



Owner's Manual

SAFETY PRECAUTIONS

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE

CAUTION

THIS DVD 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.

USE OF CONTROLS, ADJUSTMENTS TO MODIFY PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

TO PREVENT DIRECT EXPOSURE TO LASER BEAM, DO NOT TRY TO OPEN THE ENCLOSURE. VISIBLE LASER RADIATION EXISTS WHEN THE ENCLOSURE IS OPENED. DO NOT STARE INTO BEAM.

THE APPARATUS SHOULD NOT BE EXPOSED TO DRIPPING OR SPLASHING, AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NEVER BE PLACED ON THE APPARATUS.

WARNING: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

This product is manufactured to comply with the radio interference requirements of EEC DIRECTIVE 89/336/EEC, 93/68/EEC and 73/23/EEC.

NOTES ON COPYRIGHT

It is forbidden by law to copy, broadcast, show, broadcast via cable, play in public, or rent copyright material without permission. This product is equipped with copy protection measures developed by Macrovision. Copy protection signals are recorded on some discs. When recording these discs on a VCR, picture noise will appear during playback. This product incorporates copyright protection technology that is protected by certain U.S. patent claims 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.

RECORD YOUR MODEL NUMBER (NOW, WHILE YOU CAN SEE IT)

The model and serial number of your new DVD player are located on the back of the DVD player cabinet. For your future convenience, we suggest that you record these numbers here:

MODEL NO	
SERIAL NO	

TABLE OF CONTENTS

INTRODUCTION	
Safety precautions	2
Before Use!	5
Playable Discs	1
Disc-related terms	
Types of video CDs	1
Precautions for handling the unit	5
Notes on Discs	
About Symbols	5
Rear Panel	
Front Panel and Display Window	
Remote control	
nemote control	•
PREPARATION	
- 1)
Connections	
Connections	9
Connections	9
Connections .9 Connecting to a TV .9 Connecting to Optional Equipment .10 Before Operation .11	9 0 1
Connections 9 Connecting to a TV 9 Connecting to Optional Equipment 10 Before Operation 11 General Explanation 11	9 0 1
Connections 9 Connecting to a TV 9 Connecting to Optional Equipment 10 Before Operation 1 General Explanation 1 On-Screen Display 1	9 0 1 1
Connections 9 Connecting to a TV 9 Connecting to Optional Equipment 10 Before Operation 1 General Explanation 1 On-Screen Display 1 Initial Settings 13	9 1 1 1 3
Connections 9 Connecting to a TV 9 Connecting to Optional Equipment 10 Before Operation 1 General Explanation 1 On-Screen Display 1 Initial Settings 13 Language 13	9 1 1 1 3 3
Connections 9 Connecting to a TV 9 Connecting to Optional Equipment 10 Before Operation 1 General Explanation 1 On-Screen Display 1 Initial Settings 1 Language 1 Picture 1	9 1 1 1 3 3
Connections 9 Connecting to a TV 9 Connecting to Optional Equipment 10 Before Operation 1 General Explanation 1 On-Screen Display 1 Initial Settings 1 Language 1 Picture 1 Sound 14	9 1 1 1 3 3 4
Connections 9 Connecting to a TV 9 Connecting to Optional Equipment 10 Before Operation 1 General Explanation 1 On-Screen Display 1 Initial Settings 1 Language 1 Picture 1	9 1 1 1 1 3 3 4 4

OPERATION	
Operation with DVD and Video CD	17
Playing a DVD and Video CD	17
General Features	17
Special DVD Features	19
Operation with Audio CD and MP3 / WMA Disc	
Playing an Audio CD and MP3 / WMA Disc	20
Notes on MP3/WMA Recordings	20
Operation with JPEG Disc	22
Viewing a JPEG disc	22
Programmed Playback	
Additional Information	24
REFERENCE	
Troubleshooting	25
Table of Languages and Their Abbreviations	26
Country Code List	27
Specifications	28



















BEFORE USE

PLAYABLE DISCS



DVD video discs (8 cm / 12 cm disc)



Video CD (VCD) (8 cm / 12 cm disc)



Audio CD (8 cm / 12 cm disc)

In addition, this unit can play a DVD-R, DVD±RW, Kodak PICTURE CD, SVCD, and CD-R or CD-RW that contains audio titles, MP3, WMA or JPEG files.

NOTES

- Depending on the conditions of the recording equipment or the CD-R/RW (or DVD-R/±RW) disc itself, some CD-R/RW (or DVD-R/±RW) discs cannot be played on the unit.
- Do not attach any seal or label to either side (the labeled side or the recorded side) of a disc.
- Do not use irregularly shaped CDs (e.g., heart-shaped or octagonal).
 It may result in malfunctions.

NOTES ON DVDS AND VIDEO CDS

Some playback operations of DVDs and Video CDs may be intentionally fixed by software manufacturers.

As this unit plays DVDs and Video CDs according to disc content designed by the software manufacturer, some playback features of the unit may not be available or other functions may be added.

Refer also to the instructions supplied with the DVDs and Video CDs. Some DVDs made for business purposes may not be played on the unit.

REGIONAL CODE OF THE DVD PLAYER AND DVDS



This DVD player is designed and manufactured for playback of region "1" encoded DVD software.

The region code on the labels of some DVD discs indicates which type of player can play those discs. This unit can play only DVD discs labeled "1" or "ALL". If you try to play any other discs, the message "Check Regional Code" will appear on the TV screen. Some DVD discs may not have a region code label even though their playback is prohibited by area limits.

DISC-RELATED TERMS

TITLE (DVD VIDEO DISCS ONLY)

The main film content, accompanying feature content, additional feature content, or music album. Each title is assigned a title reference number enabling you to locate it easily.

CHAPTER (DVD VIDEO DISCS ONLY)

Sections of a picture or a musical piece that are smaller than titles. A title is composed of one or several chapters. Each chapter is assigned a chapter number, enabling you to locate the chapter you want. Depending on the disc, chapters may not be recorded.

TRACK (VIDEO CD AND AUDIO CD ONLY)

Sections of a picture or a musical piece on a video CD or an audio CD. Each track is assigned a track number, enabling you to locate the track you want.

SCENE

On a video CD with PBC (Playback control) functions, moving pictures and still pictures are divided into sections called "Scenes". Each scene is displayed in the menu screen and assigned a scene number, enabling you to locate the scene you want. A scene is composed of one or several tracks.

TYPES OF VIDEO CDS

There are two types of video CDs:

Video CDs equipped with PBC (Version 2.0)

PBC (Playback control) functions allow you to interact with the system via menus, search functions, or other typical computer-like operations. Moreover, still pictures of high resolution can be played if they are included in the disc.

Video CDs not equipped with PBC (Version 1.1)

Operated in the same way as audio CDs, these discs allow playback of video pictures as well as sound, but they are not equipped with PBC.

PRECAUTIONS FOR HANDLING THE UNIT

WHEN SHIPPING THE UNIT

The original shipping carton and packing materials come in handy. For maximum protection, re-pack the unit as it was originally packed at the factory.

WHEN SETTING UP THE UNIT

The picture and sound of a nearby TV, VCR, or radio may be distorted during playback. In this case, position the unit away from the TV, VCR, or radio, or turn off the unit after removing the disc.

TO KEEP THE EXTERIOR SURFACES CLEAN

Do not use volatile liquids, such as insecticide spray, near the unit. Do not leave rubber or plastic products in contact with the unit for a long period of time. They will leave marks on the surface.

TO CLEAN THE CABINET

Use a soft, dry cloth. If the surfaces are extremely dirty, use a soft cloth lightly moistened with a mild detergent solution. Do not use strong solvents such as alcohol, benzine, or thinner, as these might damage the surface of the unit.

TO OBTAIN A CLEAR PICTURE

The DVD player is a high-tech, precision device. If the optical pick-up lens and disc drive parts are dirty or worn, the picture quality will be poor. Regular inspection and maintenance are recommended after every 1,000 hours of use. (This depends on the operating environment.) For details, please contact your nearest dealer.

