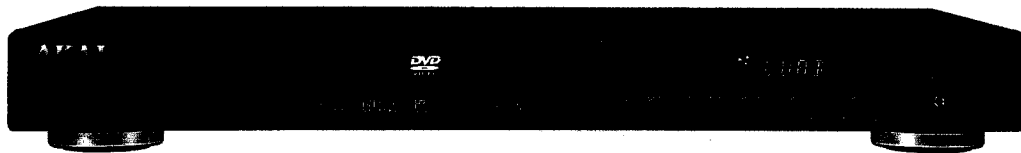


DVPS-760

Instruction Manual



PROGRESSIVE SCAN

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Information to the user

INFORMATION TO THE USER:

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 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

WARNING:

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURER COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT

DO NOT DEFEAT THE SAFETY PURPOSE OF THE POLARIZED OR GROUNDING-TYPE PLUG. A POLARIZED PLUG HAS TWO BLADES WITH ONE WIDER THAN THE OTHER. A GROUNDING TYPE PLUG HAS TWO BLADES AND A THIRD GROUNDING PRONG. THE WIDE BLADE OR THE THIRD PRONG ARE PROVIDED FOR YOUR SAFETY. IF THE PROVIDED PLUG DOES NOT FIT INTO YOUR OUTLET, CONSULT AN ELECTRICIAN FOR REPLACEMENT OF THE OBSOLETE OUTLET.

CLASS 1 LASER PRODUCT

Safety Information

NOTE:

THIS PLAYER MUST BE USED ONLY WHERE THE POWER SUPPLY IS AC 100-240V, 50/60Hz. IT CANNOT BE USED ELSEWHERE.

CAUTION:

DVD/VIDEO CD/CD PLAYER IS A CLASS 1 LASER PRODUCT. HOWEVER THIS DVD/VIDEOCD/CD PLAYER USES A INVISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION EXPOSURE IF DIRECTED. BE SURE TO OPERATE THE DVD/VIDEO CD/CD PLAYER CORRECTLY AS INSTRUCTED.

WHEN THIS DVD PLAYER IS PLUGGED TO THE WALL OUTLET, DO NOT PLACE YOUR EYES CLOSE TO THE OPENING OF THE DISC TRAY AND OTHER OPENINGS TO LOOK INTO THE INSIDE OF THIS UNIT.

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

DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL. SERVICING IS REQUIRED WHEN THE APPARATUS HAS BEEN DAMAGED IN ANY WAY, SUCH AS 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.

DO NOT BLOCK ANY VENTILATION OPENINGS, INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE, USE THE RECOMMENDED ACCESSORIES ONLY.

APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

- ☞ To the risk of electric shock, do not remove the cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.
- ☞ The lightning flash with arrowhead symbol, within a triangle, is intended to alert the user to the presence of uninsulated "dangereous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
- ☞ The exclamation point within an equilateral triangle is intended to alert to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Precautions

Please read these precautions before operating this unit.

☛ Placement

Avoid placing the unit in areas of :

- direct sunlight, heating radiators, registers, stoves or other apparatus that produce
- high temperature, high humidity or closed automobiles
- excessive dust or near water
- vibration, impact or where the surface is tilted, as the internal parts may be seriously damaged.

☛ Stacking

- Place the unit in a horizontal position, and do not place anything heavy on it.
- Do not place the unit on amplifiers or other equipment which may become hot.
- Do not move the unit when tray is opened. To close tray, connect AC power cord and wait until tray closes or press OPEN/CLOSE button to close.
- Clean only with dry cloth.

☛ Power Cord Protection

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

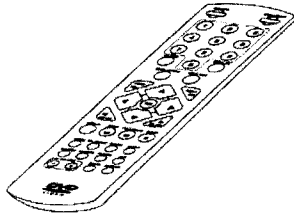
- Do not connect or disconnect the AC power cord when your hands are wet.
- Keep the AC power cord away from heating appliances.
- Do not attempt to repair or reconstruct the AC power cord in any way.
- If the unit has been dropped or otherwise damaged, turn off the power and disconnect the cord.
- Hold your plug tightly when connecting or disconnecting the AC power cord to this unit.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

☛ Non-use periods

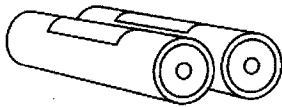
- When the unit is not being used, turn the power off.
- Unplug this apparatus during lightning storms or when unused for long periods of time.

N.B. When you plug in the AC Power after taking the plug off from the outlet, you should wait at least 10 seconds before plugging in order to prevent the possible malfunction.

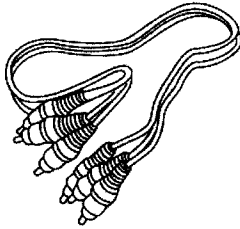
Accessories



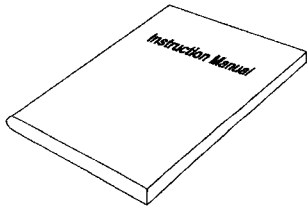
Remote Control Unit (RCU) X 1



Batteries for Remote Control Unit X 2
(SIZE AAA 1.5V)



Audio/Video Cable X 1



Instruction Manual x 1

Features

- Full compatibility with DVD, Video CD (1.1, 2.0,), S-VCD and Audio CD

DVD Video	Yes	Region 1 or All
Video CD	Yes	Version 1.0/1.1/2.0 SVCD/CVD
CD	Yes	PCM or dts
CD-G	Yes	Only Audio
CD-ROM	Yes	MP3, JPEG, Kodak picture CD file/Up to 256 files
CD-R	Yes	Video-CD / CD / CD-ROM (with MP3 JPEG, Kodak picture CD file)
CD-RW	Yes	Video-CD / CD / CD-ROM (with MP3 JPEG, Kodak picture CD file)
DVD-ROM	No	
DVD-R	Yes	DVD Video only
DVD-RAM	No	
DVD+RW	No	
Photo CD	No	Kodak picture CD
Etc	No	



[8cm / 12cm disc]



[8cm / 12cm disc]



[8cm / 12cm disc]



MP3



JPEG



Kodak picture CD

- **Region Management Information**

This unit is designed and manufactured to respond to the Region Management Information that is recorded on a DVD disc. The Region number of this player is "1". If the region number described on the DVD discs does not correspond to the Region number of this player, the player will not play this disc. This player will play DVD discs made for "ALL" regions. Therefore, this player will play DVD discs marked with labels containing the region number "1" or "ALL".



(Region 1)



(Region ALL)

Other Functions

- MP3 Play function (CD-ROM MP3 file playback control)
- Progressive scan video out(480P)
- Smart Scale of video for any TV type (PAL and NTSC)
- GUI (Graphical User Interface) through on-screen display

By using the DISPLAY button on the Remote Control Unit or front panel, information on the DVD/VCD/CD player and disc, can be displayed on the TV screen.

- Screen saver mode when idle
- Dolby Pro Logic
- 3D Virtual Surround (from just 2 Speakers)
- High bit / high sampling with **27 MHz / 10 bit video encoder**

This unit has 27MHz / 10 bit capability, that enables the faithful reproduction of fine images.

- High bit / high sampling with **192 KHz / 24 bit audio D/A converter**
- Coaxial digital outputs for PCM, Dolby Digital, and Digital Theatre System (dts).

By connecting a Dolby Digital/dts decoder or an amplifier incorporating a Dolby Digital/dts decoder, you may enjoy high quality digital surround sound from Dolby Digital/dts discs.

- Built-in Dolby Digital decoder
- Audio analog output for 2-channel DOWNMIX (x1)
- Component video out (x1)
- Composite video out (x1)
- S-Video out (x1)
- Slow Forward/Reverse Play

- Fast Forward/Reverse Play
- Title, Chapter and Time search for DVD, Track and Time search for VCD and CDs.
- Multi Screen Aspect Ratio
 - 4:3 Pan and Scan, 4:3 Letter Box and 16:9 Wide
- Repeat mode (Title/Chapter for DVD, Track (One)/Disc (All) for VCD and A-B for Both)
- Marker function
 - This player can store up to 5 positions in memory, for convenient access, as desired.
- Program function (VCD only)
- Child key lock function
- 8 OSD (On Screen Display) languages function
 - This player can support eight on-screen-display languages (English, Swedish, French, German, Italian, Danish, Portuguese).
- Parental Lock function (DVD only)
 - This function can prevent playback of software that may be unsuitable for children.
- Multi Audio function (DVD only)
 - The audio soundtrack can be heard in up to 8 languages. In case of SVCD or CVD, it depends on the disc. (The number of audio languages depends on the software.)
- Multi Subtitle function (DVD only)
 - The subtitle can be seen in up to 32 languages. In case of SVCD or CVD, it depends on the disc. (The number of subtitle languages depends on the software).
- Multi Angle function (DVD only)
 - This function allows you to choose the viewing angle of scenes which were shot from a number of different angles. (The number of angles depends on the software).
- Closed caption (NTSC only)
- Smart Zoom display function
- Digest function (VCD with PBC off only)
- Firmware upgradable

Definition of Terms

CDDA

Compact Disc Digital Audio

SVCD

SVCD short for Super Video CD. It's a kind of integrated Video CD.

DVD

Digital Versatile or Video Disc. DVD is a high dense optical disc recorded with high quality pictures and sound.

MP3

Audio compression format that enables audio files to be stored and transferred on a computer with a relatively small file size. It enables you to enjoy CD quality music. (Short for MPEG-1 Layer 3)

PBC

This is recorded on a Video CD 2.0, Video CD 3.0, SVCD and CVD. The scenes or information to be viewed (or listened to) can be selected interactively with the TV monitor by looking at the menu shown on the TV monitor. It stands for Play Back Control.

CHAPTER

A title is subdivided into many sections, each section is numbered, and specific parts of video presentations can be searched quickly using these numbers.

TITLE

When a disc contains one or more movies, these movies are split into titles.

TRACK

Numbers are assigned to the tracks, which are recorded on Video CDs and CDs.

dts

Digital Theatre System is a 5.1-channel surround sound system, which is widely used in movie theatres around the world. It enables the bit rate to be increased to provide good sound quality.

