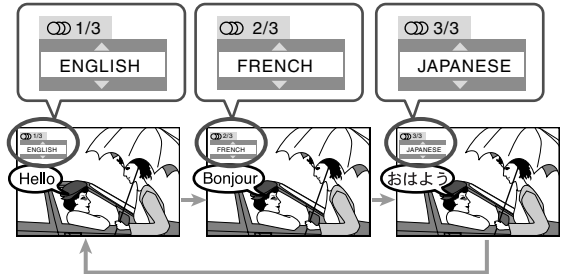
**For DVD-VR/SVCD/VCD:** When playing back a track, you can select the audio channel to play.

- You can also select the audio track using the on-screen bar (see page 24).

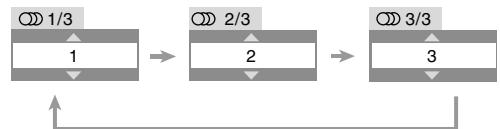
### While playing DVD Video...



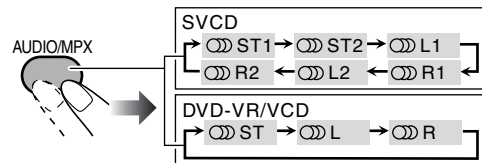
Ex.:



### While playing a DVD Audio/DivX...



### While playing a DVD-VR, SVCD, or VCD...



**ST1/ST2/ST** To listen to normal stereo (2-channel) playback.

**L1/L2/L** To listen to the left audio channel.

**R1/R2/R** To listen to the right audio channel.

- SVCD can have 4 audio channels. SVCD usually uses these 4 channels to record two 2-channel recordings (ST1/ST2).

## Selecting the Subtitle Language

**For DVD Video/DivX:** While playing back a chapter containing subtitles in different languages, you can select the subtitle language to display on the TV screen.

**For DVD-VR:** While playing, you can turn the subtitle on or off.

**For SVCD:** While playing, you can select the subtitles even if no subtitles are recorded on the disc.

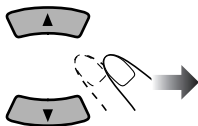
- You can also select the subtitle language using the on-screen bar (see page 24).

**While playing a DVD Video/DivX...**

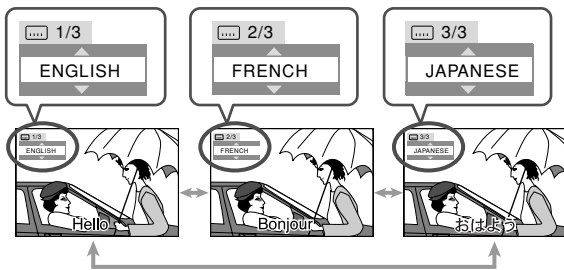
### 1 Display the subtitle selection window.



### 2 Select the subtitle language.

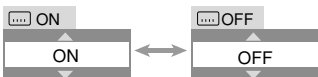


Ex.:



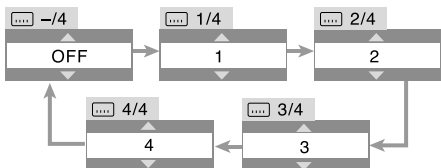
**While playing a DVD-VR...**

SUB TITLE



**While playing an SVCD...**

SUB TITLE

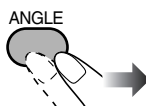


## Selecting the View Angle

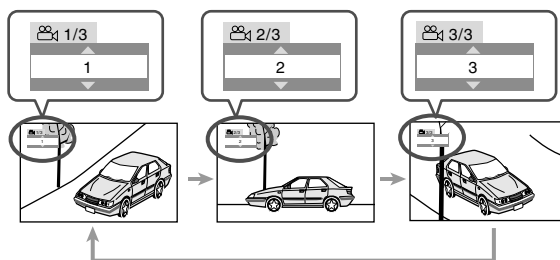
**For DVD Video only:** While playing back a chapter containing multi-view angles, you can view the same scene from different angles.

- You can also select the view angle using the on-screen bar (see page 24).

**While playing back...**



Ex.:



## Reviewing the Playback Quickly

**For DVD Video/DVD-VR only:** You can move the playback position to 10 seconds before the current position (only within the same title)—Glance Back.

**While playing back...**

GLANCE BACK



## Selecting Browsable Still Pictures

**For DVD Audio only:** While playing back a track linked to browsable still pictures (B.S.P.), you can select the still picture (turn the page) to be shown on the TV screen.

- If a track is linked to browsable still pictures (B.S.P.), they are usually shown in turn automatically during playback.
- You can also select the page using the on-screen bar (see page 24).



Each time you press the button, the still picture changes one after another (if available).

## Playing Back Bonus Group



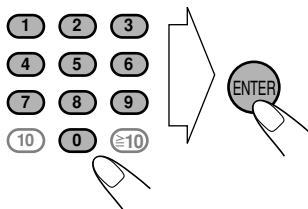
**For DVD Audio only:** Some DVD Audio discs have a special group called “bonus group” whose contents are not open to the public.

- To play back a bonus group, you have to enter the specific “key number” (a kind of password) for the bonus group. The way of getting the key number depends on the disc.

### 1 Select the bonus group.

- The bonus group is usually recorded as the last group (for example, if a disc contains 4 groups including a bonus group, “group 4” is the bonus group).
- For how to select the group, see “To select a title/group” on page 10.

### 2 Enter the key number.



### 3 Follow the interactive instruction shown on the TV screen.

To cancel the key number entry, press ■.

## Special Picture Playback



### Pause playback

While playing...



Pause playback.

To resume normal playback, press DVD/CD ►.

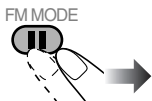
### Frame-by-frame playback

#### 1 While playing...



Still picture playback starts.

#### 2 Advance the still picture frame by frame.



To resume normal playback, press DVD/CD ►.

## Slow-motion playback

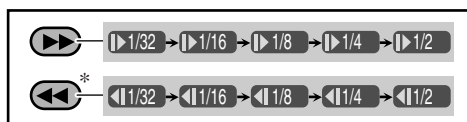
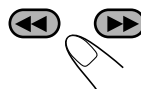
- This does not function for MPEG-1/MPEG-2/ASF/DivX discs.

### 1 While playing...



Still picture playback starts.

### 2 Select slow motion speed.



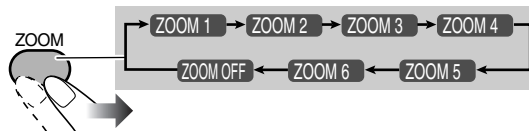
\* Not available for DVD-VR/SVCD/VCD.

To resume normal playback, press DVD/CD ►.

## Zoom



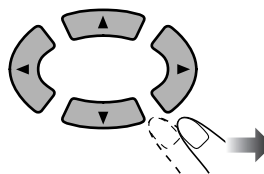
### 1 While playing...



As the number increases, magnification also increases.

- For JPEG/ASF, see page 28.

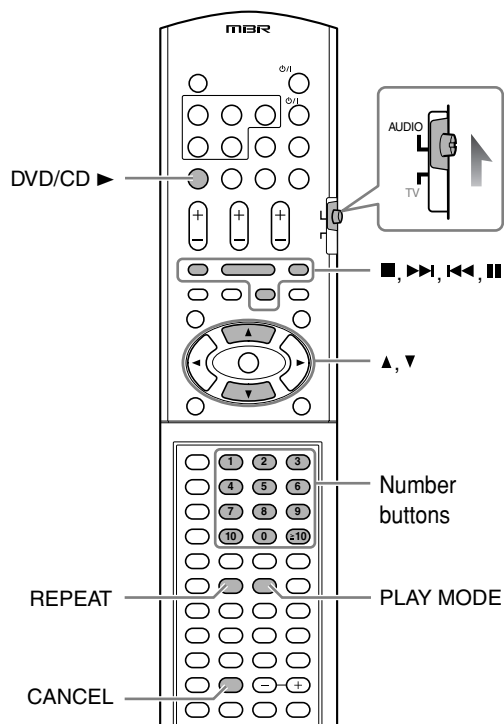
### 2 Move the zoomed-in position.



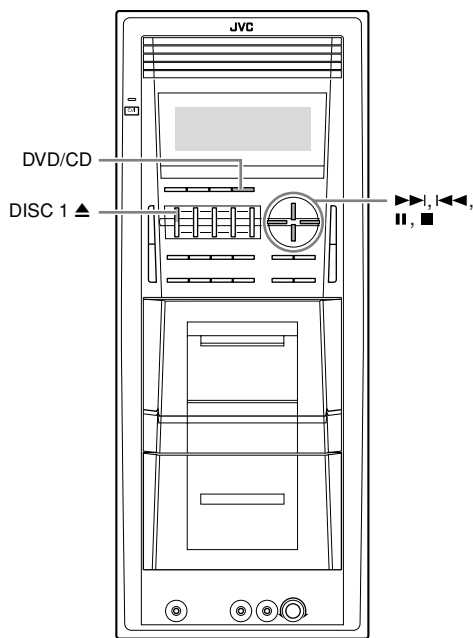
To resume normal playback, press ZOOM repeatedly until “ZOOM OFF” appears on the TV screen.

# Advanced Disc Operations

## Remote Control



## Main unit



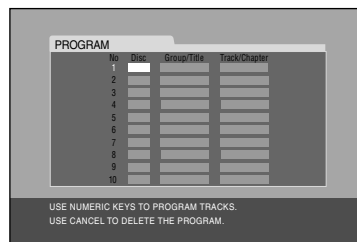
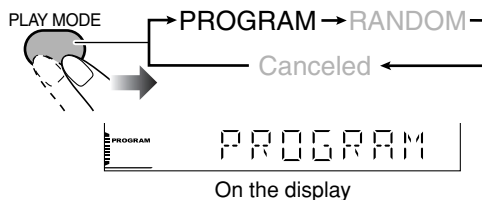
## Programming the Playing Order

### —Program Play

You can arrange the playing order of the tracks (up to 99) before you start playback.

- Program Play cannot be used for DVD-VR/JPEG/MPEG-1/MPEG-2/ASF/DivX.

#### 1 Before starting playback, activate Program Play.

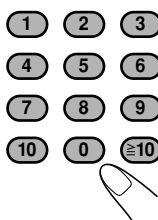


On the TV screen

#### 2 Select chapters or tracks you want for Program Play.

- ① Select a disc number.
- ② Select a title or group number.
- ③ Select a chapter or track number.

#### To enter the numbers:



#### Examples:

- To select number 5, press 5.
- To select number 10, press 10.
- To select number 15, press  $\approx 10$ , 1, then 5.
- To select number 30, press  $\approx 10$ , 3, then 0.
- To select number 110, press  $\approx 10$ ,  $\approx 10$ , 1, then 0.

#### 3 Repeat step 2 above until you finish what you want to program.

#### 4 Start playback.



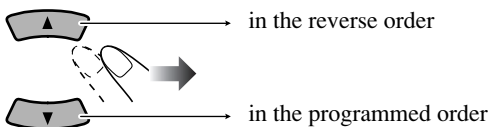
Playback starts in the order you have programmed.

To skip a track:	To pause:	To stop*:
	FM MODE  To release, press DVD/CD ►.	

\* Resume does not work for Program Play.

### To check the programmed contents

Before or after playback...



### To modify the program

Before or after playback...

To erase the last step:	To erase the entire program:
<b>To add steps in the program:</b>	
Repeat step 2 on page 20.	

### To exit from Program Play

Before or after playback...

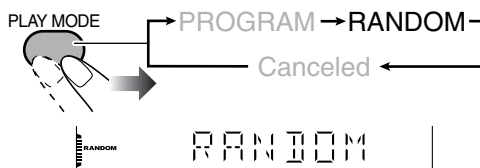


## Playing at Random—Random Play

You can play the contents of all the loaded discs at random.

- Random Play cannot be used for DVD-VR/JPEG/MPEG-1/MPEG-2/ASF/DivX and some DVDs.

### 1 Before starting playback, activate Random Play.



### 2 Start playback.



Playback of the current disc starts in a random order. When all chapters/tracks on the current disc are played, playback of the next disc starts. Random Play ends when all loaded discs are played.