NOTES ON DISCS

HANDLING DISCS

Do not touch the playback side of the disc. Hold the disc by the edges so that fingerprints will not get on the surface. Do not stick paper or tape on the disc.





STORING DISCS

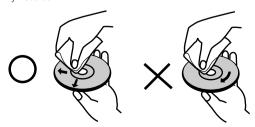
After playing, store the disc in its case.

Do not expose the disc to direct sunlight or sources of heat, or leave it in a parked car exposed to direct sunlight, as there may be a considerable temperature increase inside the car.

CLEANING DISCS

Fingerprints and dust on the disc can cause poor picture quality and sound distortion. Before playing, clean the disc with a clean cloth. Wipe the disc from the center out.

Do not use strong solvents such as alcohol, benzine, thinner, commercially available cleaners, or anti-static spray intended for older vinyl records.



ABOUT SYMBOLS

ABOUT THE **SYMBOL DISPLAY**

" \ " may appear on the TV screen during operation. This icon means the function explained in this owner's manual is not available on that specific DVD video disc.

ABOUT THE DISC SYMBOLS FOR INSTRUCTIONS

A section whose title has one of the following symbol is applicable only to the disc represented by the symbol.

DVD-V DVD Video discs

VCD 2.0 Video CDs with the PBC (playback control) function

VCD 1.0 Video CDs without the PBC (playback control) function

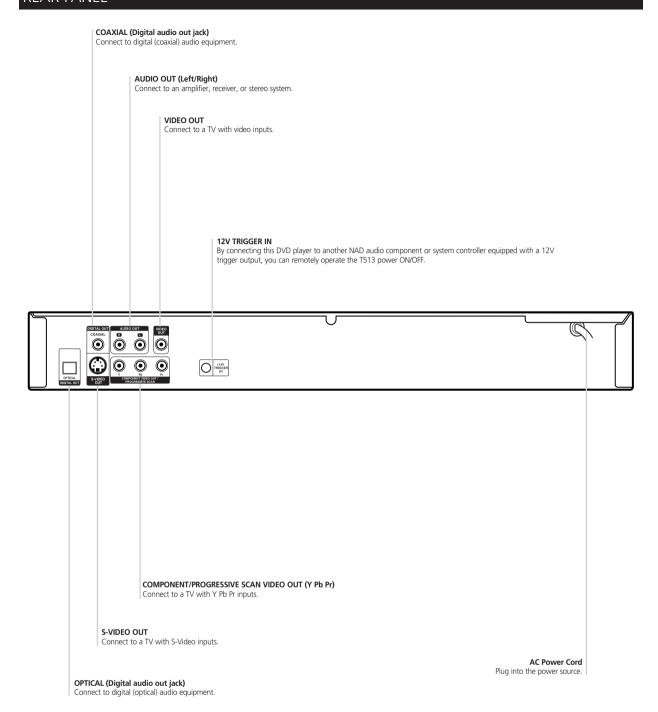
Audio CDs

MP3 MP3 disc

WMA WMA disc

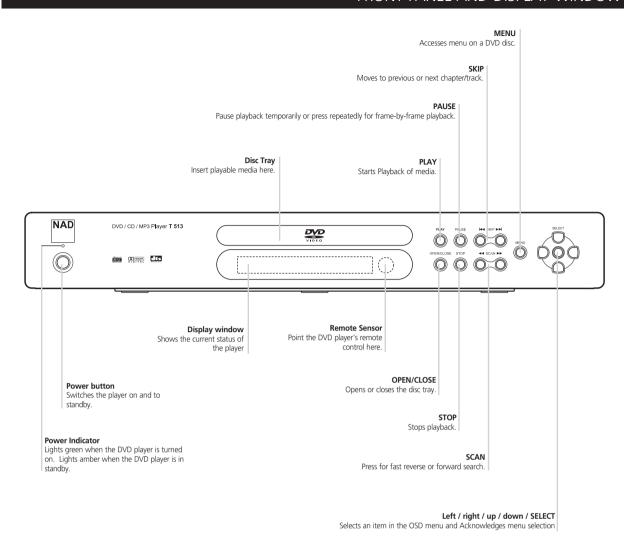
JPEG JPEG disc

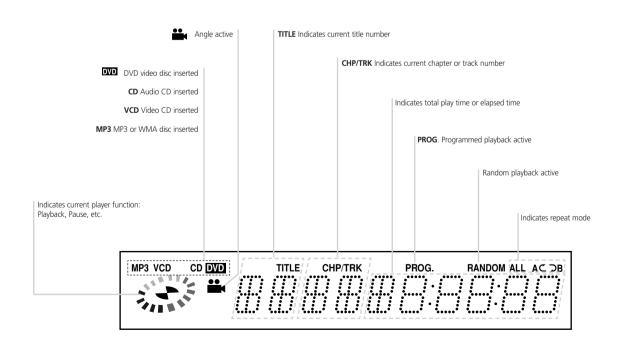
REAR PANEL



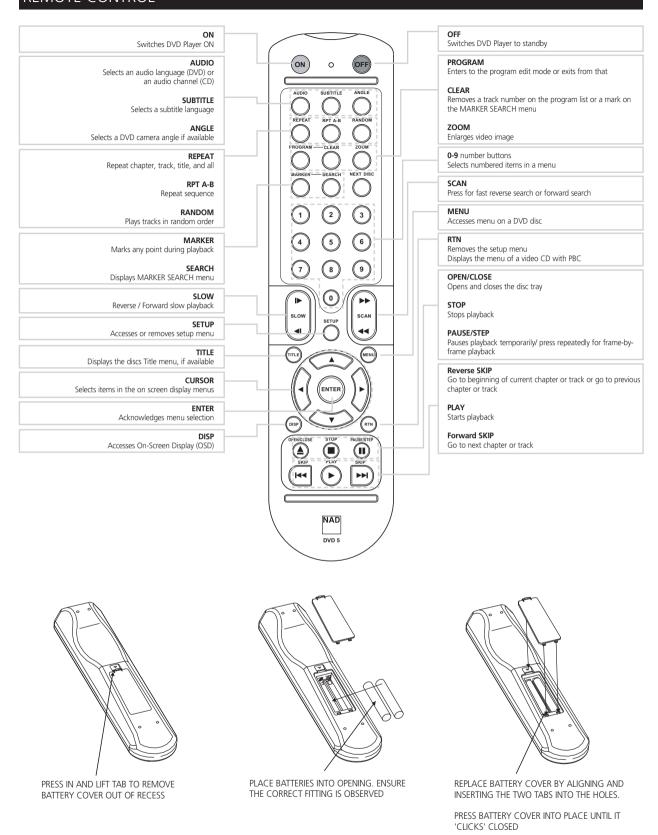
DO NOT TOUCH THE INNER PINS OF THE CONNECTORS ON THE REAR PANEL. ELECTROSTATIC DISCHARGE MAY CAUSE PERMANENT DAMAGE TO THE UNIT.

FRONT PANEL AND DISPLAY WINDOW





REMOTE CONTROL



REMOTE CONTROL OPERATION RANGE

Point the remote control at the remote sensor and press the buttons. **Distance**: About 23 ft (7 m) from the front of the remote sensor. **Angle**: About 30° in each direction of the front of the remote sensor.

CAUTION

Do not mix old and new batteries. Never mix different types of batteries (standard, alkaline, etc.).

- Depending on your TV and other equipment you wish to connect, there are various ways you could connect the player. Use only one of the connections described below.
- Please refer to the manuals of your TV, VCR, Stereo System or other devices as necessary to make the best connections.
- For better sound reproduction, connect the player's AUDIO OUT connectors to the audio in connectors of your amplifier, receiver, stereo or audio/video equipment. See "Connecting to Optional Equipment" on page 10.

CAUTION

- Make sure the DVD Player is connected directly to the TV. Tune the TV to the correct video input channel.
- Do not connect the DVD Player's AUDIO OUT jack to the phono in jack (record deck) of your audio system.
- Do not connect your DVD Player via your VCR. The DVD image could be distorted by the copy protection system.

CONNECTING TO A TV

• Make one of the following connections, depending on the capabilities of your existing equipment.