Multi Angle

Some DVD discs contain the various scenes that have been simultaneously shot from a number of different angles.

Dolby Digital

A versatile and popular digital audio coder developed by Dolby Laboratories, Inc. It allows the use of low data rates while still achieving excellent sound quality for 1 to 5.1 channels of audio.

Dolby Pro Logic

A popular active decoder for creating up to four channels of audio from Dolby Surround-encoded 2-channel material.

PCM

Linear PCM is a signal-recording format used in a CD, While CD is recorded in 44.1 kHz/16 bit, a DVD is recorded in 48 KHz/16 bit up to 96 KHz/24 bit.

Bitstream

A digital signal that comes out of CD and DVD players. Bitstreams can contain Dolby Digital, dts, PCM, or other kinds of data.

L/R/C/LFE/LS/RS

In Dolby Digital and dts, a total 6 channels are used. 3 channels for front, 2 channels for surround and 1 channel for subwoofer. They are a front left, a front right, a center, a subwoofer, a rear left and a rear right. L stands for front left, R for front right, C for center, LFE for subwoofer, LS for rear left surround and RS for rear right surround.

DOWNMIX

In some listening situations, the audio output channel configuration will not match the encoded channel format on the disc. 'Downmixing' is required in order to reproduce the complete audio program. The downmix takes the information in the channels which do not have corresponding outputs and mixes this information into the remaining channels.

S-VIDEO

The S-VIDEO output separates the color (C) and luminance (Y) signals before transmitting them to the TV set in order to achieve a sharper picture. So this must be selected from the menu to enable the S-VIDEO output to function.

Component video

Component video Output produce the highest quality picture through the 3-wire transmission. Connectors may be labeled YUV, YPbPr, YcbCr, Y/B-Y/R-Y.

Progressive Scan Video

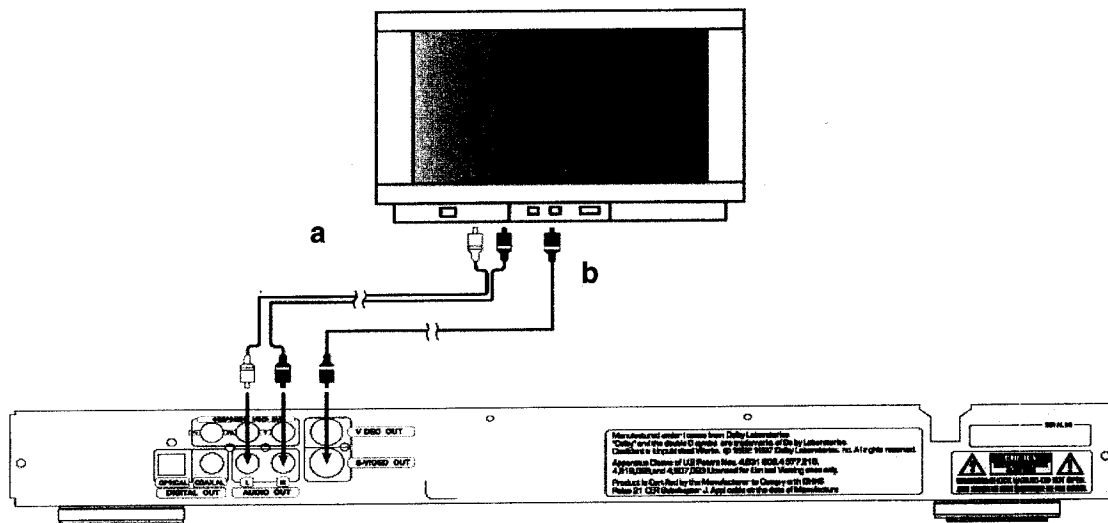
Progressive Scan Video output provides a film-like, flicker-free image with improved vertical resolution and smoother motion when connected HDTV-compatible television.

Basic Connection

- **N.B.** First of all, read through the instructions before connecting other equipment. Make sure that this unit and other equipment to be connected are set to the standby mode or off, and disconnect the AC mains before starting connection. In order for air to circulate freely, please do not block ventilation holes of any of the equipment. Select the appropriate screen size at the initial setting according to your TV set, conventional 4:3 or wide screen 16:9.

- **N.B. TV MODE SETTING**

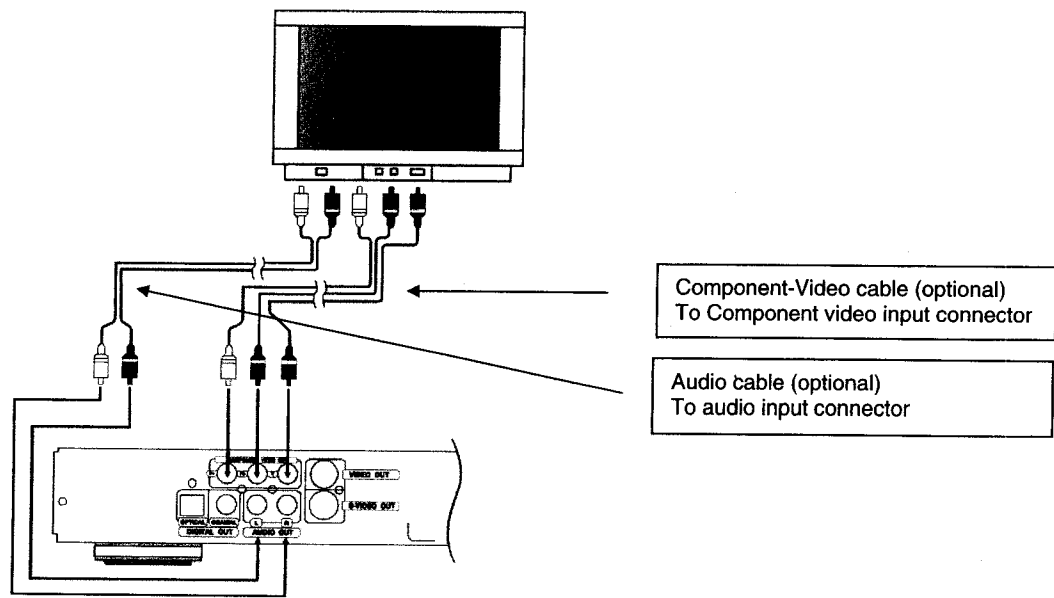
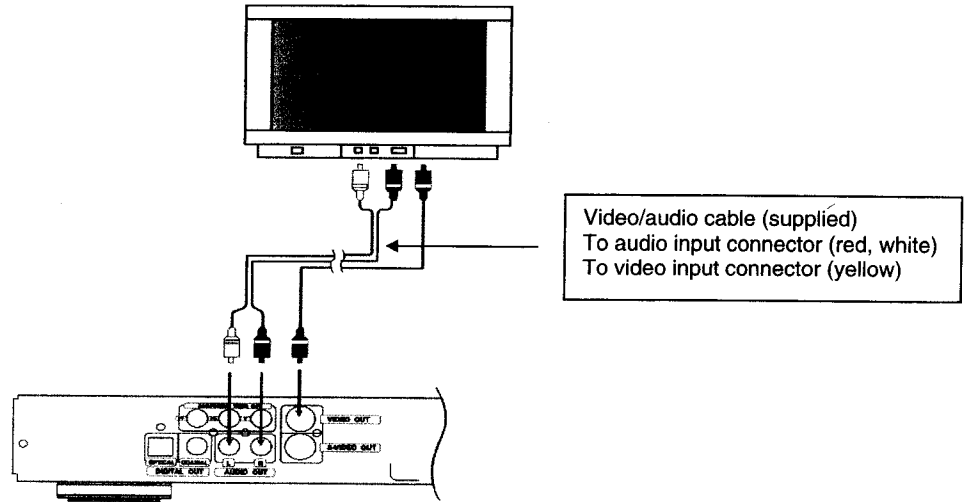
TV MODE setting(SETUP MENU)	VIDEO Output		
	Composite Jack	S-Video Jack	Component Jack
YPbPr (480i)	CVBS	X	Interlace(480i)
YPbPr (480p)	X	X	Progressive(480p)
SVIDEO	CVBS	S-VIDEO	X



