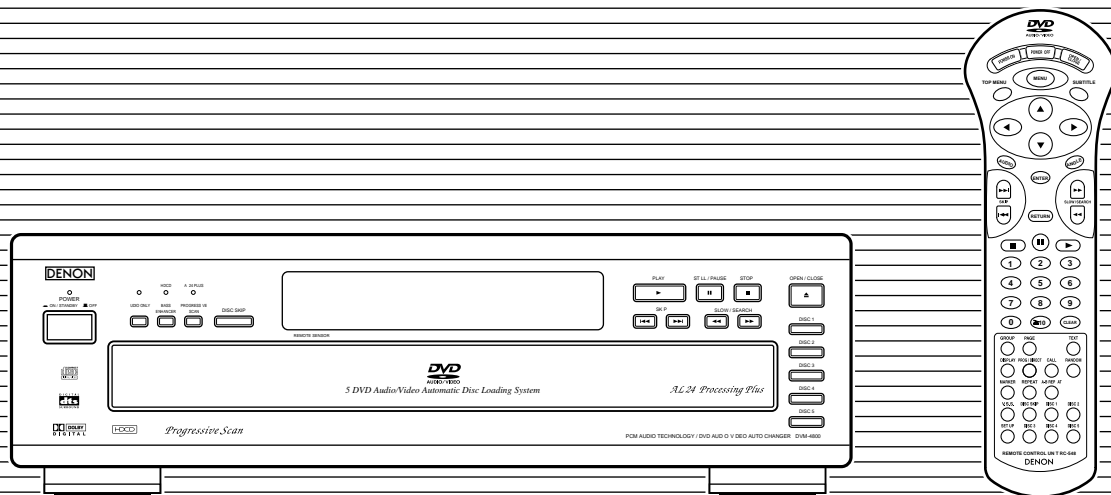


DENON

DVM-4800

OPERATING INSTRUCTIONS



IMPORTANT TO SAFETY

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION:

1. Handle the power supply cord carefully

Do not damage or deform the power supply cord. If it is damaged or deformed, it may cause electric shock or malfunction when used. When removing from wall outlet, be sure to remove by holding the plug attachment and not by pulling the cord.

2. Do not open the top cover

In order to prevent electric shock, do not open the top cover. If problems occur, contact your DENON DEALER.

3. Do not place anything inside

Do not place metal objects or spill liquid inside the DVD video player. Electric shock or malfunction may result.

Please, record and retain the Model name and serial number of your set shown on the rating label.

Model No. DVM-4800 Serial No. _____

NOTE:


This DVD video player uses the semiconductor laser. To allow you to enjoy music at a stable operation, it is recommended to use this in a room of 5°C (41°F) — 35°C (95°F).

CAUTION:


USE OF CONTROLS OR ADJUSTMENTS OR REFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

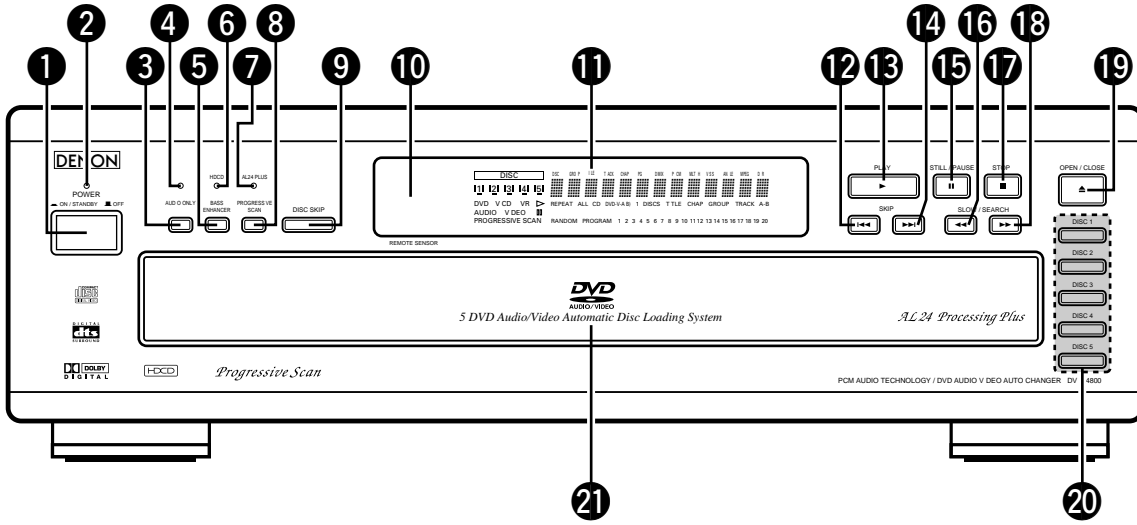
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

• FOR U.S.A. MODEL ONLY

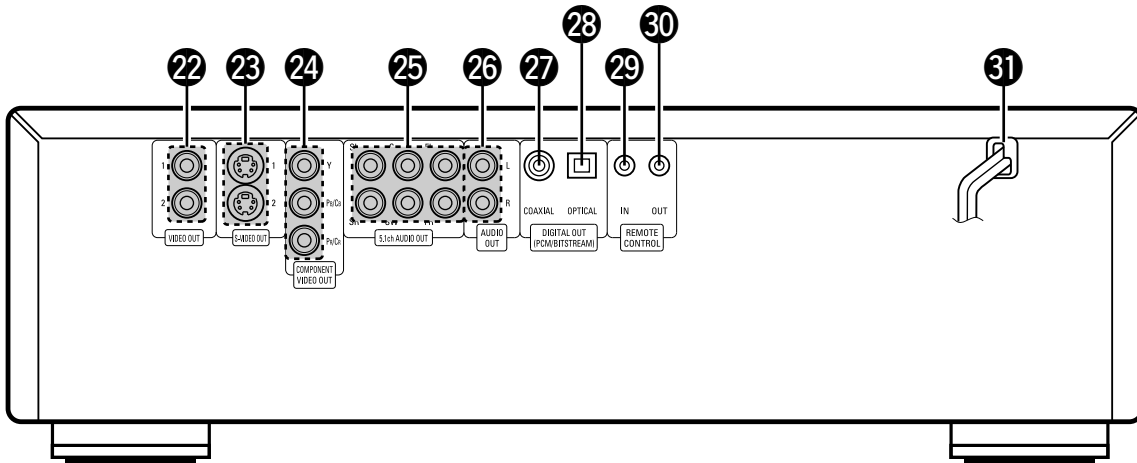
CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

FRONT PANEL



REAR PANEL

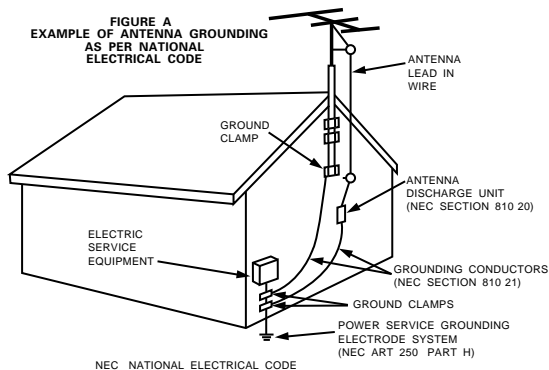


SAFETY INSTRUCTIONS

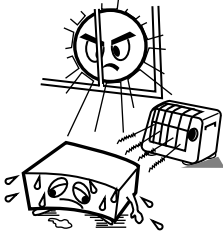
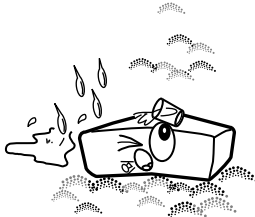
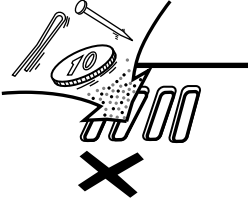
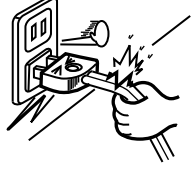
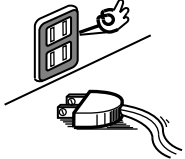

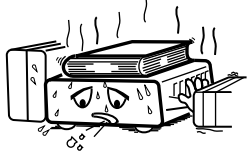
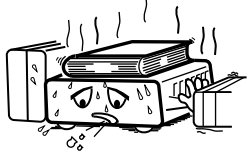

1. Read Instructions – All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Cleaning – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.
6. Attachments – Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture – Do not use this product near water – for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
8. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
10. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
11. Power Sources – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
12. Grounding or Polarization – This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.



13. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
15. Outdoor Antenna Grounding – If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
16. Lightning – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
17. Power Lines – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
18. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
19. Object and Liquid Entry – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
20. Servicing – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
21. Damage Requiring Service – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a) When the power-supply cord or plug is damaged,
 - b) If liquid has been spilled, or objects have fallen into the product,
 - c) If the product has been exposed to rain or water,
 - d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
 - e) If the product has been dropped or damaged in any way, and
 - f) When the product exhibits a distinct change in performance – this indicates a need for service.
22. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
23. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
24. Wall or Ceiling Mounting – The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
25. Heat – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

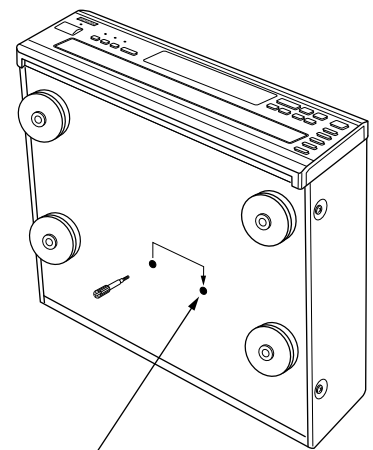


NOTE ON USE

 <ul style="list-style-type: none"> • Avoid high temperatures. Allow for sufficient heat dispersion when installed on a rack. 	 <ul style="list-style-type: none"> • Keep the set free from moisture, water, and dust. 	 <ul style="list-style-type: none"> • Do not let foreign objects in the set.
 <ul style="list-style-type: none"> • Handle the power cord carefully. Hold the plug when unplugging the cord. 	 <ul style="list-style-type: none"> • Unplug the power cord when not using the set for long periods of time. 	 <ul style="list-style-type: none"> • Do not let insecticides, benzene, and thinner come in contact with the set.
 <p>* (For sets with ventilation holes)</p> <ul style="list-style-type: none"> • Do not obstruct the ventilation holes. 	 <p>* (For sets with ventilation holes)</p> <ul style="list-style-type: none"> • Do not obstruct the ventilation holes. 	 <ul style="list-style-type: none"> • Never disassemble or modify the set in any way.

CAUTION:

At the bottom of the player there is shipping screw for use when the player is transported. Before using the player, turn the shipping screw (located under the player) counterclockwise and remove it. The player cannot start playing unless this screw is removed. Keep this screw for future use. When the player is going to be transported, remove the discs and close the disc tray. Turn off the power after "000 00 00" is displayed, then unplug the power cable from the outlet. Insert the shipping screw and turn clockwise. Tighten until secure.



Keep the screw for future use.

Copyrights

■ It is prohibited by law to reproduce, broadcast, rent or play discs in public without the consent of the copyright holder.

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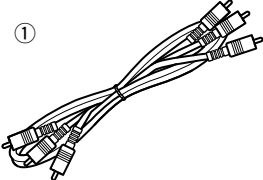
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• ACCESSORIES

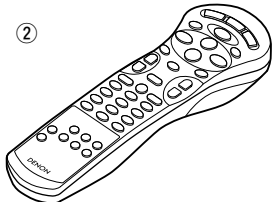
Please check to make sure the following items are included with the main unit in the carton:

1 Video/Audio cord	1	4 Operating instructions	1
2 Remote control unit (RC-548)	1	5 Service station list	1
3 Batteries ("AAA" (R03))	2		

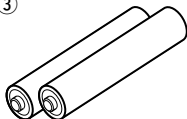
1



2



3



1 FEATURES

The DVM-4800 is DENON's top grade DVD Audio/video auto changer equipped with the latest in digital technology. This includes AL 24 Plus Processing, a newly developed analog waveform reproduction technology with sights on next generation media, as well as a multi 24-bit D/A converter with 96 kHz sampling compatibility taking maximum advantage of the high quality offered by AL 24 Plus Processing.

1. Newly developed AL 24 Plus Processing

- (1) AL 24 Plus Processing, an advanced version of conventional ALPHA Processing, is a newly developed analog waveform reproduction technology and offers compatibility with the high number of bits and high sampling rates of next generation media. AL 24 Plus Processing compensates the input digital data to reproduce the sound with analog waveforms as close as possible to those existing in nature and with 24-bit quality. The result is increased musical reproduction capabilities of reverberations, etc., at low levels, for a sound that seems to draw you into the concert hall.
- (2) AL 24 Plus Processing of course carries over Adaptive Line Pattern Harmonized Algorithm & Automatic Low Pass Filter Harmonic Adjustment, the strong points of conventional ALPHA Processing. On the DVM-4800 these filters have been dramatically improved, resulting in a filtered band attenuation of over -115 dB and ripple within the passing band of ±0.00002 dB, a figure comparable to that of professional recorders.

2. High precision multi 24-bit D/A converter

- (1) The DVM-4800 is equipped with a multi 24-bit D/A converter for faithful D/A conversion of the high quality 24-bit data achieved through AL 24 Plus Processing. This further enhances such aspects of audio performance as the S/N ratio, dynamic range and distortion and makes full use of the possibilities for high quality sound provided by a high number of bits and high sampling rates.
- (2) The multi 24-bit D/A converter is little affected by noise resulting from fluctuations in the power supply voltage and current and the quantization distortion level within the band is constant regardless of the frequency, resulting in clear sound with little noise.

3. High picture quality

The DVM-4800 is equipped with a 54 MHz/12-bit video D/A converter and is compatible with progressive image playback (switched). It recreates progressive images with high density and little flickering.

4. **Dolby Digital decoder (NOTE 1)**

Dolby Digital, a digital discrete system in which the different channels are completely independent, recreates "three-dimensional" sound fields (sounds with a sense of distance, movement and position) with no crosstalk between channels for greater reality. In addition, the 5 channels (excluding the 0.1 channel for low frequency effects) have a playback range extending to 20 kHz, the same as the range of CDs, thus resulting in clearer, more richly expressive sound.

5. **HDCD[®], HDCD[®] (High Definition Compatible Digital[®]) decoder (NOTE 2)**

HDCD is an encoding/decoding technology that greatly reduces the distortion occurring at the time of digital recording while maintaining compatibility with the conventional CD format. HDCD allows 24-bit data to be converted into the 16-bit data of current CDs with no loss in sound quality.

The use of this HDCD decoder makes it possible to achieve the high resolution and low distortion characteristic of HDCD when playing HDCD-compatible discs and DENON's digital technology optimizes the high sound quality possibilities of HDCD technology. Furthermore, normal CDs, DVDs and HDCD-compatible CDs are automatically identified and the optimum digital signal processing for that type of disc is used.

6. **DTS (Digital Theater Systems) decoder (NOTE 3)**

DTS provides up to 5.1 channels of wide-range, high fidelity surround sound.

7. **Advanced Virtual Surround Sound (V.S.S.) function**

Even when just two front speakers are being used, the user can simply press the V.S.S. (Virtual Surround Sound) button during playback of a Dolby Digital DVD (2 channel and above) to provide a rear surround effect. (This does not work with DVD Karaoke discs. In addition, this effect may differ depending on the kind of DVD used.)

8. **Increasing your enjoyment of picture**

An array of picture quality modes yielded by digital processing

Signal deterioration is kept to the minimum by processing the data as digital data.

This feature can be used as the picture quality setting individually tailored for DVD playback.

- **Digital Picture Mode**

Using the On-Screen Menu Icons enables the cinema mode, which is best for the playback of movie programs, to be selected.

In addition, the picture quality best suited to the type of software programs concerned can be selected. In all, four picture quality modes are provided: normal, soft, fine and cinema.

- **User mode**

Using the On-Screen Menu Icons, the contrast, color hue, equalizer and brightness can be adjusted to suit your own preference.

- **Monitor selector**

Once the type of TV used [Standard (Direct View TV), CRT Projector, LCD Projector, Projection TV] has been selected when the initial setting operations are performed, the optimum picture quality for the type of TV concerned will be automatically selected.

9. **Many convenient functions**

(1) Multiple audio function

Selection of up to 8 audio languages.

(The number of languages offered differs from DVD-V to DVD-V.)

(2) Multiple subtitle function

Selection of up to 32 subtitle languages.

(The number of languages offered differs from DVD-V to DVD-V.)

(3) Multiple angle function

The angle of view can be changed.

(For DVD-V on which multiple angles are recorded.)

(4) GUI (Graphical User Interface) function

The on-screen display button on the remote control unit can be used to display player and disc information on the TV screen.

(5) Marker function

The positions of up to five scenes can be stored in the memory, so you can watch your favorite scenes whenever you want.

(6) Playback disable function

This function can be used to disable playback of DVDs you do not want children to watch.

NOTES:

1. Manufactured under license from Dolby Laboratories.

"Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Work. ©1992 – 1997 Dolby Laboratories. All rights reserved.

2. **HDCD[®], HDCD[®], High Definition Compatible Digital[®]**

and Microsoft Corporation[™] are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. HDCD system manufactured under license from Microsoft Corporation. This product is covered by one or more of the following: In the USA: Patents 5,479,168, 5,638,074, 5,640,161, 5,808,574, 5,838,274, 5,854,600, 5,864,311, 5,872,531 and in Australia: Patent 669114, and in Europe: Patent 586586. Other patents pending.

3. Manufactured under license from Digital Theater Systems,

Inc. US Pat. No. 5,451,942, 5,956,674, 5,974,380, 5,978,762 and other world-wide patents issued and pending.

"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc. Copyright 1996, 2000 Digital Theater Systems, Inc. All Rights Reserved.

2 DISCS

- The types of discs listed on the table below can be used on the DVM-4800.
The marks are indicated on the disc labels or jackets.

Disc type	Logo	Region number	Video system	Indication used in instructions
DVD-Audio		—	NTSC (and PAL, but audio only)	DVD-A
DVD-Video		 	NTSC	DVD-V
Video CD		—	NTSC	VCD
Audio CD		—	—	CD

The following types of discs cannot be played on the DVM-4800:

Discs that cannot be played

PAL discs (the audio on DVD-Audio can be played), DVD-RAM (2.6 GB, TYPE 1), DVD-ROM, DVD-R (some DVD-R can be played), CD-ROM, CDV, CD-G, +RW, DVD-RW, CDV, SVCD, SACD, Divx Video Discs and Photo CD.

DVDs that can be played



This unit has a Dolby Digital decoder so you can play DVDs with this mark.



This unit has a DTS decoder so you can play DVDs with this mark.

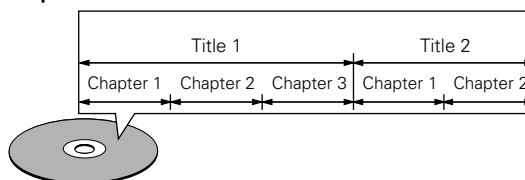
Disc terminology

Titles and chapters (DVD-V)

DVDs are divided into several large sections called “titles” and smaller sections called “chapters”.

Numbers are allotted to these sections. These numbers are called “title numbers” and “chapter numbers”.

For example:

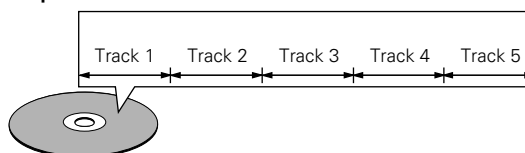


Tracks (video and music CDs)

Video and music CDs are divided into sections called “tracks”.

Numbers are allotted to these sections. These numbers are called “track numbers”.

For example:



Playback control (video CDs)

Video CDs including the words “playback control” on the disc or jacket are equipped with a function for displaying menus on the TV screen for selecting the desired position, displaying information, etc., in dialog fashion.

In this manual, playing video CDs using such menus is referred to “menu playback”.

Video CDs with playback control can be used on the DVM-4800.