VIDEO CONNECTION

- 1 Connect the VIDEO OUT jack on the DVD Player to the video in jack on the TV using the video cable **(V)**.
- 2 Connect the Left and Right AUDIO OUT connectors of the DVD Player to the audio left/right in connectors on the TV using the audio cables (A).

S-VIDEO CONNECTION

- 1 Connect the S-VIDEO OUT jack on the DVD Player to the S-Video in jack on the TV using the S-Video cable (S).
- 2 Connect the Left and Right AUDIO OUT connectors of the DVD Player to the audio left/right in connectors on the TV using the audio cables (A).

COMPONENT VIDEO (COLOR STREAM®) CONNECTION

- **1** Connect the COMPONENT VIDEO OUT/ PROGRESSIVE SCAN connectors on the DVD Player to the corresponding in connectors on the TV using an Y / Pb / Pr cable **(C)**.
- **2** Connect the Left and Right AUDIO OUT connectors of the DVD Player to the audio left/right in connectors on the TV using the audio cables **(A)**.

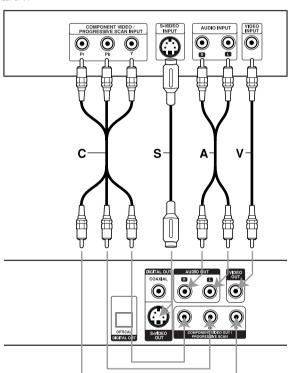
PROGRESSIVE SCAN CONNECTION

- If your television is a high-definition or "digital ready" television, you may take advantage of the DVD Player's progressive scan output for the highest video resolution possible.
- If your TV does not accept the Progressive Scan format, the picture will appear scrambled if you try Progressive Scan on the DVD Player.
- 1 Connect the COMPONENT VIDEO OUT/ PROGRESSIVE SCAN connectors on the DVD Player to the corresponding in connectors on the TV using an optional Y Pb Pr cable (C).
- 2 Connect the Left and Right AUDIO OUT connectors of the DVD Player to the audio left/right in connectors on the TV using the supplied audio cables (A).

NOTES

- Set the Progressive to "On" on the setup menu for progressive signal, see page 13.
- Progressive scan does not work with the analog video connections (yellow VIDEO OUT jack).

Rear of TV



Rear of DVD player

Preparation

CONNECTIONS

CONNECTING TO OPTIONAL EQUIPMENT

Connecting to an amplifier equipped with two channel analog stereo or Dolby Pro Logic II / Pro Logic

Connect the Left and Right AUDIO OUT connectors on the DVD Player to the audio left and right in connectors on your amplifier, receiver, or stereo system, using the audio cables (A).

Connecting to an amplifier equipped with two channel digital stereo (PCM) or to an Audio / Video receiver equipped with a multi-channel decoder (Dolby DigitalTM, MPEG 2, or DTS)

- 1 Connect one of the DVD Player's DIGITAL AUDIO OUT connectors (OPTICAL (O) or COAXIAL (X)) to the corresponding in jack on your amplifier. Use an optional digital (optical (O) or coaxial (X)) audio
- 2 You will need to activate the player's digital output. (See "Digital Audio Output" on page 14).

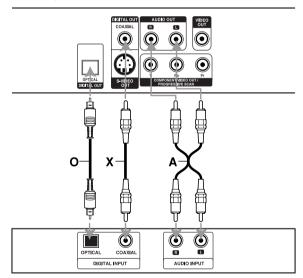
DIGITAL MULTI-CHANNEL SOUND

A digital multi-channel connection provides the best sound quality. For this you need a multi-channel Audio/Video receiver that supports one or more of the audio formats supported by your DVD Player (MPEG 2, Dolby Digital and DTS). Check the receiver manual and the logos on the front of the receiver.

CAUTION

Due to the DTS Licensing agreement, the digital output will be in DTS digital out when DTS audio stream is selected.

Rear of DVD player



Amplifier (Receiver)

NOTES

- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.
- Six Channel Digital Surround Sound via digital connection can only be obtained if your receiver is equipped with a Digital Multi-channel decoder
- To see the audio format of the current DVD in the onscreen display, press AUDIO.

GENERAL EXPLANATION

This manual gives basic instructions for operating the DVD Player. Some DVDs require specific operation or allow only limited operation during playback. When this occurs, the symbol appears on the TV screen, indicating that the operation is not permitted by the DVD Player or is not available on the disc.

ON-SCREEN DISPLAY

General playback status can be displayed on the TV screen. Some items can be changed on the menu.

ON-SCREEN DISPLAY OPERATION

- 1 Press DISP during playback.
- 2 Press ▲/▼ to select an item. The selected item will be highlighted.
- **3** Press **◄/▶** to change the setting of an item. The number buttons can be also be used for setting numbers (e.g., title number). For some functions, press ENTER to execute the setting.

TEMPORARY FEEDBACK FIELD ICONS

Repeat Title

Repeat Chapter

Repeat Track (non-PBC Video CDs discs only)

Repeat All Tracks (non-PBC Video CDs only)

♠ B Repeat A-B

OFF Repeat Off

Resume play from this point

Action prohibited or not available

NOTES

- Some discs may not provide all of the features on the on-screen display example shown below.
- If no button is pressed for 10 seconds, the on-screen display disappears.

DVD-V

Items		Function (Press ▲/▼ to select desired item)	Selection Method	
Title Number	1/3	Shows the current title number and total number of titles, and skips to the desired title number.	◄/▶ , or Numbers, ENTER	
Chapter Number	1 /12	Shows the current chapter number and total number of chapters, and skips to the desired chapter number.	◄/▶ , or Numbers, ENTER	
Time search	0:20:09	Shows the elapsed playing time, and searches the point by the elapsed time directly.	Numbers, ENTER	
Audio language and Digital Audio Output mode	1 ENG DID 5.1 CH	Shows the current audio soundtrack language, encoding method, and channel number, and changes the setting.	⋖/▶ , or AUDIO	
Subtitle language	OFF	Shows the current subtitles language, and changes the setting.	◄/▶ , or SUBTITLE	
Angle	1/1	Shows the current angle number and total number of angles, and changes the angle number.	∢/▶ , or ANGLE	
Sound	NORM.	Shows the current sound mode, and changes the setting.	√ /▶	

Preparation

BEFORE OPERATION

VCD 2.0 VCD 1.1

Items		Function (Press ▲/▼ to select desired item)	Selection Method	
Track Number 1/3		Shows the current track number, total number of tracks and PBC On mode, and skip to the desired track number.	◄/▶ , or Numbers, ENTER	
Time	1 /12	Shows the elapsed playing time (Display only)		
Audio Channel	0:20:09	Shows the audio channel, and changes the audio channel.	◄/▶ , or AUDIO	
Sound 1 ENG DID 5.1 CH		Shows the current sound mode, and changes the setting.	∢/ ▶	

INITIAL SETTINGS

You can set your own Personal Preferences on the player.

Initial Settings General Operation

1 Press SETUP. The setup menu appears.



- 2 Press ▲/▼ to select the desired item. The screen will show the current setting for the selected item, as well as alternate setting(s).
- 3 While the desired item is selected, press ▶, then ▲/▼ to select the desired setting.
- 4 Press ENTER to confirm your selection. Some items require additional stens
- 5 Press SETUP, RTN, or PLAY to exit the setup menu.

LANGUAGE

DISC LANGUAGE DVD-V

Select a language for the disc's Menu, Audio, and Subtitle.

Original: The original language set for the disc is selected.

Other: To select another language, press number buttons to enter the corresponding 4-digit number according to the language code list on page 27. If you enter the wrong language code, press CLEAR.



MENU LANGUAGE

Select a language for the setup menu. This is the menu you see when you press SETUP.



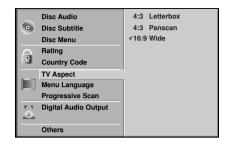
PICTURE

TV ASPECT DVD-V

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

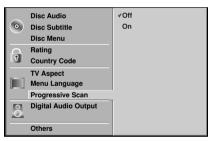
4:3 Panscan: Select when a conventional TV set is connected. The video material formatted in the Pan & Scan style is played back in that style (Both sides of the picture are cut off).