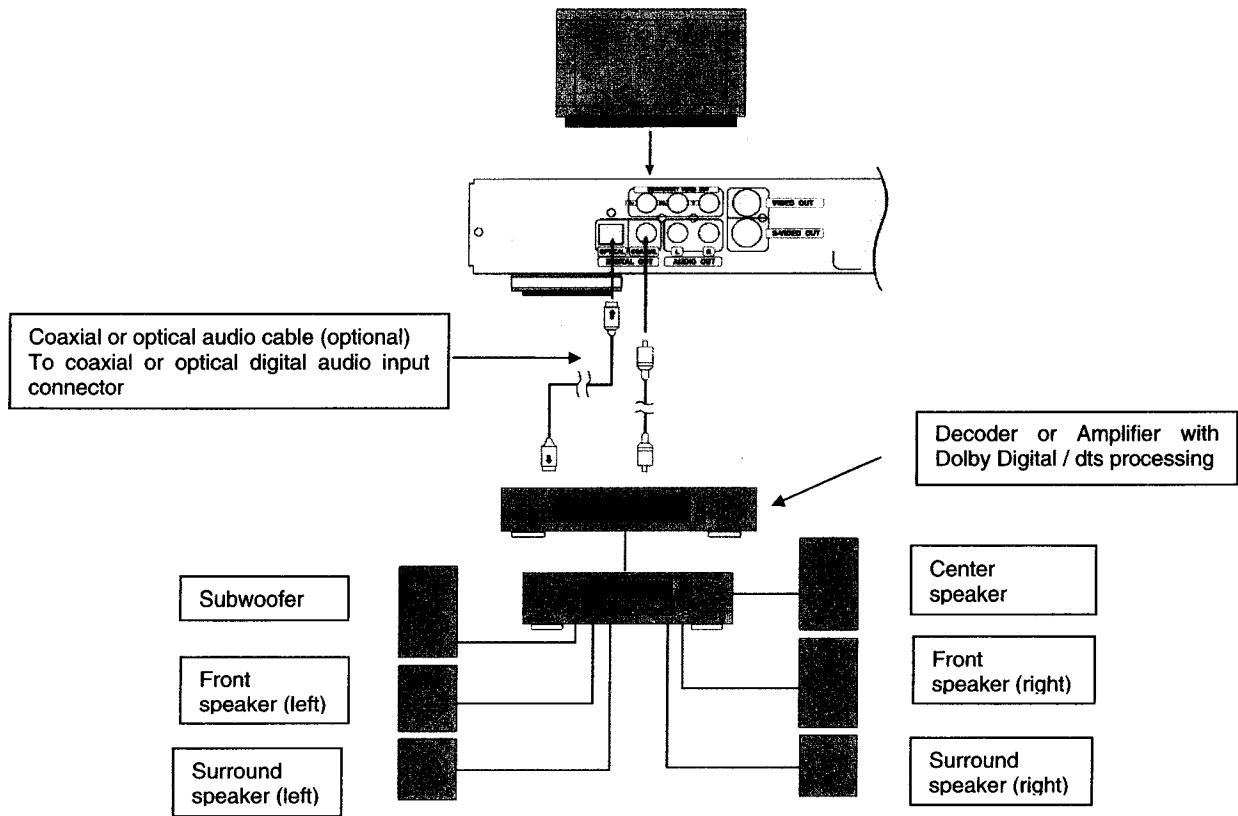
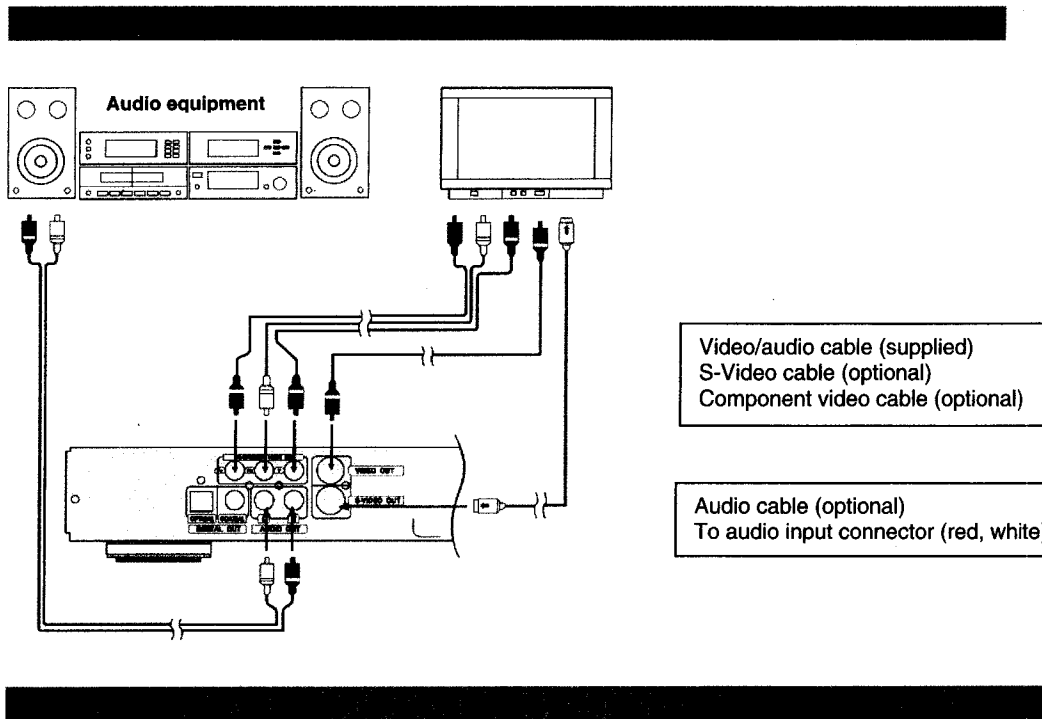
a. audio cable
To audio input connectors on TV (red, white)

b. S-Video cable.
To S-Video input connector on TV

- **N.B.** From the SETUP menu display, set the TV MODE to SVIDEO.

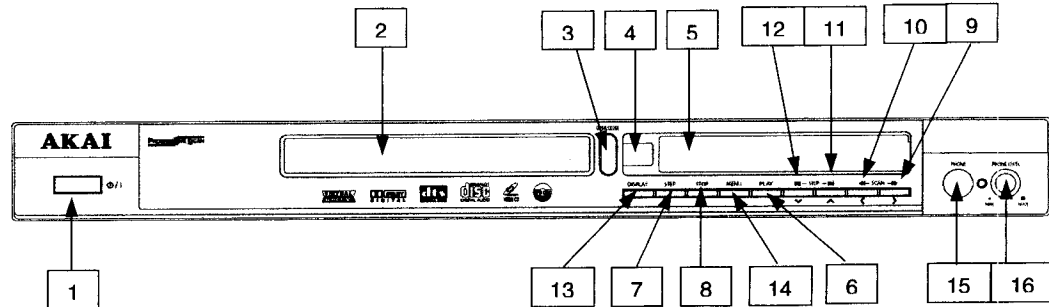


- **N.B.** From the SETUP menu display, set the TV MODE to YPbPr (480p) if your TV has progressive(480p) video input and set the TV MODE to YPbPr (480i) if your TV has interface(480i) video input .
- **N.B.** All HD TV are compatible with this player but some TV may cause artifacts in the picture.
- **N.B.** If you set TV mode to YPbPr(480p)[progressive scan mode],you can't see the picture with your Analog TV or some digital TV. In this case, press stop button for 5 seconds of your remote controller then you can see the picture on the interface mode with your TV.



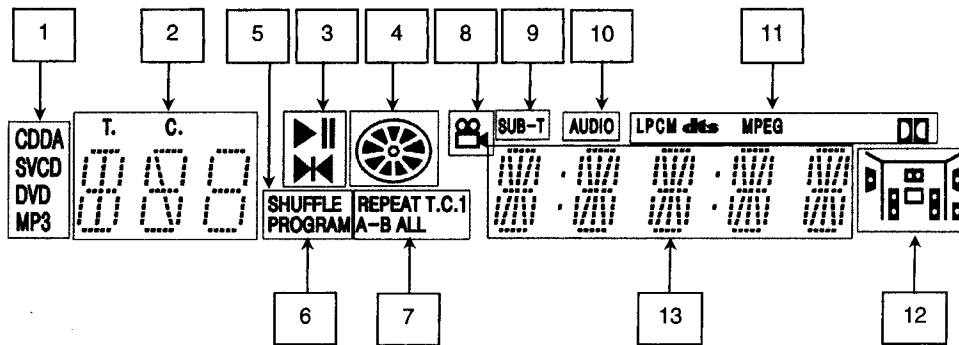
Control Reference Guide

1. Front Panel



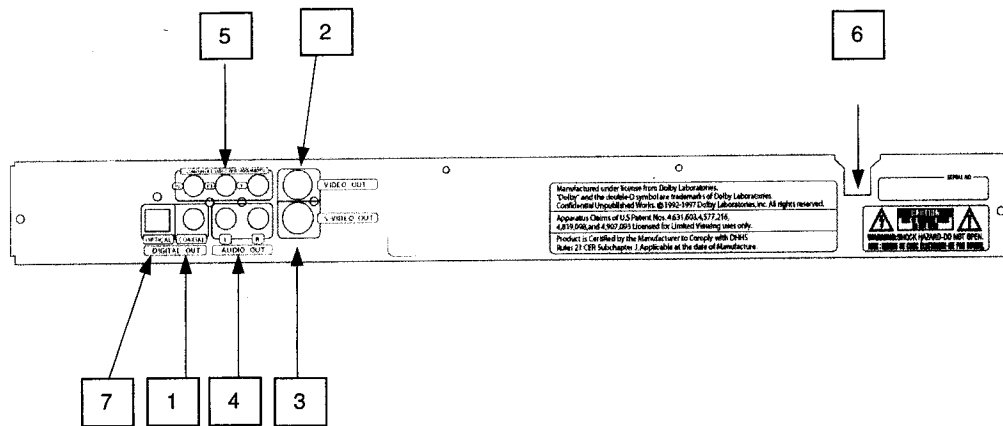
- 1 POWER (STANDBY/ON) button**
To switch the unit On or Off when connected to AC power outlet.
- 2 DISC TRAY**
To load or unload a disc. Put a disc to be played on here.
- 3 OPEN/CLOSE button**
To open or close the disc tray.
- 4 REMOTE SENSOR**
Receives a light signal from the remote controller.
- 5 FLUORESCENT DISPLAY**
Displays operation status (Refer to diagram at 2. Fluorescent Display).
- 6 PLAY/SELECT button**
To play the loaded disc. Press this button to go to the preferred item when the menu is displayed on the TV screen.
- 7 STEP button**
Used to view one frame at a time during play. When you continue pressing this button, it will function continuously. Press PLAY/SELECT button for normal play.
- 8 STOP button**
To stop playing. If using a Video CD 2.0, SVCD or CVD with PBC, this button works as a RETURN function to move to the previous menu. Use the PBC button on remote controller to stop.
- 9 FF (Fast Forward) button**
To play the disc fast forward. It can also be used as a Slow Forward button when in pause or step mode or a right arrow button when in menu mode.
- 10 FR (Fast Reverse) button**
To play the disc fast reverse. It can also be used as a Slow Reverse button when in pause or step mode or a left arrow button when in menu mode.

- 11 NEXT button**
To skip forward to the next chapter (for DVD) or track (for VCD or CD). When in menu mode, this button also works as an up arrow(▲) button. If playing a Video CD with PBC, this button works as the NEXT button to move to the next play list.
- 12 PREV button**
To skip back from the current chapter (for DVD) or track (for VCD or CD). When in menu mode, this button also works as a down arrow(▼) button. If playing a Video CD with PBC, this button works as the PREV button to move to the previous play list
- 13 DISPLAY button**
Multiple functions are included in this button. Viewing the playing information and title, chapter or track search, time search. Bit rate meter function for DVD is also possible. See 6.8 DISPLAY for more information
- 14 MENU button**
To view the general information for the current loaded disc such as language selection, audio output selection and subtitle language selection and so on
- 15 PHONES**
Used to make connection with the head phone. Please insert the head phone jack into this socket. The downmix mode is selected automatically whenever the headphones are plugged in.
- 16 PHONES LEVEL**
Used to adjust the phone volume.



