

# APEX

DIGITAL

AD-600A

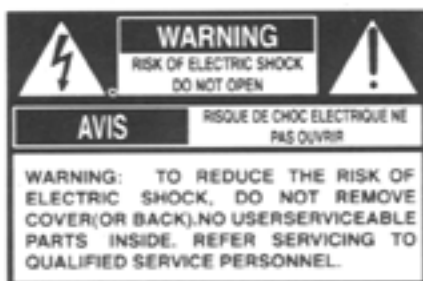
OPERATING  
MANUAL



# DVD

VIDEO PLAYER

# Safety Precautions



The lightning flash with arrowhead an 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.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**ATTENTION:** POUR EVITER LES CHOCS ELECTRIQUE, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.

**CAUTION:** This Digital Video Disc Player employs a Laser System.  
To ensure proper use of this product please read this owner's manual carefully and retain for future reference. Should the unit require maintenance, contact an authorized service location - see service procedure.

Use of control adjustments or the performance of procedures other than those specified may result in hazardous radiation exposure.

To prevent direct exposure to the laser beam, do not try to open the enclosure.  
Visible laser radiation when open and interlocks defeated.  
**DO NOT STARE INTO THE BEAM.**

**FCC NOTICE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rule. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**WARNING:** Changes or modifications made to this equipment, not expressly approved by APEX or parties authorized by APEX could void the user's authority to operate the equipment.

In the spaces provided below, record the Model and Serial No. located on the rear panel of your DVD video player.

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_

Retain this information for future reference.

# Important Safety Instructions

## CAUTION:

PLEASE READ AND OBSERVE ALL WARNINGS AND INSTRUCTIONS GIVEN IN THIS OWNER'S MANUAL AND THOSE MARKED ON THE UNIT. RETAIN THIS BOOKLET FOR FUTURE REFERENCE.

This set has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this unit will protect you if you observe the following procedures for installation, use and servicing. This unit is fully transistorized and does not contain any parts that can be repaired by the user.

**DO NOT REMOVE THE CABINET COVER, OR YOU MAY BE EXPOSED TO DANGEROUS VOLTAGE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL ONLY.**

1. Read the Owner's Manual After unpacking this product. Read the owner's manual carefully, and follow all the operating and other instructions.



2. 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.



3. Ventilation  
Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over-heating. 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 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.



4. Heat  
The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.



5. 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.



6. Cleaning  
Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.



7. 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.



# Important Safety Instructions

Continued

## 8. Overloading

Do not overload wall outlets. Extension cords, or integral convenience receptacles such as this can result in a risk of fire or electric shock.



## 9. Lightning

For added protection for this product during storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.



## 10. 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.



## 11. Attachments

Do not use attachments not recommended by the product manufacturer as they may cause hazards.

## 12. 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. 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.

## 13. Disc Tray

Keep your fingers well clear of the disc tray as it is closing. It may cause serious personal injury.



## 14. Burden

Do not place a heavy object on or step on the product. The object may fall, causing serious personal injury and serious damage to the product.



## 15. 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.



## 16. Disc

Do not use a cracked, deformed, or repaired disc. These discs are easily broken and may cause serious personal injury and product malfunction.



## 17. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

# Important Safety Instructions

Continued

- 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 because improper adjustments 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.
- f) When the product exhibits a distinct change in performance - this indicates a need for service.

19. **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.

20. **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.

21. **Wall or Ceiling Mounting**  
The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

18. **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.



# Precautions

## Handling Your DVD

- When shipping the DVD video player, the original shipping carton and packing materials come in handy. For maximum protection, repack the unit as it was originally packed at the factory.
- Do not use volatile liquids, such as insect spray, near the DVD video player. Do not leave rubber or plastic products in contact with the DVD video player for a long time. They will leave marks on the finish.
- The top and rear panels of the DVD video player may become warm after a long period of use. This is not a malfunction.
- When the DVD video player is not in use, be sure to remove the disc and turn off the power.
- If you do not use the DVD video player for a long period, the unit may not function properly in the future. Turn on and use the DVD video player occasionally.

## Where to Locate Your DVD

- When you place this DVD video player near a TV, radio or video cassette recorder (VCR), the playback picture may become poor and the sound may be distorted. In this case, place the DVD video player away from the TV, radio or VCR.

## Cleaning Your DVD

Use a soft, dry cloth for cleaning.

- For stubborn dirt, soak the cloth in a weak detergent solution, wring well and wipe. Use a dry cloth to wipe it dry. Do not use any type of solvent, such as thinner and benzene, as they may damage the surface of the DVD video player.
- If you use a chemical saturated cloth to clean the unit, follow that product's instructions.

## To Obtain a Clear Picture

The DVD video player is a high technology, precision device. If the optical pick-up lens and disc drive parts are dirty or worn down, the picture quality becomes poor. To obtain a clear picture, we recommend regular inspection and maintenance (cleaning or parts replacement) every 1,000 hours of use depending on the operating environment. For details, contact your nearest dealer.

## Beware of Moisture Condensation

**Moisture condensation damages the DVD video player. Please read the following carefully.**

Moisture condensation occurs, for example, when you pour a cold drink into a glass on a warm day. Drops of water form on the outside of the glass. In the same way, moisture may condense on the optical pick-up lens inside this unit. One of the most crucial internal parts of the DVD video player.

### ■ Moisture condensation occurs during the following cases.

- When you bring the DVD video player directly from a cold place to a warm place.
- When you use the DVD video player in a room where you just turned on the heater, or a place where the cold wind from the air conditioner directly hits the unit.
- In summer, when you use the DVD video player in a hot and humid place just after you move the unit from an air conditioned room.
- When you use the DVD video player in a humid place.

### ■ Do not use the DVD video player when moisture condensation may occur.

If you use the DVD video player in such a situation, it may damage discs and internal parts. Remove the disc, connect the power cord of the DVD video player to the wall outlet, turn on the DVD video player, and leave it for two or three hours. After two or three hours, the DVD video player will have warmed up and evaporated any moisture. Keep the DVD video player connected to the wall outlet and moisture condensation will seldom occur.

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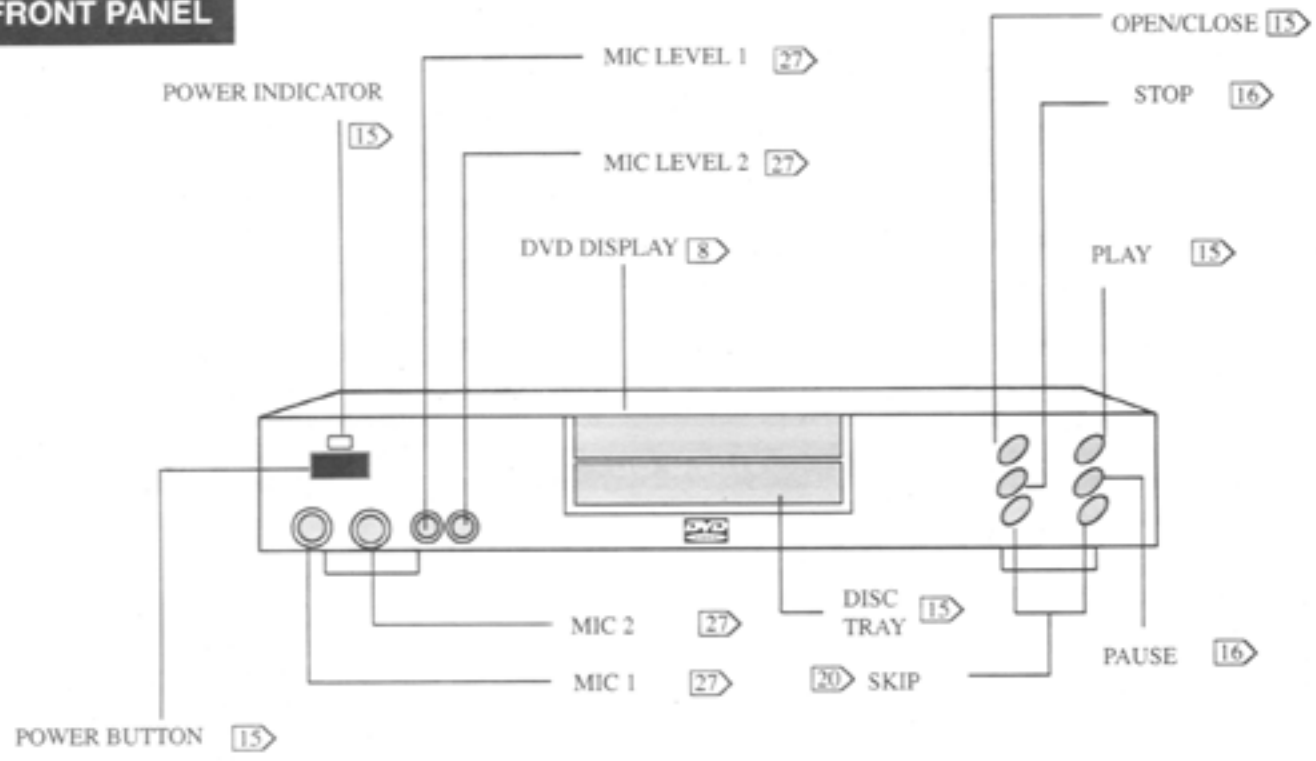


# Identification of Controls

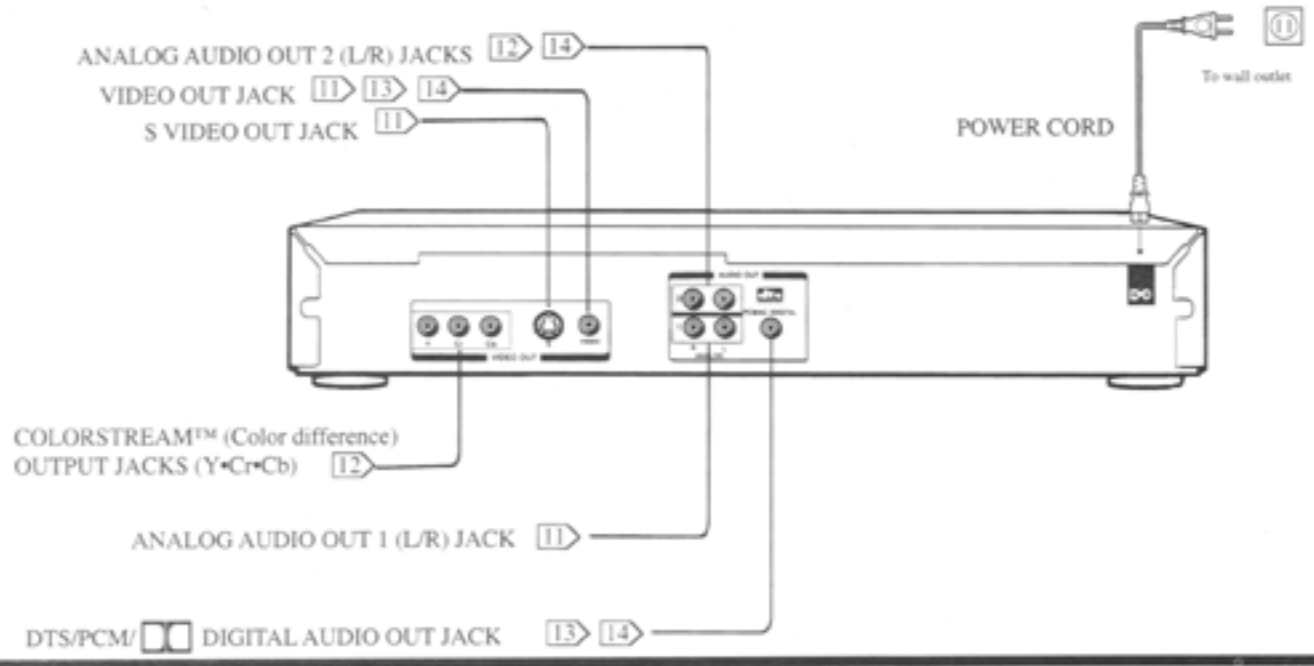
See the page in  for details.