NOTE:

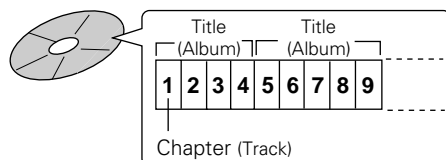
- This DVD video player is designed and manufactured to respond to the Region Management Information that is recorded on a DVD disc. If the Region number described on the DVD disc does not correspond to the Region number of this DVD video player, this DVD video player cannot play this disc. The Region number for this DVD video player is 1.



MP3 playback

You can use this unit to play MP3 format audio recorded for personal use with a computer etc. onto CD-R or CD-RW. Play may not be possible in some cases due to the condition of the recording. Discs recorded using MP3 differ to CDs in the following ways.

Structure of the disc (example)



Starting play from a selected chapter

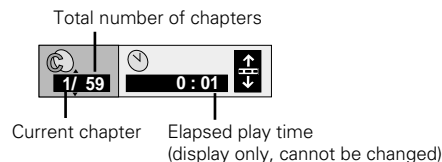
Press the numbered buttons and press the ENTER button.
Example: Chapter23: 2 button → 3 button → ENTER button
(Pressing the ≥10 button is unnecessary.)

Repeat play: You can use chapter repeat or title repeat.

Program play, Random play:

You cannot use program play or random play.

On-Screen Menu Icons for disc information during play



NOTES:

Not compatible with multi-session recordings

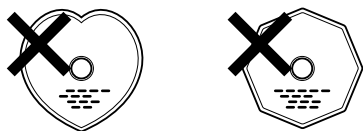
- If you record MP3 onto CD-R/CD-RW over a number of sessions, this unit can play only the recordings made in the first session.
- Recordings will not necessarily be played in the order you recorded them. The recordings will be reordered according to their titles: numbers in numerical order first, upper case in alphabetical order next and lower case in alphabetical order last.
- If you play an MP3 track that includes still picture data, it will take some time before the music itself starts playing and the elapsed time will not be displayed during this time. Even after the track starts, the correct play time will not be displayed.

3 CAUTIONS ON HANDLING DISCS

Discs

Only the discs including the marks shown on page 8 can be played on the DVM-4800.

Note, however, that discs with special shapes (heart-shaped discs, hexagonal discs, etc.) cannot be played on the DVM-4800. Do not attempt to play such discs, as they may damage the player.



Holding Discs

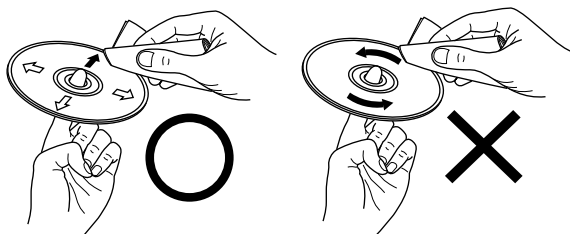
Avoid touching the surface of discs when loading and unloading them.

Be careful not to get fingerprints on the signal surface (the side which shines in rainbow colors).



Cleaning Discs

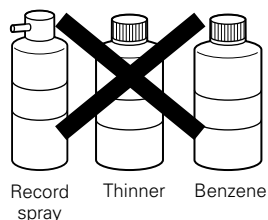
- Fingerprints or dirt on the disc may lower sound and picture quality or cause breaks in playback. Wipe off fingerprints or dirt.
- Use a commercially available disc cleaning set or a soft cloth to wipe off fingerprints or dirt.



Wipe gently from the middle outwards. Do not wipe with a circular motion.

NOTE:

- Do not use record spray or antistatic. Also do not use volatile chemicals such as benzene or thinner.



Cautions on Handling Discs

- Do not get fingerprints, grease or dirt on discs.
- Be especially careful not to scratch discs when removing them from their cases.
- Do not bend discs.
- Do not heat discs.
- Do not enlarge the center hole.
- Do not write on the labeled (printed) side with a ball-point pen or a pencil.
- Water droplets may form on the surface if the disc is moved suddenly from a cold place to a warm one. Do not use a hairdryer, etc., to dry the disc.

Cautions on Storing Discs

- Always eject discs after playing them.
- Keep discs in their cases to protect them from dust, scratches and warping.
- Do not put discs in the following places:
 1. Places exposed to direct sunlight for long periods of time
 2. Humid or dusty places
 3. Places exposed to heat from heaters, etc.

Cautions on Loading Discs

- Only load one disc at a time. Loading one disc on top of another may result in damage or scratch the discs.
- Load 8 cm discs securely in the disc guide, without using an adapter. If the disc is not properly loaded, it may slip out of the guide and block the disc tray.
- Be careful not to let your fingers get caught when the disc tray is closing.
- Do not place anything but discs in the disc tray.
- Do not load cracked or warped discs or discs that have been fixed with adhesive, etc.
- Do not use discs on which the adhesive part of cellophane tape or glue used to attach the label is exposed or discs with traces of tape or labels that have been peeled off. Such discs may get stuck inside the player, resulting in damage.

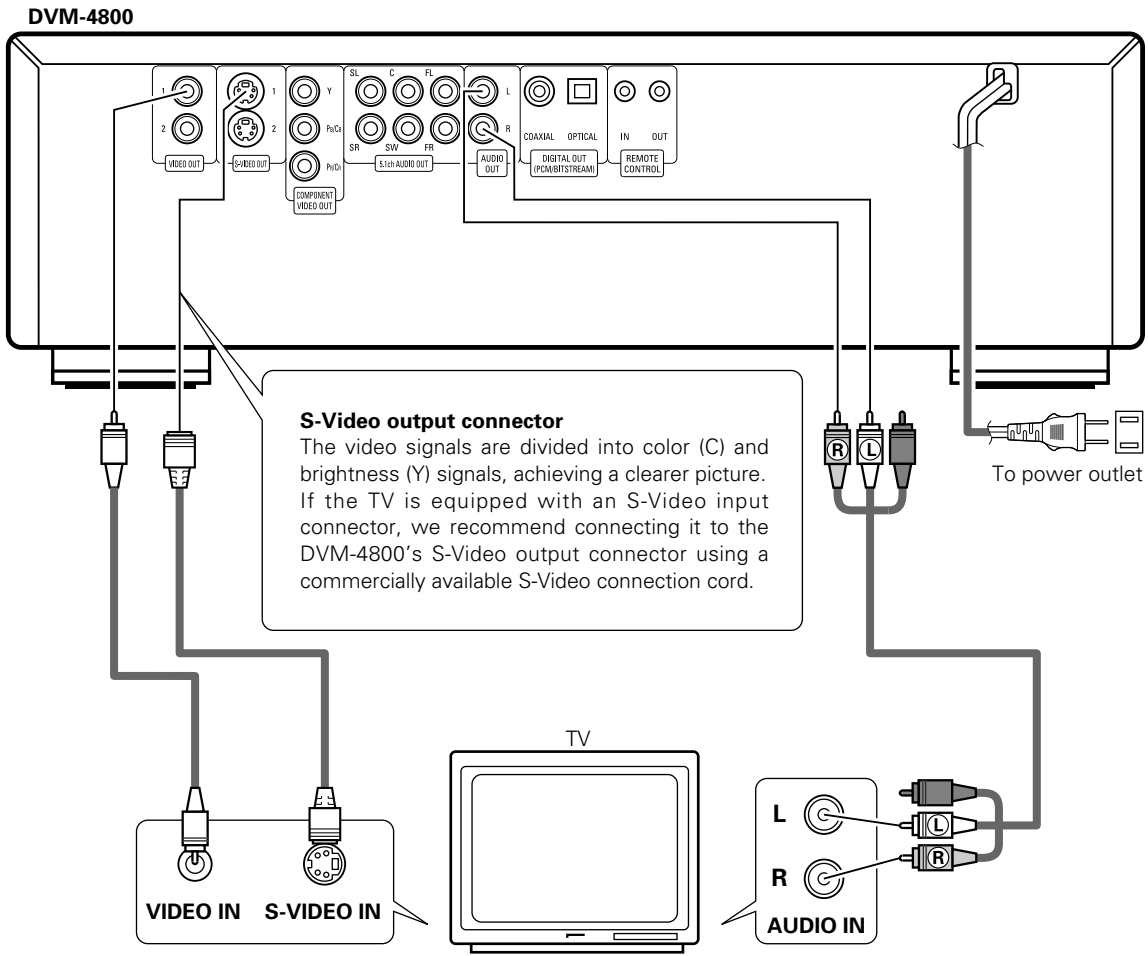
4 CONNECTIONS

NOTES:

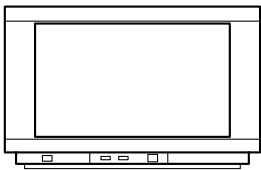
- Read the manuals of all the components when making connections.
- Keep the power cord unplugged until all connections have been completed.
- If the power is on when connections are made, noise may be generated and damage the speakers.
- Be sure to connect the left and right channels properly, L (left) to L, R (right) to R.
- Plug the power cord securely into the power outlet. Incomplete connection may result in noise.
- Binding the power cord together with connection cords may result in humming or noise.
- Plug in the power cord in the direction in which the sound is most to your liking.

(1) Connecting to an AV TV

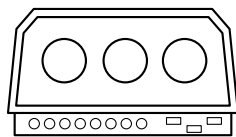
- Use the included video/audio cord to connect the TV's video input connectors and audio input connector to the DVM-4800's video output connectors and audio output connector.



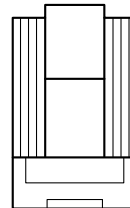
Video equipment you own



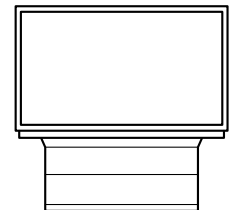
Standard (Direct View TV)
(See pages 10 and 11.)
 Conventional TV set (4:3), Wide-screen TV set (16:9), Digital TV etc.



CRT projector
(See pages 10 and 11.)
 Cinema-size images can be enjoyed by projecting from three light sources onto a large screen.



LCD projector
(See pages 10 and 11.)
 Cinema-size images can be enjoyed by projecting from an LCD panel onto a large screen.



Projection TV
(See pages 10 and 11.)
 Powerful images can be enjoyed with a large rear screen projector.

NOTES:

- Connect the DVM-4800's video outputs to the TV either directly or through an AV amplifier. **Do not connect it via a VCR** (video cassette recorder).
- Some discs contain copy prohibit signals. If such discs are played via a VCR, the copy prohibit system may cause disturbance in the picture.

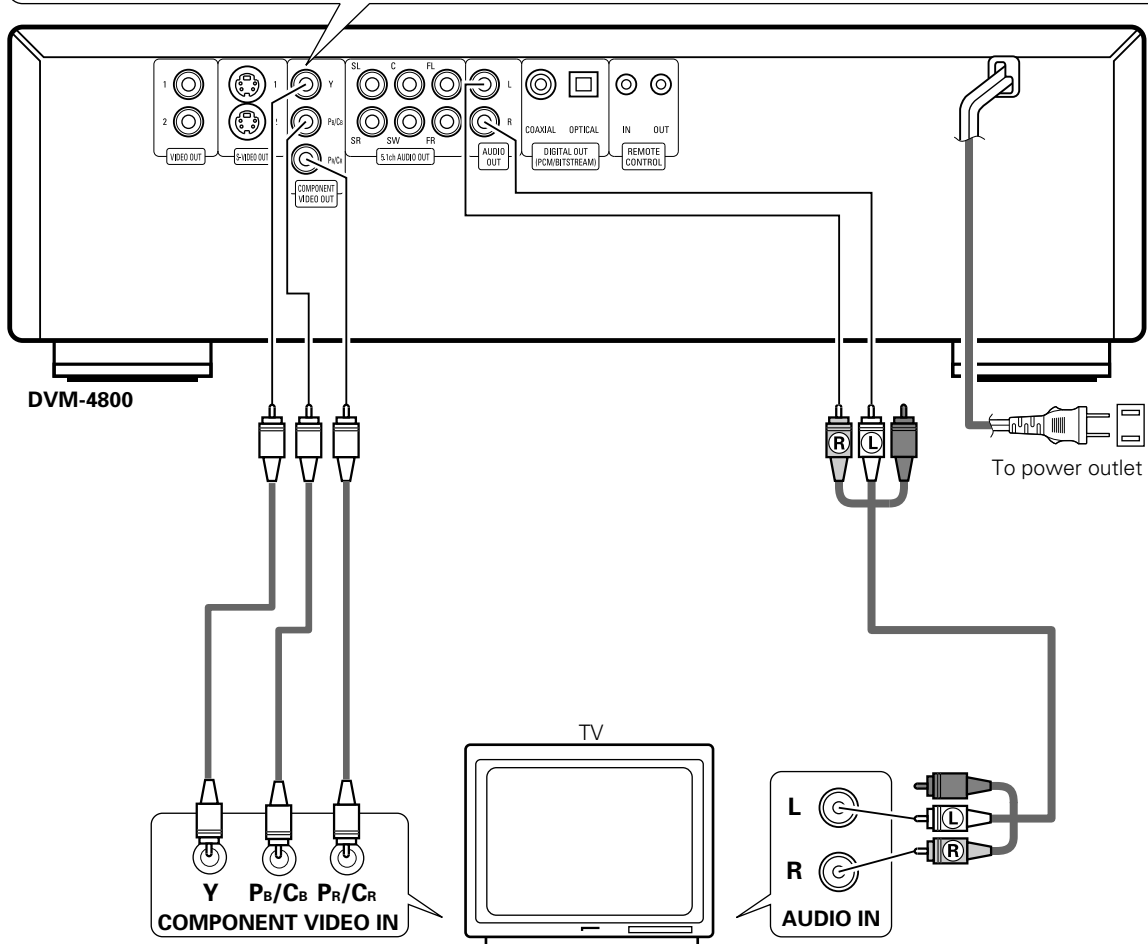
(2) Connecting to a TV or Monitor Equipped with Color Component Input Connectors

Color component output connectors (P_R/C_R, P_B/C_B and Y)
 The red (P_R/C_R), blue (P_B/C_B) and brightness (Y) signals are output independently, achieving more faithful reproduction of the colors.

- The color component input connectors may be marked differently on some TVs or monitors (P_R, P_B and Y/R-Y, B-Y and Y/C_R, C_B and Y, etc.). For details, refer to the TV's operating instructions.

To enjoy progressive video

1. Connect to the component video (480p) input terminals on a television compatible with this unit's copy guard system. Video will not be displayed correctly if you connect to a television that is incompatible with this unit's copy guard system.
2. Press the PROGRESSIVE SCAN button on the front panel so the indicator lights (See page 16).

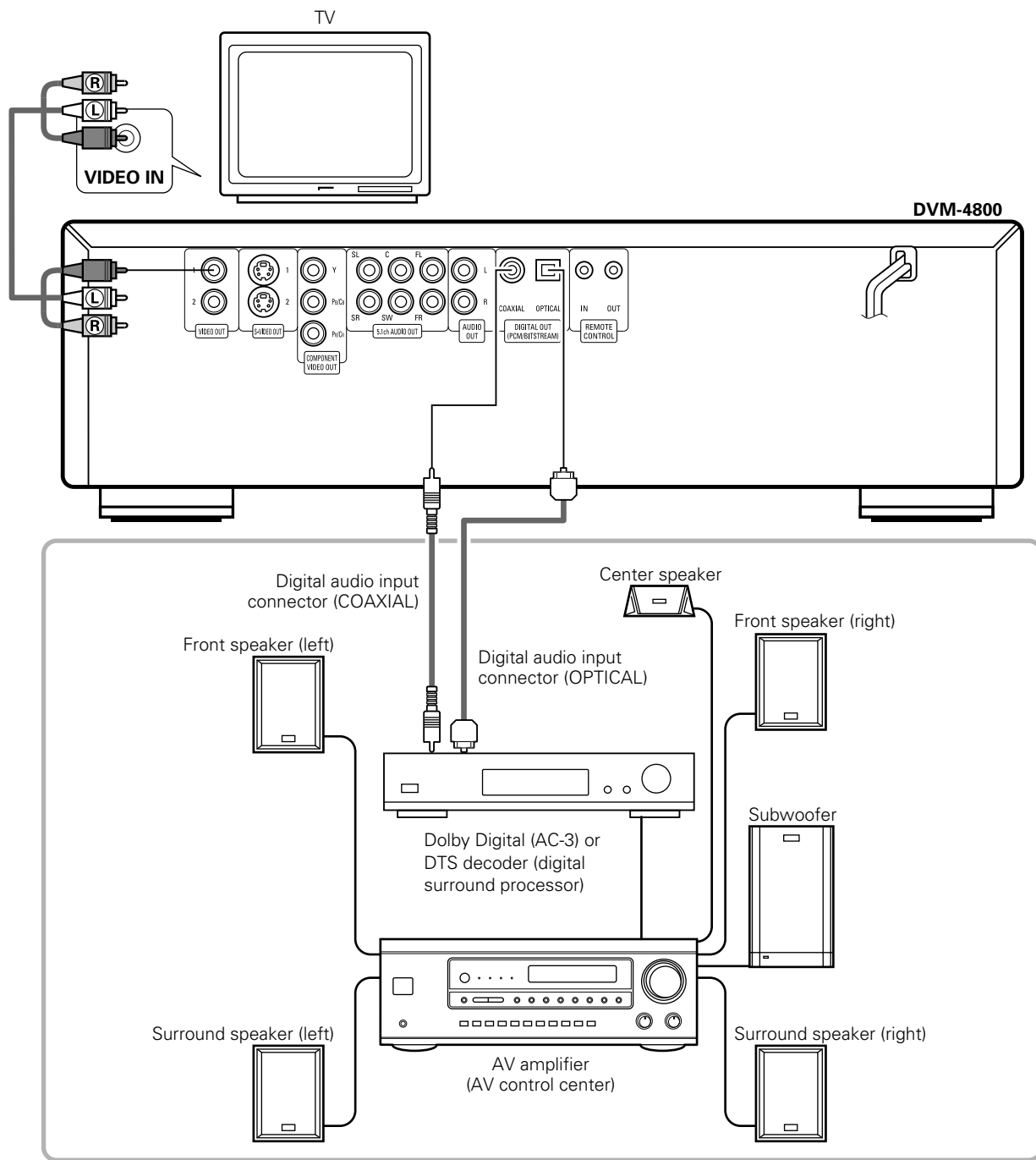


NOTE:

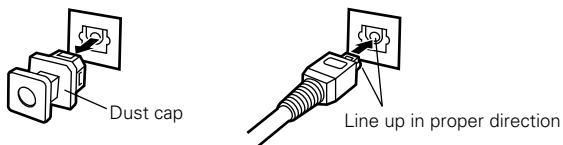
- Use three commercially available 75 Ω/ohm pin-plug cord to connect the DVM-4800's color component output connectors to the TV or monitor.

(3) Connecting to a Dolby Digital (AC-3) or DTS (digital theater systems) Decoder

When DVDs recorded in Dolby Digital or DTS are played, Dolby Digital or DTS bitstream signals are output from the DVD player's digital audio output connectors. If a Dolby Digital or DTS decoder is connected, you can achieve sound with the power and sense of presence of a movie theater or concert hall.



■ Connecting an optical fiber cable (commercially available) to the digital audio input connector (OPTICAL)



NOTE:

- Store the dust cap in a safe place and be careful not to lose it. When not using the terminal, attach the cap to protect the terminal from dust.

Remove the dust cap, line up the cable in the proper direction, then insert it securely as far as it goes.

■ Sound output from the DVM-4800's digital audio output connectors

Disc played	Audio recording format	Sound output
DVD video	Dolby Digital (AC-3)	<ul style="list-style-type: none"> Dolby Digital bitstream (1 to 5.1 channels) or PCM (48 kHz/16 bit) (2 channels). (NOTE 1, 2) ※ Select with the "Audio" default setting. (See page 51.)
	DTS	<ul style="list-style-type: none"> dts bitstream or no output. ※ Select with the "Audio" default setting. (See page 51.)
	Linear PCM 48 kHz/96 kHz 16/20/24 bit	<ul style="list-style-type: none"> Linear PCM (48 kHz/16 bit only) (2 channels) or no output. (NOTE 2) ※ Select with the "Audio" default setting. (See page 51.)
Video CD	MPEG1	<ul style="list-style-type: none"> PCM (44.1 kHz) (NOTE 1)
CD	Linear PCM	<ul style="list-style-type: none"> Linear PCM (44.1 kHz)

NOTE 1: The type of audio output from the connector can be selected by "Audio" of the initial setting. (See page 51.)