To skip:	To pause:	To stop:
	FM MODE  To release, press DVD/CD ►.	
To go to the beginning of the current track, press ◀◀.		

### To exit from Random Play

Before or after playback...





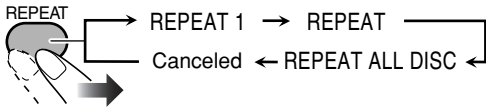
## Playing Repeatedly—Repeat Play

You can repeat playback.

- You can also select the repeat mode using the on-screen bar (see page 23).
- The indicator(s) lights on the display as follows to indicate the current repeat mode.
- For DVD-VR/JPEG/MPEG-1/MPEG-2/ASF/DivX, see page 28.

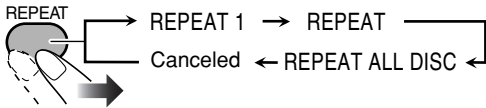
### • For DVD Video:

While playing...



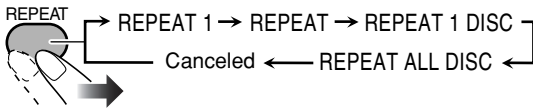
### • For DVD Audio:

While playing or before playback...



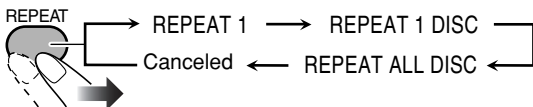
### • For MP3/WMA:

While playing or before playback...



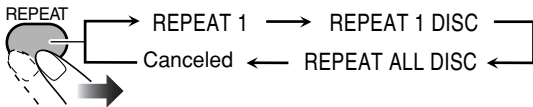
### • For CD/SVCD/VCD:

While playing or before playback (without PBC for SVCD/VCD)...



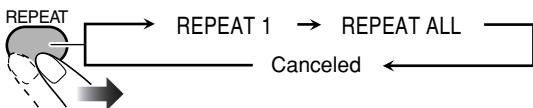
### • For Random Play:

While playing or before playback...



### • For Program Play:

While playing or before playback...




---

**REPEAT 1** Repeats the current chapter/track.

---

**REPEAT** Repeats the current title/group.

---

**REPEAT 1 DISC\*** Repeats the current disc.

---

**REPEAT ALL DISC\*** Repeats all discs.

---

**REPEAT ALL** Repeats all programmed tracks.

---

\*These modes may not work correctly for DVD Video.

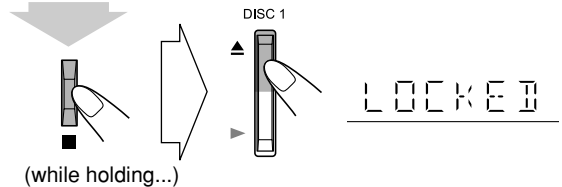
## Prohibiting Disc Ejection

### —Child Lock

You can lock the disc trays so that no one can eject the loaded discs.

- This operation is possible only when the source is the disc player.

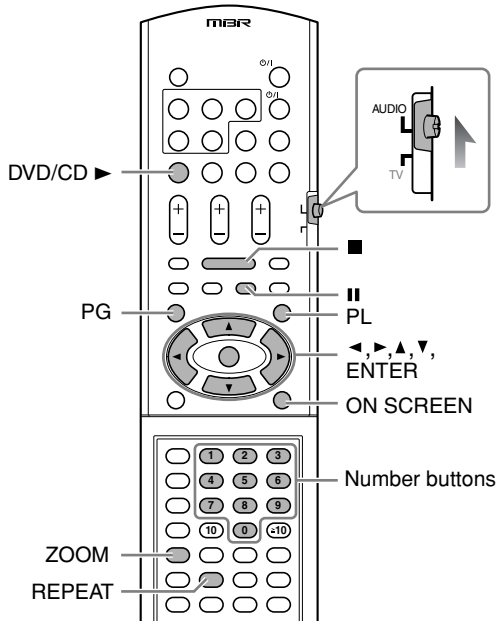
While on standby...



To cancel the prohibition, repeat the same procedure. "UNLOCKED" appears on the display.

# On-Screen Disc Operations

## Remote control

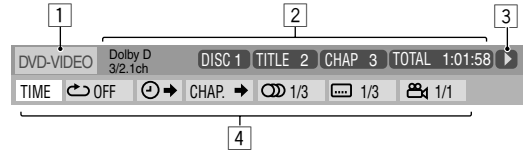


## On-screen Bar Information

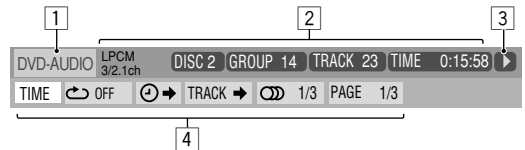
You can check the information on a disc and use some functions through the on-screen bar.

### On-screen bars

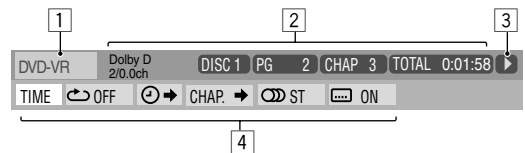
#### DVD Video



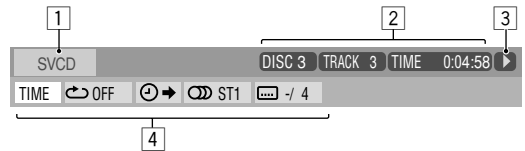
#### DVD Audio



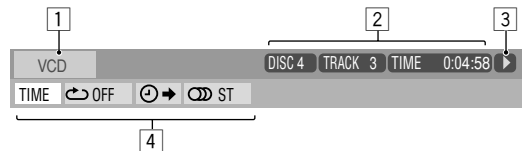
#### DVD-VR



#### SVCD



#### VCD



#### CD



#### MP3/WMA/MPEG-1/MPEG-2/ASF/DivX



## 1 Disc type

## 2 Playback information

Indication	Meanings
Dolby D/ LPCM	Audio format
3/2.1 ch/ 2.0/0 ch	Channel number
DISC 1	Current disc
TITLE 2	Current title
CHAP 3	Current chapter
GROUP 1	Current group
TRACK 14	Current track
PG 2	Current title
PL 2	Current play list
TOTAL 1:25:58	Time indications

## 3 Playback conditions

Indication	Meanings
▶	Playback
▶▶/◀◀	Forward/Reverse search
▶▶/◀◀	Forward/Reverse slow-motion
⏸	Pause
■	Stop

## 4 Operation icons (on the pull-down menu)

Indication	Meanings
TIME	Select to change the time indication (see also page 25).
↺	Select to repeat playback (see also pages 22 and 25).
⌚	Select for time search (see also page 26).
CHAP. →	Select for chapter search (see also page 26).
TRACK →	Select for track search (see also page 26).
🔊 1/3	Select to change the audio language or channel (see also page 17).
🗣️ 1/3	Select to change subtitle language (see also page 18).
👁️ 1/3	Select to change view angle (see also page 18).
PAGE 1/15	Select to change the page (see also page 18).

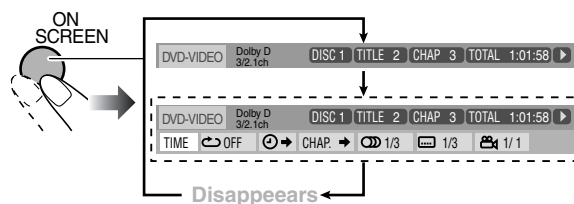
## Operations Using the On-screen Bar

Basic operation procedures through the on-screen bar are as follows:

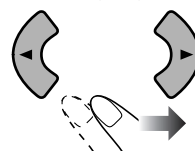
Ex.: Selecting a subtitle (French) for DVD Video:

While a disc is selected as the source...

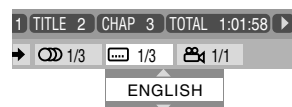
### 1 Display the on-screen bar with the pull-down menu.



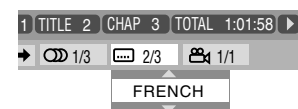
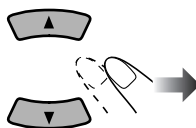
### 2 Select (highlight) the item you want.



### 3 Display the pop-up window.



### 4 Select the desired option in the pop-up window.



### 5 Finish the setting.



Pop-up window disappears.

To erase the on-screen bar



## To change the time information

You can change the time information in the on-screen bar and the display window on the main unit.

### 1 Display the on-screen bar with the pull-down menu.



### 2 Make sure **TIME** is selected (highlighted).

### 3 Change the time indication.



<b>TOTAL</b>	Elapsed disc time.
<b>T. REM</b>	Remaining disc time.
<b>TIME*</b>	Elapsed playing time of the current chapter/track.
<b>REM*</b>	Remaining time of the current chapter/track.

\*Not available for DVD-VR.

## Repeat Play

- See also page 22.
- For DVD-VR/JPEG/MPEG-1/MPEG-2/ASF/DivX, see page 28.

### 1 While playing a disc (without PBC for SVCD/VCD), display the on-screen bar with the pull-down menu.

- Except for DVD Video: Repeat Play can be selected before starting playback.

### 2 Select .

### 3 Display the pop-up window.



### 4 Select the repeat mode you want.

<b>ALL</b>	Repeats all discs or all programmed tracks.
<b>A-B</b>	Repeats a desired portion (see below).
<b>TITLE</b>	Repeats the current title.
<b>GROUP</b>	Repeats the current group.
<b>DISC</b>	Repeats the disc (except for DVD).
<b>CHAPTER</b>	Repeats the current chapter.
<b>TRACK*</b>	Repeats the current track.
<b>PG</b>	Repeats the current title (for DVD-VR only). See also page 28.
<b>PL</b>	Repeats the current play list (for DVD-VR only). See also page 28.
<b>OFF</b>	Cancels Repeat Play.

\*During Program Play or Random Play, "STEP" appears.

### 5 Finish the setting.

Pop-up window disappears.



## A-B Repeat

### 1 While playing, display the on-screen bar with the pull-down menu.

### 2 Select .

### 3 Display the pop-up window.




### 4 Select "A-B".



### 5 Select the start point (A).



- After selecting the starting point (A), you can search for the end point using .

## 6 Select the end point (B).



A-B Repeat starts. The selected portion plays repeatedly.

To cancel A-B Repeat, repeat steps 1 to 3, and select “OFF” in step 4.

## Time Search

You can move to a particular point by specifying the elapsed playing time from the beginning.

### 1 While playing (without PBC for SVCD/VCD), display the on-screen bar with the pull-down menu.

- Except for DVD: Time Search can be used before starting playback.

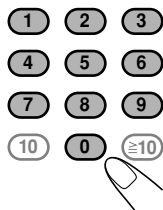
### 2 Select .

### 3 Display the pop-up window.



### 4 Enter the time.

You can specify the time in hours/minutes/seconds.



#### Examples:

To move to a point of 1 (hours): 02 (minutes): 00 (seconds), press 1, 0, 2, 0, then 0.

To move to a point of 54 (minutes): 00 (seconds), press 0, 5, 4, 0, then 0.

- It is always required to enter the hour digit (even “0” hour), but it is not required to enter trailing zeros (the last two digits in the examples above).
- To correct a misentry, press cursor ◀ to erase the last entry.

### 5 Finish the setting.



The System starts playing from the specified time.

## To remove the on-screen bar



## Chapter/Track Search

You can search for the number of the item to play.

For DVD Video/DVD-VR: Chapter

For DVD Audio: Track

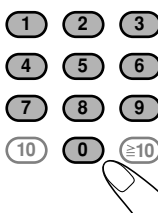
### 1 While playing, display the on-screen bar with the pull-down menu.

### 2 Select or .

### 3 Display the pop-up window.



### 4 Enter the desired chapter/track number.



#### Examples:

To select chapter/track 5, press 5.

To select chapter/track 15, press 1, then 5.

To select chapter/track 30, press 3, then 0.

- To correct a misentry, press the number buttons until the desired number is shown in the pop-up window.

### 5 Finish the setting.



The System starts playing the searched chapter or track.