## Front Panel/Rear Panel/DVD Display

### FRONT PANEL

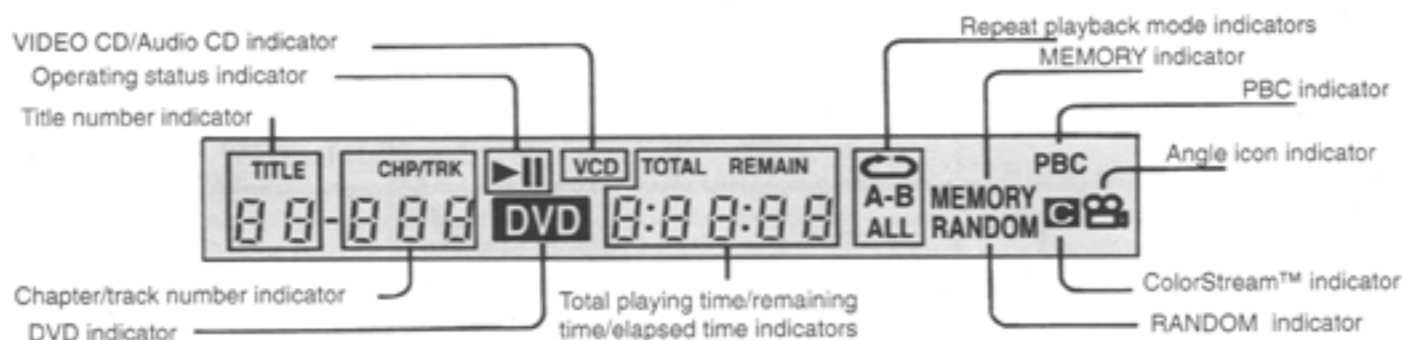


### REAR PANEL





## DVD DISPLAY

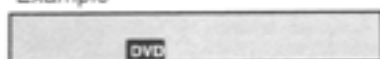


- The indicators vary depending on the kinds of discs you play.

### DVD Video discs

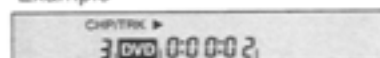
- When closing the disc tray:

Example



- During playback:

Example



Playing chapter 3

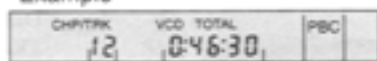
Elapsed time of the current title

Some DVD video discs may not display the chapter numbers or elapsed time.

### VIDEO CD

- When closing the disc tray:

Example



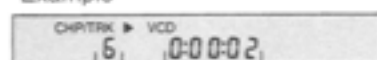
Total number of tracks

Total playing time of the disc

Lights up when using a VIDEO CD with playback control

- During playback:

Example



Playing track 6

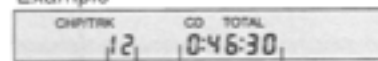
Elapsed time of the current track

Some VIDEO CD may not display the track numbers or elapsed time.

### Audio CD

- When closing the disc tray:

Example

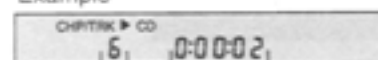


Total number of tracks

Total playing time of the disc

- During playback:

Example



Playing track 6

Elapsed time of the current track

### Other indicators



When playing back the same title, chapter or track repeatedly.



When playback is paused.



When ColorStream is set.



When playing back a specific segment repeatedly. (A-B repeat)



MEMORY

During memory playback.



RANDOM

During random playback.



When playing back the entire disc repeatedly.



ALL



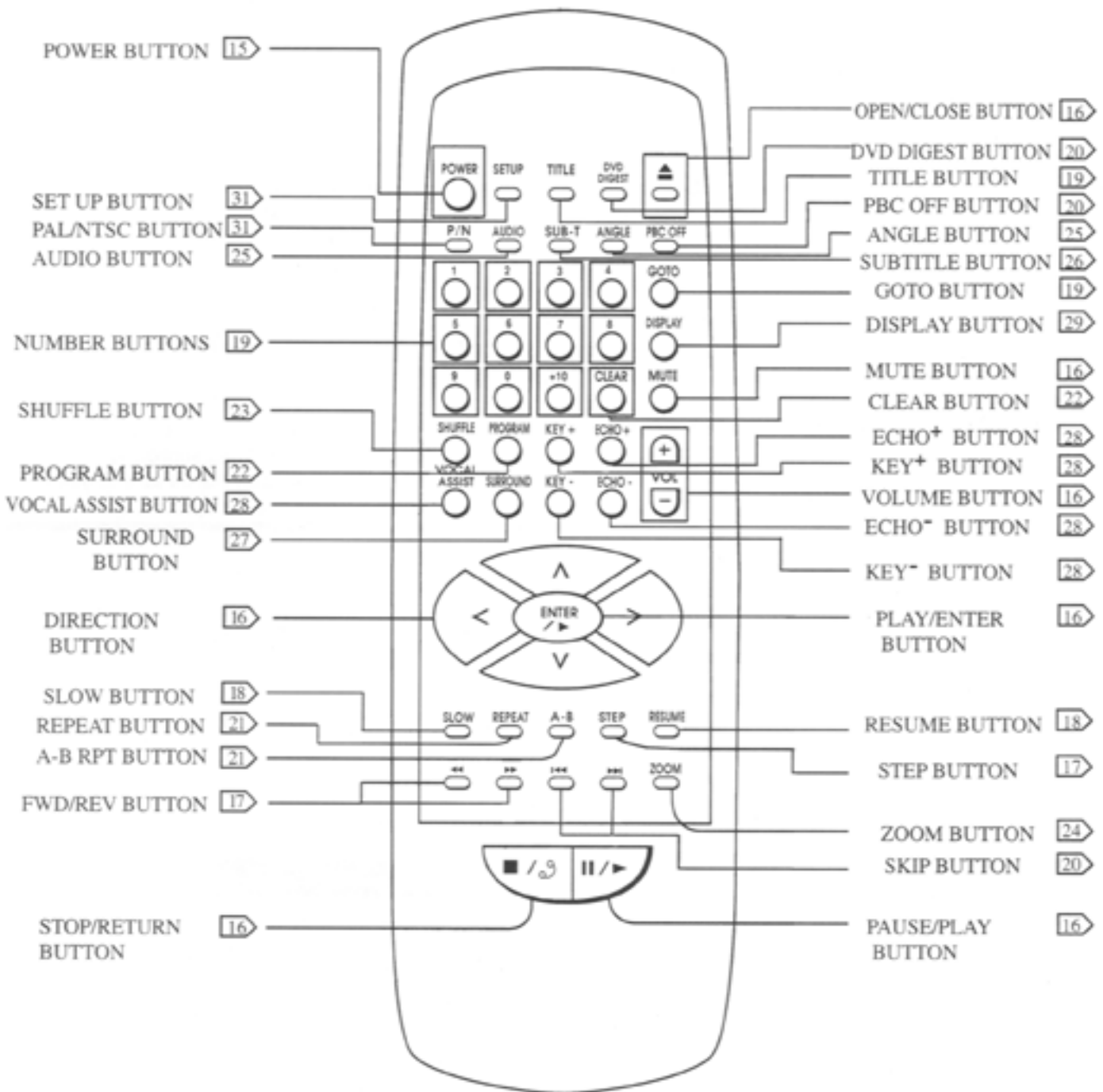
When the camera angle can be changed.



# Identification of Controls *Continued*

The instructions in this manual describe the functions on the remote control. See the page in  for details.

## Remote Control



## Preparing the Remote Control

Insert the batteries into the remote control so you can use it to operate the DVD video player.

### 1 Open the cover.



### 2 Insert batteries (R03 size).



Make sure to match the + and - on the batteries to the marks inside the battery compartment

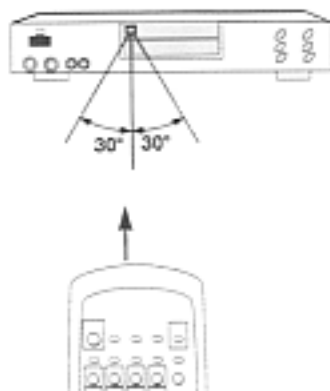
### 3 Close the cover.



## Operating with the Remote Control

This section shows you how to use the remote control.

### 1 Point the remote control at the remote sensor and press the buttons.



Distance: About 7 m from the front of the remote sensor  
Angle: About 30° in each direction of the front of the remote sensor

\*Do not expose the remote sensor of the DVD video player to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate the DVD video player with the remote control.

### Notes on batteries

- Improper use of batteries may cause battery leakage and corrosion. To operate the remote control correctly, follow the instructions below.
- Do not insert the batteries into the remote control in the wrong direction.
  - Do not charge, heat, open or short-circuit the batteries. Do not throw the batteries into a fire.
  - Do not leave dead or exhausted batteries in the remote control.
  - Do not use different types of batteries together, or mix old and new batteries.
  - If you do not use the remote control for a long period of time, remove the batteries to avoid possible damage from battery corrosion.
  - If the remote control does not function correctly or if the operating range becomes reduced, replace batteries with new ones.
  - If battery leakage occurs, wipe the battery liquid from the battery compartment, then insert new batteries.
  - The batteries should last about one year with normal use.

### Notes on the remote control

- Direct the remote control at the remote sensor of the DVD video player.
- Do not drop or give the remote control a shock.
- Do not leave the remote control near an extremely hot or humid place.
- Do not spill water or put anything wet on the remote control.
- Do not open the remote control.

# Connecting to a TV

For details of output sound, see [35](#)

Connecting the DVD video player to your TV.

