Recordable DVD PLAYER

User Guide

Before attempting to connect, operate or adjust this product, please save and read this manual completely.

Contents

Getting Started:	3.Initial Settings:
FCC and Safety Information 2	3-1 Language Setup18
Important Safety Instructions	On Screen Display (OSD) Language Setting 18
Precautions	MENU Language Setting
Selecting the type of disc for the type of TV	Addid Soundtrack Language Selection [DVD]
connected	SUBTITLE Language Selection [DVD]
Connected	0-2 Octeen Octup20
	TV TYPE Display Setting
1.DVD:	SCREEN SAVER Setting
	TV SYSTEM Setting
	BRIGHTNESS Setting
Basic Playback	VIDEO OUTPUT Setting
Stopping Playback and Returning to The Menu Screen(If a	3-3 Audio Setup
	5 OUTPUT Setting
Rapid Advance (Rapid Reverse)	
Skipping Ahead or Back to Chapters	
	CHANGE PASSWORD Setting [DVD]24
Still Picture (PAUSE)	ANGLE MARK Setting [DVD]
Frame Advance (STEP)	
Programming DVDs	
1-2 Information [DVD]	
Displaying the Information of the Scene	
1-3 Direct Selection of Scenes	
Selecting Scenes by Title/Chapter Number	·
Selecting Scenes by Time	4.Recording Functions:
1-4 Repeat Playback	4-1 Recording Function26
Repeat Viewing	Disc Copy
Repeating Sections Between Two Specific Points (A-B	Recording from external signals27
Repeat)1	4-2 Recording Advanced Function28
1-5 Convenient Functions 1	
Displaying the Scene With a Larger and Closer View1	Recording Format28
Changing Audio Soundtrack	Recording Notice
Clearing/Changing Subtitles	
Viewing From Another Angle	
Using a DVD Menu	
Using the MENU Function	
Switching to Another TV System	
To Mute the DVD Player1	5.For Your Reference:
2.Audio CDs:	5-1 Troubleshooting29
2-1 Audio CD Playback 14	5-2 Disc Handling and Maintenance31
Basic Playback1	
Playing MP3 Music Discs1	
Stopping Playback 14	
Rapid Advance (Rapid Reverse)14	1
Skipping Ahead or Back to Tracks1	5
Pause Playback	
Programming Audio CDs Soundtrack	
Random Playback	
Selecting Music by Time	
Changing Audio Soundtrack Output	
Repeating Music Between Two Specific Points(A-B	
Repeat)	
2-2 Information [Audio CDs]	
Displaying the information of the Flaying Hack	

CAUTION:

This unit employs a laser. Due to possible eye injury, only qualified service personnel should remove the cover or attempt to service this device. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

NOTE:

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 Rules. 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 into 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.

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.

Since it is usual for DVD movies to be released at different times in different regions of the world, all players have region codes and disc can have an optional region code. If you load a disc of a different region code to your player, you will see the region code notice on the screen. The disc will not play, and should be unloaded.

(Possible region codes:)













There are 6 regions (also called "locals"). Each DVD player and disc will be played in one region ONLY.

- 1: Canada, U.S., U.S. Territories
- 2: Japan, Europe, South Africa, Middle East (including Egypt)
- 3: Southeast Asia, East Asia (including Hong Kong)
- 4: Australia, New Zealand, Pacific Islands, Central America, Mexico, South America, Caribbean
- 5: Former Soviet Union, Indian Subcontinent, Africa (also North Korea, Mongolia)
- 6: China

Never make or change connections with the power switched on.

CAUTION VISIBLE AND INVISIBLE LASER
RADIATION WHEN OPEN
AVOID EXPOSURE TO BEAM
(WARNING LOCATION: INSIDE ON
LASER COVERSHIELD)

CLASS I LASER PRODUCT

Important Safety Instructions

- Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with a damp cloth.
- 7. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized-type plug. A polarized plug has two blades with one wider than the other. The wide blade is provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13. Unplug this apparatus during lighting storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way; such as when the power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Outdoor use or wet location applications:

An apparatus that does not comply with the requirements in Appendix A# (Outdoor Use and Wet Location Apparatus) shall be marked or the instruction manual packed with the word "WARNING" and the following or equivalent: "To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

A Class II APPARATUS shall be permanently marked with the words "DOUBLE INSULATION" or "Double insulated" and "When servicing use only identical replacement parts."

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

Precautions

Please read these precautions before operating this unit.

■Power cord protection

To avoid any malfunctions of the unit, and to protect against electric shock, fire or personal injury, please observe the following.

- Hold the plug firmly when connecting or disconnecting the AC power cord.
- Keep the AC power cord away from heating appliances.
- Never put any heavy object on the AC power cord.
- Do not attempt to repair or reconstruct the AC power cord in any way.

■Placement

Avoid placing the unit in areas of:

- direct sunlight or heating radiators, or closed automobiles
- high temperature (over 35°C) or high humidity (over 90%)
- much dust as the internal parts may be seriously damaged.

■Non-use periods

When the unit is not being used, turn it off. When left unused for a long period of time, the unit should be unplugged from the household AC outlet.

■No fingers or other objects inside

- Touching internal parts of this unit is dangerous, and may cause serious damage to the unit. Do not attempt to disassemble the unit.
- Do not put any foreign object on the disc tray.

■Keep away from water/magnet

- Keep the unit away from flower vases, tubs, sinks, etc. If liquids are spilled into the unit, serious damage could occur.
- Never bring a magnet or magnetized object near the unit.

■Stacking

• Place the unit in a horizontal position, and do not place anything heavy on it.

■Condensation

Moisture may form on the lens in the following conditions:

- immediately after a heater has been turned on
- in a steamy or very humid room
- when the unit is suddenly moved from a cold environment to a warm one

If moisture forms inside this unit, it may not operate properly. In this case, turn on the power and wait about one hour for the moisture to evaporate.

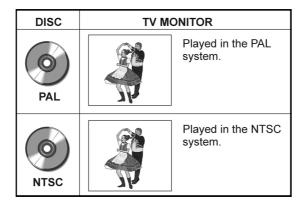
If there is noise interference on the TV while a broadcast is being received

Depending on the reception condition of the TV, interference may appear on the TV monitor while you watch a TV broadcast and the unit is left on. This is not a malfunction of the unit or the TV. To watch a TV broadcast, turn off the unit.