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



PROGRESSIVE SCAN (DVD-V)

Progressive Scan Video provides the highest quality pictures with less flickering. If you are using the COMPONENT VIDEO OUT/ PROGRESSIVE SCAN connectors, but are connecting the DVD Player to a standard (analog) television, set Progressive Scan to Off. If you are using the Component Video connectors for connection to a TV or monitor that is compatible with a progressive scan signal, set Progressive Scan to On.



CAUTION

Once the setting for progressive scan output is entered, an image will only be visible on a progressive scan compatible TV or monitor. If you set Progressive Scan to On in error, you must reset the unit. Press STOP to stop any disc that is playing. Next, press STOP again and hold it for five seconds before releasing it. The video output will be restored to the standard setting, and a picture will once again be visible on a conventional analog TV or monitor.

Preparation

BEFORE OPERATION

SOUND

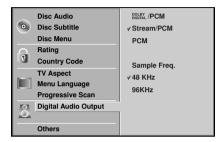
DIGITAL AUDIO OUTPUT

Each DVD disc has a variety of audio output options. Set the player's Digital Audio Output according to the type of audio system you use.

DOLBY DIGITAL/PCM: Select "DOLBY DIGITAL/PCM" if you connected the DVD Player's DIGITAL OUT jack to a Dolby Digital decoder (or an amplifier or other equipment with a Dolby Digital decoder).

Stream/PCM: Select "Stream/PCM" if you connected the DVD Player's DIGITAL OUT jack to an amplifier or other equipment with a DTS decoder, Dolby Digital decoder or MPEG decoder.

PCM: Select when connected to a 2-channel digital stereo amplifier. The DVD player outputs sounds in the PCM 2channel format when you play a DVD video disc recorded on the Dolby Digital, MPEG1, or MPEG2 recording system.



SAMPLE FREQUENCY

To change the Sample Frequency setting, first select the desired Digital Audio Output as indicated as above.

If your receiver or amplifier is NOT capable of handling 96 KHz signals, select 48 KHz. When this choice is made, this unit will automatically convert any 96 KHz signals to 48 KHz so your system can decode them. If your receiver or amplifier is capable of handling 96 KHz signals, select 96 KHz. When this choice is made, this unit will pass each type of signal through without any further processing.

OTHERS

The DRC, PBC and Auto Play settings can be changed.

Press ▲/▼ to select the desired item and press ENTER. The setting
of the selected item is changed between On and Off.



DYNAMIC RANGE COMPRESSION (DRC)

With the DVD format, you can hear a program's soundtrack in the most accurate and realistic presentation possible, thanks to digital audio technology. However, you may wish to compress the dynamic range of the audio output (the difference between the loudest sounds and the quietest ones). Then, you may listen to a movie at a lower volume without losing clarity of sound. Set DRC to On for this effect.

PBC

Set Playback Control (PBC) to On or Off.

On: Video CDs with PBC are played according to the PBC.

Off: Video CDs with PBC are played the same way as Audio CDs.

AUTO PLAY DVDAY

You can set up the DVD Player so a DVD disc automatically starts playing whenever the DVD is inserted. If Auto Play mode is set to On, the T 513 DVD player will search for the longest title playback time and then play back the title automatically.

On: Auto Play function is activated.

Off: Auto Play function is not activated.

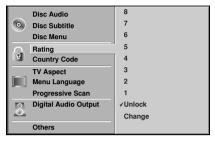
NOTE

The Auto Play function may not work for some DVDs.

PARENTAL CONTROL

RATING DVD-V

Movies on DVDs may contain scenes not suitable for children. Therefore, discs may contain Parental Control information that applies to the complete disc or to certain scenes on the disc. These scenes are rated from 1 to 8, and alternatively, more suitable scenes are available for selection on some discs. Ratings are country-dependent. The Parental Control feature allows you to prevent discs from being played by your children or to have certain discs played with alternative scenes.



- 1 Select "Rating" on the Setup menu using the ▲/▼ buttons.
- 2 While "Rating" is selected, press ▶.
- 3 When you have not yet entered a password;

Enter a 4-digit password using the numbered buttons to create a personal 4-digit security password, and then press ENTER. Enter the 4-digit password again and press ENTER to verify.

When you have already entered a password;

Enter a 4-digit password using the numbered buttons to confirm the personal 4-digit security password, and then press ENTER. If you make a mistake before pressing ENTER, press CLEAR and enter 4-digit security password again.

4 Select a rating from 1 to 8 using the ▲/▼ buttons. Eight (8) has the least playback restrictions. One (1) has the most playback restrictions.

Unlock: If you select Unlock, Parental Control is not active. The disc will play in full.

Ratings 1 to 8. Some discs contain scenes not suitable for children. If you set a rating for the player, all disc scenes with the same rating or lower will be played. Higher rated scenes will not be played unless an alternative scene is available on the disc.

The alternative must have the same rating or a lower one. If no suitable alternative is found, playback will stop. You must enter the 4-digit password or change the rating level in order to play the disc.

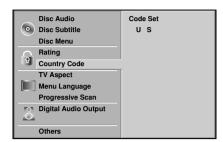
5 Press ENTER to confirm your rating selection, and then press SETUP to exit the menu.

Preparation

BEFORE OPERATION

COUNTRY CODE DVD-V

Enter the code of a country/area whose standards were used to rate the DVD video disc, referring to the list (See "Country Code List", page 28.)



- 1 Select Country Code using the ▲/▼ buttons on the setup menu.
- **2** While Country Code is selected, press ▶.
- **3** Follow step number "3" of "Rating" on left side of this page.
- **4** Select the first character using the **△/▼** buttons.
- 5 Shift the cursor using ▶ button and select the second character using ▲/▼ buttons.
- **6** Press ENTER to confirm your country code selection, then press SETUP to exit the menu.

NOTE

Confirmation of the 4-digit password is necessary when the code is changed (see "Changing the 4-digit code" below).

CHANGING THE 4-DIGIT CODE

- **1** Follow Steps 1-2 as shown above to the left (Rating).
- **2** Enter the old code, and then press ENTER.
- 3 Select Change using **△/▼** buttons then press ENTER.
- **4** Enter the new 4-digit code, and then press ENTER.
- **5** Enter exactly the same code a second time and verify by pressing ENTER.
- 6 Press SETUP to exit the menu.

IF YOU FORGET YOUR 4-DIGIT CODE

If you forget your password, to clear the current password, follow the procedure below:

- 1 Press SETUP to display the setup menu.
- 2 Use the Number buttons to enter the 6-digit number "210499". The 4-digit password is cleared. "P CLr" appears on the T 513's front display for a moment.
- 3 Enter a new code as shown under "Rating"

OPERATION WITH DVD AND VIDEO CD

PLAYING A DVD AND VIDEO CD

PLAYBACK SETUP (DVD-V) (VCD 2.0) (VCD 1.1)

- Turn on the TV and select the video input source connected to the DVD player.
- Audio system: Turn on the audio system and select the input source connected to the DVD player.
- 1 Press OPEN/CLOSE to open the disc tray.
- 2 Load your chosen disc in the tray, with the playback side down.
- 3 Press OPEN/CLOSE to close the tray. READING appears on the TV screen, and playback starts automatically. If playback does not start, press PLAY. In some cases, the disc menu might appear instead.

IF A MENU SCREEN IS DISPLAYED

The menu screen may be displayed first after loading a DVD or Video CD which offer a menu.

DVD-V

Use the $\triangle/\nabla/d/\triangleright$ buttons to select the title/chapter you want to view, then press ENTER to start playback. Press TITLE or MENU to return to the menu screen.

VCD 2.0

- Use the number buttons to select the track you want to view. Press RTN to return to the menu screen.
- Menu setting and the exact operating procedures for using the menu may differ depending on the disc. Follow the instructions on the each menu screen. You also may set PBC to Off under setup. See page 15.