NOTE 2: Compressed audio is converted to PCM before output.

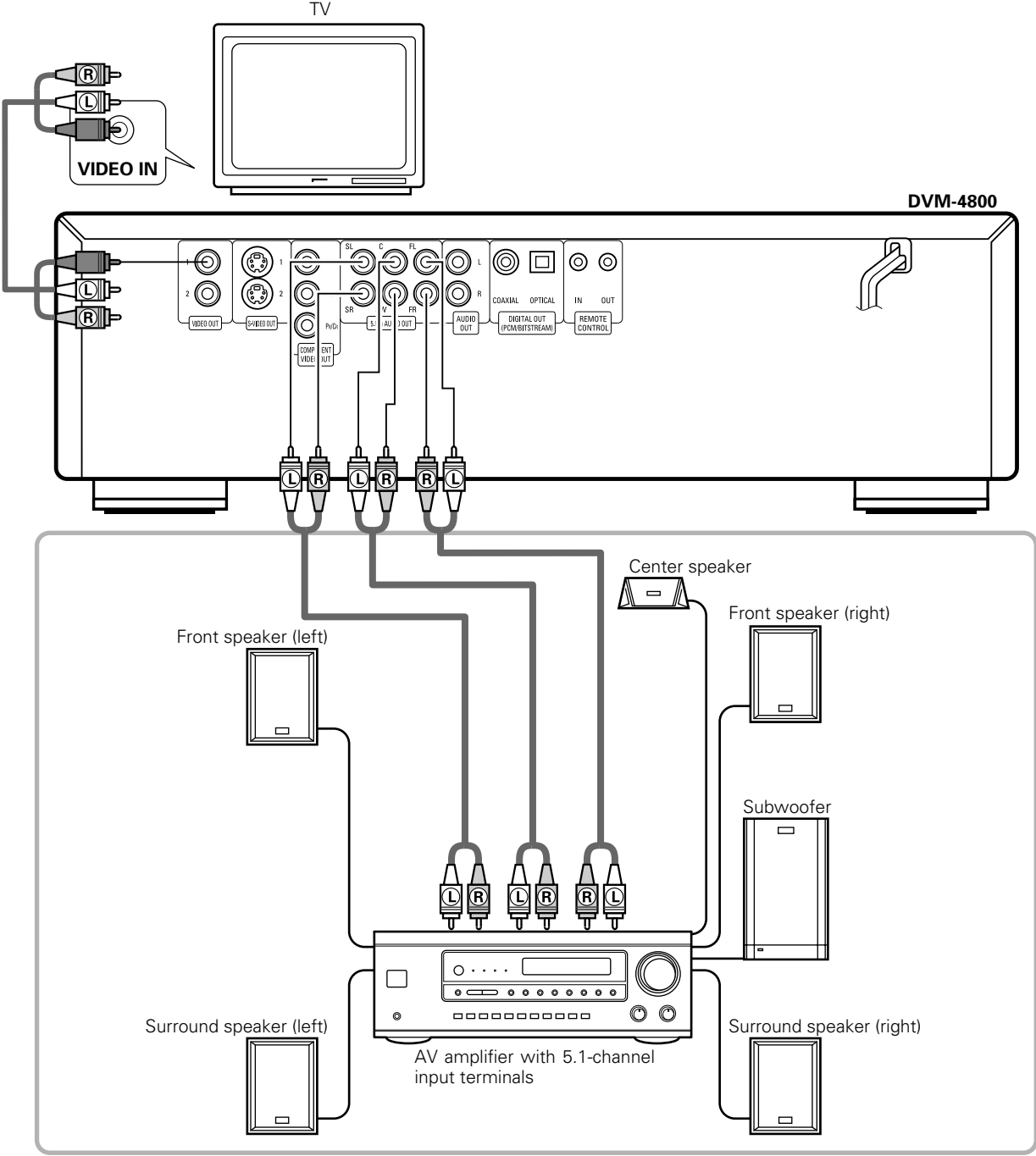
NOTE:

- Some dts decoders which do not support DVD- dts interface may not work properly with the DVD video auto changer.

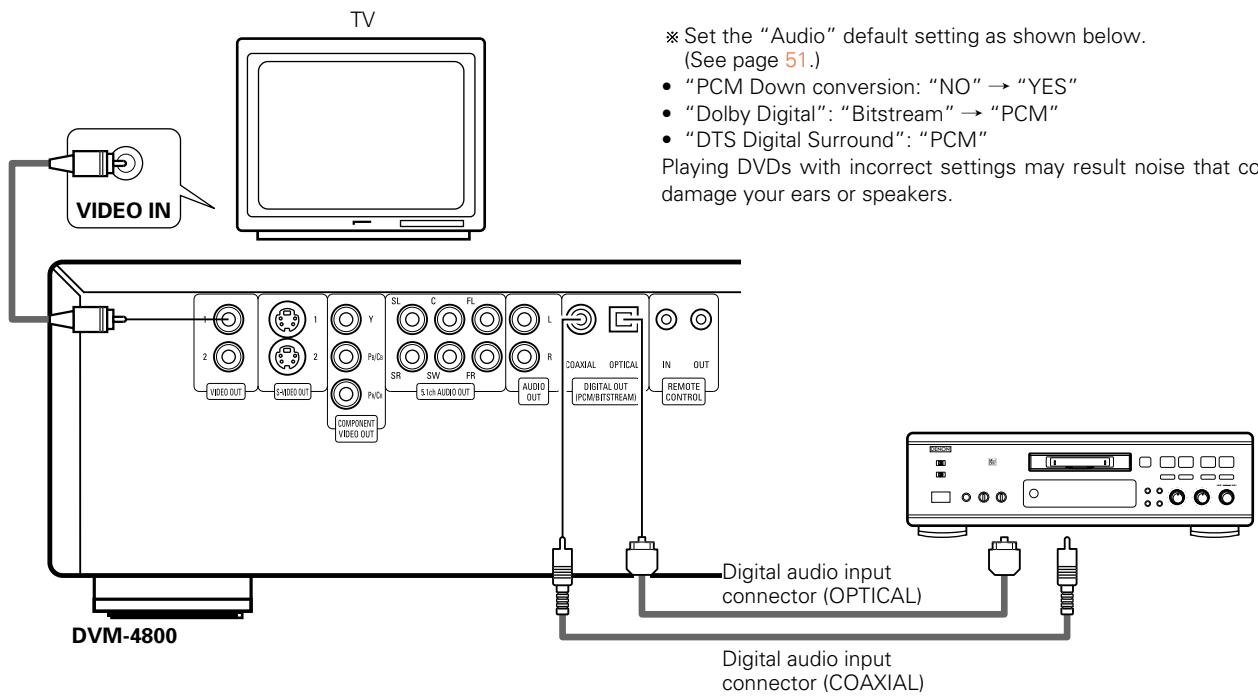
- Linear PCM audio is the signal recording format used for music CDs.
While the signals are recorded at 44.1 kHz/16 bit for music CDs, for DVDs they are recorded at 48 kHz/16 bit to 96 kHz/24 bit, providing higher sound quality than music CDs.

(4) Connecting a basic 5.1-channel surround system

This is the basic system you will need to fully enjoy the high quality sound found on DVD-Audio and to enjoy home theater with DVD-Video.



(5) Connecting to a Digital Recorder (MD Recorder, DAT Deck, etc.)

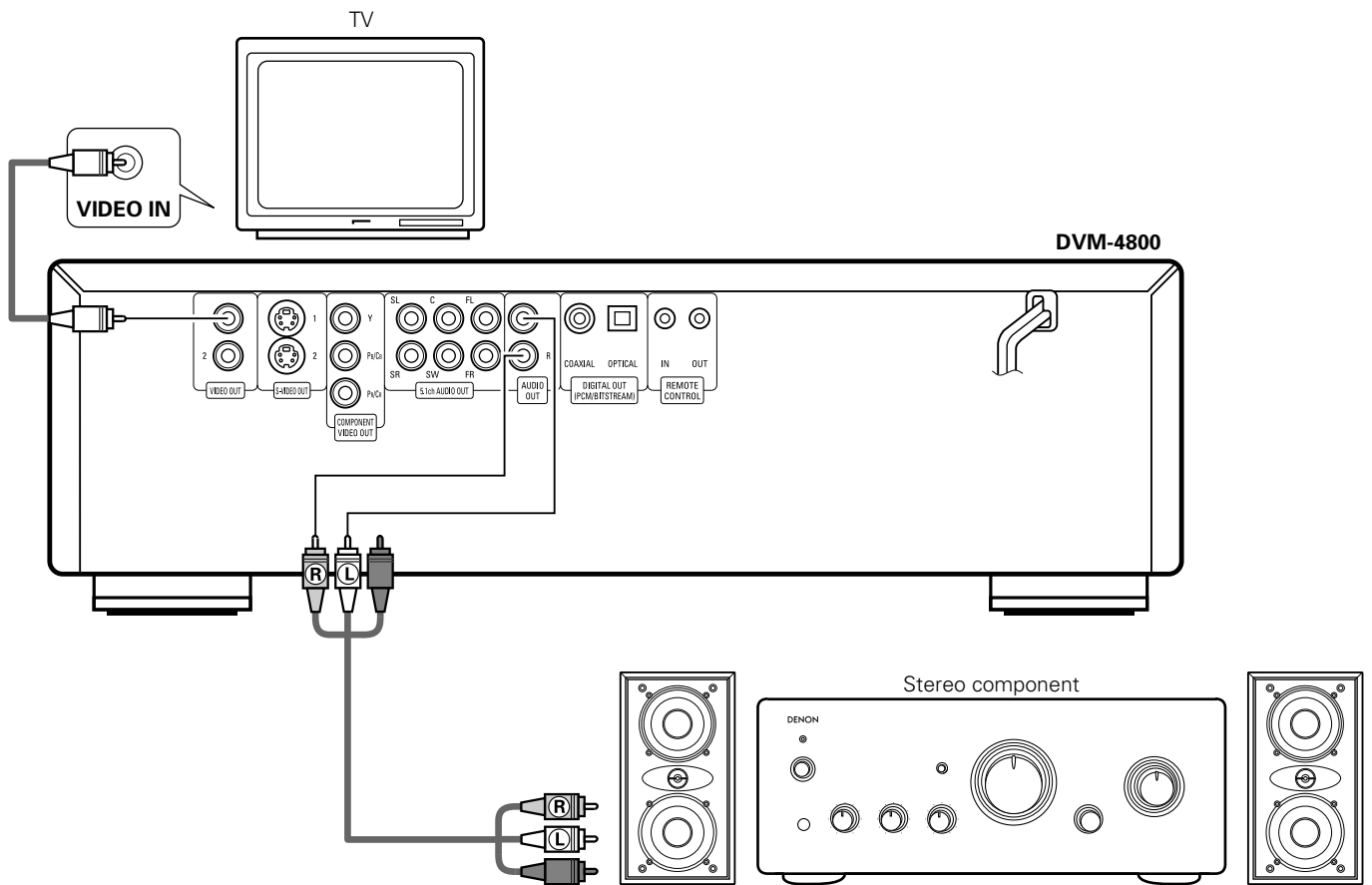


※ Set the "Audio" default setting as shown below.
(See page 51.)

- "PCM Down conversion": "NO" → "YES"
- "Dolby Digital": "Bitstream" → "PCM"
- "DTS Digital Surround": "PCM"

Playing DVDs with incorrect settings may result noise that could damage your ears or speakers.

(6) Connecting to a Stereo Component



NOTE:

- Use commercially available 75 Ω/ohm pin-plug cord to connect the DVM-4800's video out connector to the TV or monitor.

5 PART NAMES AND FUNCTIONS

(1) Front Panel

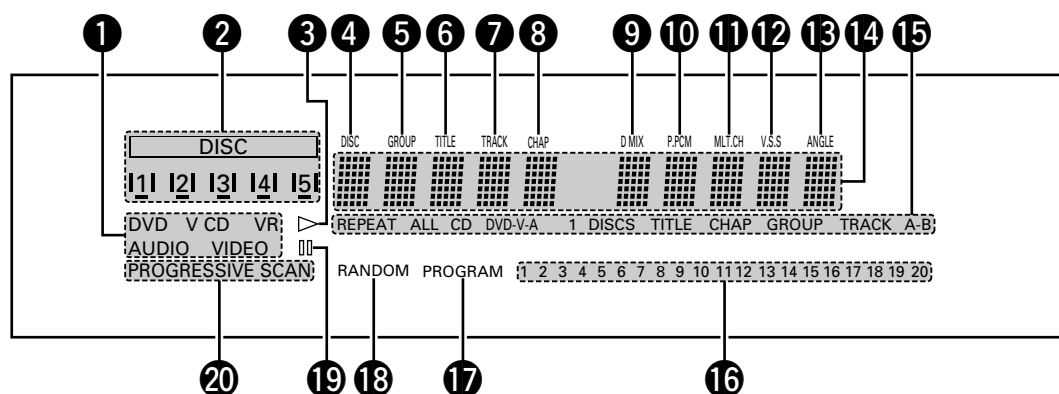
- 1 POWER button**
 - Press once to turn the power on.
 - Press again to set to the "OFF" position and turn the power off.
 - Set the power to the standby mode by pressing the POWER OFF button on the remote control unit while the power is on.
 - Turn the power on from the standby mode by pressing the POWER ON button on the remote control unit.
- 2 Power indicator**
 - This indicator lights when the power is on and when the power is in the standby mode.
- 3 AUDIO ONLY button**
 - Press this button to enjoy even higher quality.
- 4 AUDIO ONLY indicator**
 - This indicator light when you press the AUDIO ONLY button.
- 5 BASS ENHANCER button**
 - Press this button when you have connected an active subwoofer.
- 6 HDCD indicator**
 - This indicator lights when playing discs recorded in HDCD® format.
- 7 AL 24 PLUS indicator**
 - This indicator lights when the audio signals of a DVD, etc., are being processed digitally with the AL 24 PLUS processor, a newly developed analog waveform reproduction technology.
- 8 PROGRESSIVE SCAN button**
 - Press this button to enjoy progressive video.
- 9 DISC SKIP button**
 - Each time this button is pressed, the carousel will rotate in a clockwise direction to the next tray position. This allows for loading or unloading of discs.
 - This button is also used to select the next disc, in the normal play continuously.
- 10 Remote control sensor (REMOTE SENSOR)**
- 11 Display**
 - Information on the disc that is currently playing is shown on the display. (See page 17.)
- 12 SKIP button (I◀◀)**
 - Press this to move back to the beginning of the current track (or chapter).
 - Press again to move back to the beginning of the previous track (or chapter).
- 13 PLAY button (▶)**
 - Press this to play the disc.
- 14 SKIP button (▶▶I)**
 - Press this to move ahead to the beginning of the next track (or chapter).
- 15 STILL/PAUSE button (II)**
 - Press this button to stop play temporarily.
- 16 SLOW/SEARCH button (◀◀)**
 - Press this button in the play mode to search in the reverse direction.
 - Press the button in the still mode for slow play in the reverse direction.
- 17 STOP button (■)**
 - Press this to stop the disc. (See page 00.)

- 18 SLOW/SEARCH button (▶▶)**
 - Press the button in the play mode to search in the forward direction.
 - Press the button in the still mode for slow play in the forward direction.
- 19 OPEN/CLOSE button (▲)**
 - Press this button to open and close the disc tray.
- 20 Disc number button (1~5)**
 - Press these button to specify which disc you want to play.
- 21 Disc tray (1~5)**
 - Load discs here.
 - Press the OPEN/CLOSE button 19 to open and close the disc tray.
 - The disc tray is also closed when the PLAY button 13 is pressed.

(2) Rear Panel

- 22 Video output connectors (VIDEO OUT)**
 - Connect using the included video cord.
- 23 S-Video output connectors (S-VIDEO OUT)**
 - Connect using an S-Video connection cord (available in stores).
- 24 Component video output connectors (COMPONENT)**
 - Connect using video cords (available in stores).
- 25 5.1ch AUDIO OUT connectors**
 - This is the output connector to connect a receiver with 5.1-channel input connector.
- 26 ANALOG OUT connectors**
 - Connect these to the input connectors of an amplifier, etc., to hear the sound of the DVM-4800 over the speakers through the amplifier.
 - 5.1-channel is down mixed to 2 channels when output through these terminals.
- 27 Digital audio output connector (COAXIAL)**
 - Connect using an audio cord. Connect a commercially available 75 Ω/ohms pin-plug cord.
 - Digital data is output from this connector.
- 28 Digital audio output connector (OPTICAL)**
 - Connect using an optical fiber cable (available in stores).
 - Digital data is output from this connector.
- 29 Remote control input connector (REMOTE CONTROL IN)**
 - This is the input connector for wired remote control. Consult your DENON dealer if you wish to use this connector.
- 30 Remote control output connector (REMOTE CONTROL OUT)**
 - This is the output connector for wired remote control. Consult your DENON dealer if you wish to use this connector.
- 31 Power cord**
 - Plug this into a wall power outlet.

(3) Display



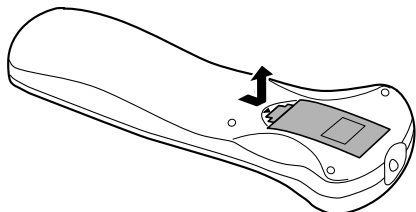
- 1 Source indicator**
 - These indicate the types of disc currently playing.
- 2 Tray indicator**
 - The number of the trays in which discs are loaded light.
- 3 Play indicator**
 - Lights during playback, flashes when the resume function is activated.
- 4 Disc indicator**
- 5 Group indicator**
- 6 Title indicator**
- 7 Track indicator**
- 8 Chapter indicator**
- 9 Down mix indicator**
 - Down-mixes audio signals (condenses multi-channel signals into two channels).
- 10 Packed Pcm indicator**
 - Lights when P.PCM signals are input.
- 11 Multi channel indicator**
 - Lights when there are 3 or more channels.
- 12 Virtual surround sound indicator**
- 13 Angle indicator**
- 14 Main indicator**
 - Displays the elapsed playback time, track number and various messages.
- 15 Repeat indicator**
- 16 Music calendar**
- 17 Program indicator**
- 18 Random indicator**
- 19 Pause indicator**
- 20 Progressive scan indicator**
 - Lights when progressive output is selected.

6 REMOTE CONTROL UNIT

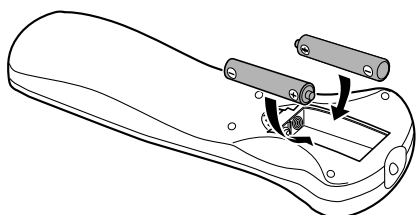
■ The DVM-4800 can be controlled from a distance using the included remote control unit (RC-548).

(1) Inserting Batteries

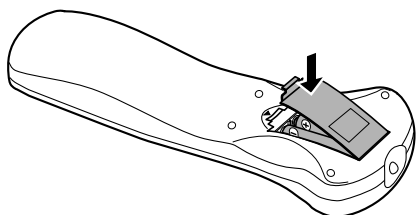
① Remove the remote control unit's rear cover.



② Place two batteries ("AA" (R6P)) in the battery compartment in the direction indicated by the marks.



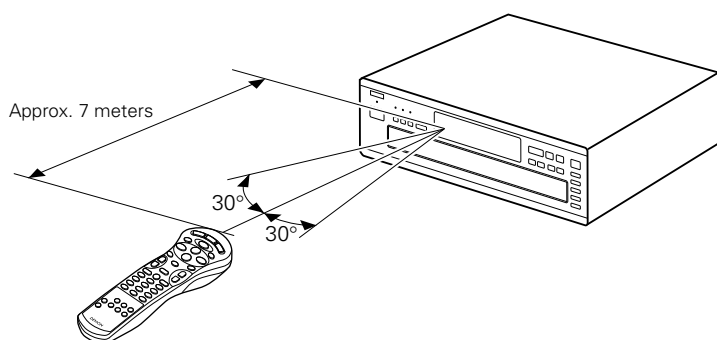
③ Close the rear cover.