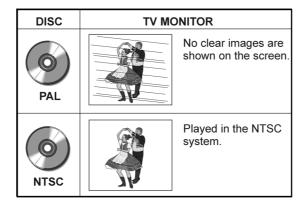
Selecting the type of disc for the type of TV connected

DVD discs have the material recorded in the PAL and NTSC systems. Refer to the table below to select the correct disc type for the type of connected TV.

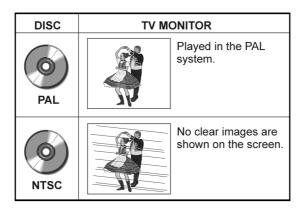
Connecting to the multi-system TV



Connecting to the NTSC TV



Connecting to the PAL TV



1-1 DVD Playback

Preparations

- Press on the power button of the TV set, and select "Video" as the TV input.
- Press on the power button of the stereo system if this recordable DVD player has been connected to a stereo system.

NOTE: Press Mode button on the front panel, make sure to switch to DVD PLAY mode.

Basic Playback

1 Press POWER on.

2 Press DVD EJECT to open the disc tray.

3 Place a disc onto the tray.

Hold the disc without touching its surfaces, position it with the printed title side facing up, align it with the guides, and place it in its proper position.

4 Press EJECT.

- The disc tray closes and this recordable DVD player starts playback if the disc does not have any menus recorded on it.
- If the disc has one or more titles recorded on it, a menu screen will appear on the TV screen.

NOTE: Proceed with steps 5 and 6 when a menu is available on the disc.

5 Press $\blacktriangleleft/\triangleright/\blacktriangle/\blacktriangledown$ or the number button(s) to select the preferred title.

NOTE: To select a title, input the number, i.e. 1 for chapter 1, 10 for chapter 10, and etc.

6 Press ▶/₄.

This recordable DVD player now starts playback of the selected item.

Stopping Playback and Returning to The Menu Screen (If a Menu Screen Is Available on The Disc)

Press MENU. This recordable DVD player stops playback, and then displays the menu screen.

After operation

When this recordable DVD player is not in use, remove the disc and press POWER to turn off the player.

NOTE:

- The disc continues to rotate while the menu is displayed even after this recordable DVD player has finished playing a particular disc. When no further selections are to be played, be sure to press the **STOP** button to clear the menu screen.
- If the disc is placed in upside down (and it is a single sided disc), this recordable DVD player's display will appear "NodSC".

For your reference:

• When "O" appears while a button is being operated, it means that the corresponding operation is prohibited by this recordable DVD player.

Stopping Playback

Press STOP once, this recordable DVD player stop playbacking.

Press \to return to normal playback.

Press **STOP** twice, this recordable DVD player stops.

1-1 DVD Playback-continued

Rapid Advance (Rapid Reverse)

Press **◄ F.BWD** or **F.FWD ▶** during playback.

- Normal playback is resumed when you press ▶/▲.
- The speed of advance (►► 2, ►► 4, and etc) or reverse (◄ 2, ◄ 4, and etc.) changes for each press of the F.FWD or F.BWD button.

Skipping Ahead or Back to Chapters

You can skip a specific chapter or track to playback.

Skipping Ahead

Press **NEXT** ►► during playback.

Skips a chapter each time you press the button.

Skipping Back

Press **I PREV** during playback.

When you press the button once midway through a chapter, this recordable DVD player returns to the previous chapter to playback. This recordable DVD player skips a chapter each time you press the button.

Slow-Motion Playback

Press **SLOW** during playback.

The playback speed changes ($\mathbb{I} \triangleright 1/2$, $\mathbb{I} \triangleright 1/4$, and etc.) each time you press the **SLOW** button.

To return to normal playback

Press ▶/₄.

Still Picture (PAUSE)

Press PAUSE/STEP once during playback.

The screen is paused.

To return to normal playback

Press .

Frame Advance (STEP)

Press PAUSE/STEP twice during playback.

The disc is advanced by one frame each time you press the button.

To return to normal playback

Press ▶/₄.

7

Programming DVDs

1 Press PBC.

"Navigate OFF" appears on the screen.

2 Press PROGRAM.

3 Press the number button(s) and **◄/▶/▲/▼** to arrange the play list.

To arrange the play list "Title 1 Chapter 2" and "Title 3 Chapter 2", press "0", "1", "▶/┛", "0", "2", "▶/┛", "0", "3", "▶∕₄_", "0", "2" and "▶∕₄_"". (Every time you press ▶∕₄_, you save the play list as you wish.)

Press , this recordable DVD player will play back as your play list.

• The default playback order will start from the beginning to the end of the tracks if you did not set it yourself. On the contrary, if you did set all the playback order of the available tracks, this recordable DVD player will start playback of the order you specified.

To return to normal playback

- 1. Press PROGRAM, your play list will show on the screen.
- 2. Press **CLEAR** to cancel the programmed play list.
- 3. Press **PROGRAM** again to exit.

For your reference:

• When "\(\(\frac{1}{2}\)" appears while a button is being operated, it means that the corresponding operation is prohibited by this recordable DVD player.

1-2 Information [DVD]

Displaying the Information of the Scene

Displaying the Information of the Scene

1 Press INFO. during playback.

Press INFO. a number of times, the title number, chapter number, and other information will show on the screen.

Stop Displaying the Information of the Scene

Press INFO. a number of times until the information disappears.

1-3 Direct Selection of Scenes

Selecting Scenes by Title/Chapter Number

Allows you to locate specific titles/chapters of scenes to playback.

1 Press GOTO during playback.

2 Press **◄/▶** to move the cursor to the title or chapter number.

3 Press the number button(s) to select the preferred title or chapter.

Example:

To locate "Title 5 Chapter 5", press "5" in Title input blanks, and "5" in Chapter input blanks.

This recordable DVD player starts playback from selected title/chapter numbers.

For your reference:

- When " appears while you are pressing a button, it may indicate that the corresponding operation is prohibited by this recordable DVD player.
- When pressing GOTO once, you can select scenes by CHAPTER/TITLE.
- When Pressing GOTO twice, you can select scenes by TIME.
- To exit the direct selection of scenes, press **GOTO** three times.