NOTES

- If Parental Control is set and the disc is not within the Rating settings (not authorized), the 4-digit code must be entered and/or the disc must be authorized (see "Parental Control).
- DVDs may have a region code. Your player will not play discs that have a region code different from your player. The region code for this player is 2 (two).

GENERAL FEATURES

NOTE

Unless stated otherwise, all operations described use the remote control. Some features may also be available on the Setup menu.

MOVING TO ANOTHER TITLE / GROUP DVDAY

When a disc has more than one title/group, you can move to another title/group as follows:

 Press DISP, then press the appropriate numbered button (0-9) to select a title/group number.



MOVING TO ANOTHER CHAPTER / TRACK

DVD-V VCD 1.1

When a title on a disc has more than one chapter or a disc has more than one track, you can move to another chapter/track as follows:

- Press SKIP ►►I or I◄ briefly during playback to select the next chapter/track or to return to the beginning of the current chapter/track.
- Press ◄ twice briefly to step back to the previous chapter/track.
- To go directly to any chapter during DVD playback, press DISP. Then, press ▲/▼ to select the chapter/track icon. Then, enter the chapter/track number using the numbered buttons (0-9).



NOTE

For two-digit numbers, press the numbered buttons (0-9) in rapid succession

SEARCH DVD-V VCD 2.0 VCD 1.1

- 1 Press and hold SCAN ◀◀ or ▶► for about two seconds during playback. The player will now go into SEARCH mode.
- 2 Press and hold SCAN ◀◀ or ▶▶ repeatedly to select the required speed: ◀◀ X2, ◀◀ X4, ◀◀ X16, ◀◀ X100 (backward) or ▶▶ X2, ▶▶ X4, ▶▶ X16, ▶▶ X100 (forward). With a Video CD, the Search speed changes: ◀◀ X2, ◀◀ X4, ◀◀ X8, (backward) or ▶▶ X2, ▶▶ X4, ▶▶ X8, (forward).
- 3 To exit SEARCH mode, press PLAY.

PAUSE DVD-V VCD 2.0 VCD 1.1

- 1 Press PAUSE/STEP during playback.
- 2 To return to playback, press PLAY.

STILL PICTURE AND FRAME-BY-FRAME PLAYBACK OVD-V VCD 2:0 VCD 1:1

- 1 Press PAUSE/STEP during playback. The player will now go into
- **2** You can advance the picture frame-by-frame by pressing PAUSE/STEP repeatedly on the remote control.

Operation

OPERATION WITH DVD AND VIDEO CD

SLOW MOTION DVD-V VCD 2.0 VCD 1.1

- Press SLOW ◀I or I► during playback. The player will enter SLOW mode
- Use the SLOW ◀I or I► to select the required speed: ◀I 1/16, ◀I 1/8, ◀I 1/4 or ◀I 1/2 (backward), or I► 1/16, I► 1/8, I► 1/4 or I► 1/2 (forward).
- 3 To exit slow motion mode, press PLAY.

NOTE

• Slow motion playback in reverse is not applicable for Video CD.

RANDOM VCD2.0 VCD1.1

- 1 Press RANDOM during playback or in stop mode. The unit automatically begins Random Playback and "RANDOM" appears on the display window.
- 2 To return to normal playback, press RANDOM until "RANDOM" disappears on the display window.

TIPS

By pressing SKIP **>>1** during Random playback, the unit selects another title (track) and resumes Random playback.

NOTE

- This function only works with video CD without PBC.
- On a Video CD with PBC, you must set PBC to Off in the setup menu to use the Random function. See page 15.

REPEAT A-B DVD-V VCD 2.0 VCD 1.1

To repeat a sequence in a title or group:

- 1 Press RPT A-B at your chosen starting point. "A *" appears briefly on the TV screen.
- 2 Press RPT A-B again at your chosen end point. "A B" appears briefly on the TV screen, and the repeat sequence begins ("A O B" appears the display window).
- 3 To cancel the sequence, press RPT A-B.



REPEAT DVD-V VCD 2.0 VCD 1.1

DVD Video Discs - Repeat Chapter/Title/Off

- **1** To repeat the currently playing chapter, press REPEAT. The Repeat Chapter icon appears on the TV screen.
- 2 To repeat the title currently playing, press REPEAT a second time. The Repeat Title icon appears on the TV screen.
- **3** To exit Repeat mode, press REPEAT a third time. The Repeat Off icon appears on the TV screen.



Video CDs - Repeat Track/All/Off

- 1 To repeat the track currently playing, press REPEAT. The Repeat Track icon appears on the TV screen.
- 2 To repeat the disc currently playing, press REPEAT a second time. The Repeat All icon appears on the TV screen.
- **3** To exit Repeat mode, press REPEAT a third time. The Repeat Off icon appears on the TV screen.

NOTE

On a Video CD with PBC, you must set PBC to Off on the setup menu to use the Repeat function. See page 15.

TIME SEARCH DYDAY

The Time Search function allows you to start playing at any chosen time on the disc.

- 1 Press DISP during playback. The on-screen display appears on the screen. The Time Search box shows the elapsed playing time of the current disc.
- 2 Within 10 seconds, press ▲/▼ to select the Time Search icon in the on-screen display. The "-:---" appears in the Time Search box.
- **3** Within 10 seconds, use the number buttons to enter the required start time. Enter hours, minutes, and seconds from left to right in the box. If you enter the wrong numbers, press CLEAR to remove the numbers you entered. Then enter the correct numbers.
- 4 Within 10 seconds, press ENTER to confirm the start time. Playback starts from the selected time on the disc. If you enter an invalid time, playback will continue from the current point.



OPERATION WITH DVD AND VIDEO CD

3D SURROUND DVD-V VCD2.0 VCD1.1

This unit can produce a 3D Surround effect, which simulates multichannel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multichannel audio from a home theater system.

- 1 Press DISP during playback.
- 2 Use ▲/▼ to select the sound option. The sound option will be highlighted.
- **3** Use **◄/►** to select "3D SUR". To turn off the 3D Surround effect, select "NORM".



ZOOM DVD-V VCD 2.0 VCD 1.1

The Zoom function allows you to enlarge the video image and to move through the enlarged image.

- 1 Press ZOOM during playback or still playback to activate the Zoom function. If you press ZOOM repeatedly, the magnification level increases up to six steps.
- 2 Use the ▲/▼/◄/▶ buttons to move through the zoomed picture.
- **3** Press CLEAR to resume normal playback or return to the paused image.

NOTE

The zoom function may not work for some DVDs.

MARKER SEARCH DVD-V VCD 2.0 VCD 1.1

You can start playback from a memorized point. Up to nine points can be memorized. To enter a mark, follow these steps.

- 1 During disc playback, press MARKER when playback reaches the spot that you want to memorize. The Marker icon will appear on the TV screen briefly.
- 2 Repeat step 1 to enter up to nine Marker points on a disc.



To Recall a Marked Scene

- **1** During disc playback, press SEARCH. The MARKER SEARCH menu will appear on the screen.
- 2 Within 10 seconds, press **◄/►** to select a Marker number that you want to recall.
- **3** Press ENTER. Playback will start from the marked scene.
- 4 To remove the MARKER SEARCH menu, press SEARCH.

To clear a Marked Scene

- 1 During disc playback, press SEARCH. The MARKER SEARCH menu will appear on the screen.
- **2** Press **◄/▶** to select the Marker number that you want to erase.
- 3 Press CLEAR. The Marker number will be erased from the list.
- **4** Repeat steps 2 and 3 to erase additional Marker numbers.
- 5 To remove the MARKER SEARCH menu, press SEARCH.

SPECIAL DVD FEATURES

MENUS DVD-V

DVDs may offer menus that allow you to access special features. To use the disc menu, press MENU. Then, press the appropriate number button to select an option. Or, use the $\triangle/\nabla/\blacktriangleleft/\triangleright$ buttons to highlight your selection, then press ENTER.

TITLE MENU DVD-V

- 1 Press TITLE. If the current title has a menu, the menu will appear on the screen. Otherwise, the disc menu may appear.
- 2 The menu can list camera angles, spoken language and subtitle options, and chapters for the title.
- 3 To remove the title menu, press TITLE again.