## Operations on the Control Screen



INFO

**For DVD-VR/MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX:** You can search for and play the desired items through the control screen.

### Control screen for DVD-R/-RW in DVD-VR format

The control screen is superimposed on the TV screen when you call up Original Program (PG) or Play List (PL).

**To select playback type**

To select the Original Program:	To select the Play List:
TOP MENU/PG 	MENU/PL 

When Original Program is selected.

ORIGINAL PROGRAM					
No	Date	Ch	Time	Title	
1	25/04/06	4ch	19:00	JVC DVD World 2004	
2	17/05/06	8ch	10:30		
3	22/05/06	8ch	17:00	Music Festival	
4	26/05/06	L-1	13:19	children 001	
5	20/06/06	4ch	22:00		
6	25/06/06	L-1	8:23	children 002	

When Play List is selected.

PLAY LIST				
No	Date	Chap	Length	Title
1	25/05/06	001	1:03:16	My JVC World
2	17/06/06	005	1:35:25	
3	20/06/06	003	0:10:23	Favorite music
4	25/06/06	001	0:07:19	children001-002

- ① Title/Play list number
- ② Recording date
- ③ Recording source (TV station, the input terminal of the recording equipment, etc.)
- ④ Start time of recording
- ⑤ Title of the program/play list\*
- ⑥ Highlight bar (current selection)
- ⑦ Creating date of play lists
- ⑧ Number of chapters
- ⑨ Playback time

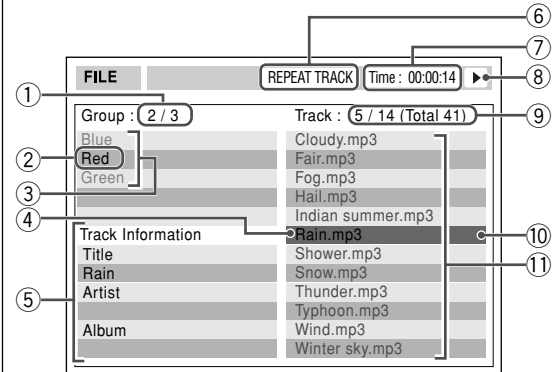
\*The title of the original program or play list may not be displayed depending on the recording equipment.

**To remove the control screen, press ENTER.**

### Control screen for MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX disc

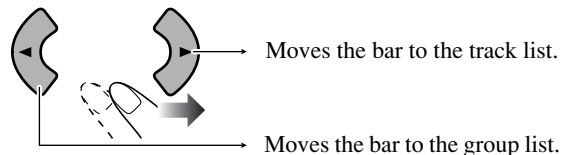
The control screen automatically appears on the TV screen when you load an MP3, WMA, JPEG, MPEG-1, MPEG-2, ASF, or DivX disc.

Ex.: When the MP3 disc is loaded.



- ① Current group number/total group number
  - ② Current group
  - ③ Group list
  - ④ Current track
  - ⑤ Track information (ID3 Tag Version 1.0: only for MP3/WMA)
  - ⑥ Repeat Play setting
  - ⑦ Elapsed playing time of the current track (except for JPEG)
  - ⑧ Operation mode icon
  - ⑨ Current track number/total number of tracks in the current group (total number of tracks on the loaded disc)
  - ⑩ Highlight bar
  - ⑪ Track list
- If different types of files (MP3, WMA, JPEG, MPEG-1, MPEG-2, ASF and DivX files) are recorded on a disc, select the file type to play (see page 36).

**To move the highlight (green) bar between group list and track list:**






**To select an item in the list:**



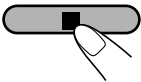
- Move the highlight bar to the desired item.
- If you move the highlight bar while playing back DVD-VR/MP3/WMA, the selected item starts playback automatically.

## To start playback

For JPEG:	
	The selected track (still picture) is displayed until you change it.
	Slide-show playback starts. Each track (still picture) is shown on the screen for a few seconds, then changes one after another.
For the other files:	
	Playback starts with the selected chapter/track. <ul style="list-style-type: none"> <li>Pressing DVD/CD ► also starts playback.</li> </ul>

- Once you start viewing a JPEG/MPEG-1/MPEG-2/ASF/DivX track, the control screen disappears.
- To cancel slide-show, and display the current still picture, press **II**.

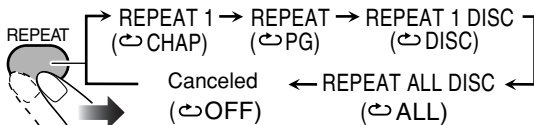
## To stop playback



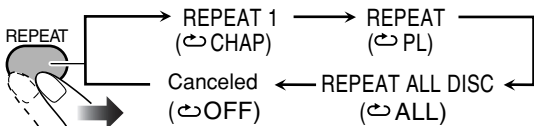
## To repeat title/play list for DVD-VR

While playing or before starting playback...

### For Original Program



### For Play List



**REPEAT 1\*** Repeats the current chapter.

**REPEAT\*** Repeats the current title/play list.

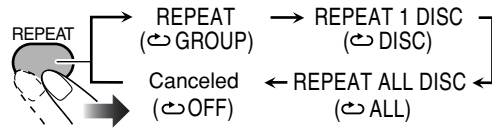
**REPEAT 1 DISC\*** Repeats all titles on the current disc.

**REPEAT ALL DISC** Repeats all loaded discs.

\* Not available before starting playback.

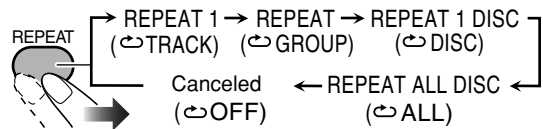
## To repeat slide-show for JPEG

While playing or before starting playback...



## To repeat play for MPEG-1/MPEG-2/ASF/DivX

While playing or before starting playback...



**REPEAT 1** Repeats the current file.

**REPEAT** Repeats the current group.

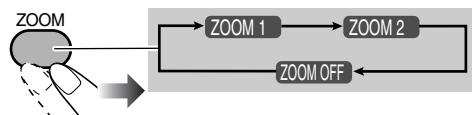
**REPEAT 1 DISC** Repeats all files on the current disc.

**REPEAT ALL DISC** Repeats all loaded discs.

- For Repeat Play of MP3/WMA, see pages 22 and 25.

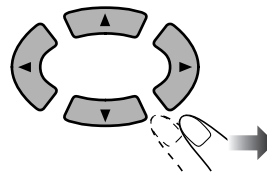
## To zoom in the JPEG/ASF files

### 1 During being paused...



As the number increases, magnification also increases.

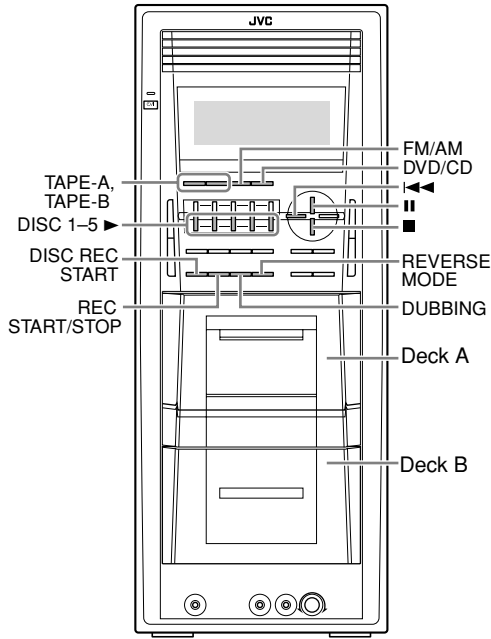
### 2 Move the zoomed-in position.



To cancel Zoom, press ZOOM repeatedly until "ZOOM OFF" appears on the TV screen.

# Recording Operations

## Main unit



### IMPORTANT

It may be unlawful to record or play back copyrighted material without the consent of the copyright owner.

Before manual recording, select the Stereo Mode (“STEREO”—see page 14) for DVD Video to downmix its multichannel sound into 2 channels; otherwise, you can only record the front left/right sound onto a tape.

- The channel level setting affects the recording.
- \* Manual recording is started by pressing REC START/STOP.

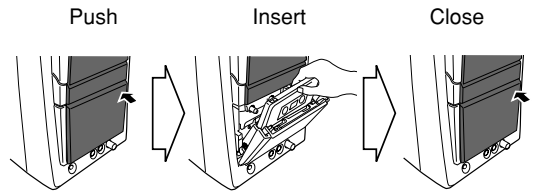
## Recording on a Tape



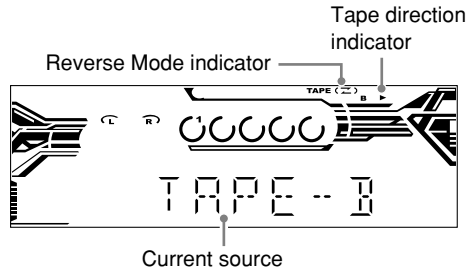
You can use type I tapes for recording.

- To play a tape, see page 12.

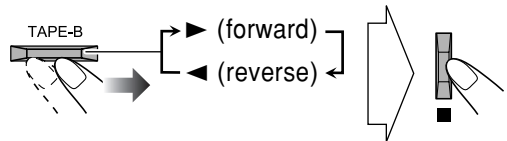
### 1 Insert a recordable cassette in deck B.



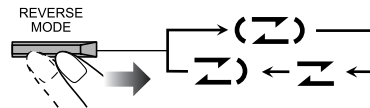
### 2 Check the tape running direction and Reverse Mode settings on the display.



### To change the direction



### Change the Reverse Mode if necessary



	To record on both sides.
	• When using Reverse Mode, start recording in the forward (▶) direction.
	To record on only one side.



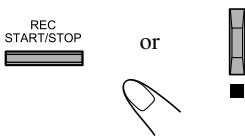
### 3 Start playing the source—"FM," "AM," "DVD/CD," "TAPE-A" or "AUX."

- When recording from a disc, you can also use "Synchronized Disc Recording" (see the right column).
- When recording from deck A, you can also use "Dubbing" (see below).

### 4 Start recording.



### To stop recording

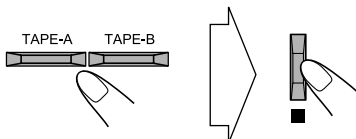


## Dubbing Tapes



You can record a tape from deck A to deck B.

### 1 Change the source to TAPE.



### 2 Insert the source cassette in deck A, and a recordable cassette in deck B.

### 3 Check the tape running direction and Reverse Mode settings on the display.

See step 2 of "Recording on a Tape" on page 29.

### 4 Start dubbing.



- When either tape playback or recording ends, both cassette decks stop at the same time.

### To stop dubbing



## Synchronized Disc Recording



INFO

You can start and stop both disc play and tape recording at the same time.

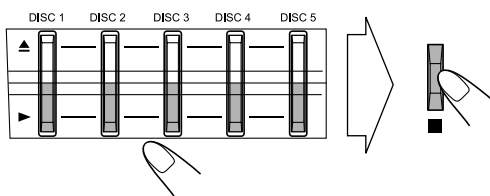
- Not available for Random mode.

### 1 Load a disc and insert a recordable cassette.

### 2 Check the tape running direction and Reverse Mode settings on the display.

- See step 2 of "Recording on a Tape" on page 29.

### 3 Select the disc number you want to start recording from.



### For recording desired tracks from discs:

You can program tracks to record in your preferred order.

- Select Program Play (and make a program; see page 20) without starting playback.

### 4 Start recording.



The disc playback and recording start from the first track.

- The System automatically creates 4-second blanks between the tunes recorded on the tapes.

- When either disc play or recording ends, both disc player and the cassette deck stop at the same time.

## To record only your favorite track—One Track Recording

You can specify tracks to be recorded on the tape while listening to a disc (except for DVD Video, JPEG, MPEG-1, MPEG-2, ASF and DivX).

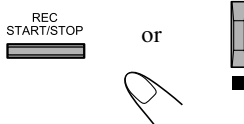
- Not available for Program mode and Random mode.