Selecting Scenes by Time

Allows you to locate specific time of scenes to playback.

1 Press GOTO twice during playback.

2 Press the number button(s) to specify the starting position.

Example: Viewing after 1 hour and 50 minutes have elapsed from the title starts. To locate "01 hr. 50 min. 00 sec.", press "1", "5", "0", "0" and "0".

3 This recordable DVD player starts playback from the specified position.

- These operations work only with discs for which the elapsed playing time appears on this recordable DVD player's display during playback.
- For some discs, PLAY may not start from the specified position even when the steps above have been performed correctly.

For your reference:

- When " appears while you are pressing a button, it may indicate that the corresponding operation is prohibited by this recordable DVD player.
- When pressing GOTO once, you can select scenes by CHAPTER/TITLE.
- When Pressing GOTO twice, you can select scenes by TIME
- To exit the direct selection of scenes, press **GOTO** three times.
- Press CLEAR to cancel your input number one after one.

-4 Repeat Playback

Repeat Viewing

Press 1/ALL REPEAT during playback.

Each time you press the button, the disc will repeat a chapter or title.

Press once : REP CHAPTER (Repeat chapter) Press twice: REP TITLE (Repeat title) Press three times: REP DISC (Repeat disc)

Press four times: REPEAT OFF (Repeat cancelled)

To return to normal playback

Press 1/ALL REPEAT several times until "REPEAT OFF" appears.

NOTE:

• Repeat playback may not work correctly with some DVDs.

Repeating Sections Between Two Specific Points (A-B Repeat)

1 Press A-B during playback at the point where repeat play is to start (A).

"REP A" appears on the screen.

2 Press A-B again at the point where repeat play is to end (B).

"REP A-B" appears on the screen. Repeat playback of points A to B starts playback.

To return to normal playback

Press A-B again. ("REPEAT OFF" appears on the screen.)

NOTE:

A-B repeat playback works only within a chapter.

1-5 Convenient Functions

Displaying the Scene With a Larger and Closer View

The ZOOM function enables you to take a closer look at the scene while you are watching a movie.

- 1 Press **ZOOM** during playback.
- 2 Press **ZOOM** a number of times to see the scene in different size.
- 3 Press ◀/►/▲/▼ to choose the preferred scene to see it in different size.

To return to normal playback

Press **ZOOM** a number of times until "OFF" is shown on the screen.

For your reference:

• When " appears while a button is being operated, it means that the corresponding operation is prohibited by this recordable DVD player.

Changing Audio Soundtrack

You can change the audio language from the one selected at the initial settings to a different language, if available. (This operation functions only with discs on which multiple audio soundtrack languages are recorded.)

1 Press AUDIO during playback.

2 Press AUDIO a number of times until the preferred audio output is selected.

For your reference:

- When the preferred language is not selected even after pressing the button several times, it may indicate that language is not available on the disc. Or you have to set up the preferred in the OSD Setup Menu.
- When you turn on or remove the disc, this recordable DVD player will play back the language which is selected at
 the initial setting. If you select a language which is not recorded on the disc this recordable DVD player will play
 back a prior language programmed on the disc.

Clearing/Changing Subtitles

If a disc provides subtitles, you can choose to hide or change them. (This operation works only with discs that provide subtitles.)

Press **SUBTITLE** during playback to hide or change subtitles.

When no subtitles are recorded, " " will display.

NOTE:

- When you press **SUBTITLE** once, the first subtitle language recorded on the disc will display. The rest of the subtitle languages recorded will display in sequence as you press the button.
- In some cases, the subtitle language may not change immediately to the selected one.
- You may change to another subtitle language with this function, or you can CANCEL the subtitle language by pressing this button a number of times until "OFF" appears on the screen.

For your reference:

- When the preferred subtitle language is not selected even after pressing the button several times, it may indicate that the language is not available on the disc.
- When you turn on or remove the disc, this recordable DVD player will play back the subtitle language which is selected at the initial setting. If you select a subtitle language which is not recorded on the disc, the player will play back a prior subtitle language programmed on the disc.

Viewing From Another Angle

Some DVD discs may contain scenes which have been shot simultaneously from a number of different angles. For these discs, the same scenes can be viewed from each of these different angles using the **ANGLE** " multiple button. (The recorded angles vary depending on the disc programmed.)

1 Press ANGLE during playback.

2 Press ANGLE a number of times until the preferred viewing angle is selected.

Press the **ANGLE** "Press to change the viewing angle."

NOTE:

- ANGLE will only function on discs where different angles have been recorded.
- The viewing angles are shown on this recordable DVD player's display and you can select one from them for viewing

Using a DVD Menu

Some DVD discs have unique menu structures called DVD menus. For example, DVDs programmed with complex contents provide guide menus, and those recorded with various languages provide menus for audio and subtitle language. Although the DVD menu's contents and operation vary from disc to disc, the following explains basic operation when this feature is used.

1 Press TITLE.

The DVD menu available on the disc now appears.

2 Press **◄**/▶/▲/▼ to select the preferred item.

3 Press ▶ ∕₄.

You now enter to the selected item.

To enter other menu screen

Repeat steps 2 and 3.

To return to the previous menu screen

Press TITLE.

12

1-5 Convenient Functions-continued

Using the MENU Function

1 Press MENU.

A DVD chapter menu with brief broadcast of each paragraph now appears. You may see the introduction of each chapter and then decide with which chapter to start first.

2 Press ◀/►/▲/▼ or number button(s) to select the preferred item.

3 Press ▶∕₄.

NOTE:

The menu details vary depending on discs recorded.

Switching to Another TV System

Both the DVD discs have the material recorded in the PAL and NTSC systems. This recordable DVD player provides PAL, NTSC for your selection. (Refer to page 5 for the examples)

1 Press TV SYS. during playback.

2 Press TV SYS. button a number of times to select a TV system.

To Mute the DVD Player

In some cases, you may need to mute this recordable DVD player temporarily. This recordable DVD player provides a MUTE function for your selections.

1 Press MUTE button during playback.

• When "MUTE" appears on the screen, this recordable DVD player is mute. To resume the sound, press the button a number of times until "MUTE OFF" appears on the screen.

2-1 Audio CD Playback

Preparations

- Power on the TV set, and then select "Video" as the TV input.
- Power on the stereo system if this recordable DVD player has been connected to a stereo system.