Cautions On Batteries

- Use batteries ("AAA" (R03)) in this remote control unit.
- Replace the batteries with new ones approximately once a year, though this depends on the frequency with which the remote control unit is used.
- If the remote control unit does not operate from close to the main unit, replace the batteries with new ones, even if less than a year has passed.
- The included battery is only for verifying operation. Replace it with a new battery as soon as possible.
- When inserting the batteries, be careful to do so in the proper direction, following the ⊕ and ⊖ marks in the remote control unit's battery compartment.
- To prevent damage or battery fluid leakage:
 - Do not use a new battery with an old one.
 - Do not use two different types of batteries.
 - Do not short-circuit, disassemble, heat or dispose of batteries in flames.
- Remove the batteries when not planning to use the remote control unit for a long period of time.
- If the batteries should leak, carefully wipe off the fluid from the inside of the battery compartment, then insert new batteries.

(2) Using the Remote Control Unit

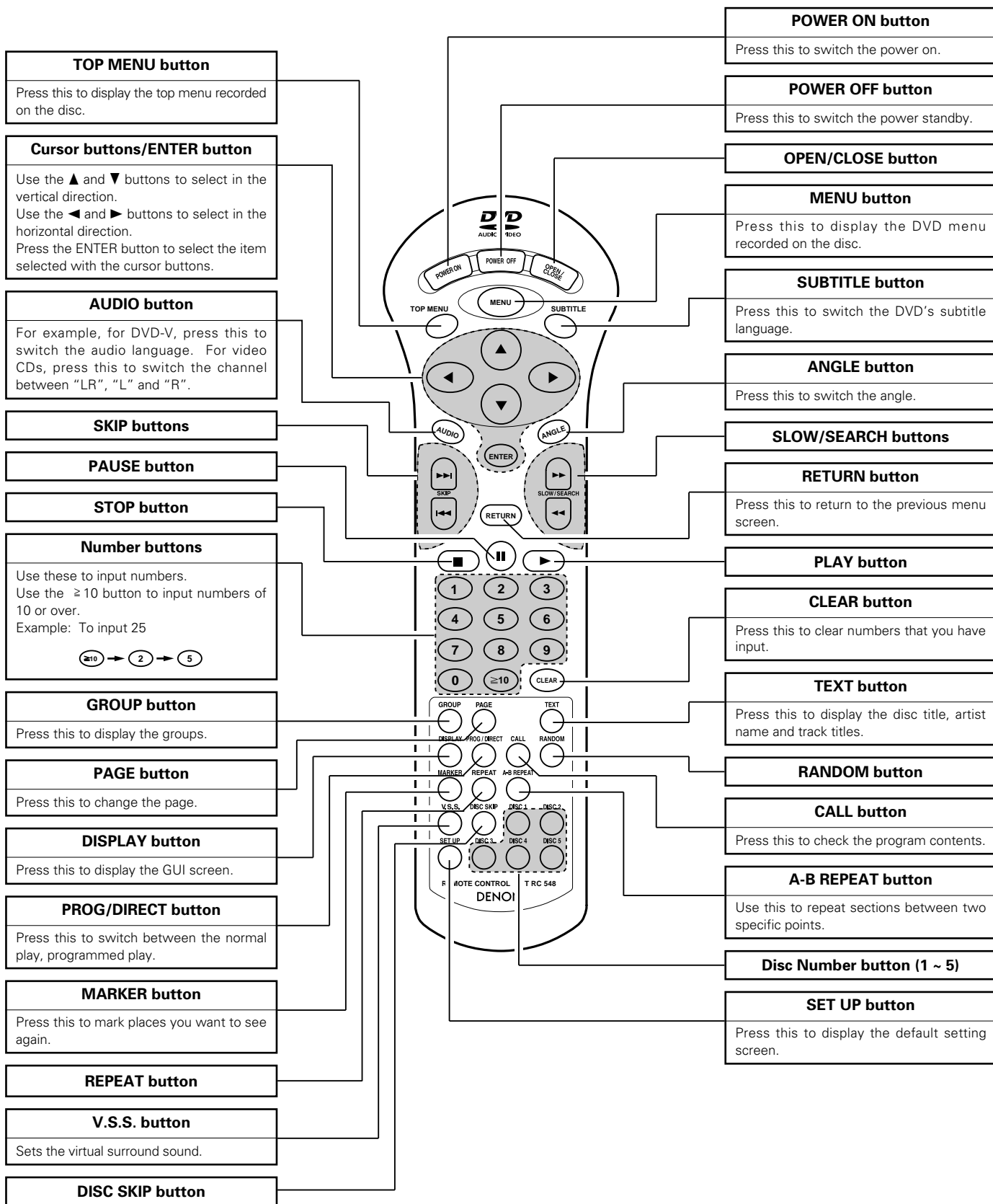


- When operating the remote control unit, point it at the remote control sensor as shown on the diagram.
- The remote control unit can be used from a direct distance of approximately 7 meters. This distance will be shorter, however, if there are obstacles in the way or if the remote control unit is not pointed directly at the remote control sensor.
- The remote control unit can be operated at a horizontal angle of up to 30° with respect to the remote control sensor.

NOTES:

- It may be difficult to operate the remote control unit if the remote control sensor is exposed to direct sunlight or strong artificial light.
- Do not press buttons on the main unit and on the remote control unit at the same time. Doing so will result in malfunction.

(3) Names and Functions of Remote Control Unit Buttons



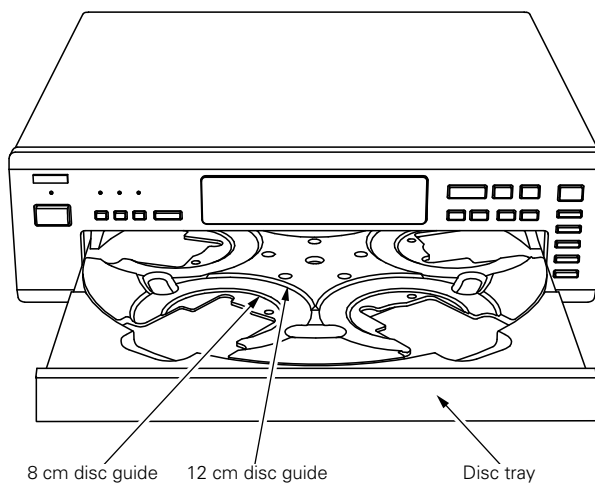
IMPORTANT SETUP INFORMATION

This set has the following presets: "Disc Languages", "Ratings", "Menu Language", "On-Screen Messages", "FL Display", "TV Aspect", "Digital Audio Output" and "Other Settings".

These presets have been preset upon shipment from the factory. If you wish to change them to suit your specific purposes, refer to pages 46 to 56.

7 LOADING DISCS

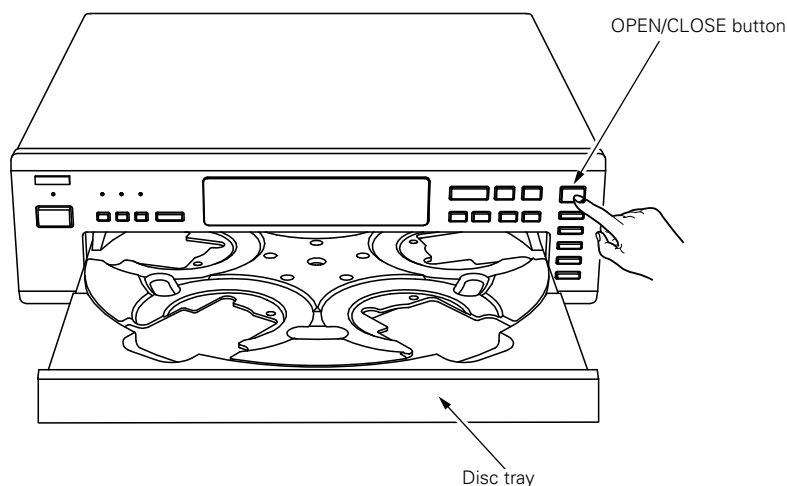
- Set discs in the disc tray with the labeled (printed) side facing up.

**NOTES:**

- Do not move the DVM-4800 while a disc is playing. Doing so may scratch the disc.
- For discs on which both sides can be played, load the disc with the side you want to play facing down.

(1) Opening and Closing the Disc Tray

- ① Turn on the power.
- ② Press the OPEN/CLOSE button.

**NOTES:**

- Be sure to turn on the power before opening and closing the disc tray.
- Do not strike on the button with a pencil, etc.

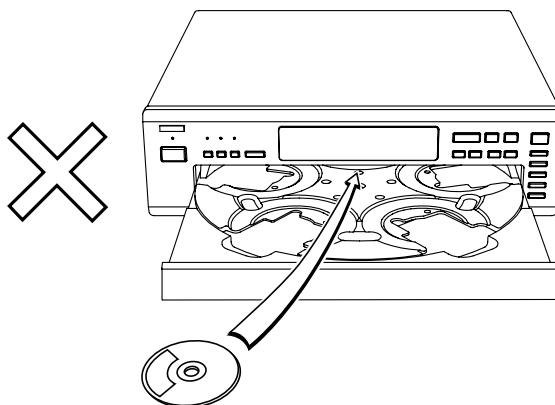
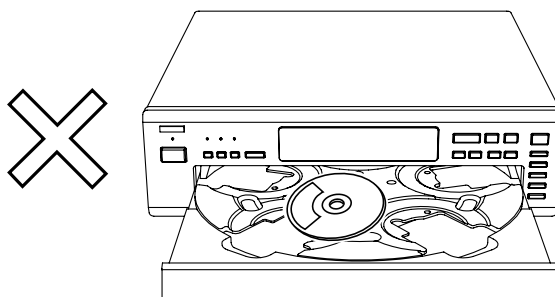
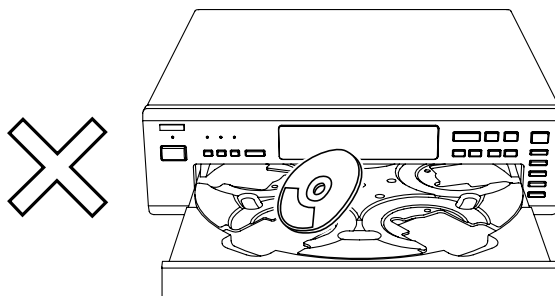
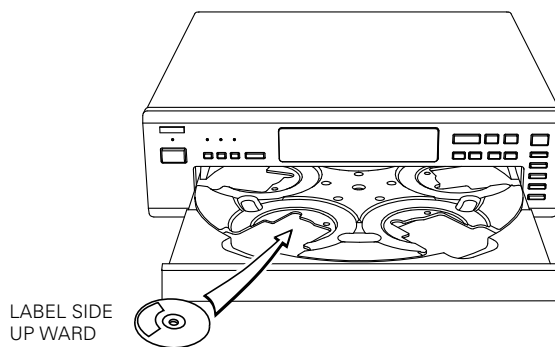
(2) Loading Discs

How to load a disc

- Make sure the drawer is completely open.
- Hold the disc by the edges and place it on the disc tray. (Do not touch the signal surface, i.e., the glossy side.)
- Set the disc properly in the tray according to its size.
Set 8 cm discs in the center hole.
Set 12 cm discs in the outer hole.
- When the drawer is opened during the stop mode, discs can be loaded in the 5 disc trays. If the DISC SKIP button is pressed, the carousel turns and a disc can be loaded in the another disc tray. When the drawer is opened during the play mode, it is possible to load and unload discs in all of the disc trays other than the one whose disc is currently playing. 5 discs can be replaced and press the DISC SKIP button to switch the other disc tray that can be replaced.
- Press the OPEN/CLOSE button (▲) to close the drawer.

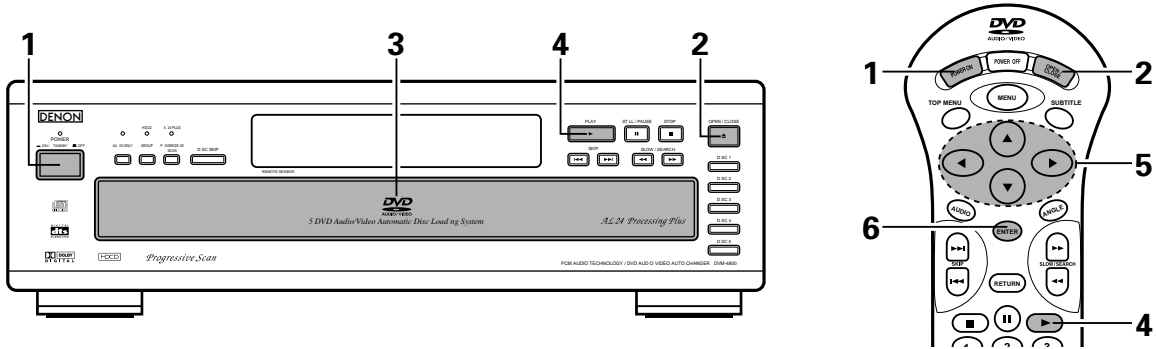
NOTES:

- Remove all discs before moving the player.
- The player will not operate properly and the disc may even be damaged if it is not set correctly.
- If your finger should get caught in the drawer when it closes, press the OPEN/CLOSE button (▲).
- Do not place any foreign objects on the disc tray and do not place more than one disc on the tray at a time. Otherwise malfunction may occur.
- Do not push in the disc tray manually when the power is off as this may cause malfunction and damage the DVD video auto changer.
- Do not touch the carousel while it is turning. Also, do not turn the carousel by hand when it is stopped. Doing so could damage it.
- Do not insert disc where indicated by arrow. This could damage the internal mechanism in the unit.
- Do not hit the set strongly when a disc is loaded. Doing so may scratch the disc or cause the DVD video auto changer to stop operating.

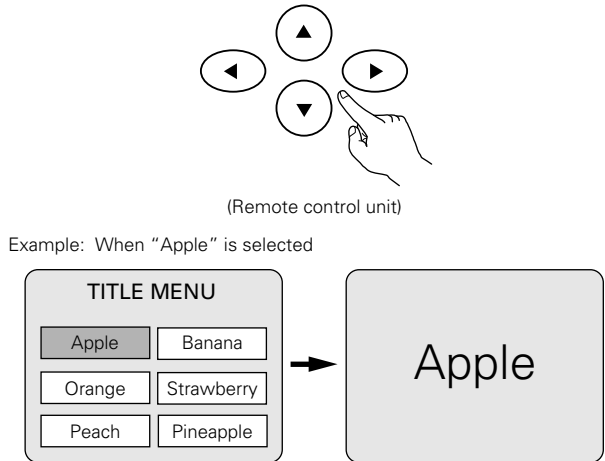
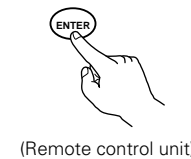


8 PLAYBACK

(1) Playback

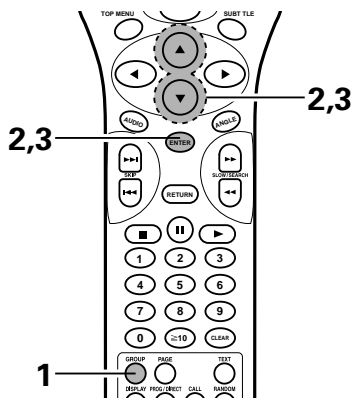


<p>1</p>	<p>Turn on the power.</p> <ul style="list-style-type: none"> The power indicator lights and the power turns on. 	<p>(Main unit) (Remote control unit)</p>											
<p>2</p>	<p>Press the OPEN/CLOSE button to open the disc tray.</p>	<p>(Main unit) (Remote control unit)</p>											
<p>3</p>	<p>Set the disc to be played in the front side tray.</p>												
<p>4</p>	<p>Press the PLAY button.</p> <ul style="list-style-type: none"> The disc tray closes automatically and playback begins. If the disc tray is closed with the OPEN/CLOSE button, press the PLAY button. For many interactive DVDs and video CDs with playback control, a menu screen appears. In this case use the procedure in step 5 to select the desired item. ※ Interactive DVDs are DVDs including multiple angles, stories, etc. ※ The specified disc can be played by pressing the Disc Number button. 	<p>(Main unit) (Remote control unit)</p> <p>Example: For DVDs with menu screens</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p style="text-align: center;">TITLE MENU</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Apple</td> <td>Banana</td> </tr> <tr> <td>Orange</td> <td>Strawberry</td> </tr> <tr> <td>Peach</td> <td>Pineapple</td> </tr> </table> </div> <p>Example: For video CDs with playback control</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <table border="1" style="width: 100%; text-align: center;"> <tr><td>1. Opening</td></tr> <tr><td>2. 1st movement</td></tr> <tr><td>3. 2nd movement</td></tr> <tr><td>4. 3rd movement</td></tr> <tr><td>5. Ending</td></tr> </table> </div>	Apple	Banana	Orange	Strawberry	Peach	Pineapple	1. Opening	2. 1st movement	3. 2nd movement	4. 3rd movement	5. Ending
Apple	Banana												
Orange	Strawberry												
Peach	Pineapple												
1. Opening													
2. 1st movement													
3. 2nd movement													
4. 3rd movement													
5. Ending													

<p>5</p>	<p>Use the cursor buttons (▲, ▼, ◀ and ▶) to select the desired item.</p> <ul style="list-style-type: none"> • For some discs there is a second menu screen. If so, press the ►► button to display the next menu screen. (See the disc's jacket.) ※ The cursor buttons (▲, ▼, ◀ and ▶) do not work for video CDs. Use the number buttons to select the desired item. 	 <p>(Remote control unit)</p> <p>Example: When "Apple" is selected</p>
<p>6</p>	<p>Press the ENTER button.</p> <ul style="list-style-type: none"> • The desired item is selected and playback starts. • You can return to the menu screen by pressing the TITLE/MENU/RETURN button while the DVD is playing, though this depends on the disc. • Press the RETURN button during playback of a video CD to return to the menu screen. 	 <p>(Remote control unit)</p>

- NOTES:**
- If the OPEN/CLOSE (▲) button is pressed while a disc is playing, playback continues, but the drawer opens and four discs can be replaced. The disc that can be replaced switches when the DISC SKIP button is pressed. Press the OPEN/CLOSE (▲) button again to close the drawer.
 - If ⓪ appears on the TV screen while buttons are being operated, that operation is not possible on the DVM-4800 or with that disc.
 - Set the disc in the disc guide.
 - Do not place more than one disc in the disc tray.
 - The disc keeps turning while the menu screen is displayed on the TV screen.
 - Always press the STOP button if you do not want to keep playing the disc.

(2) Selecting groups to play (for DVD-AUDIOS only)



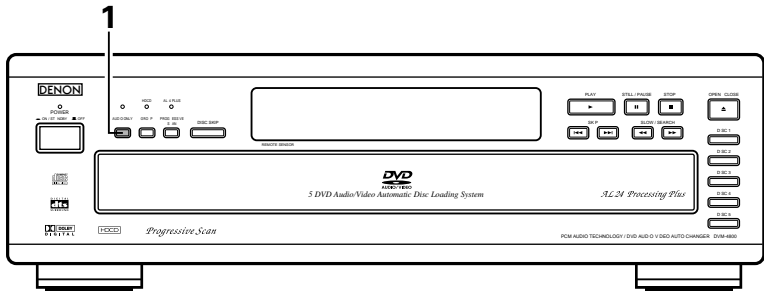
<p>1</p>	<p>Press the GROUP button.</p> <ul style="list-style-type: none"> The group and track icons are displayed. 	<p>(Remote control unit)</p>
<p>2</p>	<p>Use the cursor buttons (▲, ▼) to select the group number and press the ENTER button.</p>	<p>(Remote control unit) (Remote control unit)</p>
<p>3</p>	<p>Use the cursor buttons (▲, ▼) to select the track number and press the ENTER button.</p>	<p>(Remote control unit) (Remote control unit)</p>


NOTES:

- You can also select groups with the remote control's numbered buttons or GROUP button on the main unit. Press the PLAY button to start playing the selected group.
- Selection may not be allowed in some situations.