### While the track you want to record is playing...



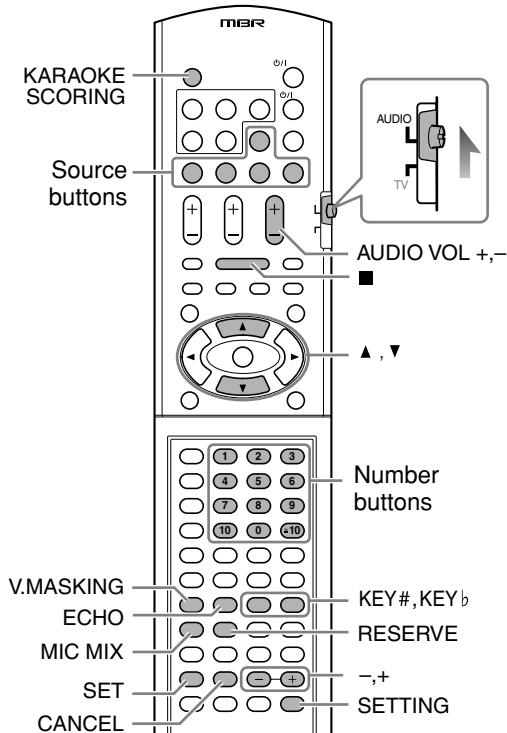
The disc player returns to the beginning of that track and the track is recorded on the tape. After recording, the disc player and cassette deck automatically stop.

### To cancel while recording

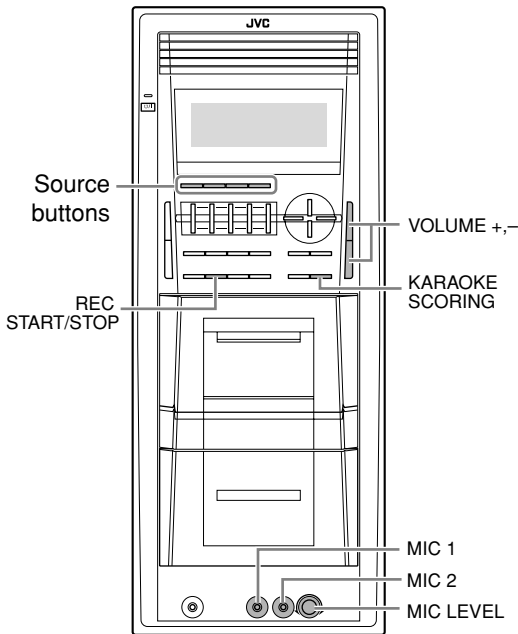


# Enjoying Karaoke

## Remote control



## Main unit



DO NOT keep the microphones connected while they are not in use.

- For DVD-VR/MPEG-1/MPEG-2/ASF/DivX: The functions described in this section are not available.
- When you activate the Mic Mixing Mode or Voice Masking Mode, multi-channel sounds are downmixed into 2 channels. The multi-channel surround mode (“MOVIE,” “MUSIC,” or “AUTO” for multi-channel surround signals—see page 14) is changed to “STEREO” temporarily (and restored when the Mic Mixing Mode or Voice Masking Mode is deactivated).

### IMPORTANT

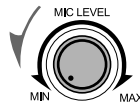
- Always set MIC LEVEL to MIN when connecting or disconnecting the microphone.
- MIC LEVEL adjustment is valid for both microphones connected to the MIC 1 and MIC 2 jacks.

## Singing Along (Karaoke) INFO

You can enjoy singing along (Karaoke) by using one or two microphones.

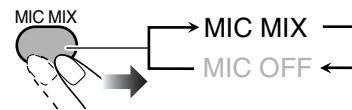
- By pressing REC START/STOP, you can record your singing-along.

### 1 Turn MIC LEVEL to MIN.



### 2 Connect the microphone(s) (not supplied) to the MIC 1 and/or MIC 2 jack.

### 3 Activate the Mic Mixing Mode.

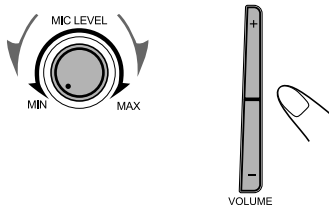


### 4 Start playing a source—“FM,” “AM,” “DVD/CD,” “TAPE,” or “AUX.”

- For Karaoke SVCD/VCD: Select a desired audio channel. See “Selecting the Sound Track” on page 17.

### 5 Sing into the microphone.

### 6 Adjust the MIC LEVEL and VOLUME.

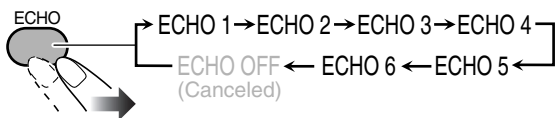


To cancel the Mic Mixing Mode, select “MIC OFF” in step 3.

To use microphone only, select “DVD/CD” in step 4, but do not start playback.

## To apply an echo to your voice

While the Mic Mix Mode is activated...

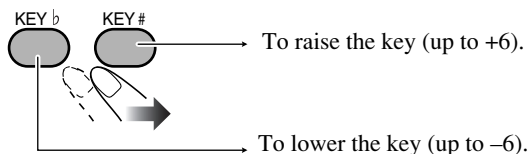


- As the number increases, echo level also increases.

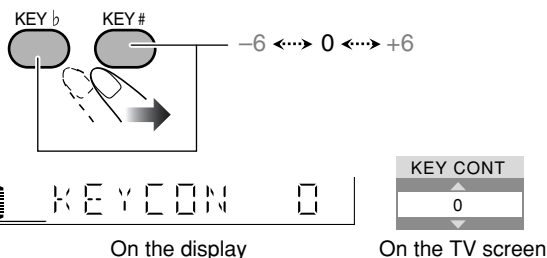
## To adjust the key (disc playback only)

- The Key control cannot be used for DVD Audio.
- Key Control is also canceled when you deactivate the Mic Mixing Mode, or select another track or disc.

While playing back...



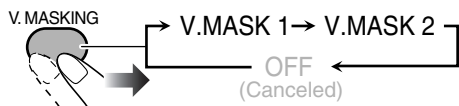
## To cancel the Key Control



## Reducing the Lead Vocal

### —Vocal Masking

If you want to reduce the lead vocal, you can use the Vocal Masking Mode.



**V.MASK 1** Cancels vocal on stereo sources.

**V.MASK 2** Cancels the right audio channel.

To sing into microphone(s), activate the Mic Mixing Mode (follow steps **1** to **3** and **6** on page 31).

To cancel the Vocal Masking Mode, select “OFF.”

## Scoring Your Karaoke Skill

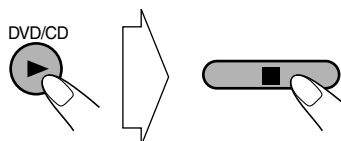
This System can score your Karaoke skill by comparing your singing along with the vocal on the playback disc.

- This function is for disc playback only.
- It is recommended to select the sound track as follows (see page 17):

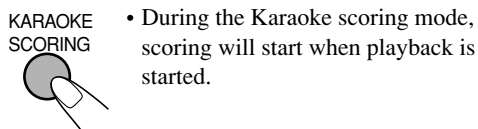
**For DVD Video:** Select a sound track with vocal.

**For SVCD/VCD:** Select “ST,” “ST1,” or “ST2.”

### 1 Select “DVD/CD” as the source.



### 2 Activate the Karaoke scoring mode.



- During the Karaoke scoring mode, scoring will start when playback is started.

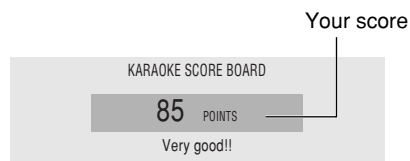
### 3 Start playback and Sing into the microphone.

Scoring function starts and the Mic Mixing Mode is automatically activated (with the last adjustment for echo).

- See also steps **1** to **3**, and **6** on page 31.
- Adjust echo level and key if you want (see the left column).

After the song ends, playback stops and the score board appears on the TV screen with fanfare.

Ex.:



The latest top 3

1	ST	93 POINTS
2	ND	85 POINTS
3	RD	73 POINTS

- If you start playback another track, start scoring function again.

To stop the playback in the middle of the song, press **■**. The scoring function is not canceled and your singing along is scored until that time.

To deactivate the scoring function, press KARAOKE SCORING. (The Mic Mixing Mode remains activated.)

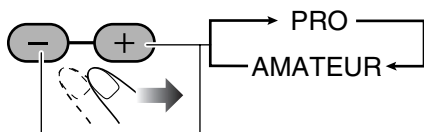
- When press **||**, scoring is canceled. When playback starts again, scoring starts from that point.
- When press **◀◀** or **▶▶**, scoring is canceled and restarts from next track.
- If you do not sing 2 minutes from scoring start, scoring is canceled.

## To change the scoring level

### 1 Enter the scoring level setting mode.



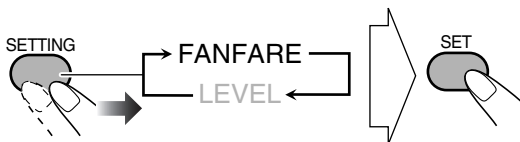
### 2 Select the scoring level setting.



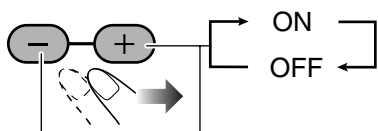
<b>PRO</b>	The scoring level is strict.
<b>AMATEUR</b>	The scoring level is lenient.

## To turn on/off the fanfare

### 1 Enter the fanfare setting mode.



### 2 Select the fanfare setting.



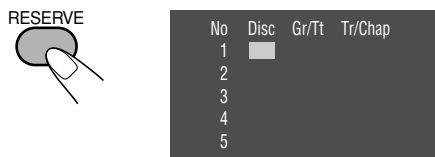
## Reserving Karaoke Songs

### —Karaoke Program Play

You can determine the playback order of the titles or tracks on the disc player. You can program up to 12 steps.

- Change the source to “DVD/CD.”

### 1 Activate Karaoke Program Play.



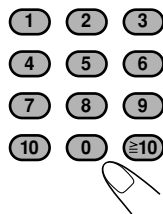
On the TV screen

- PROGRAM indicator flashes during this mode.

### 2 Select songs you want for Karaoke Program Play.

Press the number buttons to select a song in the following order.

- ① Select a disc.
- ② Select a title/group.
- ③ Select a chapter/track.



#### Examples:

To select number 5, press 5.

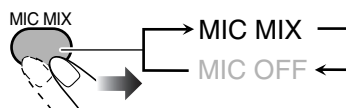
To select number 10, press 10.

To select number 15, press  $\cong$  10, 1, then 5.

To select number 30, press  $\cong$  10, 3, then 0.

To select number 110, press  $\cong$  10,  $\cong$  10, 1, 1, then 0.

### 3 Activate the Mic Mixing Mode.



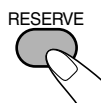
### 4 Start playback



Playback starts in the order you have programmed.

- **For the Karaoke Program Play with the scoring function:** Each time the song ends, playback stops and the score board appears. Press DVD/CD ► to start playback of the next track.

## To check the programmed contents



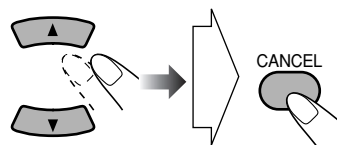
The Karaoke reserve screen appears.

- You cannot display the Karaoke reserve screen while the scoring function is in use.

## To modify the program

While the Karaoke reserve screen is shown on the TV...

### To erase the unwanted step:



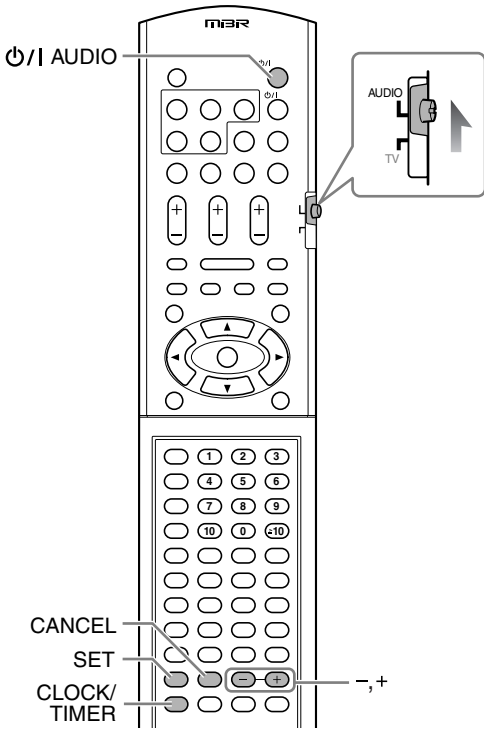
To erase the entire program, repeat the procedure.