- 1 **CDDA/SVCD/DVD/MP3**
Illuminates the type of a disc loaded on disc tray
- 2 **TITLE/CHAPTER**
Illuminates the information of the TITLE or CHAPTER of the DVD disc under play
- 3 **PLAY/PAUSE/STEP**
Illuminates the current operation mode
- 4 **ROTATION**
Rotates when the disc is spinning
- 5 **SHUFFLE**
Illuminates under shuffle mode (Video CD with PBC off or CDDA only)
- 6 **PROGRAM**
Illuminates under program mode (Video CD with PBC off or CDDA only)
- 7 **REPEAT T, C, 1, A-B, ALL**
Illuminates when the current play mode is under repeat title, chapter, track (single), A-B, disc (all) respectively
- 8 **ANGLE**
Indicates the current disc being played is viewed as multi angle. This function only works for discs having scenes recorded at different angles
- 9 **SUB-T**
Indicates the current disc under play has multi subtitle. This function only works for discs having recordings with multiple subtitle languages
- 10 **AUDIO**
Indicates the current disc under play has multi audio soundtrack languages. This function only works for discs having recordings in multiple audio soundtrack languages
- 11 **DTS, LPCM, MPEG, [DTS]**
Indicates the audio type of the disc under play is DTS, LPCM, MPEG or [DTS]
- 12 **L, C, R, LFE, LS, S, RS**
Indicates the audio channel information of the disc under play. For DVD discs having the Dolby Digital audio
- 13 **TIME**
Indicates time information and sometimes system information like STOP, MENU and so on

3. Rear Panel



1 DIGITAL OUT (COAXIAL)

Connects digital audio under play mode into an AV amplifier or a receiver equipped with digital audio decoder for you to enjoy the theatre-quality sound in your home.

2 VIDEO OUT

Connects composite video signal to input AV/SCART or PHONO sockets of TV or monitor to achieve high fidelity colour reproduction.

3 S-VIDEO OUT

Connects to TV or monitor equipped with S-VIDEO input. In order to achieve a sharper and cleaner picture than that when connected via VIDEO OUT (composite video).

4 AUDIO OUT

Two phono sockets for analogue 2 channel audio output in order to connect to a TV or stereo amplifier.

5 COMPONENT VIDEO OUT(480i or 480p)

Connects component video signal to component video input connector on TV, if your TV supports interlace video input(480i) or Progressive video input(480p).

6 AC in power cord connection terminal

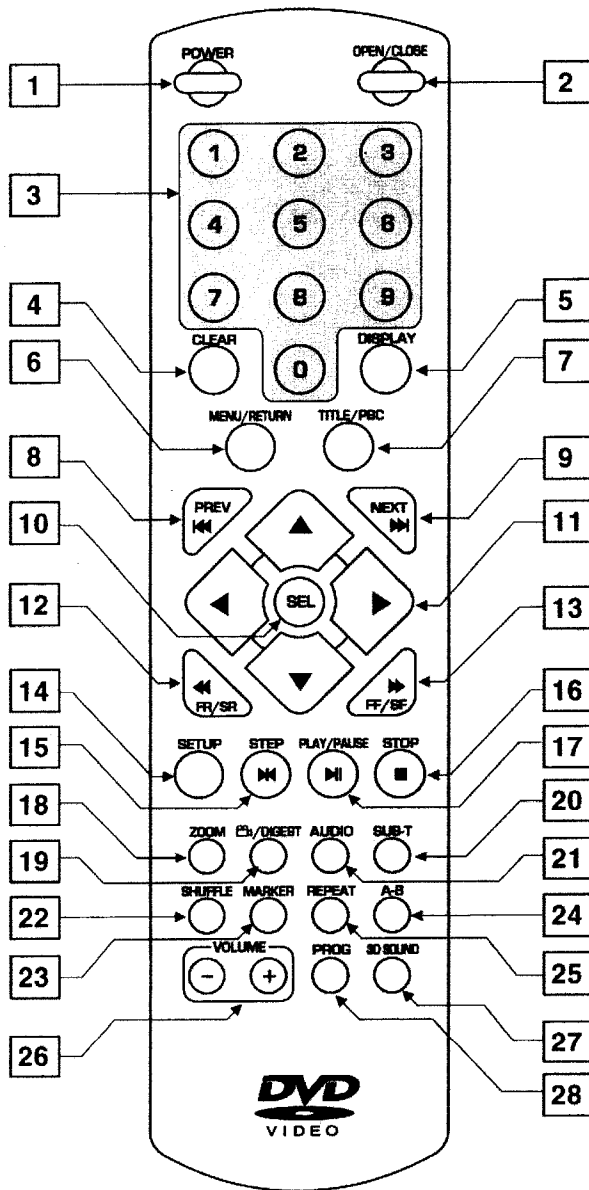
Creates POWER between wall outlet and the unit.


7 DIGITAL OUT (OPTICAL)

Connects digital audio under play mode into an AV amplifier or a receiver equipped with digital audio decoder for you to enjoy the theatre-quality sound in your home

- **N.B.** Remove the dust protection cap from the optical digital audio output connector and connect the cable firmly so that the configurations of both the cable and connector match.
- **N.B.** Do not connect to the digital audio input of an amplifier that does not have Dolby Digital and dts decoder when you set the digital out option of setup information to BITSTREAM.

4. Remote Controller Unit



1. POWER
2. OPEN/CLOSE
3. NUMERIC BUTTONS (1-9, 0)
4. CLEAR
5. DISPLAY
6. MENU/RETURN
7. TITLE/PBC
8. PREV
9. NEXT
10. SEL (SELECT)
11. ARROW (Left, Right, Up, Down)
12. FR/SR
13. FF/SF
14. SETUP
15. STEP
16. STOP
17. PLAY/PAUSE
18. ZOOM
19.  (ANGLE)/ DIGEST
20. SUB-T(SUBTITLE)
21. AUDIO
22. SHUFFLE
23. MARKER
24. A-B
25. REPEAT
26. VOLUME (+, -)
27. 3D SOUND
28. PROG(PROGRAM)

- Numbers for each button on the remote control unit will be indicated in parenthesis mark starting from the next page.

4.1 General Function for Remote Control Unit

- 1 **POWER (1)**
Activates the unit POWER ON or STANDBY.
- 2 **OPEN/CLOSE (2)**
After pressing power button, press OPEN/CLOSE button to open or close the disc tray. If pressed under STAND BY, power is automatically turned on and the tray is opened.
- 3 **NUMERIC (3)**
Used from the menu to select, title/chapter search, time search and direct track number.
- 4 **CLEAR (4)**
Used when discarding wrong number input, returning to normal play during slow or search. This button can also be used when clearing zoom state.
- 5 **VOLUME +/- (26)**
Used when adjusting analogue audio output level. This function doesn't work if using digital audio output utilizing the coaxial or optical connector.


4.2 Basic Function

- 1 **PLAY/PAUSE (17, ▶|)**
Use this button to play or pause the disc. Pressing this button during play, causes the disc to pause if in pause mode it functions as the PLAY button.
- 2 **STOP / RETURN button (16, ■ / 6)**
To stop the current playing mode, press STOP button.
When using VIDEO CD 2.0, CVD, and SVCD with PBC function included, this button works as a RETURN button. To stop PBC disc, use PBC button (7).
Press the stop key for 5 seconds to convert progressive scan mode into interlace mode.
- 3 **STEP button (15, ⏮)**
Use this button to play one frame at a time. To do step backward, press this button during reverse operation i.e. fast reverse or slow reverse.
- 4 **FF/SF (13, ▶▶)**
To play a disc fast forward or slow forward. During pause or step state, this button works as Slow Forward. See 5.7 and 5.9 for more information.
- 5 **FR/SR (12, ◀◀)**
To play a disc fast reverse or slow reverse. During pause or step state, this button works as Slow Reverse. See 5.7 and 5.9 for more information.
- 6 **NEXT (9, ▶▶)**
Used to move to the next chapter (DVD) or track (VCD or CDDA) from the current chapter or track. Pressing this button shows next play list when playing VCD with PBC. See 5.8 for more information.
- 7 **PREV (8, ◀◀)**
Used to move to the previous chapter (DVD) or track (VCD or CDDA) from the current chapter or track. Pressing this button shows previous play list when playing VCD with PBC. See 5.8 for more information.

4.3 Advanced Functions

- 1 REPEAT (25, Except VCD with PBC on)**
To set up the repeat viewing during play. Two repeat modes are possible. When using a DVD, REPEAT C repeats the current chapter and REPEAT T repeats all chapters in the current title. When using a VCD with PBC off or CDDA, REPEAT 1 repeats the current track and REPEAT ALL repeats all tracks on the disc. To clear the repeat function, press this button until you see REPEAT OFF on the TV screen. Turn off PBC to use this function on VCD with PBC included. See 6.3 for more information.
- 2 A-B (24, Except MP3)**
To repeat the selected segment. The moment you press this button during play, the starting point for the desired segment is selected. When you press this button again, the ending point is selected and starts repeated play of the selected segment automatically. Press this button again to cancel the repeating of the selected segment. See 6.2 for more information.
- 3 PROG(PROGRAM (28, VCD with PBC off and CDDA only))**
Use this button to play the tracks, which you want to watch. You can program desired tracks up to the total programmed time of 99 minutes. Turn off PBC to use this function on VCD with PBC included. See 6.5 for more information.
- 4 SHUFFLE (22, VCD with PBC off and CDDA only)**
Use this button to play the loaded disc in a random order. Turn off PBC to use this function on VCD with PBC included. See 6.4 for more information.
- 5 DIGEST (19, VCD with PBC off and CDDA only)**
Use this button to do quick search or preview the disc contents. This function shows thumbnail contents of the loaded disc. Turn off PBC to use this function on VCD with PBC included. See 6.6 for more information.
- 6 ZOOM (18, Except CDDA and MP3)**
Enlarges DVD or VCD screen images up to eight times. You may also move the image using left, right, up and down arrow button (9). See 6.9 for more information.
- 7 MARKER (23, Except MP3)**
Stores playing point up to five locations for the easy search, when you want to move to the stored playing point. See 6.7 for more information.
- 8 DISPLAY (5, Except MP3)**
This button has multiple functions. Supports search of a chapter/title for DVD or a track for VCD and CDDA. Also shows information for elapsed or remaining time. On DVD, you may see bit rate meter. See 6.8 for more information.
- 9 3D SOUND (27)**
Adds 3D surround effect to analogue audio output. There are 4 surround modes. See 6.1 for more information.
- 10 PBC (7, VCD with PBC only)**
You may turn on or off the PBC function by pressing this button. When the VCD with PBC is loaded, PBC function is enabled automatically. Video CD 2.0, SVCD and CVD are PBC controllable.