(3) To enjoy even higher quality sound-AUDIO ONLY

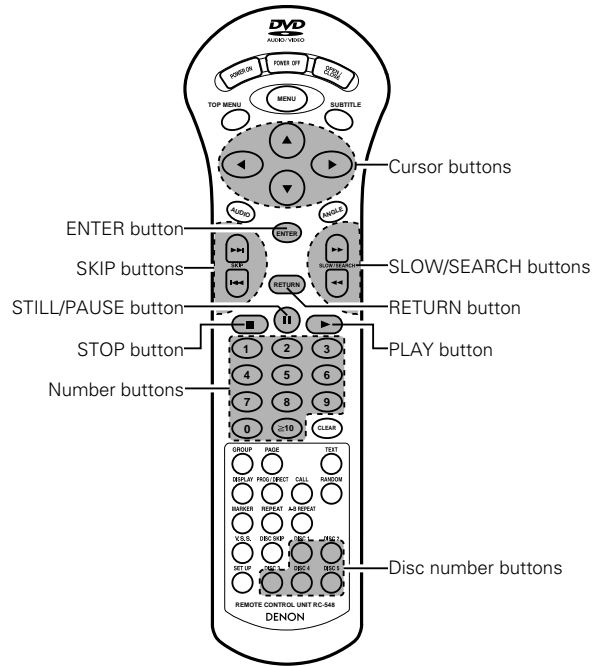
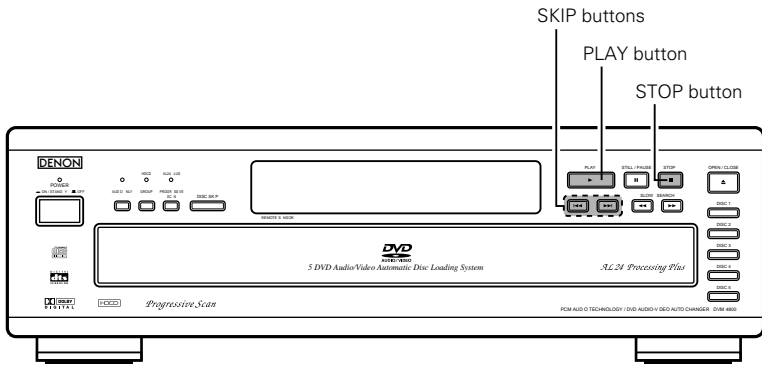
■ You can enjoy higher quality audio by stopping the video signal.



<p>1</p>	<p>Press the AUDIO ONLY button.</p> <ul style="list-style-type: none">• The light above the button on the main unit lights.	 <p>(Main unit)</p>
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NOTE:

- Video signals are output while the disc is stopped and when operations such as searching are performed. The television can appear unusual while video signals are not being output.



(4) Stopping Playback

During playback, press the STOP button.

RESUME function

The player records the point where the STOP button was pressed during play (RESUME function). ("▶" flashes on the player's FL display when this function is activated.)

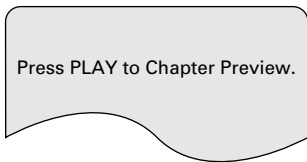
- Press the PLAY button again while "▶" flashes and play will resume from this point.
- When the tray is opened or STOP button is pressed again while "▶" flashes, the RESUME function will be cleared.

The RESUME function works only with titles for which the elapsed playing time appears on the player's FL display during playback.

This feature will not be cleared when the player is set to the standby mode and then turned back ON.

Chapter preview function (DVD only)

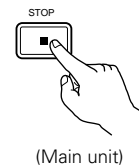
When the PLAY button is pressed while "▶" flashes, the message shown at right is displayed.



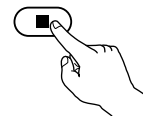
When the PLAY button is pressed again while the above message is displayed, the first few seconds of each chapter from the beginning of the title up to the point where operation was stopped will be played. This makes it possible to review previously viewed chapters. Normal playback will commence from the point where operation was stopped.

NOTES:

- Cancelling the RESUME function will also clear the chapter preview function.
- The chapter preview function may not work with some DVDs.
- After 30 minutes in the stop mode, the DVM-4800's power automatically turns off and the standby mode is set. (Auto Power Off)
- If you do not want to continue playing the disc, to save electricity either press the POWER button on the main to turn the power off or press the POWER OFF button on the remote control unit to set the power to the standby mode.



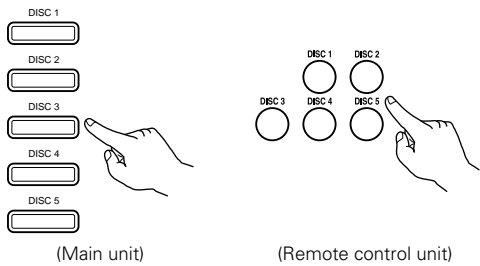
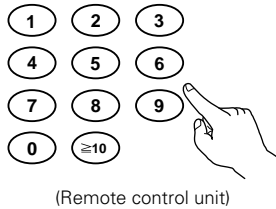
(Main unit)



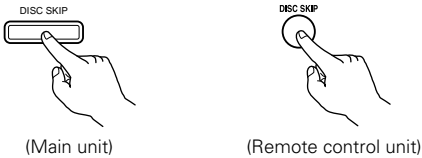
(Remote control unit)

※ The resume play memory function only works for discs for which the elapsed time is shown on the display during playback.

(5) Selecting the disc

<p>1</p>	<p>Press the button for the number of the desired disc (1 to 5).</p>	 <p>The diagram shows two methods of disc selection. On the left, the 'Main unit' has five rectangular buttons labeled DISC 1 through DISC 5. A hand is shown pressing the DISC 3 button. On the right, the 'Remote control unit' has five circular buttons labeled DISC 1 through DISC 5. A hand is shown pressing the DISC 3 button.</p>
<p>2</p>	<p>Press the number of the desired chapter or track (0 to 10 and ≥ 10 button).</p>	 <p>The diagram shows the 'Remote control unit' with a numeric keypad. The buttons are labeled 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, and ≥ 10. A hand is shown pressing the 9 button.</p>

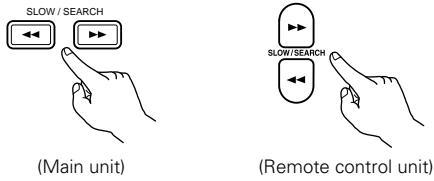
(6) Selecting DISC SKIP

<p>Press the DISC SKIP button.</p> <ul style="list-style-type: none"> • The carousel in the dremmer turns and the disc on the next tray is played. • For example, if disc number 3 was playing, the disc switch to disc number 4 and if disc number 5 was playing, the disc switches to disc number 1. 	 <p>The diagram shows the 'DISC SKIP' button on both the 'Main unit' and the 'Remote control unit'. A hand is shown pressing the button on each device.</p>
--	---

(7) Playing Still Pictures (Pausing)

<p>During playback, press the STILL/PAUSE button.</p> <ul style="list-style-type: none"> • Press the PLAY button to resume normal playback. 	 <p>The diagram shows the 'STILL / PAUSE' button on both the 'Main unit' and the 'Remote control unit'. A hand is shown pressing the button on each device.</p>
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(8) Forward/Reverse Searching

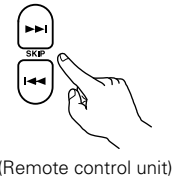
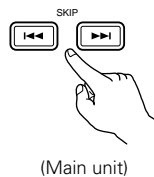
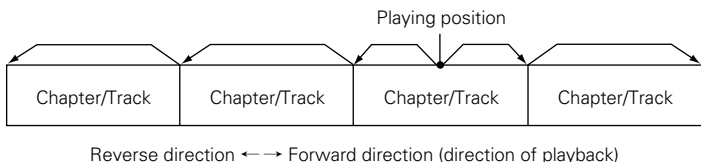
<p>During playback, press one of the SLOW/SEARCH buttons.</p> <p>◀◀ : Reverse direction ▶▶ : Forward direction</p> <ul style="list-style-type: none"> • When pressed again, the search speed increases (in five steps). • Press the PLAY button to resume normal playback. 	 <p>The diagram shows the 'SLOW / SEARCH' buttons on both the 'Main unit' and the 'Remote control unit'. A hand is shown pressing one of the buttons on each device.</p> <div data-bbox="943 1778 1474 1899" style="border: 1px solid black; padding: 5px;"> <p>NOTE:</p> <ul style="list-style-type: none"> • In some cases the menu screen may reappear when one of the SLOW/SEARCH buttons is pressed during menu playback on a video CD. </div>
--	---

(9) Skipping to the Beginning of Chapters or Tracks

During playback, press one of the skip buttons.

- ◀◀ : Reverse direction
- ▶▶ : Forward direction

- A number of chapters or tracks equal to the number of times the button is pressed is skipped.
- When the skip back button is pressed once, the pickup returns to the beginning of the currently playing chapter or track.



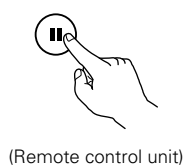
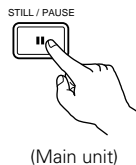
NOTE:

- In some cases the menu screen may reappear when one of the SKIP buttons is pressed during menu playback on a video CD.

(10) Playing Frame by Frame (for DVDs and video CDs only)

During playback, press the STILL/PAUSE button.

- The picture moves forward one frame each time the button is pressed.
- Press the PLAY button to resume normal playback.

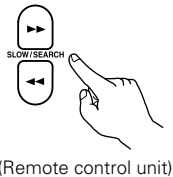
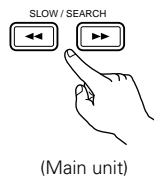


(11) Slow Playback (for DVDs and video CDs only)

In the still mode, press one of the SLOW/SEARCH buttons.

- ◀◀ : Reverse direction
- ▶▶ : Forward direction

- When pressed again, the slow play speed increases (in five steps).
- Press the PLAY button to resume normal playback.



NOTE:

- Reverse slow play is not possible on video CDs.

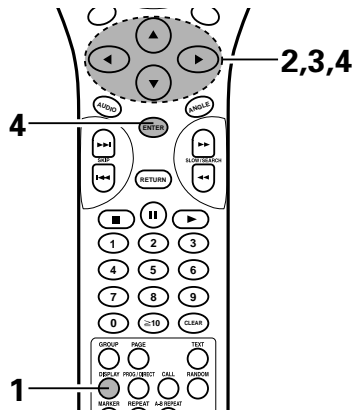
(12) Playing Video CDs with Playback Control

Playing Video CDs with Playback Control Without Using the Menu Playback Function

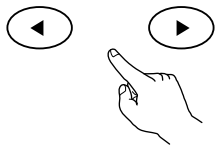
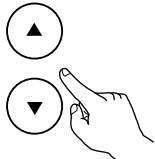
1	<p>Press the STOP button while the video CD's menu screen is displayed.</p> <ul style="list-style-type: none"> • The display switches from "PBC" to the time display. 	<p>(Main unit)</p> <p>(Remote control unit)</p>
2	<p>Use the number buttons to input the desired track number.</p> <ul style="list-style-type: none"> • To play the disc without using the menu playback function • Refer to the disc's jacket, etc., for the track numbers. • To start playback from the beginning of the disc, press number button "1". • Returning to menu playback • Press the STOP button to stop playback, then press the MENU button. ("PBC" appears on the display window and the menu screen appears on the TV.) Now perform step 6 on page 23. 	<p>(Remote control unit)</p>

9 USING THE GUI SCREENS

- Use this function to display and change information on the disc (titles, chapters, time, audio, subtitles, angles, etc.) and on the player (repeat, play mode, markers, etc.).




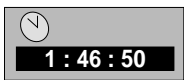
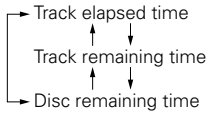





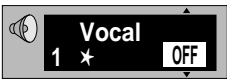
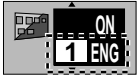




<p>1</p>	<p>In the play or stop mode, press the DISPLAY button.</p> <ul style="list-style-type: none"> The GUI (Graphical User Interface) screen appears. The picture on the TV screen switches each time the button is pressed. The items displayed differ from disc to disc. Each time you press the button: <pre> graph TD A[Icons for disc information (a)] --> B[Icons for unit information (b)] B --> C[Shuttle screen (c)] C --> D[Original display (d)] </pre> <p>The screens depend on the disc contents.</p> <p>Example: DVD-Video</p>	<p>(Remote control unit)</p>
<p>2</p>	<p>When “Icon for unit information” is displayed: While the leftmost icon is highlighted Use the ▲ and ▼ cursor buttons to select the menu.</p> <ul style="list-style-type: none"> Each time you press the button: <pre> graph TD E[Play menu (e)] <--> F[Video menu (f)] F <--> G[Audio menu (g)] G <--> H[Display menu (h)] </pre>	<p>(Remote control unit)</p>

3	Use the ◀ and ▶ cursor buttons to select the item you wish to change.	 <p>(Remote control unit)</p>
4	<p>Use the ▲ and ▼ cursor buttons to select the setting.</p> <ul style="list-style-type: none"> Some changes are effective immediately, while some changes are only made after the ENTER button or PLAY button is pressed. Also, some functions may not work from the stopped GUI screen. Numbers (for titles, etc.) can be changed using the number buttons. When this is done, press the ENTER button to make the change effective. 	 <p>(Remote control unit)</p>

Description of Icons Displayed on the TV Screen (Graphical User Interface)

e.g. GUI


Icon	Content
	DVD-A Group number
	DVD-V Title number DVD-A VCD CD Track number
	DVD-V Chapter number
	DVD-A DVD-V Time ----- DVD-A VCD CD Changing the time display <div style="text-align: center;">  </div>
	VCD Audio mode LR ↔ L ↔ R
	DVD-A DVD-V Soundtrack language (See A at right for language abbreviations.)
	DVD-A DVD-V Audio signal type (See B at right for details.)

Icon	Content
	DVD-A DVD-V Karaoke vocal on/off (Karaoke DVD only) Solo: OFF or ON Duet: OFF, V1+V2, V1 or V2
	DVD-A DVD-V Subtitle language (See A below for language abbreviations.)
	DVD-A DVD-V Subtitles on/off ON ↔ OFF
	DVD-A DVD-V Angle number
	VCD (with playback control only) Menu play Indicates whether menu play (playback control) is on or off.
	DVD-A Still picture number Selected picture is shown during play.

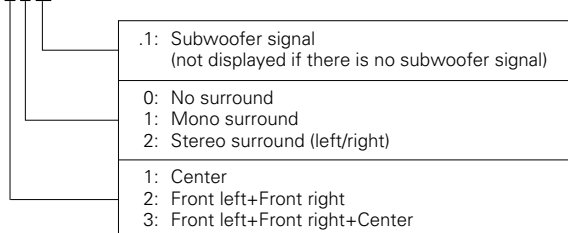
A Audio/Subtitle language

ENG: English	SVE: Swedish	CHI: Chinese
FRA: French	NOR: Norwegian	KOR: Korean
DEU: German	DAN: Danish	MAL: Malay
ITA: Italian	POR: Portuguese	VIE: Vietnamese
ESP: Spanish	RUS: Russian	THA: Thai
NLD: Dutch	JPN: Japanese	*: Others

B Signal type/data

LPCM/PPCM/  Digital/DTS/MPEG: Signal type
k (kHz): Sampling frequency
b (bit): Number of bits
ch (channel): Number of channels

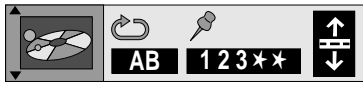
Example: 3/2 .1ch



■ Description of Icons Displayed on the TV Screen (Unit Information Screen)

Play menu

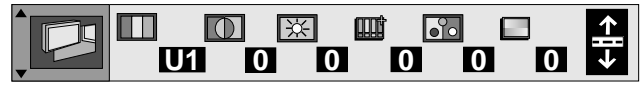
e.g. DVD-Video



Icon	Content
	A-B repeat ENTER button (start point) → ENTER button (finish point) To cancel ENTER button
	Marker You can mark up to 5 positions to play again.
<td>To mark a position ENTER button (at the desired point)</td>	To mark a position ENTER button (at the desired point)
	To recall a marker ◀ and ▶ cursor buttons → ENTER button
	To erase a marker ◀ and ▶ cursor buttons → CANCEL button

Video menu

e.g. U1



Icon	Content
	Digital picture mode To select the picture mode: ▲ and ▼ cursor buttons N: Normal mode S: Soft mode (Soft picture with fewer video artifacts) F: Fine mode (Details are sharper) C: Cinema mode (Picture for viewing movies) U1/U2/U3*/U4*: User mode * These settings are only possible when the progressive output is on. • U4 settings are shown along with the N, S, F and C modes when the progressive output is on. To change the user mode 1. Select User mode and use the ▶ cursor button. 2. Use the ▲ and ▼ cursor buttons to select U1, U2, U3 or U4. 3. Use the ◀ and ▶ cursor buttons to select the item you want to change. 4. Use the ▲ and ▼ cursor buttons to change the setting.
	U1 Contrast (-7 to +7) Increases the contrast between light and dark parts of the picture.
	Brightness (0 to +15) Brightens the picture.
	Sharpness (-6 to +6) Adjust the horizontal resolution of the picture.
	Color (-7 to +7) Adjust the shade of the picture's color.
	Gamma (0 to +5) Increases the brightness of the center ranges to improve detail and contrast in dark scenes.
	U2 3D-NR (0 to +4) Reduces overall noise.
	Block NR (0 to +3) Smooths block noise.
	Mosquito NR (0 to +3) Reduces the smudging that appears around contrasting sections of the picture.
	Background NR (0 to +7) Reduces the rough noise in the background.
	Dot Crawl Cancel (0 to +3) Removes the "dot crawl" phenomena that is apparent around the borders between colors when playing discs made from composite material (material where the Y (luminance) and C (color) signals have not been separated).

NOTE:

- The unit saves the settings you make with the user mode for each disc so when you play a disc again and select a user mode, the same settings are selected. Discs you play for the first time use the previous settings. The unit can save settings for up to 200 discs. The settings for a disc are not saved if you switch to normal, soft, fine or cinema mode before opening the disc tray or switching the unit to standby.

Icon	Content
	U3 High sharpness (-6 to +6) Finely adjusts the sharpness of the picture horizontally.
	V sharpness (-1 to +2) Increases the sharpness of the picture vertically.
	Edge (-3 to 0) Improves edges in the background to reduce fuzziness and improve the sense of depth.
	TINT (-15 to +15) Change the overall tint of the picture.
	U4 Transfer MODE Select the method of conversion for progressive output to suit the type of material being played. Auto 1 (normal): for viewing film material Auto 2: for viewing film material (the same as Auto 1, but able to convert 30-frame per second progressive video) Auto 3: for animated material (also able to convert 30-frame per second progressive video) for video material Video: for video material
	4:3 ASPECT Select how to show video on a widescreen (16:9) television that is compatible with progressive output. Nor. (normal): The picture fills the whole screen. Auto: Letterbox format 4:3 aspect video expands to fill the screen or is shown in the center of the screen with black bands either side. Shr. (shrink): The picture is shown in the 4:3 aspect in the center of the television. Zoom: Select if video with an aspect of 4:3 recorded in the letterbox format is not expanded when "Nor." or "Auto" is selected.
	Shift Position (0 to +15) Shift the picture to show subtitles. (Works when the picture fills the screen when 4:3 ASPECT is set to "Auto" or "Zoom".)
	Output Change the tone of the picture. Nor. (normal): normal output Sepia: sepia toning Mono (monochrome): black and white Nega: brightness and tone are reversed

Audio menu

e.g. DVD-Video



Icon	Content
	DVD-V VCD ADVANCED SURROUND V.S.S. mode • SP-V.S.S. (Dolby Digital, DTS, MPEG, LPCM, 2-channel or over only) V.S.S. level 1 ↔ 2 ↔ OFF
	DVD-V (Dolby Digital/DTS, 3-channel or over only) Dialogue Enhancer ON ↔ OFF The volume of the dialogue from the center channel is raised when you select "ON".