DISC MENU DVDAV

- 1 Press MENU. The disc menu is displayed.
- 2 To remove the disc menu, press MENU again.

CAMERA ANGLE OVEN

If the disc contains scenes recorded at different camera angles, you can change to a different camera angle during playback.

Press ANGLE repeatedly during playback to select a desired angle.
 The number of the current angle appears on the display.



CHANGING THE AUDIO LANGUAGE DVD-V

Press AUDIO repeatedly during playback to hear a different audio language or audio track.



CHANGING THE AUDIO CHANNEL VO2.0 VO11

Press AUDIO repeatedly during playback to hear a different audio channel (STER., LEFT or RIGHT).

SUBTITLES DVD-V

Press SUBTITLE repeatedly during playback to see the different subtitle languages.



NOTE

If " \omega" appears, the feature is not available on the disc.

Operation

OPERATION WITH AUDIO CD AND MP3 / WMA DISC

PLAYING AN AUDIO CD AND MP3 / WMA DISC

CD MP3 WMA

The DVD Player can play MP3/WMA formatted recordings on CD-ROM, CD-R or CD-RW discs. Before playing MP3/WMA recordings, read the notes on MP3/WMA Recordings on right.

1 Insert a disc and close the tray.

Audio CD; Audio CD menu appears on the TV screen go to step 4. **MP3 / WMA** disc; The MP3/WMA-JPEG choice menu appears on the TV screen. Go to step 2



2 Press ▲/▼ to select the MP3/WMA then press ENTER.

The MP3/WMA menu appears on the TV screen. Press RTN to move to the MP3/WMA-JPEG choice menu.



3 Press **▲/▼** to select a folder, and ENTER.

A list of files in the folder appears.

4 Press ▲/▼ to select a track then press PLAY or ENTER.

Playback starts. During playback, the current track's elapsed playing time will appear on the display window and menu. Playback will stop at the end of the disc.

Press TITLE to move to the next page.

Press MENU to move to the previous page.





Audio CD menu

MP3/WMA menu

TIP

If you are in a file list and want to return to the Folder list, use the $\blacktriangle/\blacktriangledown$ to highlight \Longrightarrow and press ENTER to return to the previous menu screen.

5 To stop playback at any other time, press STOP.

NOTES ON MP3/WMA RECORDINGS

ABOUT MP3

- An MP3 file is audio data compressed by using the MPEG1 audio layer-3 file-coding scheme. We call files that have the ".mp3" file extension "MP3 files".
- The player can not read an MP3 file that has a file extension other than ".mp3".

ABOUT WMA (WINDOW MEDIA AUDIO)

- An WMA file is a Microsoft audio compression technology.
- WMA (Windows Media Audio) offers double the audio compression of the MP3 format.

MP3 / WMA Disc compatibility with this player is limited as follows:

- 1 Sampling Frequency / only at 44.1 kHz (MP3), 22.05 44.1 kHz (WMA)
- 2 Bit rate / within 32 320 kbps (MP3), 32 196 kbps (WMA)
- 3 CD-R physical format should be "ISO 9660"
- **4** If you record MP3/WMA files using the software which cannot create a FILE SYSTEM, for example "Direct-CD" etc., it is impossible to playback MP3/WMA files. We recommend that you use "Easy-CD Creator", which creates an ISO9660 file system.
- **5** A single session disc requires MP3/WMA files in the first track. If there is no MP3/WMA file in the 1st track, it cannot playback MP3/WMA files. If you wish to playback MP3/WMA files, format all the data in the disc or use a new one.
- **6** File names should be named using 8 letters or less and must incorporate ".mp3" or ".wma" extension e.g. "*******.MP3" or "******** WMA".
- **7** Do not use special letters such as /:*? "<>" etc.
- 8 Total number of files on the disc should be less than 650. This DVD player requires discs/recordings to meet certain technical standards in order to achieve optimal playback quality. Pre-recorded DVDs are automatically set to these standards. There are many different types of recordable disc formats (including CD-R containing MP3 or WMA files) that require certain pre-existing conditions (see above) to insure compatible playback.

Customers should also note that permission is required in order to download MP3/WMA files and music from the Internet. NAD Electronics International has no right to grant such permission. Permission should always be sought from the copyright owner.

PAUSE CD MP3 WMA

- **1** Press PAUSE/STEP during playback.
- 2 To return to playback, press PLAY or press PAUSE/STEP again.

MOVING TO ANOTHER TRACK CD MP3 WMA

- Press SKIP ►►I or Id briefly during playback to go to the next track or to return to the beginning of the current track.
- Press SKIP I◀ twice briefly to step back to the previous track.
- In case of audio CD, to go directly to any track, enter the track number using the numbered buttons (0-9) during playback.

REPEAT TRACK / ALL / OFF CD MP3 WMA

1 To repeat the track currently playing, press REPEAT. The Repeat icon and "TRACK" appears on the menu screen.

2 To repeat all tracks on a disc, press REPEAT a second time.

The Repeat icon and "ALL" appears on the menu screen.

3 To cancel Repeat mode, press REPEAT a third time. The Repeat icon and "OFF" appears on the menu screen.

OPERATION WITH AUDIO CD AND MP3 / WMA DISC

SEARCH CD MP3 WMA

- 1 Press and hold SCAN ◀ or > ►> during playback. The player will now go into SEARCH mode.
- 2 Press and hold SCAN ◄ or ► repeatedly to select the required speed: ◄ X2, ◄ X4, ◄ X8 (backward) or ► X2, ► X4, ► X8 (forward). Search speed and direction are indicated on the menu screen.
- **3** To exit SEARCH mode, press PLAY.

RANDOM CD MP3 WMA

- 1 Press RANDOM during playback or when playback is stopped. The unit automatically begins Random Playback and RANDOM or "RAND." appears on the display window and menu screen.
- 2 To return to normal playback, press RANDOM repeatedly until RANDOM or "RAND." disappears on the display window and menu screen.

REPEAT A-B

To repeat a sequence:

- 1 During disc playback, press RPT A-B at your chosen starting point. The Repeat icon and "A *" appears on the menu screen.
- 2 Press RPT A-B again at your chosen end point. The Repeat icon and "A B" appears on the menu screen, and the sequence begins to play repeatedly.
- **3** To exit the sequence and return to normal play, press RPT A-B again. The Repeat icon and "OFF" appears on the menu screen.

3D SURROUND ©

This unit can produce a 3D Surround effect, which simulates multichannel audio playback from two conventional stereo speakers, instead of the five or more speakers normally required to listen to multichannel audio from a home theater system.

- 1 Press DISP during playback.
- 2 Use ◄/► to select the sound option. The sound option will be highlighted.
- 3 Use ▲/▼ to select "3D SUR". To turn off the 3D Surround effect, select "NORM".

CHANGING THE AUDIO CHANNEL

Press AUDIO repeatedly during playback to hear a different audio channel (STER., LEFT, or RIGHT).

Operation

OPERATION WITH JPEG DISC

VIEWING A JPEG DISC PEG

This DVD Player can play discs with JPEG files and Kodak picture CD. Before playing JPEG recordings, read the notes on JPEG Recordings on the right.

1 Insert a disc and close the tray.

The MP3/WMA-JPEG choice menu appears on the TV screen.



2 Press ▲/▼ to select the JPEG then press ENTER.

The JPEG menu appears on the TV screen.



3 Press ▲/▼ to select a folder, and ENTER.

A list of files in the folder appears. Press RTN to move to the MP3/WMA-JPEG choice menu.

TIP

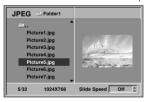
If you are in a file list and want to return to the Folder list, use the $\blacktriangle/\blacktriangledown$ buttons on the remote to highlight " \sqsupseteq " and press ENTER to return to the previous menu screen.

4 If you want to view a particular file, press ▲/▼ to highlight a file and press ENTER or PLAY.

Viewing of the file starts. During viewing a file, press RTN to move to the previous menu (JPEG menu).

Press TITLE to move to the next page.