### To add steps in the program:

Repeat step 2.

# Timer Operations

## Remote control



## Setting the Timer

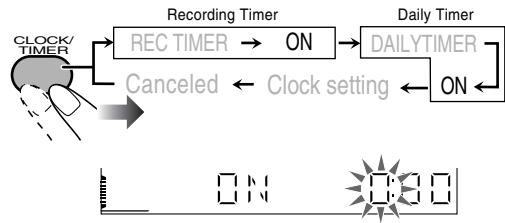


INFO

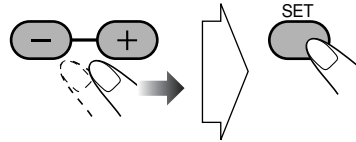
Using Daily Timer, you can wake up with your favorite song. On the other hand, with Recording Timer, you can make a tape of a radio broadcast automatically.

- You cannot activate Daily Timer and Recording Timer at the same time. (Activating either timer deactivates the other timer.)
- To correct a misentry during the process, press CANCEL. You can return to the previous step.

### 1 Select one of the timer setting modes—ON for Recording Timer or Daily Timer.



### 2 Make the timer setting as you want.



Repeat the procedure for the following setting until finished.

- ① Set the hour then minute for on-time.
- ② Set the hour then minute for off-time.
- ③ For Recording Timer: Select the playback source—“TUNER-FM” or “TUNER-AM.”  
For Daily Timer: Select the playback source—“TUNER-FM,” “TUNER-AM,” “DISC,” “TAPE-A,” “TAPE-B” or “AUX IN.”



EX.: When “TUNER-FM” is selected.

- ④ Select a preset station for “TUNER-FM” and “TUNER-AM,” or select a disc, group, and then track number for “DISC.”
- ⑤ Select the volume level.
  - You can select the volume level (“VOLUME 0” – “VOLUME 30” and “VOLUME --”). If you select “VOLUME --,” the volume is set to the last level when the System has been turned off.

**3 Turn off the System (on standby) if you have set the timer with the System turned on.**



**How Daily Timer works**

Once the Daily Timer has been set, the timer indicator (☉) and DAILY indicator are lit on the display. Daily Timer is activated at the same time everyday until the timer is turned off manually (see the next column).

- Daily Timer starts working only when the System is turned off (on standby).

**When the on-time comes**

The System turns on, tunes in to the specified station or starts playing the specified source, and sets the volume level gradually to the preset level after about 30 seconds.

**When the off-time comes**

- The timer setting remains in memory until you change it.

**How Recording Timer works**

When Recording Timer has been set, The timer indicator (☉) and the REC indicator are lit on the display. Recording Timer works only once.

- Recording Timer starts working only when the System is turned off (on standby).

**When the on-time comes**

The System turns on, tunes in to the specified station, sets the volume level to the preset level, and starts recording.

**When the off-time comes**

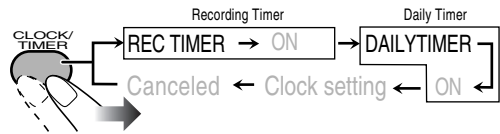
- The timer setting remains in memory until you change it.

**To turn off the Timer after the setting is done**

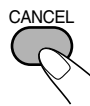
You can turn off the timer after it has been set.

- Since Daily Timer is activated at the same time everyday, you may need to cancel it on some particular days.

**1 Select the timer (REC TIMER or DAILYTIMER) you want to cancel.**



**2 Turn off the selected timer.**



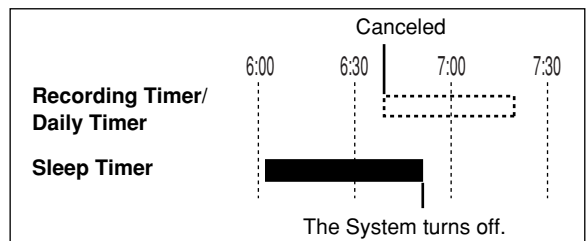
- The timer indicator (☉) goes off.

To turn on the timer again, repeat step 1 and press SET in step 2.

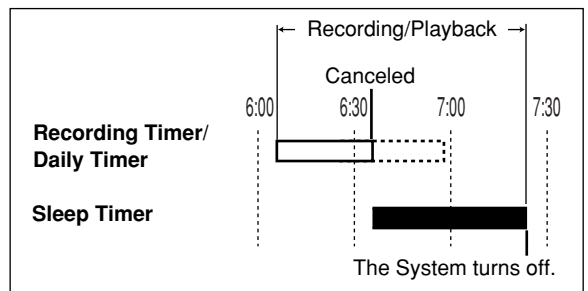
**Timer Priority**

If the settings for Sleep Timer and Recording Timer/Daily Timer overlap, the timers work as described below.

- Sleep Timer (see page 16) has priority over the Recording Timer and Daily Timer.

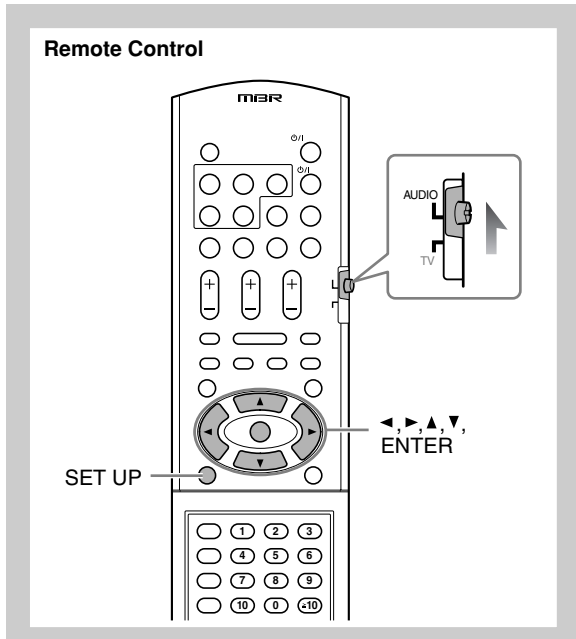


- In this case, Recording Timer/Daily Timer does not work.



- In this case, Recording Timer/Daily Timer is canceled. (If Sleep Timer shuts off the System earlier than the off time you have set for Recording Timer, recording stops when Sleep Timer shuts off the System.)

# Setup Menu Operations

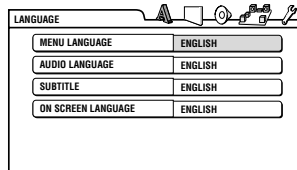


## Initial settings

INFO

Some items in the menus cannot be changed during playback.

### 1 Press SET UP.



### 2 Press ◀ (or ▶) to select the menu.

### 3 Press ▲ (or ▼) to select the item.

### 4 Press ENTER.

### 5 Press ▲ (or ▼) to select the options, then press ENTER.

### To erase a preference display

Press SET UP.

## A LANGUAGE menu

Item	Contents
<b>MENU LANGUAGE</b>	You can select the initial menu language of DVD Video (see page 44).
<b>AUDIO LANGUAGE</b>	You can select the initial audio language of DVD Video (see page 44).
<b>SUBTITLE</b>	You can select the initial subtitle language of DVD Video (see page 44).
<b>ON SCREEN LANGUAGE</b>	You can select "ENGLISH," "CHINESE," or "SPANISH" as the on-screen language.

## PICTURE menu

Item	Contents
<b>MONITOR TYPE</b> 16:9      4:3 LB  4:3 PS	You can select the monitor type to match your TV when you play back DVD Video discs recorded for wide-screen televisions. <b>16:9/16:9 MULTI (Wide television screen):</b> For a wide-screen (16:9) TV. <b>4:3 LB/4:3 MULTI LB (Letter Box conversion):</b> For a conventional (4:3) TV. Displays a wide-screen picture to fit the width of the TV screen keeping the aspect ratio. <b>4:3 PS/4:3 MULTI PS (Pan Scan conversion):</b> For a conventional (4:3) TV. The picture is zoomed in to fill the screen vertically and the left and right sides of the picture are cut off. • By selecting "MULTI" mode, the color system of the System changes automatically to match the color system of the loaded disc. For the color system setting, see page 6.
<b>PICTURE SOURCE</b>	You can obtain optimal picture quality by selecting the source type of the disc contents. <b>AUTO:</b> Normally, select this option. The System recognizes the picture type (film or video source) of the current disc according to the disc information. <b>FILM:</b> For a film source disc. <b>VIDEO:</b> For a video source disc.
<b>SCREEN SAVER</b>	You can set the screen saver function to <b>ON</b> or <b>OFF</b> . <b>ON:</b> The on-screen display becomes dark when no operation is done for about 5 minutes. <b>OFF:</b> To cancel the screen saver.
<b>FILE TYPE</b>	You can select a file type to play. <b>AUDIO:</b> To play MP3/WMA files. <b>STILL PICTURE:</b> To play JPEG files. <b>VIDEO:</b> To play MPEG-1/MPEG-2/ASF/DivX files.

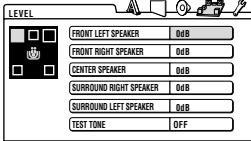
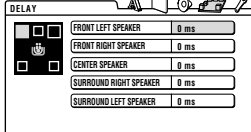


## AUDIO menu

Item	Contents
<b>DIGITAL AUDIO OUTPUT</b>	Set this item correctly when using the OPTICAL DIGITAL OUTPUT terminal on the rear. <b>PCM ONLY:</b> When connecting to audio equipment which can decode only linear PCM signals. <b>DOLBY DIGITAL/PCM:</b> When connecting to a Dolby Digital decoder or an amplifier with a built-in Dolby Digital decoder. <b>STREAM/PCM:</b> When connecting to a DTS decoder or an amplifier with a built-in DTS decoder.
<b>D. RANGE COMPRESSION</b>	Set this item to listen to DVD Video recorded in Dolby Digital format at low or middle volume. <b>AUTO:</b> You can enjoy powerful playback sound with full dynamic range. <b>ON:</b> Select this when you want to fully apply the compression effect to make the sound at lower volume clear (useful at midnight).