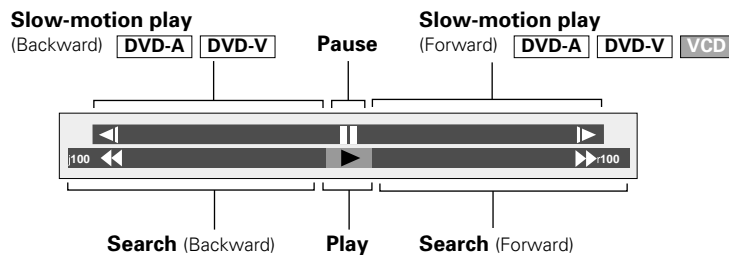
Display menu

e.g. DVD-Video



Icon	Content
	DVD-V VCD Bit-rate display ON ↔ OFF Displays the bit rate and type of picture (approximate values) During play: Shows the average bit rate of the video being played While paused: Shows the data volume of the frame
	Display dimmer Changes the brightness of the unit's display. BRIGHT ↔ DIM ↔ AUTO* * The display dims and any indicators that were on turn off during play. The display brightens and the indicators light temporarily when you perform an operation.

Description of Icons Displayed on the TV Screen (Shuttle Screen)



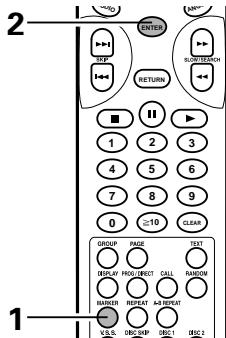
NOTE:

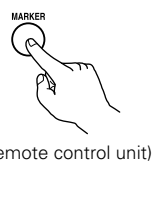
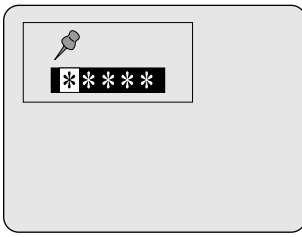
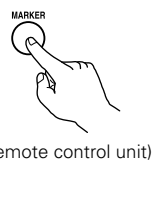
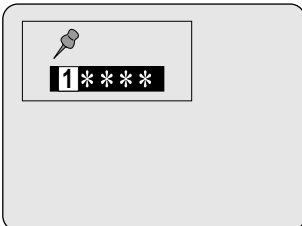
- There are five speeds for both backward and forward slow-motion and search.
- The numbers on either side of the shuttle screen indicate the maximum speeds of the search.
- Slow-motion only works on the moving picture parts of DVD-Audio.

10 MARKING SCENES YOU WANT TO SEE AGAIN

■ Set marks at scenes you want to see again so that you can start playback from the marked position whenever you want.

Setting Marks

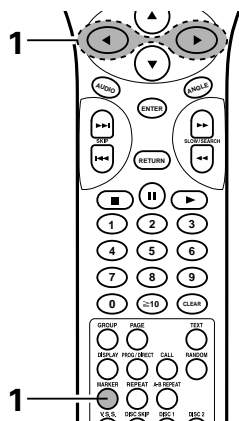


<p>1</p>	<p>During playback, press the MARKER button.</p> <ul style="list-style-type: none">• The marker screen appears.• “*” is displayed if the mark is not set.	 <p>(Remote control unit)</p> 
<p>2</p>	<p>Press the MARKER button at the scene you want to mark.</p> <ul style="list-style-type: none">• A number is displayed.• Up to five marks can be set. <p>(To select another marker, use the cursor button (▶).)</p>	 <p>(Remote control unit)</p> 

NOTE:

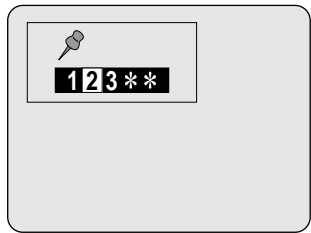
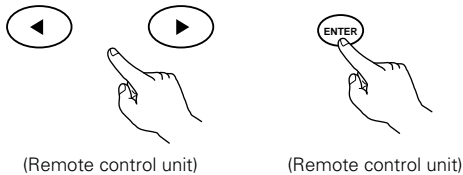
- All the markers added with this unit are cleared when the unit is switched to standby or the disc tray is opened.

Calling Out Marked Scenes and Clearing Marks

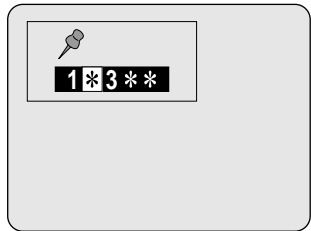


1 Use the ◀ and ▶ cursor buttons to select the marker number and press the ENTER button.

- If the marker screen is not displayed during playback, press the MARKER button to display it.



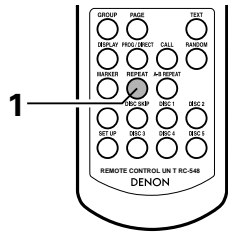
- ※ To clear the marker display:
Press the RETURN button.
- ※ To clear a marker:
Use the ◀ and ▶ cursor buttons to select a marker number and press the CLEAR button.
- You can clear existing markers, but they are restored when you open the disc tray or switch the unit to standby.



11 PLAYING REPEATEDLY

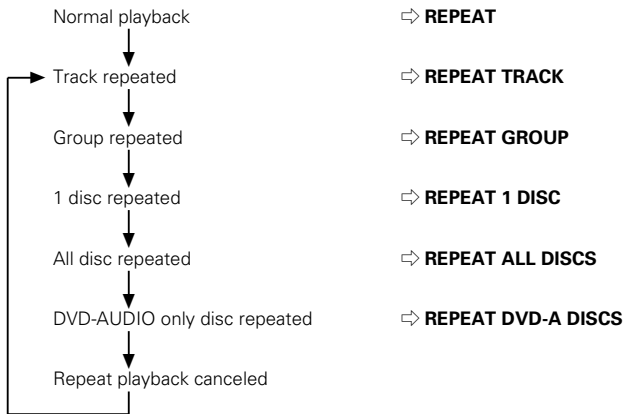
■ Use this function to play your favorite audio or video sections repeatedly.

Playing Repeatedly (Repeat Playback)

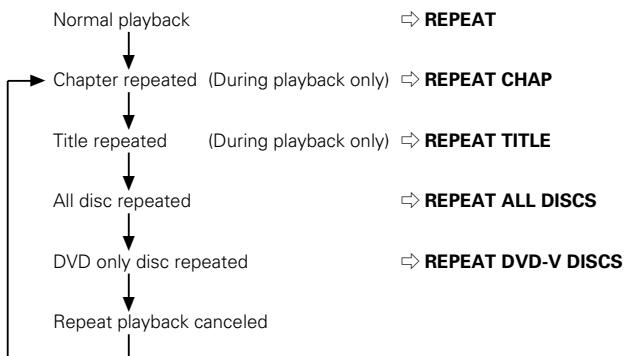


During playback, press the REPEAT button.

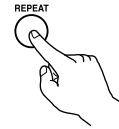
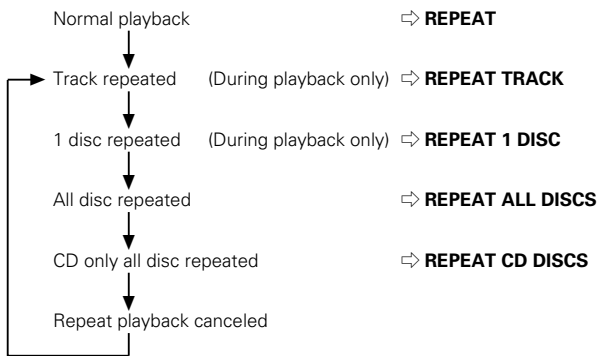
① For DVD-AUDIOS (When the display's DVD AUDIO indicator is lit)



② For DVDs (When the display's DVD indicator is lit)



③ For video and music CDs (When the display's VIDEO CD or CD indicator is lit)



(Remote control unit)

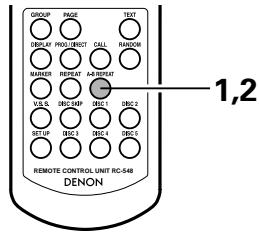
1

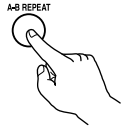
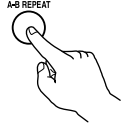
※ To return to normal playback:
Press the REPEAT button until the display's "REPEAT" indicator turns off to return to the normal play mode.

NOTES:

- If neither the DVD, the VIDEO CD nor the CD indicator is lit, the mode switches in the following order each time the REPEAT button is pressed: Normal play back → All disc repeated → DVD only all disc repeated → CD only all disc repeated → Repeat playback canceled
- Repeat play may not work correctly with some DVDs.
- Repeat play does not work with an interactive DVD or during menu play of a Video CD with playback control.

Playing a Certain Section Repeatedly (A-B Repeat Playback)



<p>1</p>	<p>During playback, press the A-B REPEAT button.</p> <ul style="list-style-type: none"> • The "REPEAT A-" indicator lights on the display. • This sets start point A. 	 <p>(Remote control unit)</p>
<p>2</p>	<p>Press the A-B REPEAT button again.</p> <ul style="list-style-type: none"> • The "REPEAT A-B" indicator lights on the display. • This sets end point B and repeat playback of the A-B section starts. 	 <p>(Remote control unit)</p>
<p>※ To return to normal playback: Press the A-B REPEAT button again.</p>		

NOTES:

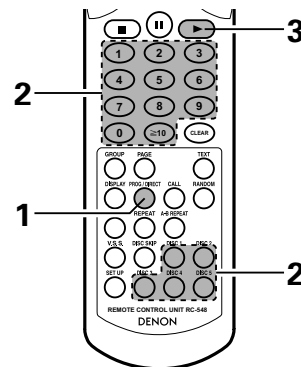
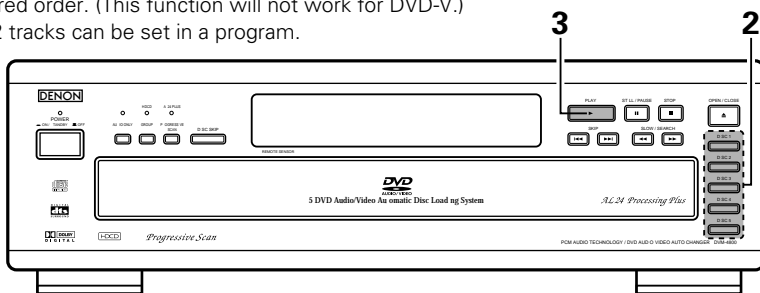
- A-B repeat play does not work with an interactive DVD.
- Some subtitles recorded around point A or B may fail to appear. [DVD]
- A-B repeat play works only within a title [DVD] or a track [Video CD/CD].

■ **Setting the Repeat Play Mode During Programmed Playback**

When the REPEAT button is pressed during programmed playback, repeat playback of the entire program starts and the "REPEAT" indicator lights. Press the REPEAT button until the display's "REPEAT" indicator turns off to return to normal programmed playback.

12 PLAYING TRACKS IN THE DESIRED ORDER

- Use this function with DVD-A, video and music CDs to play the tracks in the desired order. (This function will not work for DVD-V.)
- Up to 32 tracks can be set in a program.



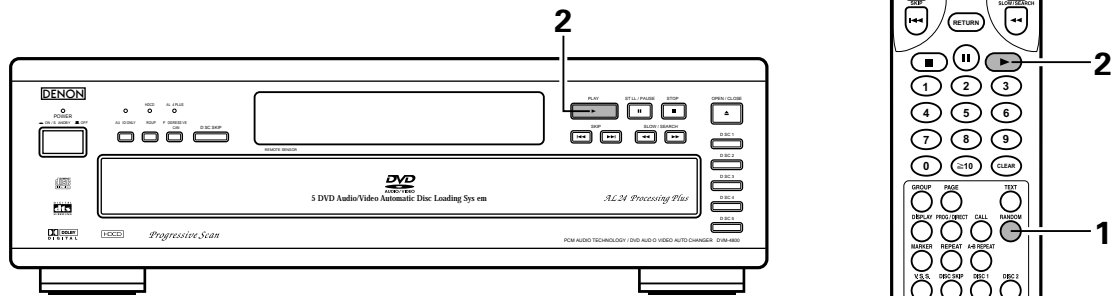
<p>1</p>	<p>In the stop mode, press the PROG/DIRECT button on the remote control unit.</p> <ul style="list-style-type: none"> • The "PROG" indicator lights on the display. 	<p>(Remote control unit)</p>
<p>2</p>	<p>Select the track using the disc number buttons (DISC1 to DISC5) on the main unit or the remote control unit and the number buttons on the remote control unit.</p> <ul style="list-style-type: none"> • Ex: To program track 3 on disc 2 (CD) and group 2, track 12 on disc 5 (DVD-A) : <p>Press the PROG/DIRECT button.</p> <p>↓</p> <p>Press the DISC2 (disc number button).</p> <p>↓</p> <p>Press the 3 (number button).</p> <p>↓</p> <p>Press the DISC5 (disc number button).</p> <p>↓</p> <p>Press the 2 (number button: To select Group).</p> <p>↓</p> <p>Press the ≥10 (number button).</p> <p>↓</p> <p>Press the 1 (number button).</p> <p>↓</p> <p>Press the 2 (number button).</p>	
<p>3</p>	<p>Press the PLAY button.</p> <ul style="list-style-type: none"> • Play now begins in the programmed sequence. 	<p>(Main unit) (Remote control unit)</p>
<p>※ To return to normal playback: Press the STOP button to stop programmed playback, then press the PROG/DIRECT button. Now press the PLAY button to start normal playback from the beginning of the disc. The program is stored in the memory.</p> <p>※ To clear tracks from the program: Press the STOP button twice. Press the CLEAR button to clear the last track in the program.</p> <p>※ To clear the entire program: The entire program is cleared when the power is turned off or when the PROG/DIRECT button is pressed.</p>		

NOTES:

- The programmed track numbers on the disc of the displayed disc number appear lit on the music calendar.
- Programming is not possible for DVD-V.
- The PROG/DIRECT button does not function when DVD-V are loaded in all five trays.
- The PROG/DIRECT button does not function during normal playback or programmed playback.
- The PROG/DIRECT button does not function when the tray is open and neither the DVD-V.
- When the PROG/DIRECT button is pressed in the all disc repeat or CD all disc repeat mode, the all programmed repeat mode is set.

13 PLAYING THE TRACKS IN RANDOM ORDER

■ Use this function with DVD-A, video and music CDs to play the tracks in random order. (This function will not work for DVD-V.)



<p>1</p>	<p>In the stop mode, press the RANDOM button.</p> <ul style="list-style-type: none"> • The display's RANDOM indicator lights. 	<p>(Remote control unit)</p>
<p>2</p>	<p>Press the PLAY button.</p> <ul style="list-style-type: none"> • The tracks start playing in random order. 	<p>(Main unit) (Remote control unit)</p>
<p>※ When random playback ends: The stop mode is set and the random play screen reappears.</p> <p>※ To return to normal playback: Press the STOP button to stop random playback, then press the RANDOM button.</p> <p>※ To set the disc sequential random play mode: Press the RANDOM button and specify the disc numbers (1 to 5) with the Disc Number button. A press of the PLAY button will result in the player randomly selecting and playing tracks on the disc in the order of specified discs. Up to 5 discs can be selected and the same disc can be selected, two or more times. Disc sequential random play is cancelled when play ends.</p> <p>※ To set the program random play mode: After pressing the PROG/DIRECT button and inputting a program (See item 12 on page 37), press the RANDOM button, then the Play button. The microcomputer will then select tracks from the program at random and play them.</p>		

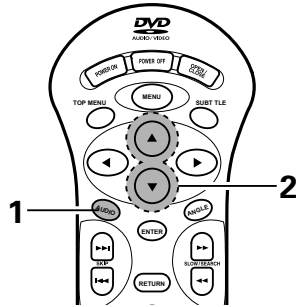
NOTES:


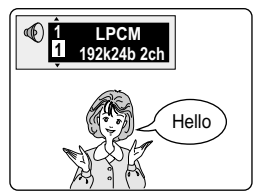
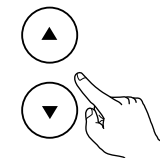
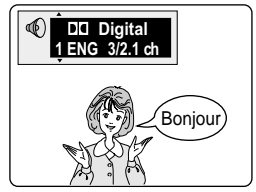
- The RANDOM button does not function in the play mode.
- The RANDOM button does not function when DVD-V are loaded in all five trays.
- The RANDOM button does not function when the tray is open and neither the DVD-V.
- When the RANDOM button is pressed in the all disc repeat or CD all disc repeat mode, the random all repeat mode is set. RANDOM will appear lit on the display at this time.

14 USING THE MULTIPLE AUDIO, SUBTITLE AND ANGLE FUNCTIONS

Switching the Audio Language (Multiple Audio Function)

■ With DVDs containing multiple audio language signals, the audio language can be switched during playback.

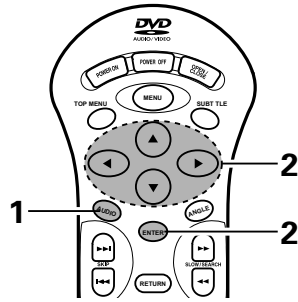



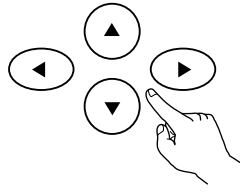
<p>1</p>	<p>During playback, press the AUDIO button.</p> <ul style="list-style-type: none"> • The current audio language number is displayed. • If no sound is recorded on the disc, "--" is displayed. 	 <p>(Remote control unit)</p> 
<p>2</p>	<p>Use the ▲ and ▼ cursor buttons to select the desired language.</p> <ul style="list-style-type: none"> • The display turns off when the AUDIO button is pressed. 	 <p>(Remote control unit)</p> 

NOTES:

- If the desired language is not set after pressing the ▲ and ▼ cursor buttons several times, the disc does not include that language.
- The audio language set with the default settings (see page 47) is set when the power is turned on and when the disc is replaced. If that language is not included on the disc, the disc's default language is set.

Switching vocals ON or OFF for Karaoke discs (DVD/Video CD)



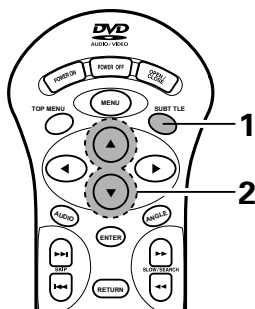
<p>1</p>	<p>Press the AUDIO button during play.</p>	 <p>(Remote control unit)</p>
<p>2</p>	<p>Use the cursor buttons (▲, ▼, ◀, ▶) until the preferred setting is selected.</p> <ul style="list-style-type: none"> • DVD Karaoke (Solo) (◀, ▶) ---(OFF) ↔ ON • DVD Karaoke (Duet) (◀, ▶) ---(OFF) → 1+2 (ON) → V1 (ON) → V2 (ON) • Video CD (▲, ▼) ---LR → L → R <p>Press the AUDIO button or ENTER button to clear the display.</p>	 <p>(Remote control unit)</p>

NOTES:

- This operation does not work with CDs.
- The vocals from the digital audio output connector cannot be switched by this operation.

Switching the Subtitle Language (Multiple Subtitle Function)

- With DVDs containing multiple subtitle language signals, the subtitle language can be switched during playback.