Press MENU to move to the previous page





TIP

There are three viewing Slide Speed options: Fast, Normal, Slow, and Off. Press ◀/▼ to highlight the Slide Speed then press ▲/▼ to select the option you want to use, and press ENTER.

5 To stop viewing at any other time, press STOP.

The JPEG menu appears.

MOVING TO ANOTHER FILE

Press SKIP I◄ or ▶▶I once during viewing a picture to advance to the next file or to the previous file.

STILL PICTURE

- 1 Press PAUSE/STEP during slide show. The player will now go into PAUSE mode.
- **2** To return to the slide show, press PLAY or press PAUSE/STEP again.

TO FLIP THE PICTURE

Press ▲/▼ during showing a picture to flip the picture horizontally or a vertically.

TO ROTATE PICTURE

Press ◀/▶ during showing a picture to rotate the picture clockwise or counter clockwise.

NOTES ON JPEG RECORDINGS

- Depending upon the size and number of the JPEG files, it could take a long time for the DVD player to read the disc's contents. If you don't see an onscreen display after several minutes, some of the files are too big reduce the resolution of the JPEG files to less than 2 mega pixels and burn another disc.
- Total number of files and folders on the disc should be less than 650.
- Some disc may be incompatible due to different recording format or condition of disc.
- When you are using software such as "Easy CD Creator" to burn the jpeg files into the CD-R, ensure that all the selected files have the ".jpg" extensions when copying into the CD layout.
- If the files have ".jpe" or ".jpeg" extensions, please rename them as ".jpg" files.
- File names without ".jpg" extension will not be able to be read by this DVD player. Even though the files are shown as JPEG image files in windows explorer.

VO2.0 VO1.1 CD MP3 WMA PROGRAMMED PLAYBACK

PROGRAMMED PLAYBACK WITH AUDIO CD AND MP3/WMA DISC

The Program function enables you to store your favorite tracks from any disc in the player memory.

Program can contain 30 tracks.

1 Press PROGRAM during playback or in the stop mode to enter the Program Edit mode.

The mark will appear to the right of the word Program on the right side of the menu screen.

NOTE

Press PROGRAM to exit the Program Edit mode; the 🗉 mark will disappear.

- 2 Select a track, and then press ENTER to place the selected track on the Program list.
- 3 Repeat step 2 to place additional tracks on the Program list.





Audio CD menu

MP3/WMA menu

4 Press ►

The programmed track you selected last is highlighted on the program list.

5 Press ▲/▼ to select the track you want to start playing.

Press TITLE to move to the next page.

Press MENU to move to the previous page.

6 Press PLAY to start.

Playback begins in the order in which you programmed the tracks and "PROG." appears on the menu screen.

Playback stops after all of the tracks on the Program list have played

7 To resume normal playback from programmed playback, select a track of CD (or MP3/WMA) list and then press ENTER. "PROG." indicator disappears on the menu screen.

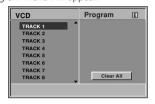
PROGRAMMED PLAYBACK WITH VIDEO CD

NOTE

On a Video CD with PBC, you must set PBC to Off on the setup menu to use the Program function. See page xx

- 1 Insert Video CD and close the tray.
- 2 Press PROGRAM while playback is stopped.

The VCD Program menu will appear.



NOTE

Press RTN or PROGRAM to exit the Program menu.

- 3 Follow steps 2-6 of "Programmed Playback with Audio CD and MP3/WMA disc" on left.
- 4 To resume normal playback from programmed playback, press PROGRAM.

"PROG." indicator disappears in the display window.

REPEAT PROGRAMMED TRACKS

- To repeat the track currently playing, press REPEAT. The Repeat icon and "TRACK" appears on the menu screen.
- To repeat all tracks on the program list, press REPEAT a second time.
 The Repeat icon and "ALL" appears on the menu screen.
- To cancel Repeat mode, press REPEAT a third time. The Repeat icon and "OFF" appears on the menu screen.

ERASING A TRACK FROM PROGRAM LIST

- 1 Press PROGRAM during playback (Audio CD and MP3/WMA disc only) or in the stop mode to enter the Program Edit mode. The El mark will appear.
- **2** Press ► to move to the Program list.
- **3** Use **▲/▼** to select the track that you wish to erase from the Program list.
- 4 Press CLEAR. The track will be erased from the Program list.

ERASING THE COMPLETE PROGRAM LIST

- 1 Follow steps 1-2 of "Erasing a Track from Program List" as above.
- 2 Use ▲/▼ to select "Clear All", and then press ENTER. The complete Program for the disc will be erased. The programs are also cleared when the disc is removed.

Operation

ADDITIONAL INFORMATION

LAST CONDITION MEMORY VO2.0 VO1.1

This player memorizes the user settings for the last disc that you have viewed. Settings remain in memory even if you remove the disc from the player or switch off the player. If you load a disc that has its settings memorized, the latest stop position is automatically recalled.

SCREEN SAVER

The screen saver picture appears when you leave the DVD Player in stop mode for about five minutes. After the Screen Saver has been engaged for about five minutes, the DVD Player will automatically turn itself off.

VIDEO MODE SETTING VO2.0 VO1.1

- With certain discs, the playback picture may be flickering or Dot Crawl is shown on straight lines. That means Vertical interpolation or De-interlace is not perfectly matched with the disc. In this case, the picture quality may be improved by changing the video mode.
- To change the video mode, press and hold DISP about 3 seconds during disc playback. The new video mode number selected is displayed on the TV screen. Check whether the video quality has improved. If not, repeat the above procedure until picture quality is improved.
- Video mode change sequence: MODE1 → MODE2 → MODE3 → MODE1
- If you turn off the power, the video mode will be back to initial state (MODE1).

DETAILED DESCRIPTIONS FOR VIDEO MODES

MODE1: The source material of the DVD video (film material or video material) is determined from disc information.

MODE2: Suitable for playing film based content or video based material recorded by the progressive scan method.

MODE3: Suitable for playing video based content with comparatively little motion.

NOTE

The video mode setting only works when the Progressive Scan mode is set to "On" in the Setup menu.

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

SYMPTOM	CAUSE	CORRECTION		
No power.	The power cord is disconnected.	Plug the power cord into the wall outlet securely.		
The power is on, but the DVD player does not work.	No disc is inserted.	Insert a disc. (Check that the DVD or, audio CD indicator in the display window is lit.)		
No picture.	The TV is not set to receive DVD signal output.	Select the appropriate video input mode on the TV so the picture from the DVD player appears on the TV screen.		
	The video cable is not connected securely.	Connect the video cable securely.		
	The connected TV power is turned off.	Turn on the TV.		
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 player.		
	The audio cables are not connected securely.	Connect the audio cable securely.		
	The power of the equipment connected with the audio cable is turned off.	Turn on the equipment connected with the audio cable.		
	 The Digital Audio Output is set to the wrong position. 	Set the Digital Audio Output to the correct position, then turn on the DVD player again by pressing ON.		
The playback picture is poor.	The disc is dirty.	Clean the disc.		
The DVD player does not start playback.	No disc is inserted.	Insert a disc. (Check that the DVD or audio CD indicator in the DVD display is lit.)		
	An unplayable disc is inserted.	Insert a playable disc. (Check the disc type, color system, and Regional code.)		
	The disc is placed upside down.	Place the disc with the playback side down.		
	The disc is not placed within the guide.	Place the disc on the disc tray correctly inside the guide.		
	The disc is dirty.	Clean the disc.		
	The Rating level is set.	Cancel the Rating function or change the rating level.		
The remote control does not work properly.	The remote control is not pointed at the remote sensor of the DVD player.	Point the remote control at the remote sensor of the DVD player.		
	The remote control is too far from the DVD player.	Operate the remote control within 23 ft (7 m).		
	 There is an obstacle in the path of the remote control and the DVD player. 	Remove the obstacle.		
	The batteries in the remote control are exhausted.	Replace the batteries with new ones.		