4.4 DVD Function

- 1 **TITLE (7)**
Used to display the title menu of the loaded DVD disc. This function is disc dependent. A DVD disc may not contain the title menu. See 5.5 for more information.
- 2 **MENU (6)**
Used to display the contents menu of the loaded DVD disc. This function is disc dependent. A DVD disc may not contain a contents menu. See 5.5 for more information.
- 3  **(ANGLE (19))**
Used to select a different angle when the loaded DVD disc supports multiple angles. This function is a disc dependent. Many DVD discs don't support multiple angles. See 5.12 for more information.
- 4 **SUB-T(SUBTITLE (20))**
Used to change the subtitle language to a different language or off from the one selected at the initial settings, when the loaded disc supports multiple languages. See 5.11 for more information.
- 5 **AUDIO (21)**
Used to change the audio language to a different language from the one selected at the initial settings, when the loaded disc supports multiple audio languages. See 5.10 for more information.

4.5 SETUP Function

- 1 **ARROW (11, ◀/▶/▲ ▼)**
Used to move to the desired menu and moves the image center of an enlarged screen in zoom mode. Also can be used in marker or display function.
- 2 **SEL(SELECT (10))**
Used to select the menu item. When pressed during STOP, PAUSE, STEP, SEARCH or SLOW state, it also cancels the current state and converts to PLAY mode.
- 3 **SETUP (14)**
Sets up the various operation information of this unit to customize DVD performance. See 7 for more information.

5. Using Basic Function

5.1 Open/Close Disc Tray

1 Connect to AC power

When AC power is connected, the STAND-BY LED on the front panel is turned on.

2 Press POWER button

When the POWER button is pressed, the STAND-BY LED turns off. TV or monitor screen shows the initial pictures as shown below.

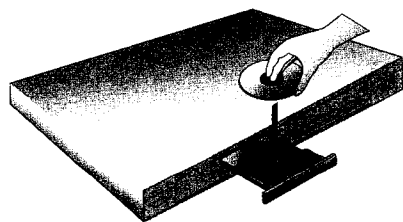


3 Press OPEN/CLOSE button

When the disc tray opens, OPEN message is displayed on TV screen and Fluorescent display on front panel simultaneously.



4 Load your selected disc using disc tray guide with logo-printed side up

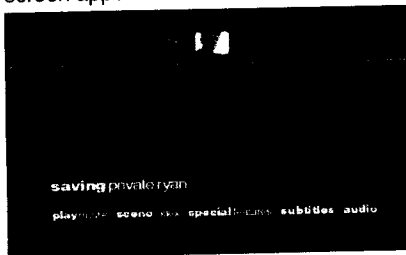


5 Press OPEN/CLOSE button again to close the disc tray

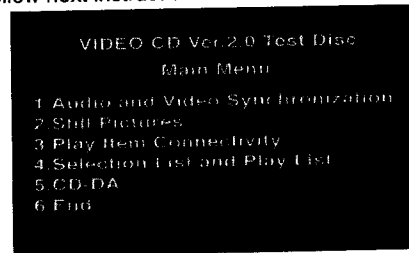
5.2 Basic play of DVD, VIDEO-CD or CDDA

1 Press PLAY/PAUSE button

When you press the PLAY/PAUSE button, the disc tray will be closed if opened and play will start automatically. In case of many DVD movies, an interactive DVD or Video CD with PBC, a menu screen appears on the TV. In this case you should follow next instruction.



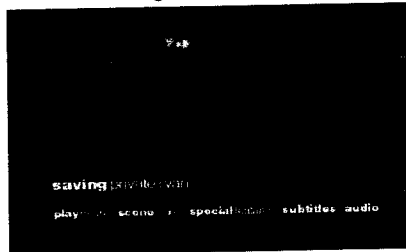
DVD menu screen



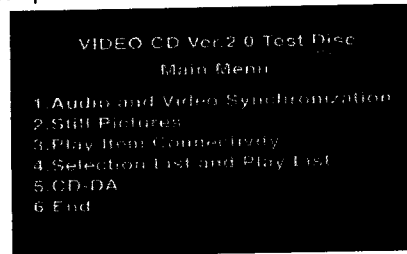
Video CD menu screen

2 When a menu screen appears on the TV screen

When a DVD disc is loaded, select desired menu item using arrow button or numeric button (remote only) and then press SELECT button to start play. When a VCD is loaded, select desired menu item using numeric button (remote only) and then press SELECT button to start play.



Selecting DVD Menu

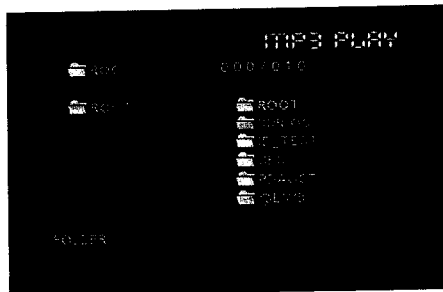


Selecting Video CD Menu

5.3 Basic play of MP3

1 Load MP3 disc

When an MP3 disc is loaded, MP3 menu screen is displayed automatically depending on MP3 disc's folder (directory) structure as shown below.

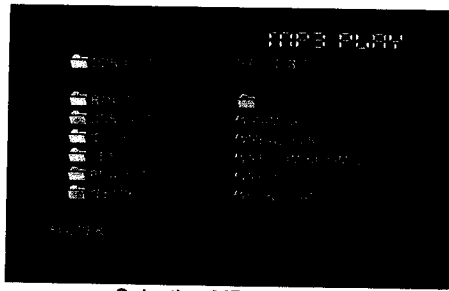


2 Select desired folder

Use the arrow button to select the folder you want to play, by pressing the SELECT button. This button allows, you to see the file lists under the folder.

3 Select MP3 title when stopped

Use arrow button and select an MP3 title using the SELECT button then play will start automatically. When you know the title number, enter the MP3 title number using the numeric buttons on the remote controller and then press the SELECT button.



Selecting MP3 file

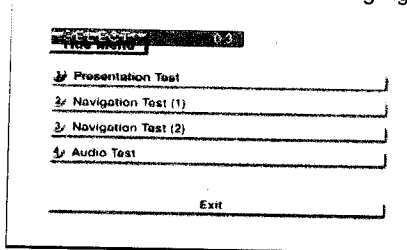
- 4 **Select MP3 title when playing**
Press NEXT button on remote controller to choose next title. Press PREV button for previous title. When you know the title number, enter MP3 title number using the numeric buttons on the remote controller and then press the SELECT button.

5.4 Selecting VIDEO MODE

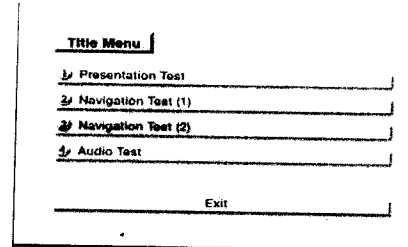
- 1 **Using SETUP**
Press the SETUP button and select VIDEO submenu on SETUP screen. After that, select TV type by pressing DOWN button until your TV mode is selected. See 7.2 for more information

5.5 Selecting MENU ITEMS (DVD or Video CD with PBC only)

- 1 **Selecting 3rd menu item when DVD menu screen appears as shown below**
Ex1) Press the numeric 3 button on remote controller and then press SELECT button
Ex2) Press DOWN button twice to highlight the 3rd menu item then press SELECT button

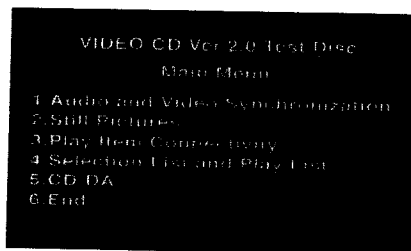


Select using numeric button



Select using arrow button

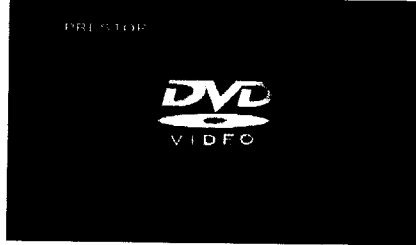
- 2 **Selecting the 3rd menu item when Video CD menu screen appears as shown below**
Ex) Press the numeric 3 button on remote controller and then press SELECT button



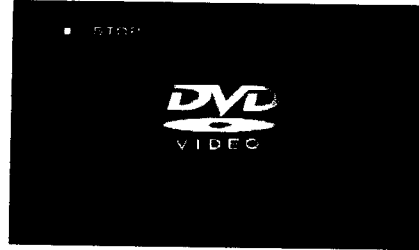
5.6 STOP and POWER OFF

1 Stop playing

Press the STOP/RETURN button during play mode. If playing a Video CD with PBC running under PBC mode, you should press the PBC button to stop playing. If a DVD disc is playing, PRESTOP OSD is displayed when you press the STOP/RETURN button once showing time information and the play mark (▶) will be blinking on the Fluorescent Display instead of the STOP message. This state is called PRESTOP. If you press PLAY/PAUSE in a PRESTOP state, the picture is played from the point you previously stopped.



DVD PRESTOP



VCD STOP

2 Removing DISC from the disc tray

Press OPEN/CLOSE button to open disc tray. When the disc tray is opened, take out the disc from the tray. **See 5.1 for more information.**

3 Press POWER button

When POWER is pressed, disc tray is closed and POWER is off while STAND BY LED turns on.

If power is OFF, after pressing POWER button during PLAY or PRESTOP state, play is resumed from the point where it was stopped. It is called RESUME function. If you switch OFF by disconnecting AC cord, the machine will start playing from the first track or chapter.