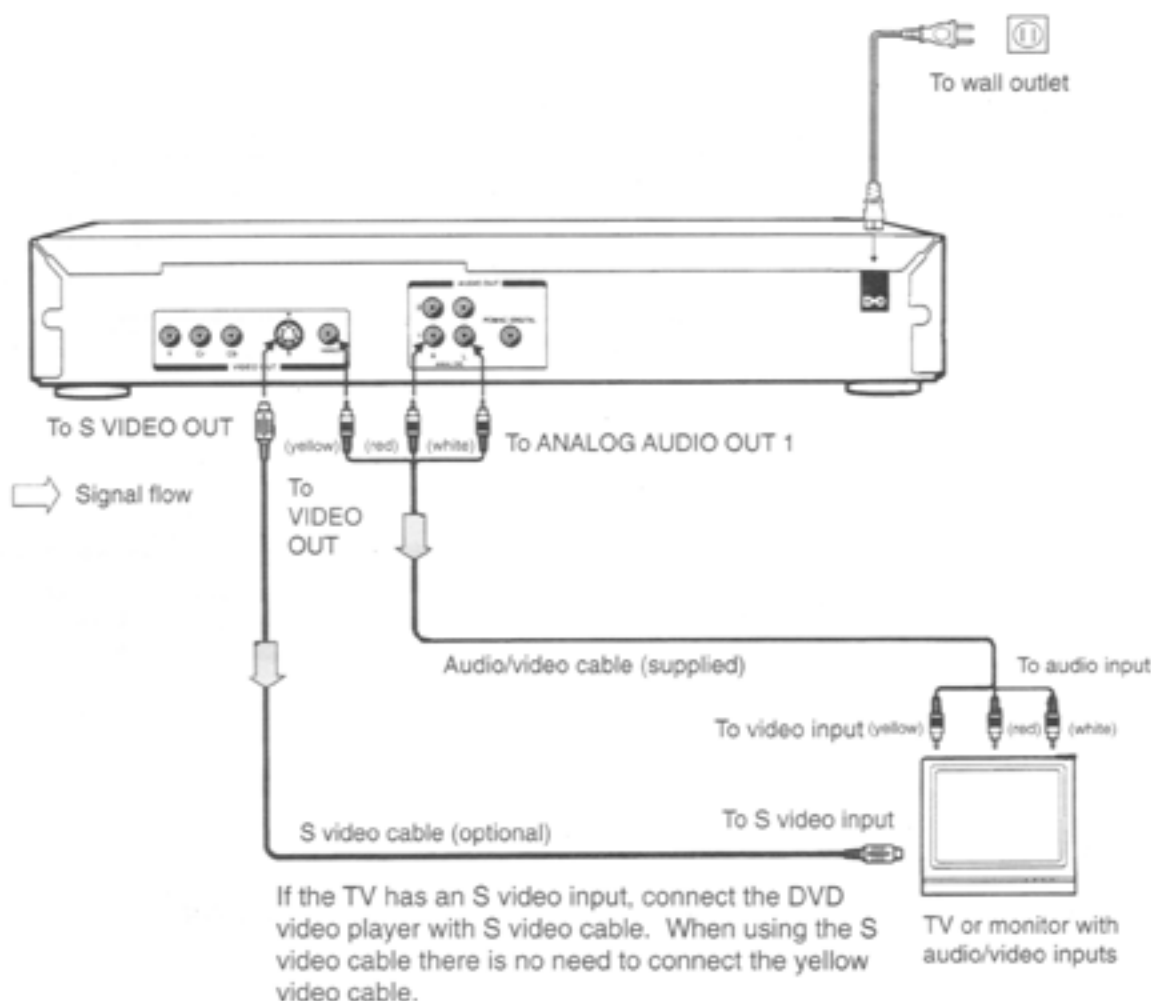
## Connecting to a TV

### ■ Setting of the sound output

From the on-screen displays, set the "AUDIO OUT PUT" to "ANALOG". [31](#)

### ■ Setting of the video output

From the on-screen displays, set the "SET VIDEO OUT" to "S" when using the S VIDEO OUT jack. [31](#)



### Notes

- Refer to the owner's manual of the connected TV as well.
- When you connect the DVD video player to your TV, be sure to turn off the power and unplug both units from the wall outlet before making any connections.
- If your television set has one audio input, connect the DVD video player to a Y cable adapter (not supplied) and then connect to your TV.
- Connect the DVD video player to your TV directly. If you connect the DVD video player to a video cassette recorder (VCR), or TV/VCR combination on video selector, the playback picture will be distorted because DVD video discs are copy protected.

## Connecting to an Audio System or TV COLORSTREAM™ (Color Difference) Inputs

You can listen to the sound of the discs in stereo and enjoy the enhanced picture quality of DVD video discs on a TV with ColorStream™ (color difference) inputs.

### Connecting to an Audio System with ColorStream™ (Color Difference) Inputs

#### ■ Setting of the sound output

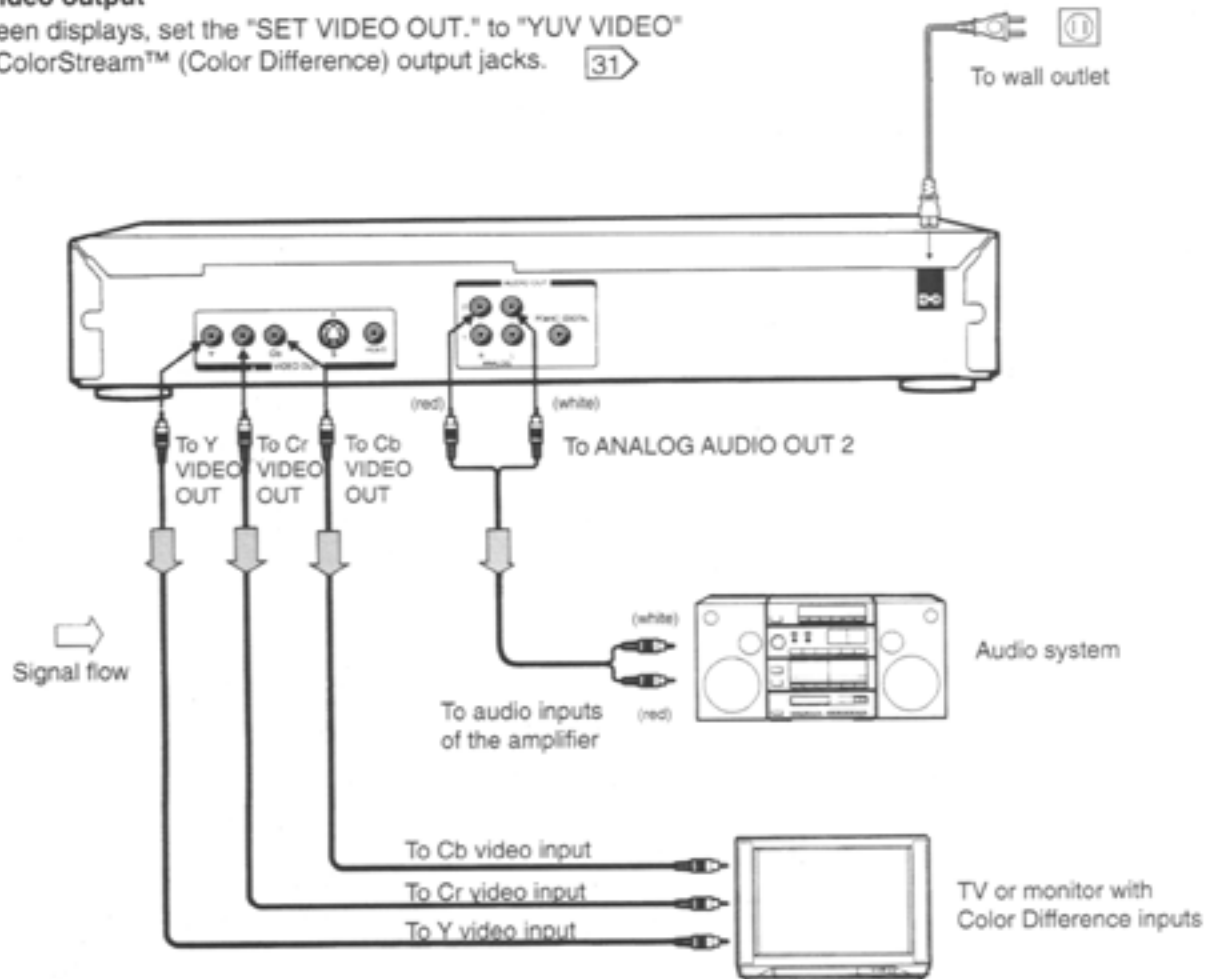
From the on-screen displays, set the "AUDIO OUT PUT." to "ANALOG".

31

#### ■ Setting of the video output

From the on-screen displays, set the "SET VIDEO OUT." to "YUV VIDEO" when using the ColorStream™ (Color Difference) output jacks.

31



#### Notes

- Refer to the owner's manual of the connected equipment as well.
- When you connect the DVD video player to other equipment, be sure to turn off the power and unplug all of the equipment from the wall outlet before making any connections.
- If you place the DVD video player near a tuner or radio, the radio broadcast sound might be distorted. In this case, place the DVD video player away from the tuner and radio.
- The output sound of the DVD video player has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the DVD video player's power cord. If you leave the amplifier power on, the speakers may be damaged.

#### Notes on the ColorStream™ (Color Difference) Outputs

Some TVs or monitors are equipped with color difference input terminals. Connecting to the terminals allows you to enjoy higher quality picture playback. The naming of the color difference input terminals depend on the TVs and monitors. (For example, Y, R-Y, B-Y, etc.) In some TVs or monitors, the color played back becomes thinner or the tint may change. In such a case, adjust the TV or monitor for the best performance.

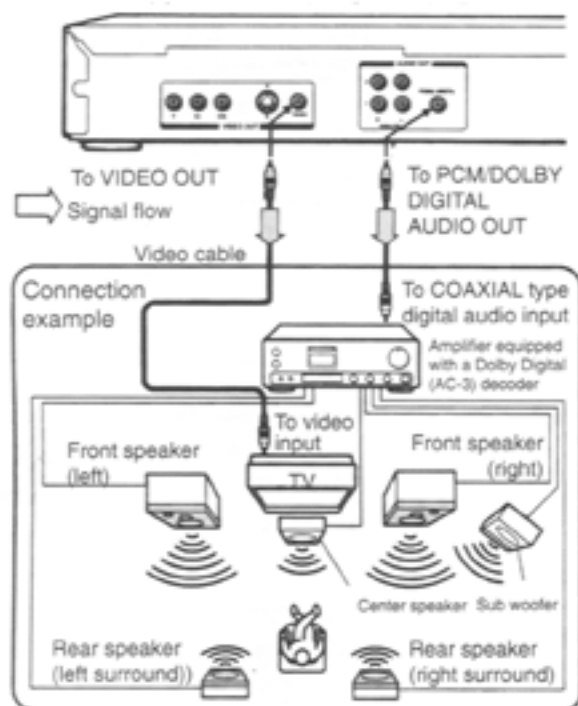
## Connecting to Optional Equipment

You can enjoy the high quality dynamic sound of Dolby Digital (AC-3), Dolby Pro Logic, MPEG 2 and 2 Channel Digital Stereo.

### Enjoy Dolby Digital (AC-3) Sound

#### Dolby Digital (AC-3)

Dolby Digital is the surround sound technology used in theaters showing the latest movies, and is now available to reproduce this realistic effect in the home. You can enjoy motion picture and live concert DVD video discs with this dynamic realistic sound by connecting the DVD video player to a 6 channel amplifier equipped with a Dolby Digital (AC-3) decoder or Dolby Digital (AC-3) processor. If you have a Dolby Pro Logic Surround decoder, you will obtain the full benefit of Pro Logic from the same DVD movies that provide full 5.1-channel Dolby Digital soundtracks, as well as from titles with the Dolby Surround mark.