## SPK. SETTING menu

Item	Contents
<b>LEVEL</b> 	Select this item, then press ENTER to show the LEVEL submenu for adjusting the speaker output level. <b>FRONT LEFT/RIGHT SPEAKER, CENTER SPEAKER, SURROUND RIGHT/LEFT SPEAKER:</b> Select the speaker, then adjust the output level (-6 dB to +6 dB in 1 dB steps). <b>TEST TONE:</b> Turns on/off the test tone. <ul style="list-style-type: none"> <li>• Select "ALL CH ST," "MUSIC," or "MOVIE" (see page 14) to adjust the output level for all speakers with the test tone.</li> </ul>
<b>DELAY</b> 	Select this item, then press ENTER to show the DELAY submenu for adjusting the speaker delay time. <b>FRONT LEFT/RIGHT SPEAKER, CENTER SPEAKER, SURROUND RIGHT/LEFT SPEAKER:</b> Select the speaker, then adjust the delay time (0 ms to 15 ms in 1 ms steps). <ul style="list-style-type: none"> <li>• Set one speaker to "0 ms," then set other speakers so that the sound from all speakers can reach you at the same time.</li> </ul>



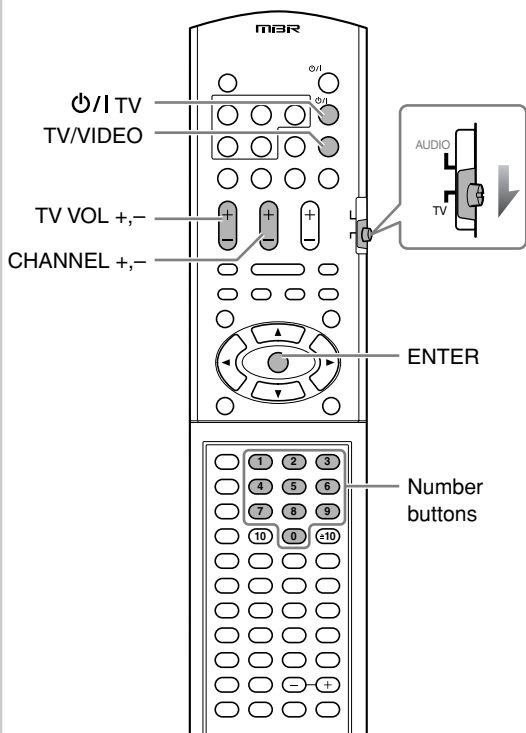
## OTHERS menu

Item	Contents
<b>RESUME</b>	You can select Resume. <b>ON:</b> The System resumes playback from the position where playback has been stopped if the disc is still in the disc tray. <b>OFF:</b> Resume is deactivated.
<b>ON SCREEN GUIDE</b>	Activate or deactivate the on-screen guide. <b>ON:</b> Activate the on-screen guide. <b>OFF:</b> Deactivate the on-screen guide.
<b>DivX REGISTRATION</b>	The System has its own Registration Code. If necessary, you can confirm it. Once you have played back a disc in which the Registration Code is recorded, the System's Registration Code is overwritten for copyright protection.



# Operating the TV

## Remote control

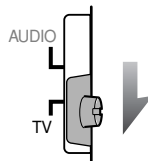


Manufacturer's code	
Manufacturer	Code number
JVC	01
Hitachi	10
Magnavox	02
Mitsubishi	03
Panasonic	04, 11
Philips	15
RCA	05
Samsung	12
Sanyo	13, 14
Sharp	06
Sony	07
Toshiba	08
Zenith	09

## Operating TV

You can operate JVC's or other manufacturers' TV using this remote control.

**1** Slide the AUDIO/TV selector to "TV."



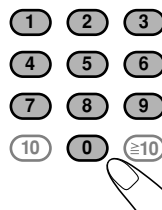
**2** Press and hold until the following steps are completed.



**3**



**4** Enter the 2-digit manufacturer's code number.



**5** Release Power/TV.

## To operate the TV

To turn on or off the TV:	To select the input mode (either TV or VIDEO):	To adjust TV volume:
To select the TV channel:		
	or	

# Additional Information

## Learning More about This System ● ● ●

### Introduction (see pages 1 to 2)

#### Playable Disc Types:

##### • About audio format

- **Linear PCM:** Uncompressed digital audio, the same format used for CDs and most studio masters.
  - **Dolby Digital:** Compressed digital audio, developed by Dolby Laboratories, which enables multi-channel encode to create realistic surround sound.
  - **DTS (Digital Theater Systems):** Compressed digital audio, developed by Digital Theater Systems, Inc., which enables multi-channel like Dolby Digital. As the compression ratio is lower than for Dolby Digital, it provides wider dynamic range and better separation.
- If you use a DVD-RAM with a cartridge, take the disc out of the cartridge before inserting.

### Connections (see pages 3 to 6)

#### Changing the Color System and Scanning Mode:

- If you play back an NTSC disc with the color system set to “PAL (PROG),” the disc will be reproduced using “PAL 60” format, however, if the TV does not support this format, the screen may not display properly.
- If you play back a PAL disc with the color system set to “NTSC (PROG),” you can watch the playback pictures, but the following symptoms may occur:
  - The items on the disc menu will be blurred, and be shown slightly shifted when highlighted.
  - The aspect ratio of the picture may differ from the original aspect ratio.
  - The picture movement is not smooth.
- You cannot change the scanning mode to progressive in the following cases:
  - When your TV does not support the progressive video input.
  - When you have not connected your TV to the unit using a component video cord.
- When you play back an NTSC disc in progressive scanning mode, the System outputs the NTSC signal regardless of the color system settings.

### Daily Operations—Playback (see pages 8 to 12)

#### Listening to the Radio:

- If you store a new station into an occupied preset number, the previously stored station in that number will be erased.
- When you unplug the AC power cord or if a power failure occurs, the preset stations will be erased in a few days. If this happens, preset the stations again.

#### Playing Back a Disc:

- On some DVD, SVCD, or VCD discs, the actual operations may be different from what is explained in this manual, due to the programming and disc structure; such differences are not a malfunction of this System.
- When playing back a DVD Audio disc recorded in MLP (Meridian Lossless Packing; a lossless audio compression

system that can completely recreate the PCM signal), the signals are recognized as the linear PCM signals, however, no indicator lights up on the display.

- For MP3/WMA playback...
  - MP3/WMA discs require a longer readout time than regular CDs. (It depends on the complexity of the group/file configuration.)
  - Some MP3/WMA files cannot be played back and will be skipped. This results from their recording processes and conditions.
  - When making MP3/WMA discs, use ISO 9660 Level 1 or Level 2 for the disc format.
  - This System can play back MP3/WMA files with the extension code <.mp3> or <.wma> (regardless of the letter case—upper/lower).
  - It is recommended that you make each MP3/WMA file at a sampling rate of 44.1 kHz and at bit rate of 128 kbps. This System cannot play back files made at bit rate of less than 64 kbps.
- For DVD-VR playback...
  - **Original Program:** The System can play back the original picture in the recorded order.
  - **Play List:** The System can play back the play list edited by the recording equipment. The control screen for the play list appears only when the disc has the play list.
  - Resume is not available.
  - For details about DVD-VR format and play list, refer to the manual of the recording equipment.
- For JPEG files playback...
  - It is recommended that you record a file at 640 x 480 resolution. (If a file has been recorded at a resolution of more than 640 x 480, it will take a long time to be shown.)
  - This System can play only baseline JPEG files\*. Progressive JPEG files\* or lossless JPEG files\* cannot be played.
    - \* Baseline JPEG format: Used for digital cameras, web, etc.
    - Progressive JPEG format: Used for web.
    - Lossless JPEG format: An old type and rarely used now.
- For MPEG-1/MPEG-2 playback...
  - The stream format should conform to MPEG system/program stream.
  - 720 x 576 pixels (25 fps)/720 x 480 pixels (30 fps) is recommended for the highest resolution.
  - This System also supports the resolutions of 352 x 576/480 x 576/352 x 288 pixels (25 fps) and 352 x 480/480 x 480/352 x 240 pixels (30 fps).
  - The file format should be MP@ML (Main Profile at Main Level)/SP@ML (Simple profile at Main Level)/MP@LL (Main Profile at Low Level).
  - Audio streams should conform to MPEG1 Audio Layer-2 or MPEG2 Audio Layer-2.
- For ASF playback...
  - This System can play back ASF files with the extension code <.asf> (regardless of the letter case—upper/lower).

- This System supports ASF files whose resolution is 352 x 288 pixels or less.
- Some recorded files may not be able to played back depending on file characteristics, kind of digital still/video cameras, or recording conditions.
- You cannot use the following functions—One Touch Replay, Slow motion, A-B Repeat, Program Play and Random Play.
- For DivX playback...
  - When making a disc, use the UDF-Bridge format. “Multi-border” is not supported.
  - The System supports DivX files whose resolution is 720 x 480 pixels or less (30 fps), and 720 x 576 pixels or less (25 fps).
  - Audio stream should conform to MPEG1 Audio Layer- 2 or MPEG Audio Layer-3 (MP3).
  - This System can play back DivX files with the extension code <.divx> <.div> <.avi> (regardless of the letter case—upper/lower).
  - The System does not support GMC (Global Motion Compression).
  - The file encoded in the interlaced scanning mode may not be played back correctly.
  - You cannot use the following functions—One Touch Replay, Slow motion, A-B Repeat, Program Play, and Random Play.

## Daily Operations—Sound & Other Adjustments (see pages 13 to 16)

### Adjusting the Speaker Output Level:

- The channel level cannot change when Mic Mixing, Vocal Masking or during Karaoke scoring.

### Reinforcing the Bass Sound:

- The adjustment for the subwoofer level does not affect the sound through the headphones.

### Creating Your Own Sound Modes—User Mode:

- When you unplug the AC power cord or if a power failure occurs, the User Mode settings will be erased in a few days. If this happens, set the User Modes again.

### Selecting the Surround Modes:

- Dolby Pro Logic II Modes: Dolby Pro Logic II Mode is a multichannel playback format to decode 2-channel sources into 5.1 channels. Dolby Pro Logic II reproduces spacious sound from original sound without adding any new sounds or tonal colorations.
- While you use the headphones, the Surround Mode is canceled temporarily and you cannot use SURROUND MODE and EFFECT.
- Some DVD Audio discs prohibit downmix. While playing back such a disc...
  - You cannot change the Surround Mode. (“MULTI CH” appears on the display.)
  - The System plays back the left front and right front signals when you have selected “STEREO” for the Surround Mode or when you use the headphones. (“LR ONLY” appears on the display.)

- Dolby PLII MUSIC/MOVIE is ineffective when an MPEG-1/MPEG-2/ASF/DivX disc is the source, though MUSIC and MOVIE are selectable on the unit (Dolby PLII MUSIC/MOVIE indicator does not appear after selecting MUSIC/MOVIE).

### Setting the Clock:

- “0:00” will flash on the display until you set the clock.
- The clock may gain or lose 1 to 2 minutes per month. If this happens, reset the clock.

## Unique DVD/VCD Operations (see pages 17 to 19)

### Selecting the Sound Track:

- On some DVD Video discs, you cannot change audio languages while playing back.

### Playing Back Bonus Group:

- You cannot select a track in the bonus group for Program Play.

### Special Picture Playback:

- During slow-motion playback, no sound will be reproduced.
- You cannot use frame-by-frame playback for DVD-VR.
- While zoomed in, the picture may look coarse.

## Advanced Disc Operations (see pages 20 to 22)

### Programming the Playing Order—Program Play:

- While programming steps...
  - Your entry will be ignored if you have tried to program an item number that does not exist on the disc (for example, selecting track 14 on a disc that only has 12 tracks).
  - For SVCD/VCD/CD loaded on the other tray than the current one, the System may prompt for the group number entry as well, however, these entries will be ignored during playback.
- You cannot use Program Play and Random Play for DVD-VR/JPEG/MPEG-1/MPEG-2/ASF/DivX discs.
- The programmed contents will remain until you erase it.
- While the PROGRAM indicator is on, you cannot change the disc to play. (DISC 1 – 5 on the remote control and ► on the main unit do not work.)

## On-Screen Disc Operations (see pages 23 to 28)

### Operations Using the On-screen Bar:

- A-B Repeat:
  - A-B Repeat cannot be used for MP3/WMA/MPEG-1/MPEG-2/ASF/DivX and for some DVDs.
  - A-B Repeat is possible only within the same title or within the same track.

### Operations on the Control Screen:

- This System can play back JPEG files with the extension code <.jpg> or <.jpeg> (regardless of the letter case—upper/lower).
- This System may not play back JPEG files properly if they are recorded on devices other than digital still camera.
- During slide-show playback, zoom cannot be operated.

## Recording Operations (see pages 29 to 30)

### General:

- You cannot change the source during recording.
- There is leader tape which cannot be recorded onto at the start and the end of cassette tapes. Thus, when recording discs or radio broadcasts, wind the leader tape first to ensure that the recording will be made without any music part lost.
- If no cassette is inserted or a protected tape has been inserted, “NO REC” appears on the display.
- The recording level is automatically set correctly. Thus, you can make sound adjustment other than the Surround Mode without affecting the recording level.

### Recording on a Tape:

- When using Reverse Mode for recording, start recording in the forward (▶) direction first; otherwise, recording will stop when only one side (reverse) of the tape is recorded.