5.7 SEARCH

Use this function to play the DISC contents in fast forward or fast reverse. During searching, audio will be muted.

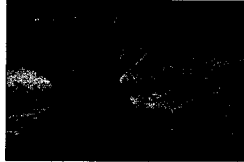
5.7.1 FAST FORWARD

1 Press FF/SF button during play mode

▶ FAST 2X is displayed on TV screen and the speed of forward direction becomes faster.

2 Press FF/SF button again

▶ FAST 4X is displayed on TV screen and the speed of forward direction becomes faster. When a DVD disc is loaded, it changes faster and faster from FAST 16X, FAST 32X and FAST 64X. If you press the FF/SF button again during FAST 64X if playing a DVD (FAST 16X when VCD), it goes back to FAST 2X. When an Audio CD is loaded, the playing speed changes faster and displays a ▶ FAST 4X. If you press the FF/SF button again during FAST 4X it goes back to PLAY status.



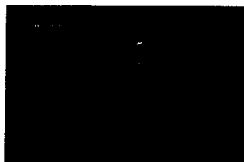
FAST 2X



FAST 4X



FAST 8X



FAST 16X



FAST 32X



FAST 64X

5.7.2 FAST REVERSE

1 Press FR/SR button during play mode

◀ FAST 2X is displayed on TV screen and the speed of reverse direction becomes faster.

2 Press FR/SR button again

◀ FAST 4X is displayed on TV screen and the speed of reverse direction becomes faster. When a DVD disc is loaded, it changes faster and faster from FAST 16X, FAST 32X and FAST 64X. If you press the FR/SR button again during FAST 64X if playing a DVD (FAST 16X when VCD), it goes back to FAST 2X. When an Audio CD is loaded, the playing speed changes faster and displays a ◀ FAST 4X. If you press the FR/SR button again during FAST 4X it goes back to PLAY status.



FAST 2X



FAST 4X



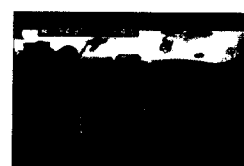
FAST 8X



FAST 16X



FAST 32X



FAST 64X

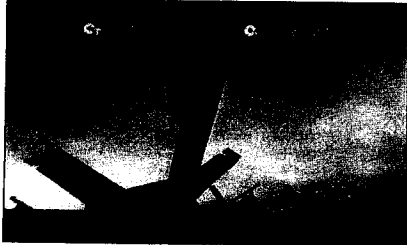
5.8 SKIP

Use this function to move to the next or previous chapter for DVD, track for VCD and CDDA.

5.8.1 SKIP FORWARD

1 Press NEXT button during play mode

If NEXT button is pressed, the current chapter or track stops and starts playing the next chapter or track. By pressing this button continuously, you may locate the desired chapter or track even faster. When the last chapter or track is encountered, if playing a VCD or Audio CD, it stops playing and goes to the stop status. If playing a DVD, it depends on the disc's content. It may display the menu contents of the disc.

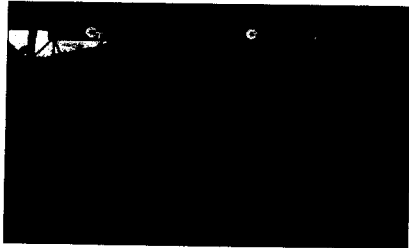


SKIP FORWARD

5.8.2 SKIP REVERSE

1 Press PREV button during playing

If PREV button is pressed, the current chapter or tracks stop and start playing the previous chapter or track. By pressing this button continuously, you may locate the desired chapter or track even faster. When the first chapter or track is encountered, if playing a VCD or Audio CD, it stops playing and goes to the stop status. If playing a DVD, it starts playing from the first chapter.



SKIP REVERSE

5.9 SLOW

Use this function when you want to view the movie slowly. This function works only for DVD or VCD.

5.9.1 SLOW FORWARD

1 Press PAUSE or STEP button during play mode

By pressing PAUSE or STEP button, it pauses the playing temporarily.

2 Press FF/SF button

If FF/SF button is pressed under PAUSE or STEP, ► SLOW 1/2 is displayed and the speed of forward direction becomes slower.

3 Press FF/SF button again

If FF/SF button is pressed again, ► SLOW 1/4 is displayed and the speed changes even slower. If pressed again ► SLOW 1/8 is displayed and it changes slower in conformity to the ratio. To return to normal play, press PLAY button (DVD and VCD) or FF/SF button again (VCD only) under SLOW 1/8 state. The CLEAR button clears slow state at any speed of slow.



SLOW 1/2



SLOW 1/4



SLOW 1/8

5.9.2 SLOW REVERSE (DVD only)

1 Press PAUSE or STEP button during play mode

By pressing PAUSE or STEP button, the play mode is temporarily paused.

2 Press FR/SR button

If FR/SR button is pressed under PAUSE or STEP, ◀ SLOW 1/2 is displayed and the speed of the reverse direction becomes slower.

3 Press FR/SR button again

If FR/SR button is pressed again, ◀ SLOW 1/4 is displayed and the speed changes even slower. If pressed again ◀ SLOW 1/8 is displayed and it changes slower in conformity to the ratio. To return to normal play, Press PLAY button or FR/SR button under SLOW 1/8 state. The CLEAR button clears slow state at any speed of slow.



SLOW 1/2



SLOW 1/4



SLOW 1/8

5.10 Selecting Audio Languages (DVD, CVD, SVCD only)

It is possible to change the audio soundtrack language to a different language from the one selected at the initial settings. This operation works only with discs on which multiple audio soundtrack languages are recorded. If the loaded disc supports multiple languages, you can see AUD indicator on FL display. If playing a CVD or SVCD, the AUD indicator is not turned on, even if it supports multiple languages.

1 Press AUDIO button during play

If a disc does have multiple languages, the audio information is displayed as the figure shown below and the audio language is changed. If the loaded disc does not support multiple audio, the forbidden mark (\) is displayed.



Audio Change

2 Choosing desired audio language

Pressing the AUDIO button continuously until the desired audio language is displayed.

This function is a disc dependent. There are some DVD discs that prevent selecting languages even though the disc supports multiple languages. If this is the case, languages should be selected via the disc menu.

5.11 Selecting Subtitles (DVD, CVD and SVCD only)

It is possible to change the subtitle language to a different language from the one selected at the initial settings. This operation works only with discs on which multiple subtitle languages are recorded. If the loaded disc supports multiple subtitles, you can see SUB-T indicator on FL display. If playing a CVD or SVCD, the AUD indicator is not turned on even if it supports multiple subtitles.

1 Press SUBTITLE button during playing

If playing a disc with multiple subtitles, the subtitle information is displayed as the figure shown below and the subtitle language is changed. If the loaded disc does not support multiple subtitle, the forbidden mark (⊘) is displayed.




SUBTITLE Change

2 Choosing desired subtitle language

Press the SUBTITLE button continuously until the desired subtitle language is displayed.

This function is a disc dependent. There are some DVD discs that prevent selecting subtitle even though the disc supports multiple subtitles. In this case, the subtitle should be selected via the disc menu.

5.12 Selecting Angles (DVD only)

Some DVD discs may contain scenes, which have been shot simultaneously from a number of different angles. For these discs, the same scene can be viewed from each of these different angles using the ANGLE button. If the loaded disc supports multiple angles, you can see  indicator on the FL display and TV screen.

1 Press ANGLE button during play mode

When playing a disc with multiple angles recorded, the camera angle is changed as shown in the figure.



Angle Change

2 Choosing desired angle

Press the ANGLE button continuously until the desired angle is displayed.

This function is a disc dependent. There are some DVD discs that prevent selecting angle using ANGLE button even though the disc supports multiple angles. In this case, angle changes should be selected via the disc menu.

5.13 Kodak picture CD play

When a Kodak Picture CD is inserted, an automated slide show is launched.

You can see nine thumbnail pictures by using the digest key .

Twelve slideshow transition modes are provided. Use Menu key to switch the slideshow effect Mode.

1. Slideshow modes
 - 0 : no effect(default)
 - 1 : wipe from top to bottom
 - 2 : wipe from bottom to top.
 - 3 : wipe from top/ bottom to center.
 - 4 : wipe from center to top/ bottom
 - 5 : vertical blind
 - 6 : wipe from left to right
 - 7 : wipe from right to left.
 - 8 : wipe from left /right to center
 - 9 : wipe from center to left/right.
 - 10 : wipe from edge to center
 - 11 : horizontal blind
 - 12 : random
2. Image rotation.

There are four modes to rotate a picture: Left,Right,Invert,Mirror

^ key : invert v key :mirror < key: Turn left > key: Turn right

5.14 JPEG file play

When a JPEG file is loaded, an automated slide show is launched.

You can enjoy Twelve slideshow effects(same as Kodak picture CD slideshow mode) by using Menu key of the remote controller.

And You can see nine thumbnail pictures by using the Digest key .

You also rotate image same as Kodak picture CD playing.

1. Zoom effect
You can see a picture at 25% ~ 200% size.
Press zoom button in the slideshow mode, use FF and FR key to control the amount of zoom in and out, and press the zoom button again, zoom function is off and return to slideshow mode.

6. Using the Advanced Functions

6.1 3D sound effect

This function outputs 3D effects on the stereo audio analog output. 3D effects are broken down into 4 surround modes.

1 Press 3D SOUND button

3D SOUND MODE 1 is displayed on TV screen. And analog stereo output is changed to surround mode 1.



3D SOUND MODE1

2 Press 3D SOUND button again

Press the 3D SOUND button continuously until the desired 3D sound mode is selected.

3D SOUND MODE2 → 3D SOUND MODE3 → 3D SOUND MODE4 → NORMAL

6.2 Repeat selected segment

Use this function to repeat the play of a selected segment. This is very useful for studying foreign languages because it repeats the selected segment until canceled.

1 Press A-B button

Press A-B button at the point of where repeat play is to start. A TO B SET A and A- * are displayed, followed by A- indicator on FL display turning on, and the starting point of your selected segment is set up.