#### ■ Setting of the sound output

- From the on-screen displays, set the "AUDIO OUT PUT." to "SPDIF/RAW" or "SPDIF/PCM" 31
- Set the sound recording system to "AC-3" on the audio setting indication. 25

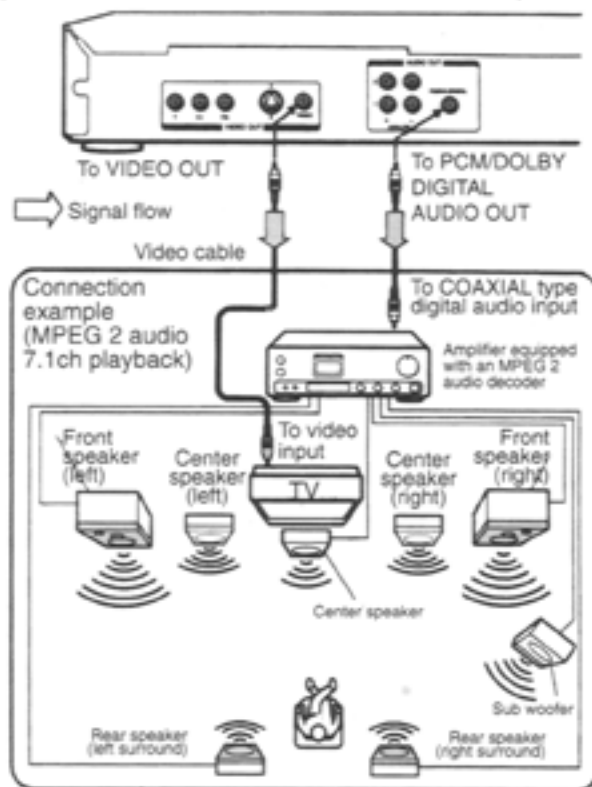
Karaoke play-back can not be available with the connection shown.

Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby," "AC-3" "Pro Logic," and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

### Enjoy MPEG 2 Sound

#### MPEG 2 Sound

You can enjoy motion picture and live concert DVD video discs with this dynamic realistic sound by connecting a 6 or 8 channel amplifier equipped with an MPEG 2 audio decoder or MPEG 2 audio processor.



- Center speakers (left/right) are not used for MPEG 2 5.1ch sound playback.

#### ■ Setting of the sound output

- From the on-screen displays, set the "AUDIO OUTPUT" to "SPDIF/RAW" or "SPDIF/PCM". 31
- Set the sound recording system to "MPEG" on the audio setting indication. 25

Karaoke play-back can not be available with the connection shown.

### Notes

- DO NOT connect the PCM/DOLBY DIGITAL AUDIO OUT jack of the DVD video player to the AC-3 RF input of a Dolby Digital Receiver. This input on your A/V Receiver is reserved for Laserdisc use only and is incompatible with the PCM/DOLBY DIGITAL AUDIO OUT jack of the DVD video player.
- Connect the PCM/DOLBY DIGITAL AUDIO OUT jack of the DVD video player to the "DIGITAL" or "COAXIAL" input of a Dolby Digital Receiver or Processor.
- Refer to the owner's manual of the connected equipment as well.
- When you connect the DVD video player to other equipment, be sure to turn off the power and unplug all of the equipment from the wall outlet before making any connections.
- The output sound of the DVD video player has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the DVD video player's power cord. If you leave the amplifier power on, the speakers may be damaged.

## Warning

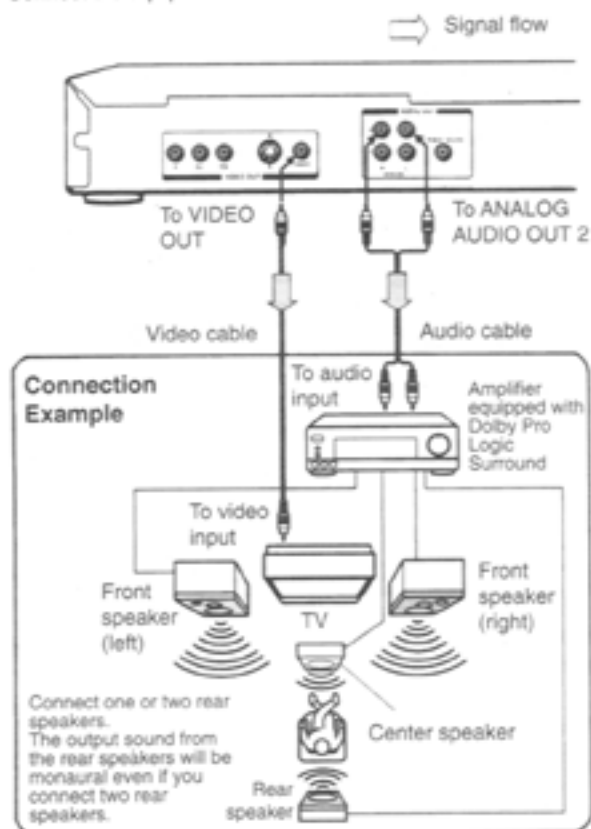
Do not set "AUDIO OUTPUT" to "SPDIF/RAW" or "SPDIF/PCM" via the on-screen displays **31** unless you are connecting (via the PCM/DOLBY DIGITAL AUDIO OUT jack) an AV decoder that has the Dolby Digital (AC-3) decoding function. High volume sound may damage your hearing as well as the speakers.

## Enjoying Dolby Pro Logic Surround Sound

### Dolby Pro Logic Surround

You can enjoy the dynamic realistic sound of Dolby Pro Logic Surround by connecting an amplifier and speaker system (right and left front speakers, a center speaker, and one or two rear speakers).

- **With an amplifier equipped with Dolby Digital (AC-3)**  
Connect the equipment the same way as described in "Enjoying Dolby Digital (AC-3) Sound" **13**. Refer to that amplifier's owner's manual and set the amplifier so you can enjoy Dolby Pro Logic Surround sound.
- **With an amplifier not equipped with Dolby Digital (AC-3)**  
Connect the equipment as follows.



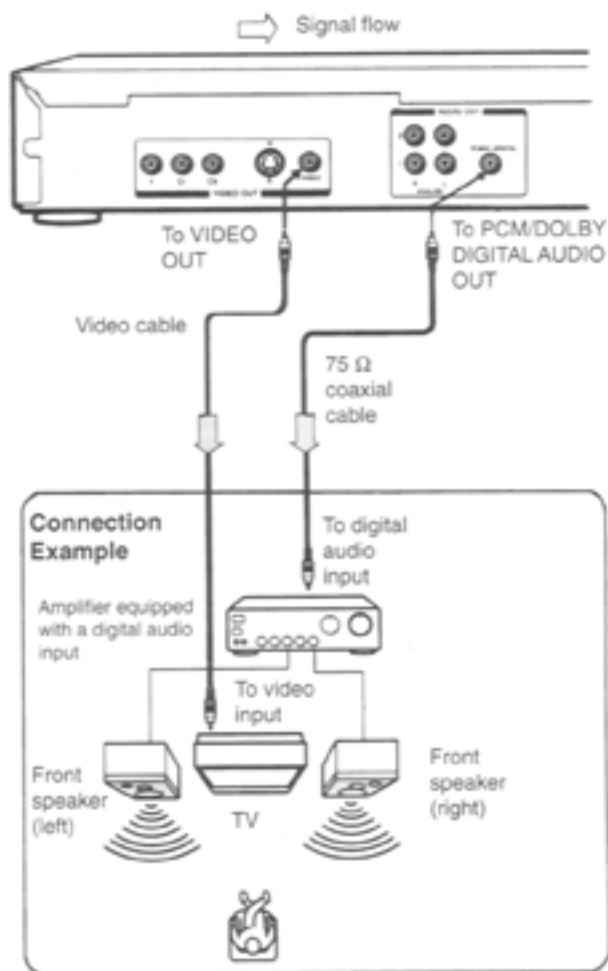
- Set "AUDIO OUTPUT" to "ANALOG" via the on-screen displays.

**31**

## Enjoying 2 Channel Digital Stereo Sound

### 2 Channel Digital Stereo

You can enjoy the dynamic sound of 2 Channel Digital Stereo by connecting an amplifier equipped with a digital audio input and speaker system (right and left front speakers).



- Set "AUDIO OUTPUT" to "ANALOG" via the on-screen displays.

**31**

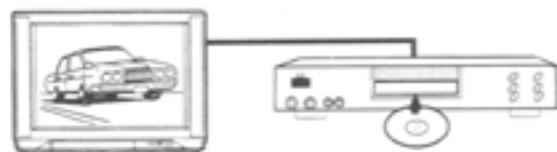
Karaoke can not be available with the connection shown.

## Notes

- Refer to the owner's manual of the connected equipment as well.
- When you connect the DVD video player to other equipment, be sure to turn off the power and unplug all of the equipment from the wall outlet before making any connections.
- The output sound of the DVD video player has a wide dynamic range. Be sure to adjust the receiver's volume to a moderate listening level. Otherwise, the speakers may be damaged by a sudden high volume sound.
- Turn off the amplifier before you connect or disconnect the DVD video player's power cord. If you leave the amplifier power on, the speakers may be damaged.



# Playing Back A Disc



## CAUTION

Keep your fingers well clear of the disc tray as it is closing. It may cause serious personal injury.

This section shows you the basics on how to play back a disc.

## Basic Playback

### ■ Preparations

- When you want to play back DVD video discs or VIDEO CD, turn on the TV and select the video input source connected to the DVD video player.
- When you want to enjoy the sound of disc from the audio system, turn on the audio system and select the input source connected to the DVD video player.
- For connection details, see "Connections" [11](#) - [14](#).
- Set the playback picture size according to the aspect ratio of the connected TV via the on-screen displays. [31](#)
- If you do not have the necessary equipment to enjoy Dolby Digital (AC-3) sound, set the "AUDIO OUT PUT." to "ANALOG" via the on-screen displays. [31](#)

# 1

POWER

## Press POWER on the front panel.



The DVD video player turns on and the POWER indicator on the player illuminates.

# 2

OPEN/CLOSE

## Press OPEN/CLOSE.



The disc tray opens.

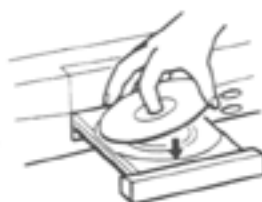
### Note

You can open the disc tray by pressing this button even if the DVD video player is turned off.

# 3

## Place the disc on the disc tray.

With the playback side down.



### Notes

- There are two different disc sizes. Place the disc in the correct guide on the disc tray. If the disc is out of the guide, it may damage the disc and cause the DVD video player to malfunction.
- Do not place anything except DVD video discs, VIDEO CD or audio CDs on the disc tray.

# 4

PLAY/ENTER

## Press PLAY.



The disc tray closes and playback starts.