NOTE: Press Mode button on the front panel, make sure to switch to DVD PLAY mode.

Basic Playback

- 1 Press POWER on.
- 2 Press DVD EJECT to open the disc tray.
- 3 Place a disc onto the tray.

Hold the disc without touching its surfaces, position it with the printed title side facing up, align it with the guides, and place it in its proper position.

4 Press DVD EJECT.

For audio CDs without playback control:

This recordable DVD player starts playback.

Playing MP3 Music Discs

- 1 Press **POWER** on.
- 2 Press DVD EJECT to open the disc tray.
- 3 Place a MP3 disc onto the tray.

Hold the disc without touching its surfaces, position it with the printed title side facing up, align it with the guides, and place it in its proper position.

4 Press DVD EJECT.

After tray closes, wait about 5 seconds, playback will start automatically.

Normally, MP3 discs are divided into Root directories (main menu) which are sub-divided to MP3 music. You may select a specific MP3 music to playback .

With Root Directories

- Press STOP twice to return to MP3 folder directories.
- Select a specified folder to playback by pressing
 ✓ ► ▲/ ▼ buttons or the numbers.
- Press ▶/┛.

Without Root Directories

- During playback, select a specified track to playback by pressing
 ✓ ✓ buttons or the numbers.
- Press ▶/▲.

Stopping Playback

Press STOP once, this recordable DVD player stop playbacking.

Press _ to return to normal playback.

Press **STOP** twice, this recordable DVD player stops.

Rapid Advance (Rapid Reverse)

Press **◄◄ F.BWD** or **F.FWD ▶▶** down during playback.

- Normal play is resumed when you press ▶/▲.
- The speed of forward (►► 2, ►► 4, and etc.) or reverse (◄ 2, ◄ 4, ◄ 8, and etc.) changes for every press of the F.FWD or F.BWD button.

NOTE:

This function doesn't work when playing back MP3.

2-1 Audio CD Playback-continued

Skipping Ahead or Back to Tracks

Skipping Ahead

Press **NEXT** ►► during playback.

A track is skipped each time you press the button.

Skipping Back

Press **PREV** during playback.

When you press the button once midway through a track, this recordable DVD player returns to the previous track to playback. The player skips a track each time the button is pressed.

Pause Playback

Press PAUSE/STEP during playback.

This recordable DVD player will pause playback.

To return to normal playback

Press ▶/₄.

Programming Audio CD Soundtrack

You can program music to play back in your favorite order.

1 Press PROGRAM.

2 Press the number button(s) and **◄/▶/▲/▼** to arrange the play list.

Example:

To arrange the play list "Track 2", "Track 3" and "Track 5", press "0", "0", "2", "•/•1", "0", "0", "0", "0", "5" and "•/•1". (Every time you press •/•1, you save the play list as you wish.)

Press ▶∕₄, this recordable DVD player will play back as your play list.

• The default playback order will start from the beginning to the end of the tracks if you did not set it yourself. On the contrary, if you did set all the playback order of the available tracks, this recordable DVD player will start playback of the order you specified.

To return to normal playback

- 1. Press **PROGRAM**, your play list will show on the screen.
- 2. Press **CLEAR** to cancel the programmed play list.
- 3. Press **PROGRAM** again to exit.

For your reference:

• When " appears while a button is being operated, it means that the corresponding operation is prohibited by this recordable DVD player.

Random Playback

You can choose to playback your audio CD in random order.

1 Press RANDOM.

"RANDOM" appears on the screen.

To return to normal playback

Press RANDOM again to playback your audio CD in normal order. "ORDER" appears on the screen.

2-1 Audio CD Playback-continued

Selecting Music by Time

1 Press GOTO during playback.

2 Press the number button(s) to specify the starting position.

Example:

To locate "1 hr. 50 min. 00 sec.", press "1", "5", "0", "0" and "0".

3 This recordable DVD player starts playback from the specified position.

For your reference:

- When "O" appears while you are pressing a button, it may indicate that the corresponding operation is prohibited by this recordable DVD player.
- To exit selecting music by time, press GOTO again.
- For some discs, PLAY may not start from the specified position even when the steps above have been performed correctly.

NOTE:

This function doesn't work when playing back MP3.

Changing Audio Soundtrack Output

You can change the audio output from the one selected at the initial settings to a different audio output, if available.

1 Press AUDIO during playback.

2 Press AUDIO a number of times until the preferred audio is selected.

Repeat Playback

You could choose to playback your audio CD repeatedly.

Press 1/ALL REPEAT during playback.

Each time you press the button, the disc will repeat a track or disc.

Press once : REP TRK (Repeat track) Press twice : REP DISC (Repeat disc)

Press three times: REPEAT OFF (Repeat cancelled)

To return to normal playback

Press 1/ALL REPEAT several times until "REPEAT OFF" appears.

NOTE

• Repeat playback may not work correctly with some Audio CD.

2-1 Audio CD Playback-continued

Repeating Music Between Two Specific Points (A-B Repeat)

1 Press A-B during playback at the point where repeat play is to start (A).

"REP A" appears on the screen.

2 Press A-B again at the point where repeat play is to end (B).

"REP A-B" appears on the screen. Repeat playback of points A to B starts playback.

To return to normal playback

Press A-B again. ("REPEAT OFF" appears on the screen.)

NOTE

• A-B repeat playback only works when playing back audio CD, it doesn't work when playing back MP3.

2-2 Information [Audio CDs]

Displaying the Information of the Playing Track

Displaying the Information of the Playing track

1 Press INFO. during playback.

Press INFO. a number of times, the elapsed time, track number, and other information will appear on the screen.

Stop Displaying the Information of the Playing Track

Press INFO. a number of times until the information disappears.

NOTE:

• This function only works when playing back audio CD, it doesn't work when playing back MP3.

3-1 Language Setup

On Screen Display (OSD) Language Setting

Allows you to set various languages for the on screen display (OSD).

- 1 Press SETUP.
- 3 Press ▲ / ▼ to select "OSD" then press ▶ ✓ ...
- 4 Press ▲ / ▼ to select the preferred language.
- 5 Press ▶/₄.

To return to the SETUP MENU screen

Select "RETURN" and press ▶/₄.