### Synchronized Disc Recording:

- Recording starts from the first track even if you have selected a track by using ▶▶|/|◀◀. To specify track(s) to record, program them (or use One Track Recording).
- While recording, you cannot use disc operation buttons (except for ■) and sound setting buttons (except for volume control).
- Everything on the disc goes onto the tape in the order on the disc, or according to the order you have made for Program Play.
- You cannot use Repeat Play during synchronized recording (Repeat Play will be canceled).
- DISC REC START button does not work:
  - While playback is paused.
  - When Random Play is activated.
  - While playing back or being paused with Program Play.
- When the tape reaches its end in the forward direction (▶) during recording, the last song will be re-recorded at the beginning of the reverse side (◀).
- When the tape reaches its end in the reverse side (◀) during recording, recording stops even though the disc is not entirely recorded.

### To record only your favorite track—One Track Recording:

- For DVD-VR, recording starts at current playback point.

## Enjoying Karaoke (see pages 31 to 33)

### General:

- When the Mic Mixing or Vocal Masking Mode is activated:
  - Multichannel source will be downmixed into 2 channels temporarily.
  - Dolby Pro Logic II Mode will be canceled temporarily.
- When ALL CH ST is selected, the mic signal comes out of the center speaker.
- When Mic Mix is activated and ALL CH ST is selected as the surround mode, the output level of surround speaker decreases.

- While recording on a tape, Key control, ECHO sound and Vocal Masking will be recorded.

### Reducing the Lead Vocal—Vocal Masking:

- The Vocal Masking Mode setting is not applied to the optical digital output signals through the OPTICAL DIGITAL OUTPUT terminal.
- When playing a Karaoke disc in the Vocal Masking Mode, the vocal may not be reduced or the volume may be lower.
- On some music, the Vocal Masking Mode does not provide the correct effect.

### Scoring Your Karaoke Skill:

- Before the scoring function is activated, you can select the track by pressing ▶▶|/|◀◀ (except for DVD Video and SVCD/VCD with PBC).
- You can also activate the scoring function while playing back. In this case, the scoring starts from that point. But cancel the Karaoke Scoring mode and set the Karaoke Scoring mode again in the same track during the playback, scoring starts from next track.
- While the scoring function is in use, you cannot use the following buttons: MIC MIX, RESERVE, number buttons, and disc operation buttons (except for ▶▶|/|◀◀/■).
- Activating the scoring function cancels Repeat Play.
- You cannot use the scoring function during Program Play, Random Play, or recording.
- The ranking (top 3) is cleared when you turn off the System. (If the number of songs scored is less than 3, “0 POINT” appears.)
- Karaoke Scoring is not functioned during recording.

### Reserving Karaoke Songs—Karaoke Program Play:

- If you have selected a disc tray on which DVD Audio or DVD-VR is loaded, that disc number is skipped.
- If DVD-VR, ASF, MPEG-1, or MPEG-2 is loaded on the current tray, you cannot use Karaoke Program Play.
- When the track starts playback, that track number will be erased from the Karaoke reserve screen (the programmed contents will remain until you erase it).
- While the PROGRAM indicator is flashing, you cannot change the disc to play. (DISC 1 – 5 on the remote control and ▶ on the main unit do not work.)

## Timer Operations (see pages 34 to 35)

### Setting the Timer:

- If you do not specify the preset station or track number correctly while setting a timer, the currently selected station or the first track will be played when timer is activated.
- When you unplug the AC power cord or if a power failure occurs, the timer will be canceled. You need to set the clock first, then the timer again.
- Without stopping the recording, you cannot change the source after Recording Timer starts recording.
- If you set DVD Video as the source, Daily Timer will not work correctly.

## Setup Menu Operations (see pages 36 to 37)

### General:

- If the upper and lower parts of the menu are cut off, adjust the picture size control of the TV.

### LANGUAGE menu:

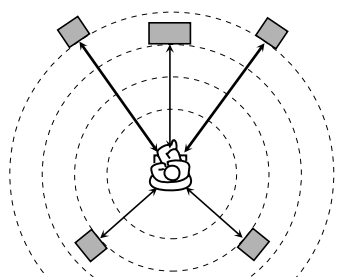
- When the language you have selected for MENU LANGUAGE, AUDIO LANGUAGE, or SUBTITLE is not recorded on a disc, the original language is used as the initial language.

### PICTURE menu—MONITOR TYPE:

- Even if “4:3 PS/4:3 MULTIPS” is selected, the screen size may become 4:3 letter box with some DVD Video discs. This depends on how the discs are recorded.
- When you select “16:9/16:9 MULTI” for a picture whose aspect ratio is 4:3, the picture slightly changes due to the process for converting the picture width.

### SPK. SETTING menu—DELAY:

- See the following diagram as an example for setting the delay time:



Front speakers:  
0 ms  
Center speaker:  
1 ms  
Surround speakers:  
2 ms

### OTHERS menu—ON SCREEN GUIDE:

- The setup menu and on-screen bar will be displayed (and recorded) even though this function is set to “OFF.” Subtitles and the information for zoom-in always appear on the display regardless of this setting.

## Maintenance

To get the best performance of the System, keep your discs, tapes and mechanism clean.

### Handling discs

- Remove the disc from its case by holding it at the edge while pressing the center hole lightly.
- Do not touch the shiny surface of the disc, or bend the disc.
- Put the disc back in its case after use to prevent warping.
- Be careful not to scratch the surface of the disc when placing it back in its case.
- Avoid exposure to direct sunlight, extreme temperatures, and moisture.

#### To clean the disc:

Wipe the disc with a soft cloth in a straight line from center to edge.

## Handling cassette tapes

- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotate it.
  - If the tape is loose, it may get stretched, cut, or caught in the cassette.
- Be careful not to touch the tape surface.
- Avoid the following places to store the tape—in dusty places, in direct sunlight or heat, in moist areas, on a TV or speaker, or near a magnet.

#### To keep the best recording and playback sound quality:

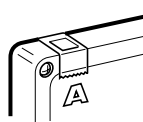
- Use a cotton swab moistened with alcohol to clean the heads, capstans and pinch rollers.
- Use a head demagnetizer (available at electronics and audio shops) to demagnetize the heads (when the System is turned off).

#### To protect your recording

Cassettes have two small tabs on the back to protect from unexpected erasure or re-recording.

To protect your recording, remove these tabs.

To re-record on a protected tape, cover the holes with adhesive tape.



## Cleaning the System

- Stains should be wiped off with a soft cloth. If the System is heavily stained, wipe it with a cloth soaked in water-diluted neutral detergent and wrung well, then wipe clean with a dry cloth.
- Since the System may deteriorate in quality, become damaged or get its paint peeled off, be careful about the following:
  - DO NOT wipe it with a hard cloth.
  - DO NOT wipe it forcefully.
  - DO NOT wipe it with thinner or benzine.
  - DO NOT apply any volatile substance such as insecticides to it.
  - DO NOT allow any rubber or plastic to remain in contact for a long time.

## Troubleshooting

If you are having a problem with your System, check this list for a possible solution before calling for service.

### General:

**Adjustments or settings are suddenly canceled before you finish.**

⇒ There is a time limit. Repeat procedure again.

**Operations are disabled.**

⇒ The built-in microprocessor may malfunction due to external electrical interference. Unplug the AC power cord and then plug it back in.

**Unable to operate the System from the remote control.**

⇒ The path between the remote control and the remote sensor on the System is blocked.

⇒ The batteries are exhausted.

**No sound is heard.**

⇒ Speaker connections are incorrect or loose.

⇒ Headphones are connected.

**No picture appears on the screen.**

⇒ The video cord connections are incorrect or loose.

**No picture is displayed on the TV screen, the picture is blurred, or the picture is divided into two parts.**

⇒ The System is connected to a TV which does not support progressive video input.

⇒ Incorrect color system is selected (see page 6).

**The left and right edges of the picture are missing on the screen.**

⇒ Select “4:3 LB /4:3 MULTI LB” for “MONITOR TYPE” (see page 36).

### Radio Operations:

**Hard to hear broadcasts because of noise.**

⇒ Antennas connections are incorrect or loose.

⇒ The AM loop antenna is too close to the System.

⇒ The FM antenna is not properly extended and positioned.

### Disc Operations:

**The disc does not play.**

⇒ You have inserted a disc whose Region Code is not “4.” (“REGION ERR” appears on the display.)

⇒ The disc is placed upside down. Place the disc with the label side up.

**ID3 Tag on an MP3 disc cannot be shown.**

⇒ There are two types of ID3 Tag—Version 1 and Version 2. This System can only show ID3 Tag Version 1.

**MP3 groups and tracks are not played back as you expect.**

⇒ The playing order is determined when the disc was recorded. It depends on the writing application.

**MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX files are not played back.**

⇒ The inserted disc may include different types of files (MP3/WMA/JPEG/MPEG-1/MPEG-2/ASF/DivX files). In this case, you can only play back the files selected by the “FILE TYPE” setting (see page 36).

⇒ You have changed the “FILE TYPE” setting after you inserted a disc. In this case, reload the disc.

**The disc sound is discontinuous.**

⇒ The disc is scratched or dirty.

**The disc playback sounds strange.**

⇒ Cancel Key Control (see page 32).

**No subtitle appears on the display though you have selected the initial subtitle language.**

⇒ Some DVDs are programmed to always display no subtitle initially. If this happens, press SUB TITLE after starting play (see page 18).

**Audio language is different from the one you have selected as the initial audio language.**

⇒ Some DVDs are programmed to always use the original language initially. If this happens, press AUDIO after starting play (see page 17).

**The disc tray does not open or close.**

⇒ The AC power cord is not plugged in.

⇒ Child Lock is in use. “LOCKED” appears in the display window (see page 22).

⇒ The Program Play is in use. Cancel the Program Play (see page 21).

### Tape Operations:

**The cassette holder cannot be opened.**

⇒ Power supply from the AC power cord has been cut off while the tape was running. Turn on the System.

### Recording Operations:

**Impossible to record.**

⇒ Small tabs on the back of the cassette are removed. Cover the holes with adhesive tape.

⇒ The Karaoke scoring function is in use. Cancel the scoring function (see page 32).

### Karaoke Operations:

**Cannot activate the scoring function.**

⇒ DVD Audio or DVD-VR is playing.

⇒ You cannot use the scoring function while recording, or while the disc menu for DVD Video/SVCD/VCD is shown on the TV screen.

**Scoring result seems wrong (or “- -” appears).**

⇒ The playback time with the scoring function is too short.

⇒ No input from the microphone or the input level (MIC LEVEL) is too low.

⇒ You have sung in too quietly.

### Timer Operations:

**Daily Timer or Recording Timer does not work.**

⇒ The System has been turned on when the on-time comes. Timer starts working only when the System is turned off.

## OPTICAL DIGITAL OUTPUT Signals

DIGITAL AUDIO OUTPUT	Output Signals		
	STREAM/PCM	DOLBY DIGITAL/PCM	PCM ONLY
<b>Playback disc</b>			
<b>DVD Video</b>			
with 48 kHz, 16/20/24 bit Linear PCM	48 kHz, 16 bit Linear PCM*		
with 96 kHz, Linear PCM	48 kHz, 16 bit Linear PCM		
with Dolby Digital	Dolby Digital bitstream		48 kHz, 16 bit Linear PCM
with DTS	DTS bitstream	48 kHz, 16 bit Linear PCM	
<b>DVD Audio</b>			
with 48/96/192 kHz, 16/20/24 bit Linear PCM	48 kHz, 16 bit Linear PCM*		
with 44.1/88.2/176.4 kHz, 16/20/24 bit Linear PCM	44.1 kHz, 16 bit Linear PCM*		
with Dolby Digital	Dolby Digital bitstream		48 kHz, 16 bit Linear PCM
with DTS	DTS bitstream	48 kHz, 16 bit Linear PCM	
<b>DVD-R/-RW in DVD-VR format</b>			
with 48 kHz, 16/20/24 bit Linear PCM	48 kHz, 16 bit Linear PCM*		
with Dolby Digital	Dolby Digital bitstream		48 kHz, 16 bit Linear PCM
<b>SVCD, VCD, CD</b>	44.1 kHz, 16 bit Linear PCM/48 kHz, 16 bit Linear PCM		
<b>CD with DTS</b>	DTS bitstream	44.1 kHz, 16 bit Linear PCM	
<b>MP3/WMA/MPEG1/MPEG2/DivX disc</b>	32/44.1/48 kHz, 16 bit Linear PCM		
<b>ASF disc</b>	32 kHz, 16 bit Linear PCM		

\* While playing some DVDs, digital signals may be emitted at 20 bits or 24 bits (at their original bit rate) through the OPTICAL DIGITAL OUTPUT terminal if the discs are not copy-protected.