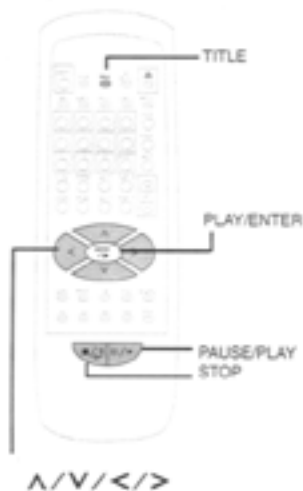
When playing back a DVD disc with the title menu recorded or a VIDEO CD with the playback control (PBC), a menu screen will appear. Refer to the "To start playback from the menu screen." [16](#)  
When playing back with a menu screen of the VIDEO CD (with PBC), set the "PBC" to "ON" via the on-screen displays.

### Notes

- For the playback control (PBC) of the VIDEO CD, refer to the "On VIDEO CD". [35](#)
- When using some discs, the menu screen will be displayed automatically or by pressing the TITLE button or MENU button on the remote control.

### Notes

- Do not move the DVD video player during playback. Doing so may damage the disc.
- Use the OPEN/CLOSE button on the remote control or DVD video player to open and close the disc tray. Do not push the disc tray while it is moving. Doing so may cause the DVD video player to malfunction.
- Do not push up on the disc tray or put any objects other than discs on the disc tray. Doing so may cause the DVD video player to malfunction.



### ■ To obtain a higher quality picture

Occasionally, some picture noise not usually displayed with a normal broadcast may appear on the TV screen while playing back a DVD video disc because the high resolution pictures on these discs include a lot of information. While the amount of noise depends on the TV you use with this DVD video player, you should generally reduce the sharpness adjustment on your TV when viewing DVD video discs.

### ■ About DVD VCD CD

The DVD VCD CD icons on the heading bar show the playable discs for the function described under the heading.

**DVD:** You can use this function with DVD video discs

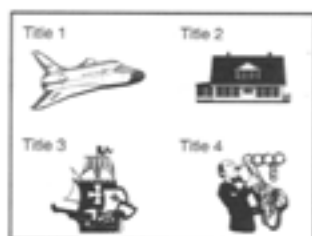
**VCD:** You can use this function with VIDEO CD

**CD:** You can use this function with audio CDs



## To start playback from the menu screen

- 1 Press  $\wedge/\vee/</>$  or the number buttons to select the title you want.



- 2 Press **PLAY/ENTER**.

**PLAY/ENTER** The DVD video player starts playback from the selected title.



- When not using the VIDEO CD menu screen (with PBC), set the "PBC" to "OFF" via the on-screen displays.

## To pause playback (still playback)

**PAUSE/PLAY**



Press **PAUSE/PLAY** during playback.

To resume normal playback, press the **PAUSE/PLAY** or **PLAY** button.

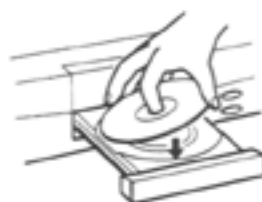
- The sound is muted during still playback.

## To remove the disc

**OPEN/CLOSE**



Press **OPEN/CLOSE**.



Remove the disc after the disc tray opens completely.

## To stop playback

**STOP**



Press **STOP/ RETURN**

The DVD video player is stopped.

Press **PLAY/ENTER** to replay

Press **STOP/ RETURN** again.

The DVD video player returns to chapter 1 or track 1. When using the VIDEO CD menu screen (with PBC ON), the player returns to menu screen.

- Be sure to press the **OPEN/CLOSE** button to close the disc tray after you remove the disc.

**MUTE**



Press **MUTE** Button to mute sound. Press **MUTE** button again to set mut off.



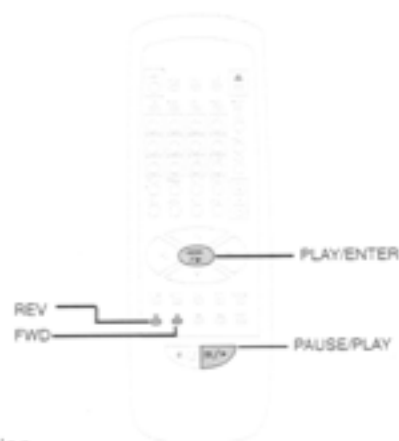
Press **+/-** button to adjust volume.

### Note

In many instances, a menu screen will appear after the playback of a movie is completed. Prolonged display of an on-screen menu may damage your television set, permanently etching that image onto its screen. To avoid this, be sure to press the **STOP** button on your remote control once the movie is completed. You can setup the **SCREEN SAVER** on during stop.

# Playing Back A Disc

Continued



You can play back discs at various speeds, and resume playback from the location where you stopped playback.

## Playing at x2, x4, x6, or x8 the Normal Speed

You can play back a disc at x2, x4, x6, or x8 the normal speed.

Press **REV** or **FWD** during playback.



- DVD video disc



The playback speed becomes x2 the normal speed. Each time you press the **REV** or **FWD** button, the playback speed changes.

**REV**: Fast reverse playback

**FWD**: Fast forward playback

TV screen



- Video CD, Audio CD

The fast reverse or fast forward playback alternate x1, x2, x3, x4 speed

## Playing Frame by Frame

You can advance a disc frame by frame.

**STEP**



Press **STEP** during still playback.

Each time you press the **STEP** button, the picture advances one frame.

## To resume normal playback

**PAUSE/PLAY**



Press **PLAY/ENTER** or **PAUSE/PLAY**.

## Note

The sound is muted during frame by frame playback.

## To resume normal playback

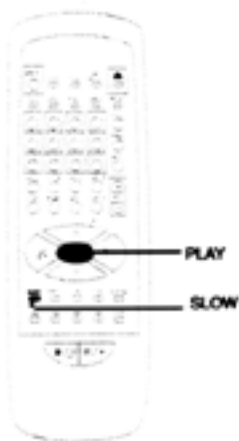
**PLAY/ENTER**



Press **PLAY/ENTER**.

## Notes

- The DVD video player does not play back sound and subtitles during scan reverse and forward playback of DVD video discs. However, the DVD video player plays back sound during fast forward or fast reverse playback of audio CDs.
- The x2, x4, x6, and x8 speeds are only approximate speeds. These speeds may vary slightly from disc to disc.



## Playing in Slow-Motion

DVD VCD CD

You can play back a disc in slow-motion.

SLOW

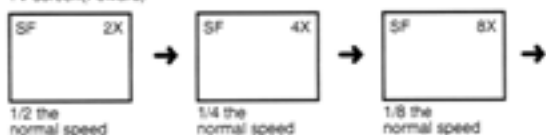


**Press SLOW during playback.**

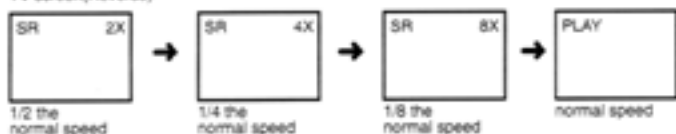
The playback speed becomes 1/2, 1/4, or 1/8 of normal speed. (Reverse slow play as the same)

Each time you press the SLOW button, the slow-motion speed changes as follows.

TV screen(Forward)



TV screen(Reverse)



## To resume normal playback

PLAY/ENTER



**Press PLAY/ENTER.**

### Note

The sound is muted during slow-motion playback.



## Resuming Playback from the Same Location

DVD VCD CD

You can stop playback and resume playback later from the same location on the disc.

1



**Press STOP at the location where you want to interrupt playback.**

- The DVD video player memorizes the location where you stopped playback.

2

PLAY/ENTER



**Press Resume or PLAY/ENTER.**

The DVD video player resumes playback from the location where you stopped playback.

### Notes

- The Resume function is canceled when:
  - you unplug the DVD video player from the wall outlet after you stop playback.
  - you eject the disc.
  - you adjust/change parental lock or select a disc menu language setting .
- There may be a difference of the location where playback resumes depending on the discs.

# Locating A Specific Title, Chapter or Track



Normally, DVD video discs are divided into titles, and the titles are sub-divided into chapters. VIDEO CDs and Audio CDs are divided into tracks. You can quickly locate any specific title, chapter, or track.

## Locating a Title Using the Title Menu

DVD

If a DVD video disc contains a title menu, you can locate a specific title using the title menu function.

1

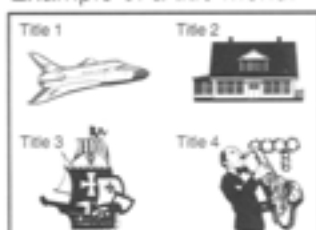
Press **TITLE**.

TITLE



The title menu appears on the TV screen.

Example of a title menu.



2

Press **^/V/</>** to select the title you want.



If the titles in the title menu are assigned a number, you can directly locate a specific title by pressing its assigned number with the **number buttons**.

3

Press **ENTER**.

PLAY/ENTER



The DVD video player starts playback from chapter 1 of the selected title.

### Notes

- Some disc may not respond to this function.
- The instructions above describe the basic procedure. The procedure varies depending on the contents of the DVD video disc. If different instructions appear on the TV screen, follow those instructions.

## Locating a Title

DVD

If a DVD video disc contains title numbers, you can locate a specific title by directly selecting a title number.

1

Press **GOTO** during playback.

GOTO



Make sure that the space next to **TITLE** is highlighted.

e.g. TITLE: 002 / 10 CHAPTER: 00:24

2

Press **^/V/</>** to select the title & chapter you want.



3

Press the corresponding number buttons for the title you want.



e.g. To select title 2

TITLE: 002 / 02 CHAPTER: 03:03

To select title 12

TITLE: 012 / 13 CHAPTER: 03:03

4

Press **PLAY**.

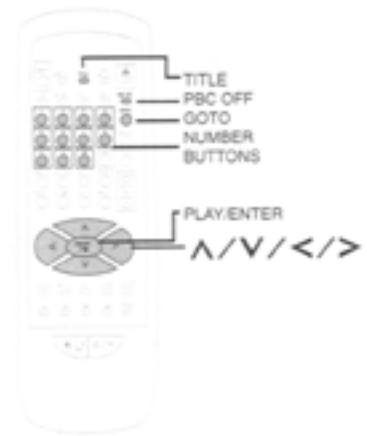
PLAY/ENTER



The DVD video player starts playback from chapter 1 of the selected title.

### Notes

- You can press **GOTO** twice to select the time.
- You can shift the highlight between next to **TITLE** and **CHAPTER** by pressing **^/V/</>**.
- You can select a preferred language for on-screen displays. [31]



## View Individual Chapters

If the DVD Video Disc contains different chapters, you can locate a specific chapter.

### 1 Press PBC OFF.

PBC OFF



PBC OFF

### 2 Press DIGEST.

DIGEST



The player plays each individual chapters.

### 3 Press >>> to show the rest chapters.



### 4 Select chapter by numbers.



The DVD player starts to play selected chapter .

\* Return to normal playback, Press PBC OFF again. (PBC on)

\* Digest only displays 9 chapters each time.

\* Some disc you may stop playback, then press PBC off.

## Locating a Specific Chapter or Track

You can locate consecutive chapters or tracks.

SKIP



Press SKIP |<<< or >>>| repeatedly to display the chapter or track number you want.

SKIP



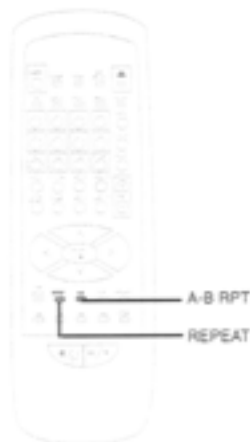
The DVD video player starts playback from the selected chapter or track.