To finish the setup operation

Press **SETUP** to exit or select EXIT from SETUP MENU screen.

MENU Language Setting

You can select a preferred language among various languages that has been recorded on discs for the disc menu messages display.

- 1 Press SETUP in the stop mode.
- 3 Press ▲ / ▼ to select "MENU" then press ▶ ✓ ...
- 4 Press ▲ / ▼ to select the preferred language.
- 5 Press ▶/₄.

To return to the SETUP MENU screen

Select "RETURN" and press ▶/▲.

To finish the setup operation

3-1 Language Setup-continued

AUDIO Soundtrack Language Selection [DVD]

You can select a preferred soundtrack language among various languages that have been recorded on DVD discs.

- 1 Press **SETUP** in the stop mode.
- 3 Press ▲ / ▼ to select "AUDIO" then press ▶ ∠_.
- 4 Press ▲ / ▼ to select a preferred language.
- 5 Press **▶**/**↓**.

ORIGINAL:

The top-priority language of each disc will always play back first.

To return to the SETUP MENU screen

Select "RETURN" and press ▶ 📜.

To finish the setup operation

Press **SETUP** to exit or select EXIT from SETUP MENU screen.

For your reference:

• If the language selected is not recorded on the disc, this recordable DVD player will play back the top-priority language of the disc.

SUBTITLE Language Selection [DVD]

You can select a preferred subtitle language among various languages that have been recorded on DVD discs.

- 1 Press **SETUP** in the stop mode.
- 2 Press ▲ / ▼ to select "LANGUAGE SETUP" and press ▶ / 🔟.
- 3 Press ▲ / ▼ to select "SUBTITLE", then press ▶ ✓.
- 4 Press ▲ / ▼ to select a preferred language.
- 5 Press ▶/₄.

To return to the SETUP MENU screen

To finish the setup operation

Press **SETUP** to exit or select EXIT from SETUP MENU screen.

For your reference:

If the language selected is not recorded on the disc, the subtitle will playback the top-priority language of the disc.

3-2 Screen Setup

TV TYPE Display Setting

The kind of TV set (4:3 or 16:9) connected to this recordable DVD player and a wide-screen picture type for a 4:3 TV set can be selected.

- 1 Press SETUP in the stop mode.
- 2 Press ▲ / ▼ to select "SCREEN SETUP" and press ▶ ∠_1.
- 3 Press ▲ / ▼ to select "TV TYPE" then press ▶ / 🔟.
- 4 Press ▲ / ▼ to select a preferred TV display.

4:3 PS

Select 4:3 PS for a conventional size TV set.

Video material formatted in the pan & scan style is played in that style (the left and right edges are cut off).



4:3 LB (factory preset setting)

Select 4:3 LB for a conventional size TV set.

Black bands appear at top and bottom of screen (letter-box style).

Video material not formatted in the pan & scan style is played in the letter-box style.



16:9

Select WIDE for a wide-screen TV set.

Played in "FULL" size.

- Setting the wide-screen TV to "FULL" mode is also necessary.
- Each screen shows an example when the video material for a wide-screen is played.



To return to the SETUP MENU screen

Select "RETURN" and press ▶/◄.

To finish the setup operation

Press **SETUP** to exit or select EXIT from SETUP MENU screen.

SCREEN SAVER Setting

If you have set the screen saver ON by the following method then you may see it functioning in the stop mode. This function will ONLY function in the stop mode.

- 1 Press SETUP.
- 2 Press ▲ / ▼ to select "SCREEN SETUP" and press ▶ / ___.
- 3 Press ▲ / ▼ to select "SCRN SAVER".
- 4 Press ▲ / ▼ to select "ON" or "OFF" and press ▶ ∠...

The waiting time of the screen saver is set to 60 seconds. In other words, when you are in the stop mode and have not operated this recordable DVD player over 60 seconds then the screen saver will appear automatically on the TV.

Under Screen Saver mode, press any button on the remote control to return to the original screen; it will also
excute the function as you press the button on the remote control.

To return to the SETUP MENU screen

Select "RETURN" and press ▶/▲.

To finish the setup operation

3-2 Screen Setup-continued

TV SYSTEM Setting

This recordable DVD player provides "PAL" and "NTSC"settings for your selection. (Refer to page 5 for the examples) Video output changes according to the playback disc's recorded fromat. When connecting this recordable DVD player to your TV, set the "TV SYSTEM" from the on-screen display to the format that is compatible with your TV's system. Set "NTSC" from on-screen display if connecting to NTSC TV system or set "PAL" if it is PAL TV.

- 1 Press SETUP.
- 2 Press ▲ / ▼ to select "SCREEN SETUP" and press ▶ ✓ ...
- 4 Press ▲ / ▼ to select the appropriate TV system for your clearest view.
- 5 Press ▶ ∕₄.

To return to the SETUP MENU screen

Select "RETURN" and then press ▶/▲.

To finish the setup operation

Press **SETUP** to exit or select EXIT from SETUP MENU screen.

BRIGHTNESS Setting

You can adjust the brightness of the video with this setting to a soothing view for your eyes.

- 1 Press SETUP.
- 2 Press ▲ / ▼ to select "BRIGHTNESS" and press ▶ ✓ ...
- 3 Press ▲ / ▼ to select the preferred setting.

To return to the SETUP MENU screen

Select "RETURN" and then press ▶/◄.

To finish the setup operation

3-2 Screen Setup-continued

CONTRAST Setting

You can adjust the contrast of video with this setting to a soothing view for your eyes .

- 1 Press SETUP.
- 3 Press ▲ / ▼ to select the preferred setting.
- 4 Press ▶ ✓ ↓ .

To return to the SETUP MENU screen

Select "RETURN" and then press ▶/◄.

To finish the setup operation

Press **SETUP** to exit or select EXIT from SETUP MENU screen.

VIDEO OUTPUT Setting

Two types of video output, RGB and NORMAL can be set.

- 1 Press SETUP.
- 3 Press ▲ / ▼ to select "VIDEO OUT" then press ▶ ✓ ...
- 4 Press ▲ / ▼ to select the preferred audio output setting.

To return to the SETUP MENU screen

Select "RETURN" and then press ▶/▲.

3-3 Audio Setup

OUTPUT Setting

This recordable DVD player provides various types of audio output to set and that include 2-channel stereo sound, Dolby Digital 5.1 surround sound, and digital sound output.