2 Press A-B button again

Press A-B button at the point of where repeat play is to end. While A TO B SET B and A-B are displayed again and A-B indicator on FL display is turned on, the ending point is set up and PLAY starts from the A point right away.

3 Press A-B button once more

Press A-B button one more time to cancel the repeat play. A TO B CANCELLED and * - * are displayed on TV screen.



A TO B SET A



A TO B SET B



A TO B CANCELLED

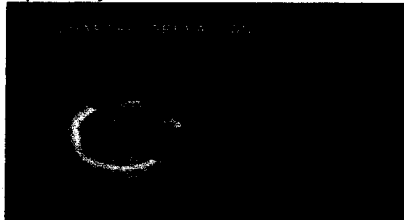
We recommend you set up the desired segment within a minimum 3 seconds for smooth repeat play.

6.3 Utilizing Repeat Function

Use this button to repeat the chapter/title for DVD or track/disc for VCD and CDDA.

1 Press REPEAT button

When playing a DVD, CHAPTER REPEAT ON is displayed on the TV screen and REPEAT C indicator on the FL display is turned on. In this status, the selected chapter is played repeatedly forever. Whilst if playing a VCD or CDDA, REPEAT ONE is displayed on the TV screen and REPEAT 1 indicator on the FL display is turned on. In this case, the selected track is played repeatedly forever.



In case of DVD

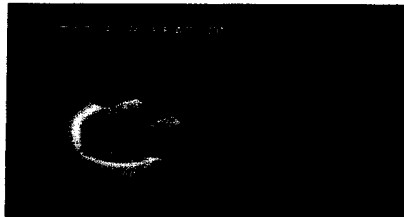


In case of VCD

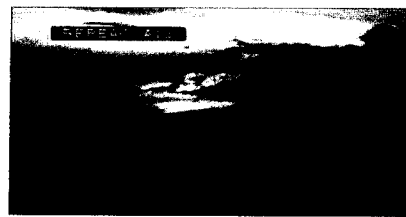
In order to use the repeat function on a VCD with PBC, you should turn off PBC by pressing PBC button on the remote controller.

2 Press REPEAT button again

If playing a DVD, TITLE REPEAT ON is displayed on the TV screen and REPEAT T indicator on the FL display is turned on. In this state, the selected title is played repeatedly forever. Whilst if playing a VCD or Audio CD, REPEAT ALL is displayed on the TV screen and REPEAT ALL indicator on the FL display is turned on. In this case, all tracks on disc are played repeatedly forever.



In case of DVD



In case of VCD

3 Press REPEAT button again

If you press the REPEAT button in REPEAT TITLE or REPEAT ALL state, REPEAT OFF is displayed on the TV screen and REPEAT T or ALL on the FL display is cleared. The repeat function becomes cleared and the playing state changes to normal.

6.4 SHUFFLE (VCD with PBC off, MP3, Audio CD only)

This function selects random tracks and plays all the tracks on the disc just once in random order. This function works only from the stop state(Except MP3 Playing state).

1 Press STOP button

Press the STOP button for normal VCD or Audio CD, PBC button for CVD, SVCD and VCD 2.0 with PBC to stop playing because this function is valid only for STOP state.

2 Press SHUFFLE button on remote controller

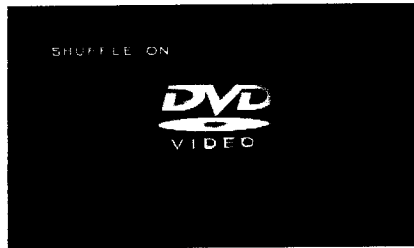
When the SHUFFLE button is pressed, SHUFFLE ON is displayed on the TV screen and the SHUFFLE indicator on the FL display is turned on.

3 Press PLAY/PAUSE button

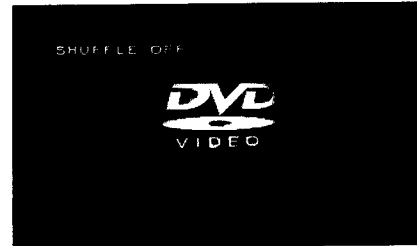
When the PLAY/PAUSE button is pressed, the shuffled track starts playing.

4 Press SHUFFLE button after STOP button

To cancel SHUFFLE operation, press STOP to stop shuffle playing and then press SHUFFLE button. When the SHUFFLE button is pressed, SHUFFLE OFF is displayed on TV and the SHUFFLE indicator on the FL display is turned off.



Shuffle On



Shuffle Off

In order to use the shuffle function on a VCD with PBC, you should turn off the PBC by pressing the PBC button on remote controller.

In case of MP3 Playing, you can use shuffle function while you are playing MP3 file by pressing the shuffle button on Remote controller.

6.5 PROGRAM (VCD, MP3, Audio CD only)

This function is used to play the tracks on the disc in an order you program.

1 Press STOP button

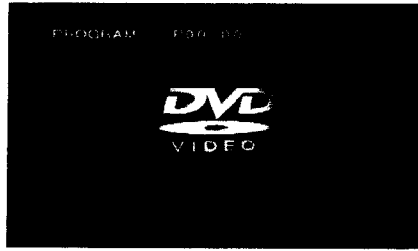
Press the STOP button for normal VCD or Audio CD, PBC button for CVD, SVCD and VCD 2.0 with PBC to stop playing because this function is valid only for the STOP state.

2 Press PROGRAM button on remote controller

When the PROGRAM button is pressed, PROGRAM P00:00 is displayed on the TV screen, the PROGRAM indicator on the FL display is turned on, the title number on the FL display is 0 and time information is 00:00.

3 Enter track number to program

Enter the number of the desired TRACK and press the SELECT button. When the number of the desired TRACK is entered, PROGRAM PXX:YY is displayed on the TV screen and FL displays the sum of TRACK numbers and time which is programmed (XX is the number of programmed tracks and YY is the last entered track number). In the following figure, a total of 3 tracks are programmed and the last track number is 5.



Program Initial Screen



Programmed – Total 3 tracks

- 4 Press a PLAY/PAUSE**
When all the desired TRACK numbers are entered, press PLAY/PAUSE to play according to the programmed order
- 5 Press PROGRAM after STOP button**
To cancel the PROGRAM operation, press the STOP button to stop programmed playing and then press the PROGRAM button twice. When the PROGRAM button is pressed, PROGRAM P00:00 is displayed on the TV to facilitate reprogramming. If you don't want the program any more, Press the PROGRAM button again. When the PROGRAM button is pressed again, STOP is displayed on the TV and the PROGRAM indicator on the FL display disappears.

6.6 Digest (VCD, JPEG, Kodak picture CD, Audio CD only)

This function helps speedy search to the desired track by displaying 9 different small screens per page showing information regarding the tracks recorded on the disc. When an Audio CD is loaded, only the 1. INTRO function will work so be careful.

- 1 Press STOP button**
Press the STOP button for normal VCD or Audio CD, PBC button for CVD, SVCD and VCD 2.0 with PBC to stop playing because this function is valid only for the STOP state.
- 2 Press DIGEST button**
If the DIGEST button is pressed, 4 submenus are displayed on the TV screen as shown below. Select the submenu, which you want, by pressing the appropriate number button and the SELECT button. If you don't want this function, press number 4 for exit.



Digest submenu for VCD



Digest submenu for Audio CD

- 1. INTRO** plays each track for 10 seconds (VCD and Audio CD)
 - 2. DISC** shows digest screen based on the disc. It plays each track on the thumbnail screen for about 5 seconds (VCD only).
 - 3. TRACK** shows digest screen based on the track. It plays partitioned track on thumbnail screen for about 5 seconds (VCD only).
 - 4. EXIT** just exits digest function
- 3 When you choose INTRO**
All the tracks on the disc are played for 10 seconds if no key is pressed. After all the tracks are played, it stops and displays STOP on the TV.

4 When you choose DISC or TRACK

Digest function will play and display in the small screen in the center. Each screen plays approximately five seconds while displaying a total of nine screens as shown in the figure. Press NEXT button to see the next page and press PREV button to see the previous page.



Digest – DISC



Digest - TRACK

5 Press the desired screen number

If you press the desired number of small screen, it starts playing from the position where the small screen begins. **You don't need to press the SELECT button.**

- In case of JPEG,Kodak Picture CD, See 6.10. & 6.11 for more information

6.7 MARKER (DVD, VCD with PBC off, Audio CD)

This function is to move to the desired location fast and easily during play by storing up to 5 markers in advance.

1 Press MARKER button during play mode

When MARKER button is pressed during play, the screen is displayed as shown the figure below.

2 Storing marker

Go to the desired marker point using arrow buttons and press the SELECT button to store the data to be viewed. V will be marked at the selected point.

3 Repeat storing marker as you want

By repeating the above 2 steps, you may store a maximum of 5 markers.

4 Choose stored marker

To play the marker point, press the MARKER button and select the desired marker using arrow buttons.

5 Deleting stored marker

To cancel the marker function, press up, down or CLEAR button at the marker you want to delete



Marker Initial Screen



1 Marker Stored

6.8 Display

The unit features On-Screen Menu icons showing disc information such as TITLE and CHAPTER for DVD, TRACK for VCD, and TIME or Bit Rate (DVD only) during play. There are 7 sub functions for DVD, 5 sub functions for VCD or Audio CD. DVD sub functions are TITLE/CHAPTER search, TIME SEARCH, TITLE ELAPSED, TITLE REMAIN, CHAPTER ELAPSED, CHAPTER REMAIN, BIT RATE METER. VCD sub functions are TRACK/TIME search, SINGLE ELAPSED, SINGLE REMAIN, TOTAL ELAPSED and TOTAL REMAIN.

6.8.1 Display function for DVD

1 Perform TITLE and CHAPTER search

When the DISPLAY button is pressed during play, TITLE and CHAPTER information are displayed as shown in the figure below. For TITLE search, Enter the number of your desired title number using numeric buttons and then press the SELECT button or adjust title number using up and down buttons and press the SELECT button at the TITLE column. For Chapter search, Adjust chapter number in the same manner as for title search.