⏪: To locate preceding chapters or tracks  
When you press the SKIP ⏪ button , the DVD video player starts playback from the beginning of the preceding chapter or track.

⏩: To locate succeeding chapters or tracks.

Note:Some titles may not display the chapter.

# Playing Repeatedly



You can play back a specific title, chapter, track, or segment repeatedly. (Title repeat, chapter/track repeat, A-B repeat)

## Repeating a Title, Chapter, or Track

DVD VCD CD

You can play back the same title, chapter, or track repeatedly. (Title, chapter/track repeat).

**1** Select the title, chapter, or track you want to repeat. [19] [20]

**2** Press REPEAT.



Each time you press the REPEAT button, the repeat mode changes as follows.

- DVD video disc
  - CHAPTER REPEAT ON Repeats the same chapter.
  - TITLE REPEAT ON Repeats the same title.
  - REPEAT OFF Resumes normal playback.

## Repeating a Specific Segment

DVD CD

You can play back a specific segment repeatedly. (A-B repeat)

**1** Press A-B at the beginning of the segment (point A) you want to play repeatedly.



**2** Press A-B again at the end of the segment (point B).



The DVD video player automatically returns to point A and starts repeat playback of the selected segment (A-B)

**3** Press A-B again.



The DVD video player returns to normal playback.

### Notes

When you play under PBC OFF mode, the screen shows:



### Notes

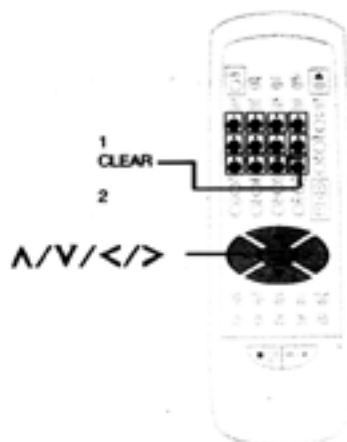
- You can specify a segment only within the current title.
- You cannot set the A-B repeat function for segment that include multiple camera angles.
- There may be a slight difference between point A and the location where playback actually resumes depending on the discs.
- Some discs may not respond to A-B repeat



# Playing In A Favorite Order



You can combine your favorite titles, chapters, or tracks and play them back in any order. You can program up to 99 items into the memory. (Program playback)



## Setting Titles, Chapters, or Tracks in a Favorite Order

DVD VCD CD

The DVD video player automatically plays back titles, chapters, or tracks in the order you program.

**1** Insert a disc and press **PROGRAM** during **PBC OFF**.

The following menu appears.

PROGRAM P 00:00

**3** Press **PLAY** while the **PROGRAM** appears on the TV screen.

The DVD video player starts memory playback. (Chapter 4 - Chapter 9 - Chapter 1 - Chapter 3)

**2** Select the items you want in order by pressing the number buttons.

1 2 3 4  
5 6 7 8  
9 0 +10 CLEAR

Memory 1	PROGRAM	01:04
	↓	
Memory 2	PROGRAM	02:09
	↓	
Memory 3	PROGRAM	03:01
	↓	
Memory 4	PROGRAM	04:03

CLEAR To reset program, press CLEAR

**To change the programmed items**  
Press stop, then follow step 1.

**To cancel the programmed items**  
Press stop, then press PLAY

**To resume normal playback from memory playback**  
Press **PBC OFF** during stop.  
The **MEMORY** indicator disappears.

### Notes

- The programmed items will be cleared when:
  - you turn off the DVD video player, or
  - you remove the disc.
- Program play may not be possible depending on the disc.

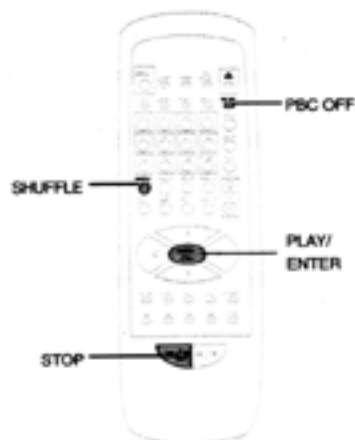
# Playing in Random Order

You can play back titles, chapters within a title, or tracks in random order (Random playback)

## Playing Titles in Random Order

DVD

The DVD video player automatically selects the titles in a DVD video disc and plays them back randomly.



1

Press **SHUFFLE** during stop.

SHUFFLE



SHUFFLE ON

2

Press **PLAY**.

PLAY/ENTER



The player starts random playback.

Press the **PLAY** button within about 5 seconds after you press the **SHUFFLE** button.

To resume normal playback

PBC OFF



Press **PBC OFF** during stop, then press **PLAY/ENTER**.

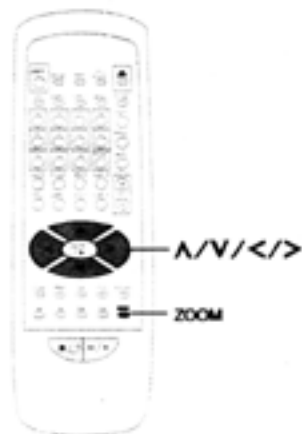
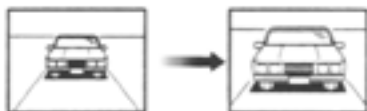
### Notes

- You cannot use the random playback function in conjunction with the memory playback function during stop.
- The PBC must be off in order to use this function.
- You may play CD without PBC off.

- If you press the **SKIP** button during random playback, the DVD video player goes to another chapter or track and starts playback.

# Zooming a Picture

Zooming a picture



## Zooming a Picture

DVD

You can zoom a picture. You can shift the zoom point as well.

ZOOM



**Press ZOOM during normal playback or slow motion.**

The DVD video player magnifies in the center of the picture.



If you press ▲/▼/◀/▶ during zoom playback, the zoom point shifts.

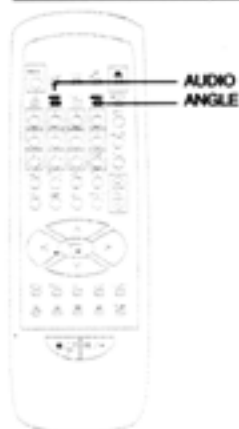
**To resume normal playback**

ZOOM



**Press ZOOM during zoom playback.**

# Selecting the Camera Angle/Selecting a Language



Selecting the camera angle



Selecting a language



A preferred angle can be selected among several angles and a preferred language can be selected among several languages.

## Changing the Camera Angle

If the scene was recorded from multiple angles, you can easily change the camera angle of the scene you are watching.

- 1 Press **ANGLE** while playing back a scene recorded with multiple angles.

ANGLE



Press the **ANGLE** button while the angle icon in the DVD display is flashing. ( )

- 2 Press **ANGLE** each time the angle changes.

ANGLE

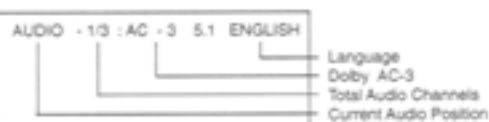


## Selecting a Playback Audio Setting

You can select a preferred language and sound recording system from those included on the DVD video disc.

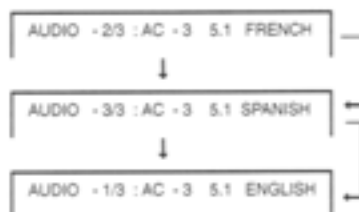
- 1 Press **AUDIO** during playback.

AUDIO



- 2 Press **AUDIO** again.

AUDIO



- Cycles backwards by Pressing **AUDIO**.

### Notes

- Some discs may not contain angle function.
- You can change the camera angle during still playback. The camera angle changes to the new setting when you resume normal playback.
- While playing back a title that contains at least one scene recorded from multiple angles, the angle icon indicator illuminates in the DVD display.

### Note

When you turn on the DVD video player or replace a disc, player returns to the initial default setting.  
When you select a sound which is not included on the disc, the DVD video player plays a prior sound programmed on the disc.

# Selecting Subtitles



You can display subtitles on the TV screen and select a preferred subtitle language.

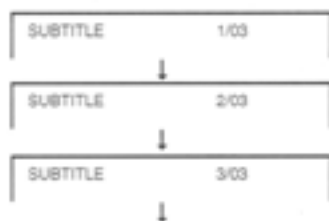


## Displaying Subtitles

DVD

You can display subtitles from those included on the DVD video disc.

**SUB-T** Press SUB-T during playback.



Good morning! Subtitles

### To turn off the subtitles

**SUB-T** Press SUB-T until SUBTITLE OFF appears on screen.



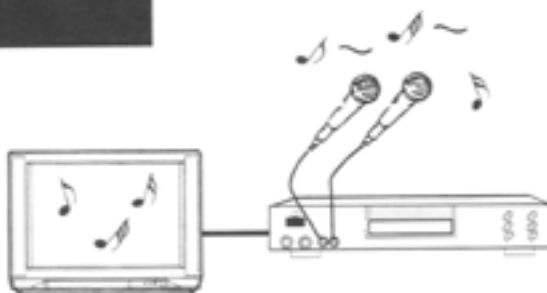
The subtitles disappear



### Notes

- Some DVD video discs are set to display subtitles automatically, and you cannot turn them off even if you set the subtitle function to off.
- During some scenes, the subtitles may not appear immediately after you press the SUB-T button.

# Karaoke



You can enjoy Karaoke with one or two microphones

## Enjoying Karaoke

- 1** Connect the microphone to MIC 1 or MIC 2 jack.



- 2** Press SETUP to select karaoke setup.

SETUP



SETUP MENU ... MAIN PAGE  
> GENERAL SETUP <  
> SPEAKER SETUP <  
> DOLBY DIGITAL SETUP <  
KARAOKE SETUP <



... KARAOKE PAGE ...  
KARAOKE MODE >> OFF  
ECHO TYPE KARAOKE  
MUSIC



... KARAOKE PAGE ...  
KARAOKE MODE >> OFF  
KARAOKE  
MUSIC



- 3** Press SETUP.

SETUP



- 4** Press ENTER/PLAY.

ENTER/PLAY



- 5** Adjust the sound level of the microphone.

1 MIC LEVEL 2



The sound level of the microphone connected to the MIC 1 jack is adjusted with MIC LEVEL 1 knob. The sound level of the microphone connected to the MIC 2 jack is adjusted with MIC LEVEL 2 knob.

### To finish the karaoke

- 1 Follow step 2 to select KARAOKE MODE OFF then press SETUP again.

... KARAOKE PAGE ...  
KARAOKE MODE >> OFF  
KARAOKE  
MUSIC

the karaoke is turned off.

- 2 Disconnect the microphone from the MIC jack.

### Notes

If a hauling sound (Pit) occurs, try as follows.

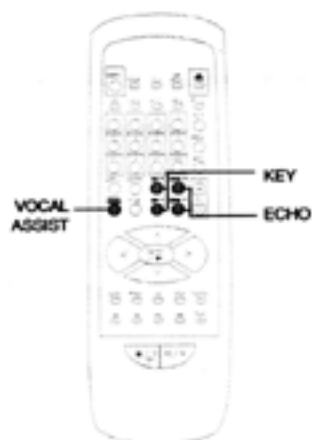
- Take the microphone away from the speaker.
- Lower the microphone sound level.
- Lower the speaker sound level.