## Language Code List

AA Afar	FA Persian	KM Cambodian	OM (Afan) Oromo	SV Swedish
AB Abkhazian	FI Finnish	KN Kannada	OR Oriya	SW Swahili
AF Afrikaans	FJ Fiji	KO Korean (KOR)	PA Panjabi	TA Tamil
AM Ameharic	FO Faroese	KS Kashmiri	PL Polish	TE Telugu
AR Arabic	FY Frisian	KU Kurdish	PS Pashto, Pushto	TG Tajik
AS Assamese	GA Irish	KY Kirghiz	PT Portuguese	TH Thai
AY Aymara	GD Scots Gaelic	LA Latin	QU Quechua	TI Tigrinya
AZ Azerbaijani	GL Galician	LN Lingala	RM Rhaeto-Romance	TK Turkmen
BA Bashkir	GN Guarani	LO Laothian	RN Kirundi	TL Tagalog
BE Byelorussian	GU Gujarati	LT Lithuanian	RO Rumanian	TN Setswana
BG Bulgarian	HA Hausa	LV Latvian, Lettish	RW Kinyarwanda	TO Tonga
BH Bihari	HI Hindi	MG Malagasy	SA Sanskrit	TR Turkish
BI Bislama	HR Croatian	MI Maori	SD Sindhi	TS Tsonga
BN Bengali, Bangla	HU Hungarian	MK Macedonian	SG Sangho	TT Tatar
BO Tibetan	HY Armenian	ML Malayalam	SH Serbo-Croatian	TW Twi
BR Breton	IA Interlingua	MN Mongolian	SI Singhalese	UK Ukrainian
CA Catalan	IE Interlingue	MO Moldavian	SK Slovak	UR Urdu
CO Corsican	IK Inupiak	MR Marathi	SL Slovenian	UZ Uzbek
CS Czech	IN Indonesian	MS Malay (MAY)	SM Samoan	VI Vietnamese
CY Welsh	IS Icelandic	MT Maltese	SN Shona	VO Volapuk
DA Danish	IW Hebrew	MY Burmese	SO Somali	WO Wolof
DZ Bhutani	JI Yiddish	NA Nauru	SQ Albanian	XH Xhosa
EL Greek	JW Javanese	NE Nepali	SR Serbian	YO Yoruba
EO Esperanto	KA Georgian	NL Dutch	SS Siswati	ZU Zulu
ET Estonian	KK Kazakh	NO Norwegian	ST Sesotho	
EU Basque	KL Greenlandic	OC Occitan	SU Sundanese	

## Specifications

### Amplifier section

Output Power:

FRONT SPEAKERS: 150 W per channel, min. RMS, driven into 4  $\Omega$  at 1 kHz with no more than 10% total harmonic distortion.

CENTER SPEAKER: 140 W per channel, min. RMS, driven into 6  $\Omega$  at 1 kHz with no more than 10% total harmonic distortion.

SURROUND SPEAKERS: 130 W per channel, min. RMS, driven into 6  $\Omega$  at 1 kHz with no more than 10% total harmonic distortion.

SUBWOOFERS: 150 W per channel, min. RMS, driven into 4  $\Omega$  at 63 Hz with no more than 10% total harmonic distortion.

Digital output:

OPTICAL DIGITAL OUTPUT:

-21 dBm to -15 dBm (660 nm  $\pm$ 30 nm)

Audio input sensitivity/Impedance

(Measured at 1 kHz, with tape recording signal 300 mV)

AUX: 300 mV/47 k $\Omega$

MIC 1/2: 3.0 mV/50 k $\Omega$

VIDEO OUT:

Color system: NTSC/PAL selectable

VIDEO (composite): 1 V(p-p)/75  $\Omega$

S-VIDEO: Y (luminance) 1 V(p-p)/75  $\Omega$

C (chrominance, burst)

NTSC 0.286 V(p-p)/75  $\Omega$

PAL 0.3 V(p-p)/75  $\Omega$

COMPONENT (Interlace/Progressive):

(Y) 1 V(p-p)/75  $\Omega$

(PB/PR) 0.7 V(p-p)/75  $\Omega$

Speaker Terminals: 4  $\Omega$  - 16  $\Omega$  (front speakers/subwoofers)

6  $\Omega$  - 16  $\Omega$  (surround/center speakers)

### Tuner section

FM tuning range: 87.50 MHz - 108.00 MHz

AM (MW) tuning range: 531 kHz - 1 710 kHz

### Disc player section

Playable disc: DVD Video/DVD Audio/CD/VCD/SVCD  
CD-R/CD-RW (recorded in Audio CD/Video CD/  
Super Video CD formats and MP3/WMA/JPEG/  
MPEG-1/MPEG-2/ASF/DivX files)  
DVD-R (recorded in DVD Video format)  
DVD-RW (recorded in DVD Video format or  
DVD-VR format)

Dynamic range: 80 dB

Horizontal resolution: 500 lines

Wow and flutter: Immeasurable

### Cassette deck section

Frequency response

Normal (type I): 50 Hz - 14 000 Hz

Wow and flutter: 0.15% (WRMS)

### General

Power requirement: AC 110 V / AC 127 V / AC 220 V /  
AC 230 V - AC 240 V  $\sim$ , (adjustable  
with the voltage selector), 50 Hz / 60 Hz

Power consumption: 335 W (at operation)  
29 W (on standby)

Dimensions (W/H/D) (approx.): 185 mm x 460 mm x 361 mm

Mass (approx.): 11.4 kg

### Supplied Accessories

See page 3.

*Design and specifications are subject to change without notice.*

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# Parts Index

## Remote control

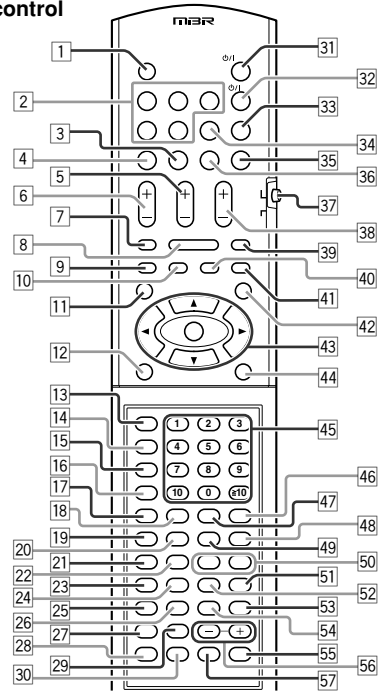
Button	Page	Button	Page			
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⏻/TV	32	38	KEY #, b	50	32	
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## Main unit

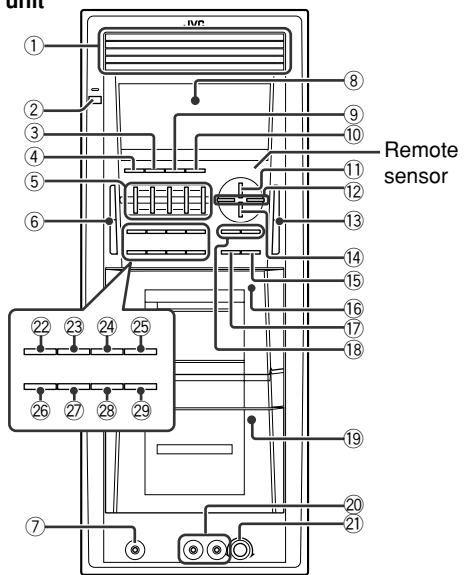
Button	Page	Button	Page			
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■	14	9 – 12, 21, 22	FM/AM	9	8, 9	
▶▶, ◀◀	18	9, 11, 12, 19	KARAOKE SCORING	15	32	
▶▶, ◀◀	12	10	MIC 1, MIC 2	20	31	
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## Remote control

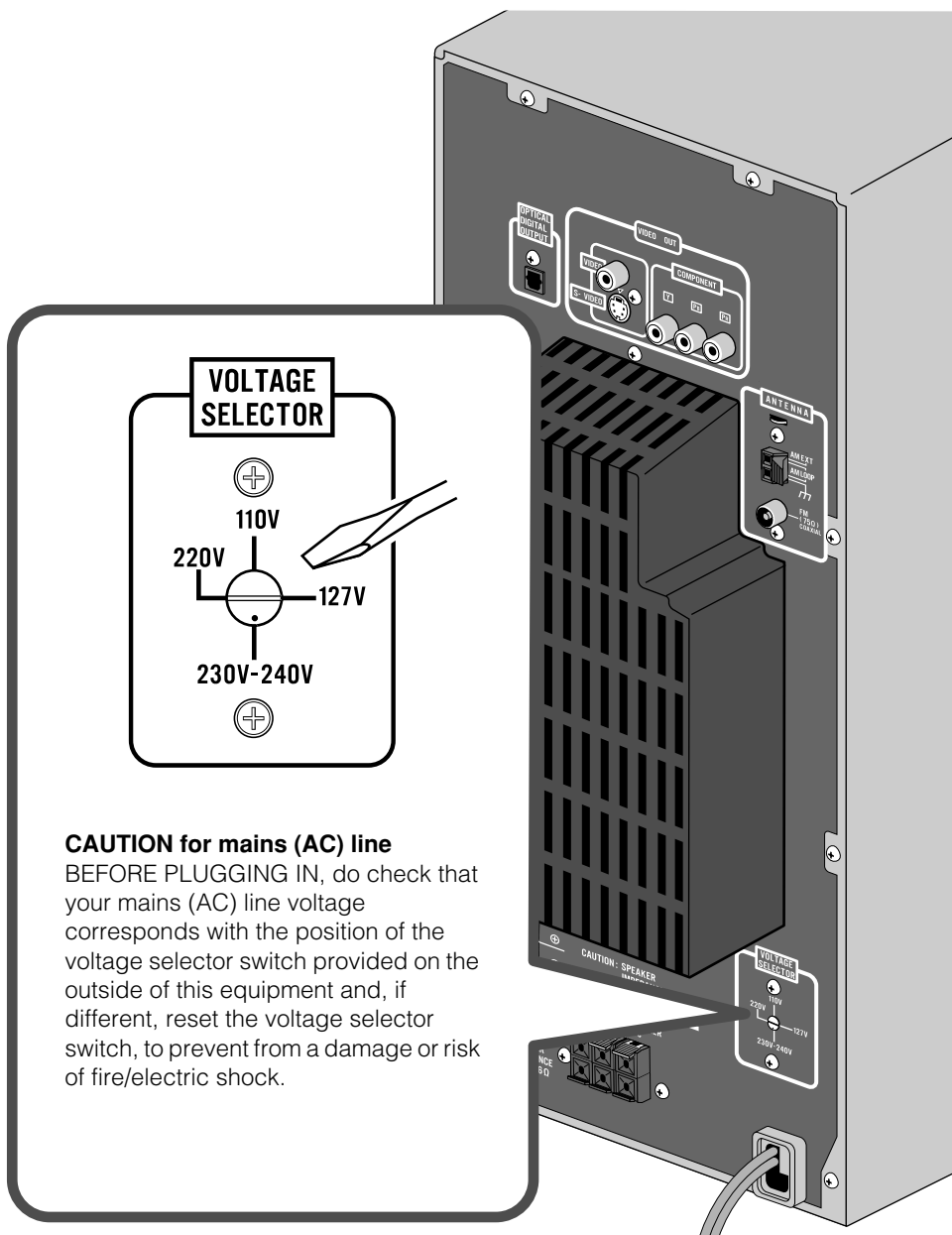


## Main unit



Remote sensor

# Mains (AC) Line Instruction (not applicable for Europe, U.S.A., Canada, and U.K.)



# JVC