Reference

TABLE OF LANGUAGES AND THEIR ABBREVIATIONS

Language Code List

Enter the appropriate code number for the initial settings "Disc Audio", "Disc Subtitle" and/or "Disc Menu"

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

Enter the appropriate code number for the initial setting "Country Code"

Code	Country	Code	Country	Code	Country	Code	Country
AD	Andorra	ER	Eritrea	LC	Saint Lucia	SC	Seychelles
ΑE	United Arab Emirates	ES	Spain	LI	Liechtenstein	SD	Sudan
AF	Afghanistan	ET	Ethiopia	LK	Sri Lanka	SE	Sweden
AG	Antigua and Barbuda	FI	Finland	LR	Liberia	SG	Singapore
Al	Anguilla	FJ	Fiji	LS	Lesotho	SH	Saint Helena
AL	Albania	FK	Falkland Islands	LT	Lithuania	SI	Slovenia
AM	Armenia	FM	Micronesia	LU	Luxembourg	SJ	Svalbard and
AN	Netherlands Antilles	FO	Faroe Islands	LV	Latvia Islands		Jan Mayen
AO	Angola	FR	France	LY	Libya	SK	Slovak Republic
AQ	Antarctica	FX	France (European	MA	Morocco	SL	Sierra Leone
AR	Argentina		Territory)	MC	Monaco	SM	San Marino
AS	American Samoa	GA	Gabon	MD	Moldavia	SN	Senegal
AT	Austria	GB	Great Britain	MG	Madagascar	SO	Somalia
AU	Australia	GD	Grenada	MH	Marshall Islands	SR	Suriname
AW	Aruba	GE	Georgia	MK	Macedonia	ST	Saint Tome and Principe
AZ	Azerbaidjan	GF	French Guyana	ML	Mali	SU	Former USSR
BA	Bosnia-Herzegovina	GH	Ghana	MM	Myanmar	SV	El Salvador
BB	Barbados	GI	Gibraltar	MN	Mongolia	SY	Syria
BD	Bangladesh	— GL	Greenland	MO	Macau	SZ	Swaziland
BE		GM	Gambia	MP	Northern Mariana Islands	TC	Turks and Caicos Islands
	Belgium Burling Fara						
BF	Burkina Faso	GN	Guinea	MQ	Martinique (French)	TD	Chad
BG	Bulgaria	GP GP	Guadeloupe (French)	MR	Mauritania	TF	French Southern
BH	Bahrain	GQ	Equatorial Guinea	MS	Montserrat		Territories
BI	Burundi	GR	Greece	MT	Malta	TG	Togo
BJ	Benin	GS	S. Georgia &	MU	Mauritius	TH	Thailand
BM	Bermuda		S. Sandwich Isls.	MV	Maldives	TJ	Tadjikistan
BN	Brunei Darussalam	GT	Guatemala	MW	Malawi	TK	Tokelau
ВО	Bolivia	GU	Guam (USA)	MX	Mexico	TM	Turkmenistan
BR	Brazil	GW	Guinea Bissau	MY	Malaysia	TN	Tunisia
BS	Bahamas	GY	Guyana	MZ	Mozambique	TO	Tonga
BT	Bhutan	HK	Hong Kong	NA	Namibia	TP	East Timor
BV	Bouvet Island	HM	Heard and McDonald	NC	New Caledonia (French)	TR	Turkey
BW	Botswana		Islands	NE	Niger	TT	Trinidad and Tobago
BY	Belarus	HN	Honduras	NF	Norfolk Island	TV	Tuvalu
ΒZ	Belize	HR	Croatia	NG	Nigeria	TW	Taiwan
CA	Canada	HT	Haiti	NI	Nicaragua	TZ	Tanzania
CC	Cocos (Keeling) Islands	HU	Hungary	NL	Netherlands	UA	Ukraine
CF	Central African Republic	ID	Indonesia	NO	Norway	UG	Uganda
CG	Congo	IE	Ireland	NP	Nepal	UK	United Kingdom
СН	Switzerland	IL	Israel	NR	Nauru	UM	USA Minor Outlying
CI	Ivory Coast	IN	India	NU	Niue		Islands
CK	Cook Islands	IO	British Indian Ocean	NZ	New Zealand	US	United States
CL	Chile		Territory	OM	Oman	UY	Uruguay
CM	Cameroon	IQ	Iraq	PA	Panama	UZ	Uzbekistan
CN	China	IR	Iran	PE	Peru	VA	Vatican City State
CO	Colombia	IS	Iceland	PF	Polynesia (French)	VC	Saint Vincent &
CR	Costa Rica	IT	Italy	PG	Papua New Guinea	• • •	Grenadines
CS	Former Czechoslovakia	JM	Jamaica	PH	Philippines	VE	Venezuela
CU	Cuba	JO	Jordan	PK	Pakistan	VG	Virgin Islands (British)
	Cape Verde	JP			Poland	VI	
CV	<u> </u>		Japan	PL		VN	Virgin Islands (USA)
CX	Christmas Island	KE	Kenya	PM	Saint Pierre and Miquelon		Vietnam
CY	Cyprus	KG	Kyrgyzstan	PN	Pitcairn Island	VU	Vanuatu
CZ	Czech Republic	KH	Cambodia6	PR	Puerto Rico	WF	Wallis and Futuna Islands
DE	Germany	KI	Kiribati	PT	Portugal	WS	Samoa
DJ	Djibouti	KM	Comoros	PW	Palau	YE	Yemen
DK	Denmark	KN	Saint Kitts & Nevis Anguilla	PY	Paraguay	YT	Mayotte
DM	Dominica	KP	North Korea	QA	Qatar	YU	Yugoslavia
DO	Dominican Republic	KR	South Korea	RE	Reunion (French)	ZA	South Africa
DZ	Algeria	KW	Kuwait	RO	Romania	ZM	Zambia
EC	Ecuador	KY	Cayman Islands	RU	Russian Federation	ZR	Zaire
EE	Estonia	KZ	Kazakhstan	RW	Rwanda	ZW	Zimbabwe
EG	Egypt	LA	Laos	SA	Saudi Arabia		
EH	Western Sahara	LB	Lebanon	SB	Solomon Islands		

Reference

SPECIFICATIONS

GENERAL

Power requirements AC 110-240V, 50/60 Hz

Power consumption 14W

Dimensions (approx.) 435 X 55 X 241 mm (w x h x d)

Weight (approx.) 2.4 kg

Operating temperature 5°C to 35°C (41°F to 95°F)

Operating humidity 5 % to 90 %

SYSTEM

Laser Semiconductor laser, wavelength 650 nm

Signal system NTSC

Frequency response DVD (PCM 96 kHz): 8 Hz to 44 kHz

DVD (PCM 48 kHz): 8 Hz to 22 kHz

CD: 8 Hz to 20 kHz

Signal-to-noise ratio More than 100dB (ANALOG OUT connectors only)

Harmonic distortion Less than 0.008%

Dynamic range More than 100 dB (DVD)

More than 95 dB (CD)

OUTPUTS

VIDEO OUT 1 Vp-p 75 ohms, sync negative, RCA jack x 1

S-VIDEO OUT (Y) 1.0 V (p-p), 75 ohms, negative sync, Mini DIN 4-pin x 1

(C) 0.3 V (p-p) 75 ohms

COMPONENT VIDEO OUT (Y) 1.0 V (p-p), 75 ohms, negative sync, RCA jack x 1

(Pb)/(Pr) 0.7 V (p-p), 75 ohms, RCA jack x 2

Audio output (digital audio) 0.5 V (p-p), 75 ohms, RCA jack x 1 Audio output (optical audio) 5 V (p-p), 75 ohms, Optical connector x 1

INPUTS

+ 12V Trigger input center pin +12V at 50 mA, subminiature banana jack x 1

ACCESSORIES

Video cable 1 Audio cable 1 Remote control 1 Batteries 2

Design and specifications are subject to change without notice.

Manufactured under license from Dolby Laboratories. Dolby, MLP Lossless and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works. Copyright 1992-1997 Dolby Laboratories. All rights reserved.

"DTS' and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.



©2003 NAD ELECTRONICS INTERNATIONAL A DIVISION OF LENBROOK INDUSTRIES LIMITED