- When you select music on step 2, you can enjoy surround sound from surround 1 to surround 4 by pressing button SURROUND.
- Karaoke function will stay on unless you turn karaoke off

## ■ Functions available in this unit (set with KARAOKE ON)

DVD video disc	VIDEO CD/Audio CD
<ul style="list-style-type: none"> <li>• Echo adjustment</li> <li>• Key adjustment</li> </ul>	<ul style="list-style-type: none"> <li>• Echo adjustment</li> <li>• Key adjustment</li> </ul>
<ul style="list-style-type: none"> <li>• Sound selection</li> </ul>	<ul style="list-style-type: none"> <li>• Sound selection of left and right channel.</li> <li>• Vocal cancel*</li> <li>• Vocal change*</li> </ul>



\*Vocal cancel: Eliminates the vocal sound centered from the sound stereo-recorded in a VIDEO CD or Audio CD.

\*Vocal change: When your vocal is entered through the microphone, the vocal part recorded in sound-multiplex is eliminated and your vocal will be heard.

## Various Function Setting

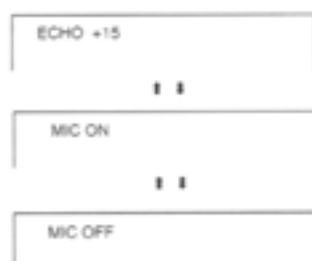
DVD VCD CD

Among the DVD video discs, you will find a karaoke disc. In the karaoke disc, karaoke L (accompaniment for left channel), karaoke R (accompaniment for right channel), guide melody, vocal 1 and vocal 2 are recorded. In some discs, the guide melody, vocal 1 and vocal 2 may not be recorded.

**To adjust the echo level/key control**  
Press **ECHO+**, **ECHO-**, **KEY+**, **KEY-**.



### ■ Echo adjustment



Adjust with



### ■ Key adjustment

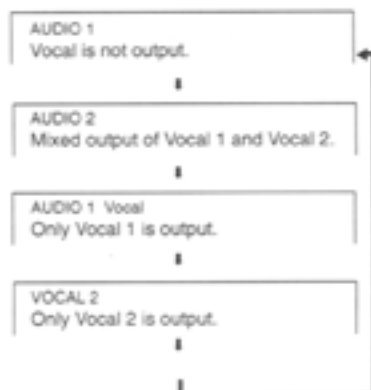


Adjust with



**VOCAL ASSIST**  
**To select the sound**  
Press **VOCAL ASSIST**.

Press the **VOCAL ASSIST** button repeatedly to select the sound type.



- The vocal cancel function may not work in some discs.
- The vocal change function works with a disc recorded in sound-multiplex.





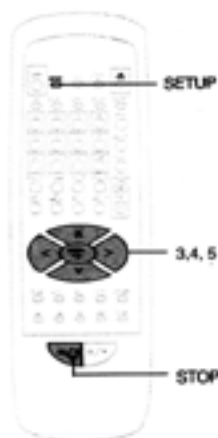
# Setting the Parental Lock



You can use the parental lock function only with DVD video discs equipped with the parental lock feature.

## Setting the Parental Lock

DVD video discs equipped with the parental lock function are rated according to their content. The contents allowed by a parental lock level and the way a DVD video disc can be controlled may vary from disc to disc. For example, if the disc allowed, you could edit out violent scenes unsuitable for children and replace them with more suitable scenes, or lock out playback of the disc altogether.



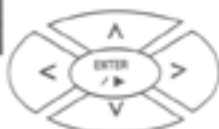
**1** Press STOP twice.



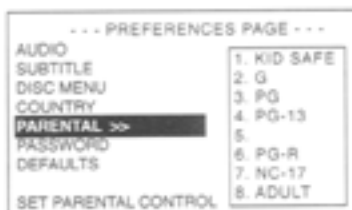
**2** Press setup.  
The SETUP MENU appears on the TV screen.



**3** Select PREFERENCES, press ENTER.



**4** Select PARENTAL, press ENTER.



**5** Select ratings, press ENTER.



**6** Enter your password then press ENTER.



**7** Press SETUP to exit setup, press PLAY to start.

SETUP

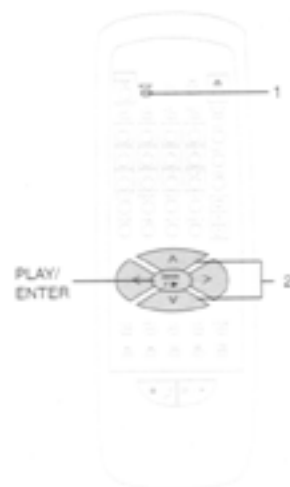
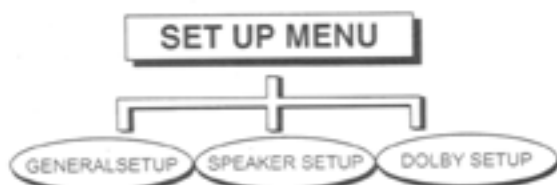


### To change your password.

1. Follow step 4 to select password change
2. Enter old password.
3. Enter new password.
4. Re-enter to confirm your new password.
5. Press ENTER.
6. Press SETUP.

Note. Factory preset password is 3308.

# Customizing the Function Settings

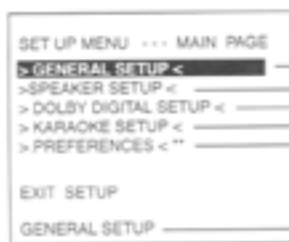


You can change the default settings to customize performance to your preference.

## Displaying the SET UP MENU Screen

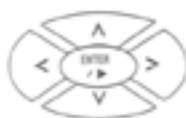
The SET UP MENU screen asks you to select a setting category from General Setup, Speaker Setup and Dolby Digital Setup. The selected category will provide you the setting details using the succeeding screen.

### 1 Press SET UP.

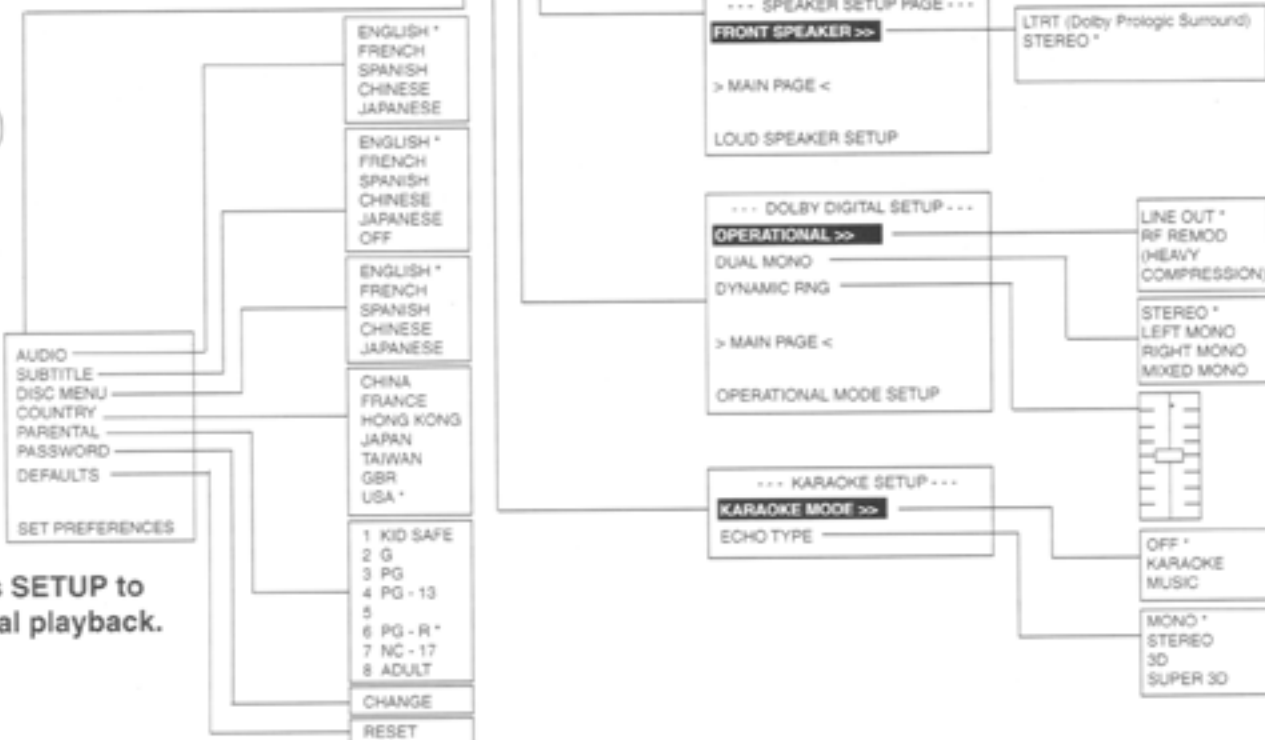


Setup Current Status

### 2 Press $\Delta/\nabla/\leftarrow/\rightarrow$ to select Setup category (highlight), then press PLAY/ENTER.



PLAY/ENTER



### 3 Press SET UP to normal playback.



#### Note

- Preset password is 3308.
- Highlighted function will be expanded at bottom of the screen.
- The SET UP MENU screen disappears if you press the SET UP button while it is displayed.

- \* Factory defaults.
- \*\* You must press STOP twice to reset PREFERENCES.

## Notes on Discs

This section shows you how to handle, clean, and store discs

### On Handling Discs

- Do not touch the play back side of the disc.



- Do not attach paper or tape to discs.



### On Cleaning Discs

- Fingerprints and dust on the disc cause picture and sound deterioration. Wipe the disc from the center outwards with a soft cloth. Always keep the disc clean.





- If you cannot wipe off the dust with a soft cloth, wipe the disc lightly with a slightly moistened soft cloth and finish with a dry cloth.
- Do not use any type of solvent such as thinner, benzene, commercially available cleaners or antistatic spray for vinyl LP's. It may damage the disc.

### On Storing Discs

- Do not store discs in a place subject to direct sunlight or near heat sources.
- Do not store discs in places subject to moisture and dust such as a bathroom or near a humidifier.
- Store discs vertically in a case. Stacking or placing objects on discs outside of their case may cause warping.

### About This Owner's Manual

This owner's manual explains the basic instructions of this DVD video player. Some DVD video discs are produced in a manner that allows specific or limited operation during playback. As such, the DVD video player may not respond to all operating commands. Refer to instruction notes of discs.

" may appear on the TV screen during operation. White " means that the operation is not permitted by the DVD video player or by DVD video disc.

### Playable Discs



This DVD video player can play back the following the discs.

	Disk mark	Contents	Disc size	Maximum playback time
DVD video discs		Audio + Video (moving pictures)	12 cm	Approx. 4 hours (single sided disc)
				Approx. 8 hours (double sided disc)
			8 cm	Approx. 80 minutes (single sided disc)
				Approx. 160 minutes (double sided disc)
VIDEO CD		Audio + Video (moving pictures)	12 cm	Approx. 74 minutes
			8 cm	Approx. 20 minutes
Audio CDs		Audio	12 cm	Approx. 74 minutes
			8 cm (CD single)	Approx. 20 minutes

You cannot play back discs other than those listed above.