- 1 Press SETUP in the stop mode.
- 2 Press ▲ / ▼ to select "AUDIO SETUP" and press ▶ ∠1.
- 3 Press ▲ / ▼ to select "OUTPUT" and press ▶ ✓ ...
- 4 Press ▲ / ▼ to select a preferred output setting.

NOTE:

- If you have selected "Dolby Digital 5.1 surround sound" as your output setting, you could choose to ON/OFF the following options: "CENTER", "REAR" and "SUBWOOFER". Otherwise, these three options are invaild.
- 5 Press ▶ ✓ L.

NOTE:

• The digital output connectors are used to output the digital audio signal recorded on dics. You can output the digital signal via ether coaxial output jack or optical output jack to an amplifier. If you set Audio Output to <Digital> from on-screen disply, the sound will be output as the original sound recording format on discs (for example; Dolby Digital).

WARNING:

- Do not connect both analog output (R/L) and digital output (Coaxial/optical) at the same time for audio output.
- Do not set "AUDIO SETUP" TO "Digital" via the on-screen display unless you are connecting (via the PCM/DOLBY DIGITAL AUDIO OUT jack) an A/V decoder that has the Dolby Digital (AC-3) decoding function. High volumn sound may damage your hearing as well as the speakers.

To return the screen to the SETUP MENU

Select "RETURN" and then press ▶/▲.

To finish the setup operation

3-4 Custom Setup

PARENTAL CONTROL Setting [DVD]

A built-in viewer rating setting enables you to lock the videos that you do not want children to view. For example, if you set it to PG-13 then this recordable DVD player will not play the videos rated R, NC-17 or X unless the correct password is entered.

- 1 Press **SETUP** in the stop mode.
- 2 Press ▲ / ▼ to select "CUSTOM SETUP" and press ▶ ✓ ...
- 3 Press ▲ / ▼ to select "PARENTAL CONTL" and press ▶ ∠_1.

Factory pre-set password: 9999

You need to enter "9999" to set the rating for the first time when purchasing your DVD from the store.

To return the screen to the SETUP MENU

Select "RETURN" and then press ▶/▲.

To finish the setup operation

Press **SETUP** to exit or select EXIT from SETUP MENU screen.

For Your Reference:

- You can use the parental control lock ONLY with DVD video discs featured with the parental lock funcion.
- Some discs may not be encoded with specific rating level information though its disc jacket says that is for "adults".
 For those discs, PARENTAL CONTROL lock will not function.

CHANGE PASSWORD Setting [DVD]

You can change the password to your DVD by selections.

- 1 Press SETUP in the stop mode.
- 3 Press ▲ / ▼ to select "CHANGE PASSWORD" and press ▶ ∠.

Factory pre-set password: 9999

You need to enter "9999" to set the rating for the first time when purchasing your DVD from the store.

To return the screen to the SETUP MENU

Select "RETURN" and then press ▶/◄.

To finish the setup operation

3-4 Custom Setup-continued

ANGLE MARK Setting[DVD]

You can choose to display or hide the angle mark " Ω_1 " on screen.

- 1 Press **SETUP** in the stop mode.
- 3 Press ▲ / ▼ to select "ANGLE MARK", and then press ▶ ∠_1.

NOTE:

Whether the ANGLE MARK is set to ON or OFF with this setting, when you press the **ANGLE** button, this recordable DVD player will still playback multi-angles that are available on the video discs.

To return the screen to the SETUP MENU

Select "RETURN" and then press ▶/◄.

To finish the setup operation

Press **SETUP** to exit or select EXIT from SETUP MENU screen.

DVDR EJECT Setting

You can choose to DVDR EJECT ON or DVDR EJECT OFF. If you choose DVDR EJECT ON, the disc will automatically eject from the tray after the disc is fully recorded. If you choose DVDR EJECT OFF, this disc won't automatically eject from the tray after the disc is fully recorded.

- 1 Press **SETUP** in the stop mode.
- 2 Press ▲ / ▼ to select "CUSTOM SETUP" and press ▶ / ___.
- 3 Press ▲ / ▼ to select "DVDR EJECT", and then press ▶ ∠_1.
- 4 Press ▲ / ▼ to select "ON" or "OFF" and press ▶ / ___.

DEFAULT Setting

You may re-set the previous settings in CUSTOM SETUP to the default setting.

- 1 Press **SETUP** in the stop mode.
- 2 Press ▲ / ▼ to select "CUSTOM SETUP" and press ▶ ∠_.
- 3 Press ▲ / ▼ to select "DEFAULT" and select READ.
- **4** Press **▶**/**↓**.

Exceptions:

The viewer rating and the password setting will NOT be changed even though you re-set to the DEFAULT setting.

To return the screen to the SETUP MENU

Select "RETURN" and then press ▶/▲.

To finish the setup operation

4-1 Recording Function

This recordable DVD player has two kinds of recording functions. One is disc copy (duplication) internally. The other is recording from external signals.

Disc Copy

1 Press DVD EJECT on the remote control and insert the disc you wish to record into the DVD playing side.

The disc will play back automatically. Press STOP, the DVD playing side stops.

- 2 Press REC EJECT on the remote control and insert blank CD-R, CD-RW disc or discs which are not fully recorded and not closed yet into the recording side.
- 3 Press ▶ ∠ to play the original disc to choose the preferred segment for recording.

 NOTE:

Make sure to switch to DVD-PLAY mode by pressing **Mode** button on the front panel.

4 Press VCD REC or CD REC and you'll be able to record in that format.

NOTE:

- The CD-RW disc will automatically eject when fully recorded if the DVDR EJECT Setting is on. The playback will temporarily stop at the same time. Insert another recordable disc into the recording side and repeat the process to record.
- While recording, a red REC indicator will blink on the display panel. The display panel only shows the left time for recording.

5 Press **REC STOP** to stop recording.

NOTE:

- The minimum recording time is 30 seconds.
- Under recording, only **REC STOP** works; other buttons don't work.
- You could check the information of the recordable disc by pressing INFO. a number of times, the information of the
 recordable disc will show on the top left corner of the screen.

6 Press CLOSE to close the disc which takes 2 to 3 minutes.

NOTE:

CD-RW could only be played on other machines after being closed.