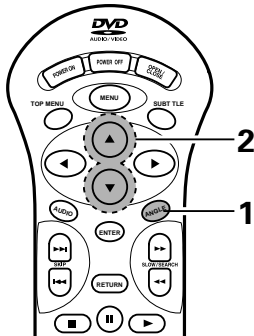
<p>1</p>	<p>During playback, press the SUBTITLE button.</p> <ul style="list-style-type: none"> The current subtitle language number is displayed. If no subtitles are recorded on the disc, "--" is displayed. 	<p>(Remote control unit)</p>
<p>2</p>	<p>Use the ▲ and ▼ cursor buttons to select the desired language.</p> <ul style="list-style-type: none"> The display turns off when the SUBTITLE button is pressed. Use the ◀ and ▶ cursor buttons to turn the subtitles "ON" and "OFF". 	<p>(Remote control unit)</p>

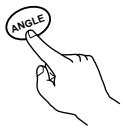
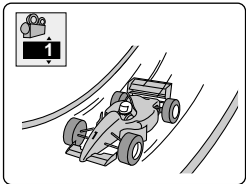
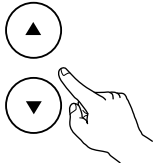
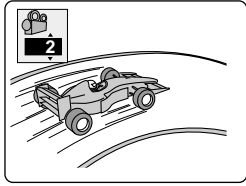
NOTES:

- If the desired language is not set after pressing the ▲ and ▼ cursor buttons several times, the disc does not include that language.
- The subtitle language set with the default settings (see page 45) is set when the power is turned on and when the disc is replaced. If that language is not included on the disc, the disc's default language is set.
- When the subtitle language is changed, several seconds may be required for the new language to appear.
- When a disc supporting the closed caption is played, the subtitle and the closed caption may overlap each other on the TV monitor. In this case, turn the subtitle off.

Switching the Angle (Multiple Angle Function)

■ With DVDs containing multiple angle signals, the angle can be switched during playback.



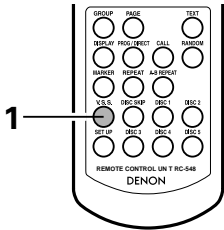
<p>1</p>	<p>During playback, press the ANGLE button.</p> <ul style="list-style-type: none"> The current angle number is displayed. 	 <p>(Remote control unit)</p> 
<p>2</p>	<p>Use the ▲ and ▼ cursor buttons or the number buttons to select the desired angle.</p> <ul style="list-style-type: none"> The display turns off when the RETURN button is pressed. 	 <p>(Remote control unit)</p> 

NOTES:

- You can also use the ▲ and ▼ cursor buttons or use the numbered buttons to change the soundtracks, subtitle languages and angles.
- Some discs allow changes to soundtracks, subtitle languages and angles only by using the disc's menus.
- "—" or "—" is displayed instead of the language number in circumstances such as when no language is recorded on the disc.
- Some discs allow you to set angles before multi-angle scenes are played. Read the instructions that come with the DVD.
- In some cases, the subtitle language is not changed to the selected one immediately.
- If the subtitles overlap closed captions recorded on discs, turn the subtitles off.

Reproducing an Advanced Virtual Surround Sound effect

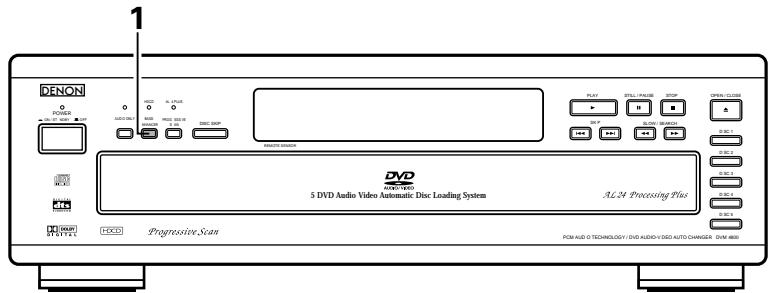
■ This player can reproduce a virtual surround sound effect which provides sound as if heard from the front speakers located at the horizontally further position or heard from nonexistent speakers even when only a 2-channel stereo system is connected [for playback of Dolby Digital DTS, MPEG, LPCM, 2-channel or over only].



1	<p>Press the V.S.S. button during play. Each time this button is pressed, the player's FL display changes:</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">Virtual surround sound is cancelled</p> <p style="text-align: center;">DISC VSS OFF</p> </div> <p style="text-align: center;">↓</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">Virtual surround sound 1 (Natural effect)</p> <p style="text-align: center;">DISC VSS1 V.S.S.</p> </div> <p style="text-align: center;">↓</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Virtual surround sound 2 (Emphasized effect)</p> <p style="text-align: center;">DISC VSS2 V.S.S.</p> </div>	<p>(Remote control unit)</p>
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- NOTES:**
- Advanced Surround will not work or will have less effect, with some discs, even if you select "1" or "2".
 - Turn off the surround sound effects on the equipment you have connected when using this effect.
 - Turn Advanced Surround off if it causes distortion.
 - Sound will only come from the two front speakers if speaker V.S.S. is on.

■ You can enjoy powerful bass sound with this function, even if play the discs on which recorded no specified signal for subwoofer channel.



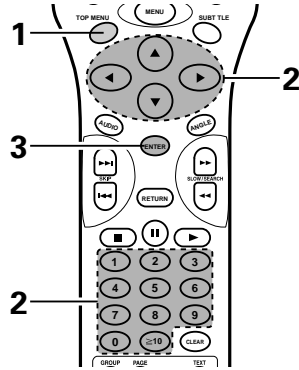
NOTE:
This function is valid in case of DVD-VIDEO with LPCM format, DVD-AUDIO, CD-DA and VIDEO CD, invalid for compressed recordings such as AC-3, DTS.

1	<p>Press the BASS ENHANCER button.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p style="text-align: center;">DISC BASS ENHANCER ON</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">DISC BASS ENHANCER OFF</p> </div>	<p>(Remote control unit)</p>
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15 USING THE MENUS

Using the Top Menu

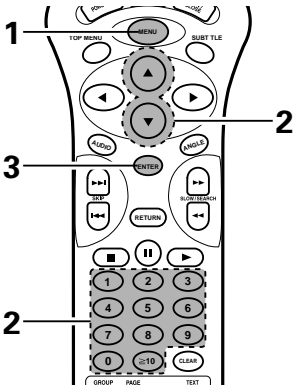
■ For DVDs containing multiple titles, the desired title can be selected and played from the title menu.



<p>1</p>	<p>During playback, press the TOP MENU button.</p> <ul style="list-style-type: none"> The top menu appears. If the TOP MENU button is pressed again, the disc returns to the point at which the title menu was called out and playback resumes from that point. 	<p>Example:</p> <p>(Remote control unit)</p>
<p>2</p>	<p>Use the cursor buttons (▲, ▼, ◀, ▶) or number buttons to select the desired title.</p> <ul style="list-style-type: none"> If you select the title number using the number buttons, skip step 3 below. 	<p>Example: When "Orange" is selected</p> <p>(Remote control unit)</p>
<p>3</p>	<p>Press the ENTER button.</p> <ul style="list-style-type: none"> Playback starts. Playback also starts if the PLAY button is pressed. 	<p>(Remote control unit)</p>

Using the DVD Menu

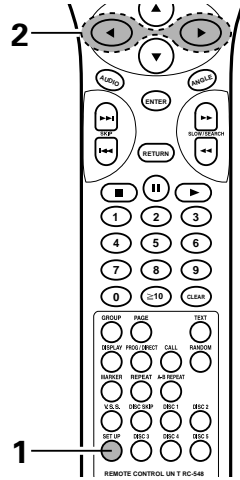
■ Some DVDs include special menus called DVD menus.
 For example, DVDs with complex contents may contain guide menus and DVDs with multiple languages may contain audio and subtitle language menus.
 These menus are called "DVD menus".
 Here we describe the general procedure for using DVD menus.

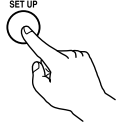
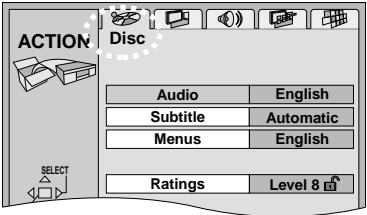
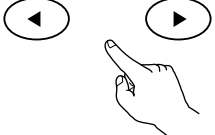


<p>1</p>	<p>During playback, press the MENU button.</p> <ul style="list-style-type: none"> • The DVD menu appears. • If the MENU button is pressed again, the disc returns to the point at which the DVD menu was called out and playback resumes from that point. 	<p>Example:</p> <p>(Remote control unit)</p>
<p>2</p>	<p>Use the ▲ or ▼ cursor buttons or the number buttons to select the desired item.</p> <ul style="list-style-type: none"> • If you select the item using the number buttons, skip step 3 below. 	<p>Example: When "AUDIO" is selected</p> <p>(Remote control unit)</p>
<p>3</p>	<p>Press the ENTER button.</p> <ul style="list-style-type: none"> • The selected item is set. • If more menus appear, repeat steps 2 and 3. 	<p>(Remote control unit)</p>

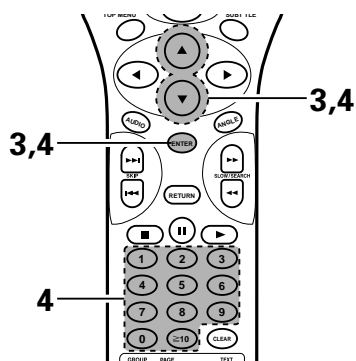
16 CHANGING THE DEFAULT SETTINGS

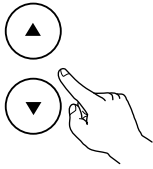

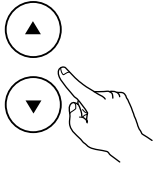

- The default values preset upon shipment from the factory can be changed.
The default settings are retained until they are again changed, even if the power is turned off.



<p>1</p>	<p>In the stop mode, press the SET UP button.</p> <ul style="list-style-type: none"> The default setting screen appears. <ol style="list-style-type: none"> Disc menu Video menu Audio menu Display menu Other menu 	 <p>(Remote control unit)</p> 
<p>2</p>	<p>Use the ◀ and ▶ cursor buttons to select the desired setting.</p>	 <p>(Remote control unit)</p>

When "Disc Menu" is Selected



<p>1</p>	<p>See page 46.</p>	
<p>2</p>		
<p>3</p>	<p>Use the ▲ and ▼ cursor buttons to select the desired setting, then press the ENTER button.</p> <ol style="list-style-type: none"> 1. Audio 2. Subtitle 3. Menus 4. Ratings 	 <p>(Remote control unit)</p>  <p>(Remote control unit)</p>
<p>4</p>	<p>Use the ▲ and ▼ cursor buttons to select the desired setting, then press the ENTER button.</p> <p>① When "Audio" is selected:</p> <ol style="list-style-type: none"> 1. English (Factory default) Select this to play the sound in English. 2. French Select this to play the sound in French. 3. Spanish Select this to play the sound in Spanish. 4. Original Select this to play the disc's original sound. 5. Other * * * * Select this to play the disc with a language other than the ones above. Use the number buttons to input the 4-digit language number shown on page 56. <p>② When "Subtitle" is selected:</p> <ol style="list-style-type: none"> 1. Automatic (Factory default) The subtitle language is automatically set to the same language as the audio language. <ul style="list-style-type: none"> • When the disc is played with the audio language set for the "Audio" setting, the subtitles are not displayed. • When the disc is played with an audio language other than the one set for the "Audio" setting, the subtitles are displayed in the language set for the "Audio" setting. 2. English Select this to play the disc with English subtitles. 3. French Select this to play the disc with French subtitles. 4. Spanish Select this to play the disc with Spanish subtitles. 5. Other * * * * Select this to play the disc with subtitles in a language other than the ones above. Use the number buttons to input the 4-digit language number shown on page 56. 	 <p>(Remote control unit)</p>  <p>(Remote control unit)</p>

4

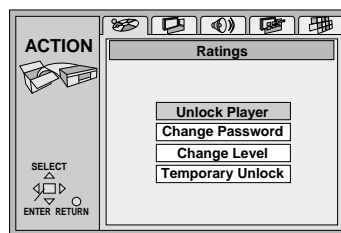
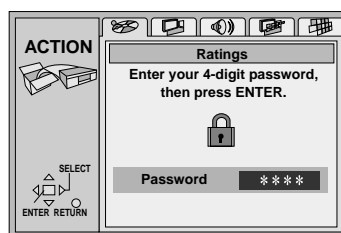
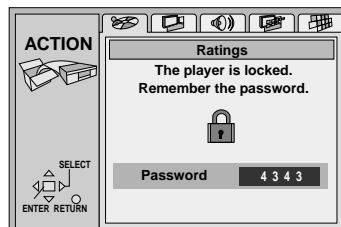
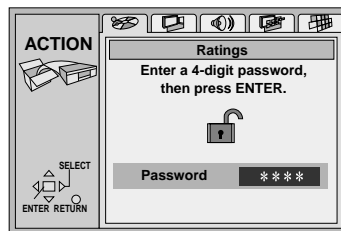
- ③ When "Menus" is selected:
1. **English (Factory default)**
Select this to display the menus in English.
 2. **French**
Select this to display the menus in French.
 3. **Spanish**
Select this to display the menus in Spanish.
 5. **Other * * * ***
Select this to display the menus in a language other than the ones above. Use the number buttons to input the 4-digit language number shown on page 56.
- ④ When "Ratings" is selected:
- (1) **When playback is not restricted (Level 8)**
 - Level 8 (Factory default)**
Select this to play all DVDs.
 - Level 7 to Level 2**
Select this to play DVDs for general audiences and children. Adult DVDs cannot be played.
 - Level 1**
Select this to play only DVDs for children. (Adult and general audience DVDs cannot be played.)
 - Level 0**
Select this to disable playback of all DVDs.
Use this for example to disable playback of adult DVDs on which the rating level is not recorded.

If a rating of Level 7 or lower has been selected, use the number buttons to input a 4-digit password, then press the ENTER button.

 - * Do not forget the password.
 - * Once locked, the setting cannot be changed without inputting the correct password.

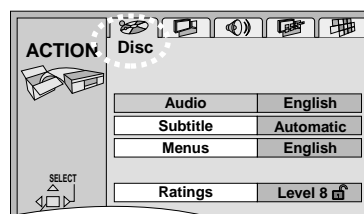
Press the ENTER button.
 - (2) **When playback is restricted (Level 0 to 7)**
Use the number buttons to input the correct password, then press the ENTER button.
Select the item with the ▲ and ▼ cursor buttons and press the ENTER button and follow the on-screen instructions.

Example: When "Level 7" is selected



5

The settings are completed and the screen in step 1 on page 46 reappears.

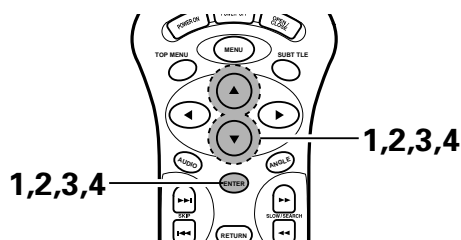


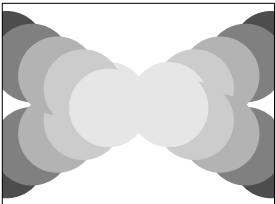
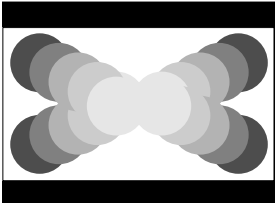
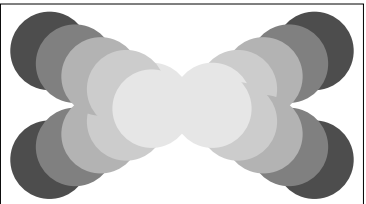
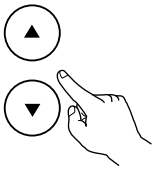

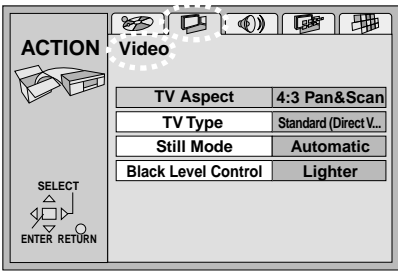
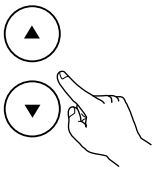

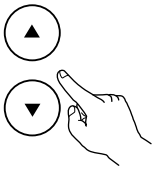

- * To return to the previous menu screen:
Press the RETURN button.
- * To exit the default settings:
Press the SET UP button.

NOTE:

- Some discs may not be encoded with specific rating level information though its disc jacket says that it is for "adults". For those discs, the age restriction will not work.

When "Video Menu" is Selected



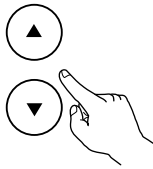
<p>1</p>	<p>Use the ▲ and ▼ cursor buttons to select "TV Aspect", then press the ENTER button.</p> <p>① 4:3 Pan & Scan Select this when a conventional size TV is connected.</p> <ul style="list-style-type: none"> The video material formatted in the Pan & Scan style is played back in that style (the left and right edges are cut off).  <p>② 4:3 Letter Box Select this when a conventional size TV is connected.</p> <ul style="list-style-type: none"> The video material not formatted in the Pan & Scan style is played back in the letterbox style (black bands appear at top and bottom of screen). ※ Set the Pan & Scan and letter box setting at "TV Mode" under "Other Settings". (Refer to page 00.)  <p>③ 16:9 (Factory default) Select this when a wide-screen TV is connected. Played in "FULL" size. (Setting the wide-screen TV to "FULL" mode is also necessary.)</p> <ul style="list-style-type: none"> ※ Each screen shows an example when the video material for a wide-screen is played. (This setting does not affect the video material for conventional size.) 	 <p>(Remote control unit)</p>  <p>(Remote control unit)</p> 
<p>2</p>	<p>Use the cursor buttons (▲, ▼) to select the TV type and press the ENTER button.</p> <ol style="list-style-type: none"> Standard (Direct View TV) (Factory default) Select when a standard TV (Direct view) is connected. CRT Projector Select when a CRT projector is connected. LCD Projector Select when a LCD projector is connected. Projection TV Select when a projection TV is connected. 	 <p>(Remote control unit)</p>  <p>(Remote control unit)</p>
<p>3</p>	<p>Use the cursor buttons (▲, ▼) to select the still mode and press the ENTER button.</p> <ol style="list-style-type: none"> Automatic (Factory default) Normally set this. The frame still or field still mode is selected automatically. Field Select this if the picture flutters when "Automatic" is set. Frame "Frame still" is always selected. Select this setting when small text or fine patterns cannot be seen clearly even when "Automatic" is selected. 	 <p>(Remote control unit)</p>  <p>(Remote control unit)</p>

Use the cursor buttons (▲, ▼) to select the black level control and press the ENTER button.


4

1. Lighter (Factory default) [BLACK LEVEL: 7.5 IRE]
 The black level of the picture is selected to the lighter one.
 Select this setting normally when the player is connected to a TV set through the VIDEO OUT connector or S VIDEO OUT connector.
 (7.5 IRE is the standard for NTSC format in North America)

2. Darker [BLACK LEVEL: 0 IRE]
 The black level of the picture is selected to the darker one.
 Select this setting normally when the player is connected to a TV set through the COMPONENT VIDEO OUT (Y, P_B, P_R) connector.




















(Remote control unit)



(Remote control unit)

• **Concerning images which appear on the TV screen (aspect ratios of the screen)**

Images which appear on the TV screen differ depending on the type of software and the TV set connected.

Type of software	TV set connected (Screen mode)			
	4:3	16:9 ("FULL" mode)	16:9 ("ZOOM" mode)	16:9 ("AUTO" mode)
Software for wide-screen (formatted in the Pan & Scan style) 	Screen whose right and left edges are cut off 	Full screen 	Screen whose top and bottom edges are cut off 	Full screen 
Software for wide-screen (not formatted in the Pan & Scan style) 	Letterbox (with black bands at top and bottom) 			
Software (4:3) 	Full screen 	Screen horizontally enlarged 	Screen whose top and bottom edges are cut off 	Full screen (with black bands at right and left) 
Software (4:3, Letterbox) 	Letterbox (with black bands at top and bottom) 	Screen horizontally enlarged (with black bands at top and bottom) 	Full screen 	Screen in which the picture at the far left and far right ends only is extended horizontally (with black bands at top and bottom) 

- The images which appear on the TV screen and what each screen mode is called, may differ depending on the manufacturer of the TV set or on the type of the TV set. Consult the instruction manual provided with your TV set.