This DVD video player uses the NTSC/PAL color system, and cannot play back DVD video discs recorded in any other color system (SECAM, etc.).

### Notes on Regional Numbers

The region number of this DVD video player is 1. If region numbers, which stand for their playable area, are printed on your DVD video disc and you do not find  or , disc playback will not be allowed by the player. (In this case, the DVD video player displays the message.)

### Notes on Copyright

It is forbidden by law to copy, broadcast, show, broadcast on cable, play in public, and rent copyrighted material without permission.

DVD video discs are copy protected, and any recordings made from these discs will be distorted.

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

### Type of TV system

Connect this DVD video player to a TV compatible with PAL/3.58 NTSC system.

# Before Calling Service Personnel

Check the following guide for the possible cause of a problem before contacting service.

## Symptoms and Correction

Symptom	Cause	Correction	Page
No power.	The power plug is disconnected.	Connect the power plug into the wall outlet securely.	11,12
No picture.	• The TV is not set to receive DVD output	• Select the appropriate video input mode on the TV so the picture from the DVD video player appears on the TV screen.	11
	• The video cable is not connected securely.	• Connect the video cable into the jacks securely.	11,12
No sound.	• The equipment connected with the audio cable is not set to receive DVD signal output.	• Select the correct input mode of the audio receiver so you can listen to the sound from the DVD video player.	11,12 13,14
	• The audio cables are not connected securely.	• Connect the audio cable into the jacks securely.	11,12 13,14
	• The power of the equipment connected with the audio cable is turned off	• Turn on the equipment connected with the audio cable.	11
	• The setting of output sound type is not correct.	• Set the audio setting correctly.	13,14 31
The playback picture occasional distortion.	• The disc is dirty.	• Eject the disc and clean it.	32
	• It is in fast forward reverse playback.	• Sometimes a small amount of picture distortion may appear. This is not malfunction.	17
Brightness is unstable or noises are produced on playback pictures.	• The copy protection's effect.	• Connect the DVD video player to the TV directly.	11
The DVD video player does not start playback	• No disc is inserted.	• Insert a disc. (Check that the DVD or VCD or audio CD indicator in the DVD displays is lit.)	15
	• An unplayable disc is inserted.	• Insert a playable disc. (Check the disc type and color system.)	15
	• The disc is placed upside down.	• Place the disc with the playback side down.	15
	• The disc is not placed within the guide	• Place the disc on the disc tray correctly inside the guide.	15
	• The disc is dirty.	• Clean the disc.	32
	• A menu is on the TV screen.	• Press the SET UP button to turn off the menu screen.	31
	• The parental lock function is set.	• Cancel the parental lock function or change the parental lock level.	30,31
Buttons do not work.	Power supply fluctuations or other abnormalities such as static electricity may interrupt correct operations.	Turn the power on or off with the POWER button. Or disconnect the power plug and insert it into the wall outlet again.	-
The remote control does not work properly	• The remote control is not pointed at the remote sensor of the DVD video player.	• Point the remote control at the remote sensor of the DVD video player.	10
	• The remote control is too far from the DVD video player.	• Operate the remote control within about 7 m.	10
	• The batteries in the remote control are exhausted.	• Replace the batteries with new ones	10

# Specifications

## DVD Video Player/Outputs/Supplied Accessories

### [DVD Video Player]

Power supply	120V AC, 50 or 60 Hz
Power consumption	20 VA
Mass	3.3 kg
External dimensions	430 x 81 x 300 mm (W/H/D)
Signal system	MULTI/NTSC/PAL
Laser	Semiconductor laser, wavelength 650 nm

### [Outputs]

Video output	1.0 V (p-p), 75 $\Omega$ , negative sync., pin jack x 1
S video output	(Y) 1.0 V (p-p), 75 $\Omega$ , negative sync., Mini DIN 4-pin x 1 (C) 0.286 V (p-p), 75 $\Omega$
Color difference output	(Y) 1.0 V (p-p), 75 $\Omega$ , negative sync., pin jack x 1 (Cr)/(Cb) 0.7 V (p-p), 75 $\Omega$
Audio output (digital audio)	0.5 V (p-p), 75 $\Omega$ , pin jack x 1
Audio output (analog audio)	2.0 V (rms), 330 $\Omega$ , pin jack (L,R) x 1

### [Supplied Accessories]

Audio/video cable	1
Remote control	1
Batteries	2

- Designs and specifications are subject to change without notice.

## Memo

### ■ Discs and output sounds

Sound recording system	DVD Video Discs							VCD	CD
	Dolby Digital		MPEG 2		Linear PCM			MPEG/	PCM44.1kHz
	SPDIF /RAW	SPDIF /PCM	SPDIF /RAW	SPDIF /PCM	48kHz	96kHz			
Audio setting on the setting screen	SPDIF /RAW	SPDIF /PCM	SPDIF /RAW	SPDIF /PCM	SPDIF /RAW SPDIF /PCM	SPDIF /RAW	SPDIF /PCM	SPDIF /RAW SPDIF /PCM	SPDIF /RAW SPDIF /PCM
ANALOG AUDIO OUT jacks	—	○	—	○	—	○	○	○	○
DIGITAL AUDIO OUT jack	Dolby Digital bitstream	PCM (48kHz)	MPEG 2 bitstream	PCM (48kHz)	PCM (48kHz)	PCM (48kHz)	—	PCM (44.1kHz)	PCM (44.1kHz)

• Note. DTS Digital Ready. (Digital Out)

### ■ On VIDEO CD

This DVD video player support the VIDEO CD with PBC (Version 2.0) (PBC) is the abbreviation for Play Back Control.)

You can enjoy two kinds of playbacks, depending on types of disc.

Type of disc	How to enjoy
VIDEO CD without PBC (VERSION 1.1)	Audio and movie can be played back by operating the unit in the same way as the audio CD
VIDEO CD with PBC (Version 2.0)	In addition to the operation of the VIDEO CD without PBC, you can enjoy a playback with interactive software and software with search function by using the menu displayed on the TV screen (Menu Playback). Some of the functions described in this manual may not work in some discs.

### ■ MPEG 3 AUDIO DISC

MP3 Audio Disc Play Back Capable.	MP3 audio disc can be played back by operating the unit in the same way as audio cd. (You can use MP3 format to record from the internet.)
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Note:All audio CD function except FWD, REV, PROGRAM, SHUFFLE and A-B REPEAT.



## DVD PLAYER

### 90 Days Free Labor

### One Year Free Replacement of Parts

#### WHO IS COVERED?

A proof of purchase is required to receive warranty service. A sales receipt or other document showing original date of purchase is considered proof of purchase.

#### WHAT IS COVERED?

Warranty repair is one (1) year limited warranty coverage:

- 90 days from original date of purchase:
  - Parts and labor are included under warranty repair.
- After 90 days up to one (1) year from original date of purchase.
  - Parts usage will be covered under warranty.
  - Labor will be charged at a flat rate.

**Note:** No proof of purchase will be considered out-of-warranty. Out-of-warranty repairs will be charged at a flat rate.

#### WHAT IS EXCLUDED?

Your warranty does not cover:

- Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product.
- Product repair and/or part replacement because of misuse, accident, unauthorized repair or other cause not within the control of Apex Digital Inc.
- Reception problems caused by signal conditions or cable or antenna systems outside the unit.
- A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these

modifications.

- Incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This includes, but is not limited to, prerecorded material, whether copyrighted or not copyrighted.)

#### MAKE SURE YOU KEEP...

Please keep your sales receipt or other document showing proof of purchase. Attach it to this owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return your product.

#### BEFORE REQUESTING SERVICE...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

#### REMEMBER...

Please fill out and mail your warranty registration card promptly. Keep a record of your model and serial number.

MODEL # \_\_\_\_\_

SERIAL # \_\_\_\_\_

#### WHERE IS SERVICE AVAILABLE?

Please contact:

Apex Digital, Inc., 2919 E. Philadelphia St., Ontario, CA 91761, (909) 930-1239.

*This warranty gives you specific legal rights. You may have other rights which vary from state/province to state/province.*

DVD VIDEO COMPACT disc DIGITAL VIDEO COMPACT disc DOLBY DIGITAL dts MP3



APEX DIGITAL, INC.  
2919 E. Philadelphia Street  
Ontario, CA 91761  
909. 930. 1239 • TEL  
909. 673. 0660 • FAX

# ADDENDUM TO OPERATING MANUAL

## EXPANDED NOTES-CUSTOM SET FUNCTIONS:

\*These customized functions will be canceled and reset to normal operation when power is interrupted or the Disc tray is opened.

- Bottom Pg. 21 (REPEAT - TITLE/CHAPTER/ TRACK)
- Bottom Pg. 21 (REPEAT - SEGMENT REPEAT)
- Bottom Pg. 22 (REPEAT - FAVORITE ORDER PLAY)
- Bottom Pg. 23 (REPEAT - RANDOM PLAY)

## EXPANDED NOTES-VIEW INDIVIDUAL CHAPTERS:

Bottom Pg. 20 -NOTE: Some discs may show the *Title Menu* on the screen with PBC ON when DIGEST is pressed:

- DVD discs may show Title Menu instead Digest.
- VCD discs version 2.0 will show Summary menu instead of Digest.

## ADDITIONAL DETAIL (PG.31) - SETUP MENU

### 1. Press SET-UP

>GENERAL SETUP<  
AUDIO OUTPUT

- ANALOG\* STANDARD ANALOG/  
STEREO OUT SIGNAL.
- SPIDF / RAW DIGITAL OUT/  
ENCODED DIGITAL  
SIGNAL - NO VOLUME  
CONTROL FROM  
REMOTE.
- SPIDF / PCM DIGITAL OUT/PULSE  
CODE MODULATION-  
VOL. CONTROL FROM  
THE REMOTE.

### SET VIDEO OUT

- S-VIDEO\* \*DEFAULT
- Y-U-V VIDEO COLOR DIFFERENCE

IMPORTANT NOTE: Choose and hook up EITHER S-VIDEO OR Y-U-V VIDEO.

## TV DISPLAY DVD VCD

4:3 Normal / LB



Select when a standard 4:3 TV is connected. Displays theatrical images with masking bars above and below the picture.

4:3 Normal / PS



Select when a standard 4:3 TV is connected. Display pictures cropped to fill your TV screen. Either or both sides of the picture are cut off.

16:9 Wide screen: Select when a 16:9 wide TV is connected.

#### Notes:

- The displayable picture size is preset on the DVD video disc. Therefore, the playback picture of some DVD video discs may not conform to the picture size you select.
- When you play DVD video discs recorded in the 4:3 picture size only, the playback picture always appears in the 4:3 picture size regardless of the TV shape setting.
- If you select "16:9 Wide screen" and you own a 4:3 TV set, the DVD playback picture will be horizontally distorted during playback. Images will appear to be horizontal compresses. Always be sure that your TV shape conforms to the actual TV in use.