Recording Editing

NOTE: This editing function only works when recording DVD, VCD, CD and MP3.

While recording DVD/VCD

- 1 Press Mode button on the front panel to switch to DVD PLAY mode.
- 2 Press PBC.

"NAVIGATE OFF" appear on the screen.

- 3 Press PROGRAM.
- 4 Press number button(s) and **◄/▶/▲/▼** to select the preferred item.

For detail, please refer to page 8.

5 Press ▶ ∕ , then press VCD REC immediately to start to record.

While recording CD/MP3

- 1 Press Mode button on the front panel to switch to DVD PLAY mode.
- 2 Press PROGRAM in the stop mode.
- 3 Press number button(s) and **◄/▶/▲/▼** to select the preferred item.

For detail, please refer to page 15.

4 Press CD REC to start to record.

4-1 Recording Function-continued

Recording from external signals

- 1 Please check source and machine is properly connected.
- 2 Press **Mode** button on the front panel to switch to CD-RW PLAY mode, now you can see and hear the external source.
- 3 Press REC EJECT on the remote control and insert blank CD-R, CD-RW disc or discs which are not fully recorded and not closed yet into the recording side.
 "DVDR READY" will appear on the top left corner of the screen.
- 4 Press VCD REC or CD REC and you'll be able to record in that format.

NOTE:

- When disc is full it automatically ejects but the external signal must be stopped on your own before you put in another recording disc.
- While recording, a red REC indicator will blink on the display panel. The display panel only shows the recording time for recording.
- **5** Press **REC STOP** to stop recording.
- 6 Press CLOSE to close the disc which takes 2 to 3 minutes.

NOTE:

• Under CD-RW mode, this recordable DVD player will detect external signals rather than the disc inside. You could check the information of the disc by pressing **INFO**.

4-2 Recording Advanced Function

After recording

CLOSE

In the stop mode, press **CLOSE** after recording.

NOTE:

- CD-RW could only be played on other machines after being closed.
- After closing, CD-R discs may not be recorded again.
- After closing, CD-RW discs may be recorded again after erasing it.
- You could close disc under DVD PLAY and CD-RW mode. A red indicator on the display panel blinks while closing is being processed. When the red indicator stop blinking, the closing is completed.

ERASE

In the stop mode, press **ERASE** to clear information on disc for future recording.

NOTE:

- Please confirm that the CD-RW is in REC already, as this command may not be paused or cancelled, please reconsider the necessity of such acts.
- You could erase disc under DVD PLAY mode and CD-RW mode. A red indicator on the display panel blinks while erasing is being processed. When the red indicator stop blinking, the erasing is completed.
- When erasing begins, all REC functions are locked; please do not turn off the power at this time lest loss of information.
- It usually takes 2-3 minutes to erase disc.

Recording Format

- 1 Please choose the same formats which this machine supports.
- 2 One may edit VCD or CD to produce multiple track effects.
 - (1) Formats must be matching.
 - (2) With enough space, up to 98 tracks are allowed.
- 3 You may not record VCD and CD formats on the same disc.

Recording Notice

- 1 This recordable DVD player allows simultaneous viewing and recording and also reading from TV/Cable TV/VCR/Satellite TV and recording them to VCD.
- 2 When recording begins, "Disc REC" will appear on screen, but the numbers on display panel will not start moving yet; at this time recording hasn't begun. You must wait until the "Disc REC" to disappear and numbers start to run for recording to actually begin. This usually takes less than 7 seconds.
- 3 If you record from MP3 disc, this recordable DVD player will record MP3 disc into CD format instead of MP3 format.

Recording Troubleshooting

- 1 Please check the following if recording doesn't happen.
- (1) Correct placement of disc.
- (2) Compatible disc formats.
- (3) Recording room on disc.
- (4) Please place disc in player again if all fails.

5-1 Troubleshooting

Before requesting service for this recordable DVD player, check the chart below for a possible cause of the problem you are experiencing. Some simple checkups or a minor adjustment on your part may eliminate the problem and restore proper operation.

SYMPTOM (COMM	ON) REMEDY
No power.	 Insert the power plug securely into the power outlet. Check if the ON/OFF button on the front of the player is set to on. Check if no power at the AC outlet by plugging in another appliance for a test.
The player does not start playback when PLAY is pressed.	 Condensation has formed: wait about 1 to 2 hours to allow this recordable DVD player to dry out. This recordable DVD player cannot play discs other than DVDs and audio CDs. Check if the disc is defective by trying another disc. Check the region (local) code.
The player starts playback but stops immediately.	 The disc may be dirty and may require cleaning. Ensure that the disc is installed with the label side up.
No picture.	 Ensure that the equipment is connected properly. Ensure that the input setting for the TV is "Video". Check if the TV is on. Select the same channel and source on the TV as on this recordable DVD player.
No sound.	 Ensure that the equipment is connected properly. If using a HiFi amplifier, try another sound source. Check the Audio Output Setting menu to make sure that Analog Output is selected.
Distorted sound.	 Ensure that the input settings for the TV and stereo system are proper. No sound is heard during still picture (pause) or slow-motion playback.
No audio at Digital Output.	 Check the digital connections. Check the settings menu to make sure that the digital output is set to on. Check if the audio format of the selected audio language matches your receiver capabilities.
Distorted picture.	 Check the disc for fingerprints and clean with a soft cloth, wiping from center to edge. Sometimes a small amount of picture distortion may appear. This is not a malfunction.
Completely distorted picture or no color in picture.	The disc format is not according to the TV-set used (PAL/NTSC).
Picture is distorted during rapid advance or rapid reverse.	The picture will be somewhat distorted at times: this is normal.
No rapid advance (or rapid reverse) playback	Some discs may have sections which prohibit rapid advance (or rapid reverse).
No 4:3 (16:9) picture.	Choose the correct setup "TV DISPLAY" item which matches the TV set used.
No operations perform with the remote control.	 Check the batteries are installed with the correct polarities (+ and –). The batteries are depleted: replace them with new ones. Point the remote control unit at the remote control signal sensor and operate. Operate the remote control unit at a distance of not more than 7 meters from the remote control signal sensor. Remove the obstacles between the remote control unit and remote control signal sensor.
No key operation (by this recordable DVD player and/or the remote control) is effective.	• Turn the unit off and then back to on. Alternatively, turn off the unit, disconnect the AC power cord and re-connect it. (This recordable DVD player may not be operating properly due to lightning, static electricity or some other external factor.)
No sound when connecting to 5.1 Channel speaker	 Check if the disc supports 5.1 Channel. Check if the speaker is properly connected Check if the audio output setting is right.