For your reference:

• **Letterbox**

Black bands are inserted at the top and bottom of the screen to fill in the gaps at the top and bottom where the size of the picture is smaller than the screen.

• **Pan & Scan**

Part of the wide-screen picture (either at both sides or one side of the screen) is automatically eliminated so that the picture fills the whole screen.

For your reference:

- When the "On" is selected at the "Still Picture Display", the following screen is displayed in the still picture mode;



Example: in the case of the P-Picture

P: P-Picture (Predictive coded picture)

This picture type is computed on the basis of a past I-Picture or P-Picture.

B: B-Picture (Bidirectionally-predictive coded picture)

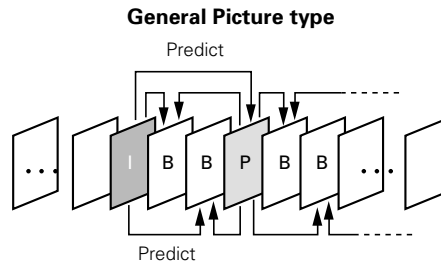
This picture type is computed by comparing the previous and subsequent I-Picture or P-Picture. It has the lowest volume of information.

I/P/B:

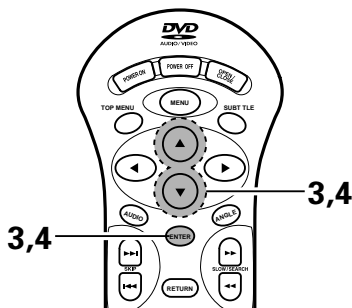
- The MPEG 2 standard adopted for DVD uses the following 3 picture types for the coding of each picture (frame) on the TV screen.

I: I-Picture (Intra coded picture)

This is the standard picture type and each picture is coded separately. Since it features the best picture quality, it is recommended that the screen be frozen with I-Picture when the picture quality is to be adjusted.



When "Audio Menu" is Selected



1	See page 46.
2	
3	<p>Use the cursor buttons (▲, ▼) to select the preferred item and press the ENTER button.</p> <ol style="list-style-type: none"> 1. Speaker setting Choose the settings to suit your audio system and the listening environment. 2. Digital Audio Output Select whether to output digital signal or not. 3. PCM Down Conversion To select whether digital audio converted to 48 kHz/16 bit is output from the optical/coaxial digital audio output connector or no digital audio is output during playback of the DVD recorded in Linear PCM of 96 kHz. (In case of the DVD recorded in Linear PCM of 48 kHz, digital audio converted to 48 kHz/16 bit is output irrespective of the setting.) 4. Dolby Digital To select the signal format (Bitstream or PCM) to be output from the optical/coaxial digital audio output connector during playback of the DVD recorded in Dolby Digital. 5. DTS Digital Surround To select whether DTS bitstream is output from the optical/coaxial digital audio output connector or no digital audio is output during playback of the DVD recorded in dts. 6. D. Range Compression Use this to set the range of sound output when playing discs. 7. Audio during Search Choose whether to have sound during search.

(Remote control unit)

(Remote control unit)

Use the cursor buttons (▲, ▼) to select the preferred setting and press the ENTER button.

① When "Speaker Setting" is selected

1. Multi-channel

Speaker presence and size (ⓐ)

1. Use the cursor buttons (▲, ▼, ◀, ▶) to select the item and press the ENTER button.
2. Use the cursor buttons (▲, ▼) to select the setting and press the ENTER button.

Icon examples: Surround speaker (L) **A**

Large: When the speaker supports low-frequency (under 100 Hz) reproduction.

Small: Select when the speaker does not support low-frequency reproduction.

The size setting for the front speakers is automatically determined by the setting for the subwoofer.

Changing the delay time (ⓑ)

(Dolby Digital, center and surround speakers only)

1. Use the cursor buttons (▲, ▼, ◀, ▶) to select the delay time box and press the ENTER button.
2. Use the cursor buttons (▲, ▼) to adjust the delay time and press the ENTER button.

For optimum listening with 5.1-channel sound, all the speakers, except for the subwoofer, should be the same distance from the seating position. If you have to place the center or surround speakers closer to the seating position, adjust the delay time to make up for the difference.

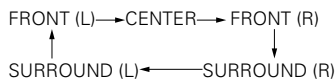
If distance ⓑ (from the center speaker) and ⓑ (from the surround speakers) are the same as or greater than ⓐ (from the front speakers), leave the delay time as "0", the factory preset.

If either distance ⓐ or ⓑ is less than ⓐ, find the difference in the relevant table and change to the recommended setting.

Channel balance (ⓒ)

1. Use the cursor buttons (▲, ▼, ◀, ▶) to select "Test" and press the ENTER button.

A test signal is output from one speaker at a time, starting with the front left speaker and proceeding clockwise.



2. While listening to the test signal, use the cursor buttons (▲, ▼) to adjust the volume of the center and surround speakers so they are the same apparent volume as the front speakers. (The front speakers cannot be adjusted here.)
3. Press the ENTER button. The test signal stops.

When you are finished

Use the cursor buttons (▲, ▼, ◀, ▶) to select "Exit" and press the ENTER button.

2. When "2-channel" is selected

Settings are not necessary.

- * No signal is output for the subwoofer. To adjust its volume, play something, then return to this screen to adjust to suit your taste.
- * The unit may be unable to output as set here due to limitations imposed by the unit itself or the disc being played. (The FL display's "P.PCM" indicator lights or "D.MIX" indicator goes out in these cases.)

② When "Digital Audio Output" is selected

1. On (Factory default)

Digital signal are output.

2. Off

Digital signals are not output.

This improves sound quality when you are using analog connection.

③ When "PCM Down Conversion" is selected

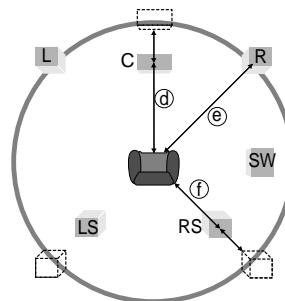
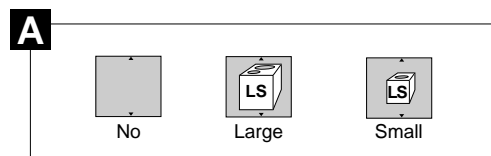
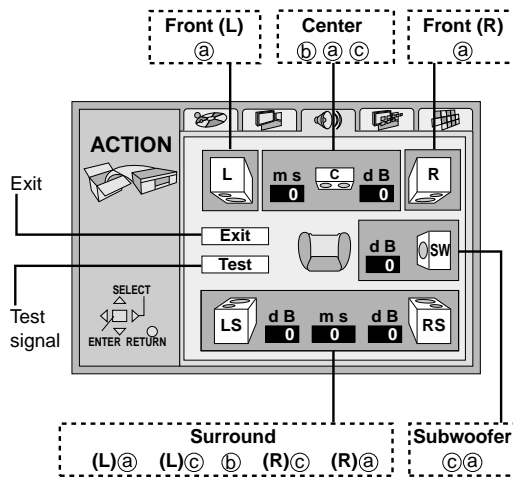
1. No (Factory default)

Digital audio of 48 kHz/16 bit is output during playback of the DVD recorded in Linear PCM of 48 kHz. No digital audio is output during playback of the DVD recorded in Linear PCM of 96 kHz. However, audio will be output using the original audio recording system in case of the DVD which has not been copyright-protected.



(Remote control unit)

(Remote control unit)



• Center speaker

Difference	Setting
Approx. 50 cm (1 1/2 feet)	1.3 ms
Approx. 100 cm (3 feet)	2.6 ms
Approx. 150 cm (5 feet)	3.9 ms
Approx. 200 cm (6 feet)	5.3 ms

• Surround speakers

Difference	Setting
Approx. 200 cm (6 feet)	5.3 ms
Approx. 400 cm (12 feet)	10.6 ms
Approx. 600 cm (18 feet)	15.9 ms

4

4	<p>2. Yes During playback of the DVD recorded in Linear PCM of 48 kHz or 96kHz, digital audio converted to 48 kHz/16 bit is output. (Digital output of PCM audio is restricted to 48 kHz/16 bit or below for copyright protection.)</p> <p>④ When "Dolby Digital" is selected</p> <p>1. Bitstream (Factory default) (NOTE 1) Dolby Digital bitstream (1 ch - 3/2.1 ch) is output during playback of the DVD recorded in the Dolby Digital. Select this setting when the player is connected to the Dolby Digital decoder.</p> <p>2. PCM Digital audio converted to PCM (2ch) of 48 kHz/16 bit is output during playback of the DVD recorded in the Dolby Digital.</p> <p>⑤ When "DTS Digital Surround" is selected</p> <p>1. PCM (Factory default) When you have connected a unit that does not have a built-in DTS decoder.</p> <p>2. Bitstream DTS bitstream is output during playback of the DVD recorded in DTS. Select this setting when the player is connected to the DTS decoder.</p> <p>⑥ When "D. Range Compression" is selected</p> <p>1. Off (Factory default) Select this for the standard range.</p> <p>2. On Select this to achieve powerful sound even when the volume is low. This setting is suited for watching DVDs late at night with the volume low. (This setting is only valid for DVDs recorded in Dolby Digital.)</p> <p>⑦ When "Audio during search" is selected</p> <p>1. On (Factory default) Select this to output sound during the search operation in speed 1.</p> <p>2. Off Select this to turn off the sound during the search operation in speed 1.</p>
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• **Recommended "Audio" settings**

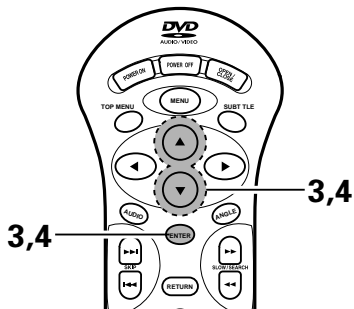
The optimum digital output setting depends on the type of component connected to the digital audio output connector.

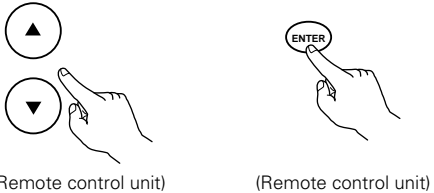
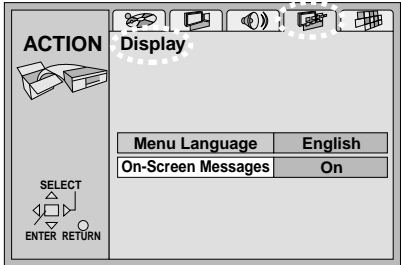
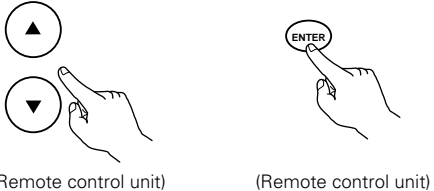
Digital audio output connector	"Audio" setting		
	PCM Down Conversion	Dolby Digital	DTS Digital Surround
When nothing is connected to the digital audio output connector	No (factory default)	Bitstream (factory default)	PCM (factory default)
When an amplifier equipped with a digital input connector and with no built-in Dolby Digital decoder and DTS decoder is connected to the digital audio output connector	Yes (NOTE 1)	PCM (NOTE 2)	PCM (factory default)
When a Dolby Digital decoder is connected to the digital audio output connector	Yes (NOTE 1)	Bitstream (factory default)	PCM (factory default)
When a Dolby Digital and/or DTS decoder is connected to the digital audio output connector	Yes (NOTE 1)	Bitstream (factory default)	Bitstream

NOTES:

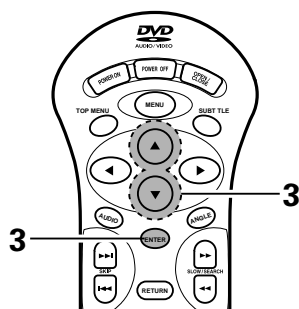
- When connecting an amplifier (with an optical/coaxial digital input connector) which does not contain the Dolby Digital or dts decoder, be sure to select "PCM" at the "Dolby Digital" and "PCM" at the "dts". If "Bitstream" is selected, any attempt to play DVD may cause such a high level of noise that it may be harmful to your ears and damage your speakers.
- Audio output from the player's audio output connectors is converted to 48 kHz as well as audio from the digital audio output connector. To enjoy high quality sound at 96 kHz, connect the amplifier or decoder directly to the audio output connectors, not to the digital audio output connector. (Select "No" at the "PCM Down Conversion".)

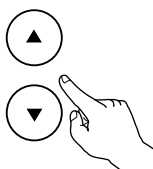

When "Display Menu" is Selected



<p>1</p>	<p>See page 46.</p>	
<p>2</p>		
<p>3</p>	<p>Use the ▲ and ▼ cursor buttons to select the preferred item and press the ENTER button.</p> <p>1. Menu Language 2. On-Screen Messages</p>	 
<p>4</p>	<p>Use the ▲ and ▼ cursor buttons to select the preferred setting and press the ENTER button.</p> <p>① When "Menu Language" is selected. Choose the preferred language for these menus and the on-screen messages.</p> <p>② When "On-Screen Messages" is selected. Choose whether to show on-screen messages or not.</p>	

When "Others" is Selected



<p>1</p>	<p>See page 46.</p>	
<p>2</p>		
<p>3</p>	<p>Use the cursor buttons (▲, ▼) to select the preferred setting and press the ENTER button.</p> <p>① When "Auto Power Off" is selected A demonstration of the unit's on-screen displays starts when you select "On". The demonstration stops when you press a button and the setting reverts to "Off".</p> <p>② When "DVD-Video Mode" is selected</p> <p>1. Off (Factory default) DVD-Audio discs are played as DVD-Audio discs.</p> <p>2. On DVD-Audio discs are played in a similar fashion to DVD-Video discs.</p> <p>③ When "Demo" is selected</p>	 <p>(Remote control unit)</p>  <p>(Remote control unit)</p>

Language code list

Code	Language	Code	Language	Code	Language	Code	Language
6565	Afar	7079	Faroese	7678	Lingala	8375	Slovak
6566	Abkhazian	7082	French	7679	Laothian	8376	Slovenian
6570	Afrikaans	7089	Frisian	7684	Lithuanian	8377	Samoaan
6577	Ameharic	7165	Irish	7686	Latvian, Lettish	8378	Shona
6582	Arabic	7168	Scots Gaelic	7771	Malagasy	8379	Somali
6583	Assamese	7176	Galician	7773	Maori	8381	Albanian
6588	Aymara	7178	Guarani	7775	Macedonian	8382	Serbian
6590	Azerbaijani	7185	Gujarati	7776	Malayalam	8385	Sundanese
6665	Bashkir	7265	Hausa	7778	Mongolian	8386	Swedish
6669	Byelorussian	7273	Hindi	7779	Moldavian	8387	Swahili
6671	Bulgarian	7282	Croatian	7782	Marathi	8465	Tamil
6672	Bihari	7285	Hungarian	7783	Malay	8469	Telugu
6678	Bengali; Bangla	7289	Armenian	7784	Maltese	8471	Tajik
6679	Tibetan	7365	Interlingua	7789	Burmese	8472	Thai
6682	Breton	7378	Indonesian	7865	Nauru	8473	Tigrinya
6765	Catalan	7383	Icelandic	7869	Nepali	8475	Turkmen
6779	Corsican	7384	Italian	7876	Dutch	8476	Tagalog
6783	Czech	7387	Hebrew	7879	Norwegian	8479	Tonga
6789	Welsh	7465	Japanese	7982	Oriya	8482	Turkish
6865	Danish	7473	Yiddish	8065	Panjabi	8484	Tatar
6869	German	7487	Javanese	8076	Polish	8487	Twi
6890	Bhutani	7565	Georgian	8083	Pashto, Pushto	8575	Ukrainian
6976	Greek	7575	Kazakh	8084	Portuguese	8582	Urdu
6978	English	7576	Greenlandic	8185	Quechua	8590	Uzbek
6979	Esperanto	7577	Cambodian	8277	Rhaeto-Romance	8673	Vietnamese
6983	Spanish	7578	Kannada	8279	Romanian	8679	Volapük
6984	Estonian	7579	Korean	8285	Russian	8779	Wolof
6985	Basque	7583	Kashmiri	8365	Sanskrit	8872	Xhosa
7065	Persian	7585	Kurdish	8368	Sindhi	8979	Yoruba
7073	Finnish	7589	Kirghiz	8372	Serbo-Croatian	9072	Chinese
7074	Fiji	7665	Latin	8373	Singhalese	9085	Zulu

17 TROUBLESHOOTING

Check again before assuming the player is malfunctioning.

- Are all the connections correct?
- Are you following the instructions in the manual?
- Are the amplifier and speakers operating properly?

If the DVM-4800 does not seem to be functioning properly, check the table below. If this does not solve the problem, the DVM-4800 may be damaged. Turn off the power, unplug the power cord from the power outlet and contact your store of purchase or nearest DENON sales office.

Symptom	Check	Page
Power does not turn on.	<ul style="list-style-type: none"> • Plug the power cord securely into the power outlet. 	10
Playback does not start when PLAY button is pressed. Playback stops immediately.	<ul style="list-style-type: none"> • Is there condensation on the disc or player? (Let stand for 1 or 2 hours.) • Discs other than DVDs, video CDs and music CDs cannot be played. • Disc is dirty. Wipe off the dirt. 	— 8 9
Picture does not appear.	<ul style="list-style-type: none"> • Check the connections. • Set the TV's input to "video". 	10 —
Sound is not produced or sound quality is poor.	<ul style="list-style-type: none"> • Check the connections. • Properly set the input of the TV, stereo, etc. 	10 —
Menu playback of video CD's is not possible.	<ul style="list-style-type: none"> • Menu playback is not possible with anything but video CDs with playback control. 	22
Picture is disturbed during the search operation.	<ul style="list-style-type: none"> • Some disturbance is normal. 	—
Buttons do not operate.	<ul style="list-style-type: none"> • Some operations are disabled for some discs. 	23
No subtitles are displayed.	<ul style="list-style-type: none"> • Subtitles are not displayed for DVDs not containing subtitles. • Subtitles are turned off. Turn the subtitles setting on. 	— 41
Audio (or subtitle) language does not switch.	<ul style="list-style-type: none"> • The audio (or subtitle) language does not switch for discs which do not include multiple audio (or subtitle) languages. • For some discs the audio (or subtitle) language cannot be switched when the operation to switch it is performed, but can be switched on the menu screens. 	— 39, 41
Angle does not switch.	<ul style="list-style-type: none"> • The angle cannot be switched for DVDs which do not contain multiple angles. In some cases multiple angles are only recorded for specific scenes. 	42
Playback does not start when the title is selected.	<ul style="list-style-type: none"> • Check the "Ratings" setting. 	47, 48
You have forgotten the password you have set for the "Ratings" setting.	<ul style="list-style-type: none"> • Use the procedure described below to reset all the settings to the factory defaults. In the stop mode, press and hold in the PLAY, SKIP (◀▶) and OPEN/CLOSE buttons on the DVD player for at least 3 seconds. (Check that "Initialized" has turned off from the TV screen.) 	—
The disc is not played with the audio or subtitle language set as the default setting.	<ul style="list-style-type: none"> • The disc does not play with the selected audio or subtitle language if that audio or subtitle language is not included on that DVD. 	47
Picture is not displayed in 4:3 (or 16:9).	<ul style="list-style-type: none"> • Set the "TV Aspect" default setting to the proper setting for the connected TV. 	00
No messages appear on the screen when buttons are operated.	<ul style="list-style-type: none"> • Set the "On-Screen Messages" default setting to "On". 	00
Menu screen messages for the desired language do not display.	<ul style="list-style-type: none"> • Check the default setting for the disc language's menu language. 	47
Remote control unit does not operate.	<ul style="list-style-type: none"> • Check that the batteries are inserted in the proper "⊕" and "⊖" directions. • The batteries are dead. Replace them with new batteries. • Point the remote control unit at the remote control sensor when operating it. • Operate the remote control unit within a distance of 7 meters from the remote control sensor. • Remove the obstacle between the remote control unit and remote control sensor. 	17 17 17 17 17