5-1 Troubleshooting-continued

SYMPTOM [DVD]	REMEDY
PLAY does not start playback even when title is selected.	This may be a result of the parental lock function that has been set. Confirm the "PARENTAL" setup.
Audio soundtrack and/or subtitle language is not the one selected at the initial settings.	• If the audio soundtrack and/or subtitle language does not exist on the disc, the language selected at the initial settings will not be seen/heard.
No subtitles.	 Subtitles appear only with discs that contain them. Subtitles are hidden from the TV screen. Press SUBTITLE to display the subtitles.
Alternative audio soundtrack (or subtitle) languages cannot be selected.	An alternative language can not be selected may result of no more than one language available.
Angle cannot change.	This function depends on software availability. Even if a disc has a number from angles recorded, these angles may be recorded for specific scenes only.

SYMPTOM [Recording]	REMEDY
The record function can't work	 Check if this recordable DVD player and outer equipments are properly connected. Check if using the correct recordable disc. (CD-R/CD-RW). Check if the recordable disc has been closed. Check if the recorded disc has recorded other formats. That is to say, you can't record two different format in one disc. (Ex: If you have recorded VCD format in your recordable disc, you can't take it to record CD format in the same disc.) Check if the recordable disc has enough free space for recording. Check if you have switched to the right mode: DVD PLAY mode and CD-RW mode. Check if the recordable disc has no scratch on the surface of the disc.
You can't playback the recorded disc on	Check if the recorded disc has been closed.

5-2 Disc Handling and Maintenance

Handling Precautions

- Hold the disc by the edges so the surface will not be soiled with fingerprints. (A)
 Fingerprints, dirt and scratches can cause skipping and distortion.
- Do not write on the label side with a ball-point pen or other writing utensils.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent
- Be careful not to drop or bend the disc.
- Do not install more than 1 disc on the disc tray.
- Do not try to close the disc tray when the disc is not installed properly. (B)
- Be sure to store the disc in its exclusive case when not in use.

If the surface is soiled (C)

Wipe gently with a soft, damp (water only) cloth. When wiping discs, always move the cloth from the center hole toward the outer edge.

(If you wipe the discs using a circular motion, circular scratches are likely to occur, which will cause noise.)

If the disc is brought from a cold to a warm environment, moisture may form on the disc

Wipe this moisture off with a soft, dry, lint-free cloth before using the disc.

Improper disc storage

You can damage discs if you store them in the following places:

- Areas exposed to direct sunlight
- Humid or dusty areas
- Areas directly exposed to a heat outlet or heating appliance

Playable disc format

Under DVD PLAY mode:

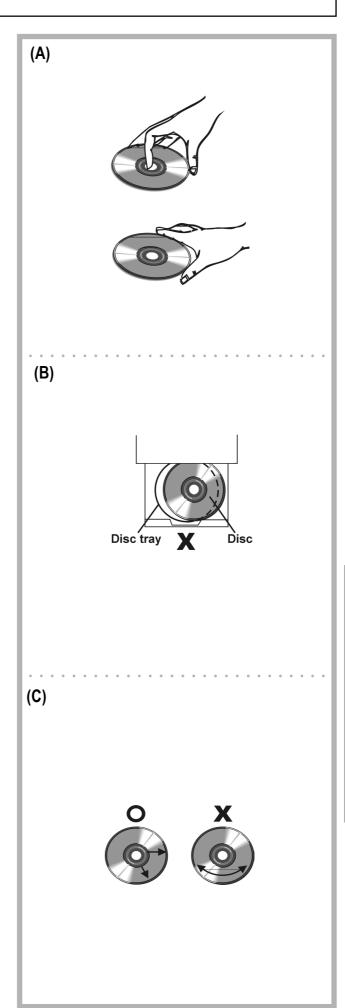
 DVD+R, DVD+RW, DVD-R, DVD-RW, DVD, CD, CD-R, CD-RW and MP3.

Under CD-RW mode:

CD-R and CD-RW

Maintenance

- Be sure to turn the unit off and disconnect the AC power cord before maintenancing the unit.
- Wipe this unit with a dry soft cloth.
 If the surfaces are extremely dirty, wipe clean with a cloth which has been dipped in a weak soap-and-water solution and wrung out thoroughly, and then wipe again with a dry cloth.
- Never use alcohol, benzine, thinner, cleaning fluid or other chemicals. And do not use compressed air to remove dust.



5-3 Definition of Terms

Angle

Recorded onto some DVD discs are scenes which have been simultaneously shot from a number of different angles (the same scene is shot from the front, from the left side, from the right side, etc.). With such discs, the ANGLE button can be used to view the scene from different angles.

Chapter Number

These numbers are recorded on DVD discs. A title is subdivided into many sections, each of which is numbered, and specific parts of video presentations can be searched quickly using these numbers.

DVD

These refer to a high-density optical disc on which high-quality pictures and sound have been recorded by means of digital signals. Incorporating a new video compression technology (MPEG II) and high-density recording technology, DVD enables aesthetically pleasing full-motion video to be recorded over long periods of time (for instance, a whole movie can be recorded).

DVD has a structure consisting of two 0.6 mm thin discs which are adhered to each other. Since the thinner the disc, the higher the density at which the information can be recorded, a DVD disc has a greater capacity than a single 1.2 mm thick disc. Since the two thin discs are adhered to each other, there is the potential to achieve double-sided play sometime in the future for even longer duration play.

Subtitles

These are the printed lines appearing at the bottom of the screen which translate or transcribe the dialogue. They are recorded on DVD discs.

Time Digit

This indicates the play time which has elapsed from the start of a disc or a title. It can be used to find a specific scene quickly. (It may not work with some discs.)

Title Number

These numbers are recorded on DVD discs. When a disc contains two or more movies, these movies are numbered as title 1, title 2, etc.

Track Number

These numbers are assigned to the tracks which are recorded on audio CDs. They enable specific tracks to be located quickly.