2 Perform TIME SEARCH

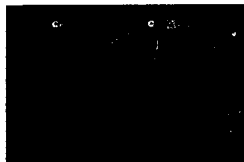
When the DISPLAY button is pressed twice during play, TIME SEARCH sub function is activated. After entering the time you want to jump, press the SELECT button. If you want to go to 0:01:23 (0 hour, 1 min, 23 sec) press the numeric buttons in this order (0, 0, 1, 2, 3) then press the SELECT button. The time you want to enter should be in the title boundary. After you press the SELECT button, it starts playing from the time entered, if valid.

3 Viewing time information

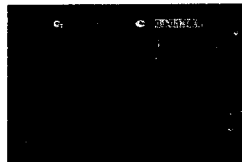
When the DISPLAY button is pressed three times during play, title elapsed time information is displayed on top of TV screen at the left corner. When the DISPLAY button is pressed again title remain time information is displayed. If pressed again, CHAPTER elapsed time information is displayed. Pressing the DISPLAY button once more activates CHAPTER remain time information. Finally, another press of the DISPLAY button displays the Bit Rate Meter.

4 Displaying Off

Press DISPLAY button when Bit Rate Meter is activated.



Chapter/Title Search



Time Search



Title Elapsed



Title Remain



Chapter Elapsed



Chapter Remain



Bit Rate Meter

6.8.2 Display function for VCD (PBC off only)

1 Perform TRACK search

When the DISPLAY button is pressed during play TRACK information and TIME search is displayed as shown in the figure below. For TRACK search, enter the number of your desired track using numeric buttons and then press the SELECT button or adjust track number using up and down buttons and press the SELECT button at the TITLE column.

2 Perform TIME search

After entering the time you want to jump, press the SELECT button. If you want to go to 01:23 (1 min, 23 sec), press the numeric buttons in this order (0, 1, 2, 3) and press the SELECT button. The time you want to enter should be in this current track boundary. After you press the SELECT button, it starts playing from the time entered if valid.

3 Viewing time information

When the DISPLAY button is pressed twice during play, track (single) elapsed time information is displayed on the top of the TV screen at the left corner. When the DISPLAY button is pressed again, a track (single) remain time information is displayed on the screen. If pressed again, disc (total) elapsed time information is displayed on the screen. And next DISPLAY button activates disc (total) remain time information. Finally, another press of the DISPLAY button quits the display function.

4 Display Off

Press DISPLAY button when total remain time information activated.



Track Search



Time Search



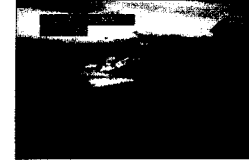
Single Elapsed



Single Remain



Total Elapsed



Total Remain

6.9 Zoom screen

1 Zoom screen by X2

If the ZOOM button is pressed during play, ZOOM X2 is displayed and the screen is magnified to twice the size.

2 Zoom screen by X4

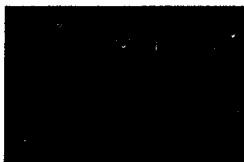
If the ZOOM button is pressed again, ZOOM X4 is displayed and the screen size is quadrupled.

3 Zoom screen by X8

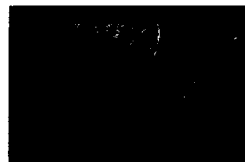
If the ZOOM button is pressed again, ZOOM X8 is displayed and the screen is magnified by eight times.

4 Zoom off

If the ZOOM button is pressed again when in ZOOM X8 state, ZOOM function is turned off and a normal screen is displayed. Pressing the CLEAR button at any time of ZOOM state clears ZOOM function.



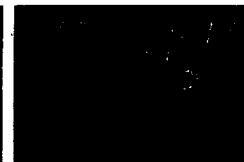
Zoom Off



Zoom 2X



Zoom 4X



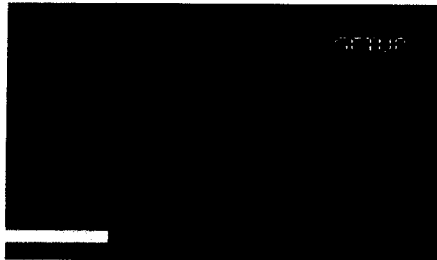
Zoom 8X

7. Customizing DVD Performance

Once the initial settings have been completed, the player can always be operated under the same conditions whenever the power is switched on. These settings are called SETUP data that are easily modified and stored using the SETUP menu. The SETUP menu includes the information for AUDIO, VIDEO, OTHER system controls, LANGUages and parental LOCK. AUDIO and VIDEO submenus deal with items related to AUDIO and VIDEO. The OTHER submenu deals with items related to other system controls. LOCK submenu deals with items related to parental locks, they are parental levels and passwords. The submenu of SETUP is differentiated by two categories. One is submenu changeable during play mode. The other is not. The ability to change during play is on the AUDIO and VIDEO submenu. The other is OTHER, LANGUage and parental LOCK.

7.1 Audio

There are five sub items in the AUDIO submenu. They are DIGITAL OUT, DOWNMIX, DUAL MONO, OPERATIONAL and DYNAMIC RANGE. When you press the SETUP button and select AUDIO among the five submenus, the sub items for AUDIO are displayed as shown in the figure below.



1 DIGITAL OUT

DIGITAL OUT item controls the output condition of digital out (coaxial or optical) connector. There are 3 values possible for DIGITAL OUT. They are Analog, BITSTREAM and PCM. In case of Analog value, No digital signal can be output. Only analog audio can be output. In case of BITSTREAM value, the original audio stream recorded on the disc is output through the digital out connector and **No Analog audio can be output**. In case of PCM value, the decoded audio stream will be output through the digital out connector and **No Analog audio can be output**. The relation of amplifier and DIGITAL OUT option is shown below.

Amplifier available	Possible DIGITAL OUT values
No Amplifier	Analog
Digital Decoder Amplifier (Dolby Digital, dts)	Analog, BITSTREAM, PCM (Valid for Dolby Digital)
Stereo or Dolby Prologic Amplifier	Analog, PCM (Valid for Dolby Digital not dts)

2 DOWNMIX (Dolby Digital DVD disc only)

DOWNMIX is used to reproduce the proper analog audio when the audio channel recorded on the disc differs from the output audio channel configuration. Assume that 5.1 channels audio are recorded on the disc but you can receive only stereo audio channels. In this case downmix is unavoidable and you will hear all the channels recorded on disc. There are two ways of downmixing. One is LT/RT and the other is stereo. If you are using Dolby Surround Pro Logic decoder, please set the downmix mode to LT/RT otherwise stereo.

3 DUAL MONOs (Valid for Dolby Digital DVD disc)

DUAL MONOs are two independent mono channels defined in Dolby Digital. DUAL MONO programs are mainly used for different language versions in one program. This functions in a similar fashion to TV or VCR supporting secondary audio program. From two MONO channels, STEREO, LEFT MONO, RIGHT MONO and MIXED MONO may be output in 4 different combinations.

4 OPERATIONAL

To simplify the implementation of dialogue normalization, dynamic range control, and downmixing, Dolby Digital decoder implementations offer standard operational modes called Line Mode and RF Mode. There are 2 values for OPERATIONAL. They are Line Mode and RF Mode. Choose Line Mode when connecting to an amplifier, RF Mode for TV.

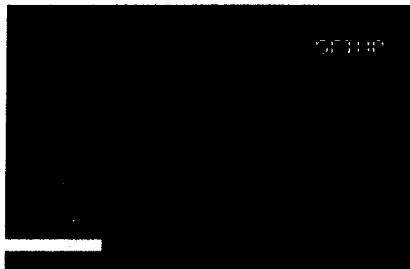
STEREO	L channel on L speaker, R channel on R speaker
LEFT MONO	L channel on L and R speaker
RIGHT MONO	R channel on L and R speaker
MIXED MONO	Mix two mono and output mixed mono on both (L, R) speaker

5 DYNAMIC RNG (Valid for Dolby Digital DVD disc)

A consistent problem in the delivery of audio programming is that different members of the audience desire or even need different amounts of dynamic range depending on the listening situation. Original high quality programs, such as feature films, are typically mixed with a wide dynamic range. Using dialogue as a reference, loud sounds like explosions are often 20 dB louder, and faint sounds like leaves rustling may be 50 dB quieter. In many listening situations, it is objectionable to allow the sound to become very loud, and the loudest sounds must be compressed downwards in level. Likewise the very quiet sounds would be inaudible and must be brought upwards in level to be heard. If you want to hear the original dynamic range recorded on disc set the DYNAMIC RNG to 0. Otherwise set to 8 then the dynamic range is reduced by bringing down the level of the loud sounds and bringing up the level of the quiet sounds.

7.2 Video

There are 5 submenus for VIDEO. They are OSD LANG, TV ASPECT, TV TYPE, CAPTIONS. If you select VIDEO, VIDEO sub items are displayed as shown in the figure.



1 OSD LANG

This item is to select the language for On-Screen Display messages that will be displayed on the TV screen. When your desired language is selected, all OSD messages are displayed in the selected language.



2 TV ASPECT

Set up TV aspect according to your TV set. If WIDE screen is supported on your TV, select WIDE. If your TV supports only 4:3, you may select both 4:3 PS (Pan & Scan) and 4:3 LB (Letter Box).

When using a wide screen TV (16:9 aspect ratio)

Select WIDE in the TV ASPECT value.




Discs may be recorded in more than one screen format. Following the chart below, make screen aspect adjustments in your wide screen TV according to the aspect ratio on the disc you are viewing.

	Wide Screen Disc (16:9)	Standard Screen Disc (4:3)
Screen		
TV Setting	Wide	Standard

When using a standard TV (4:3 aspect ratio)

Select 4:3 LB (Letter Box) or 4:3 PS (Pan & Scan) in the TV ASPECT value.

Following the chart below, make screen aspect adjustments according to the aspect ratio on the disc you are viewing.

	Wide Screen Disc (16:9)	Standard Screen Disc (4:3)
Screen	 Letter Box (4:3 LB)	 No setting required (Always Standard 4:3 screen)
	 Pan & Scan (4:3 PS)	
TV Setting		

3 TV TYPE

Set up TV type according to type supported by your TV or monitor. When you select MULTI, the output video type is dependent on the disc loaded. If the recorded video type is PAL then it outputs PAL. If NTSC then NTSC.

4 TV MODE

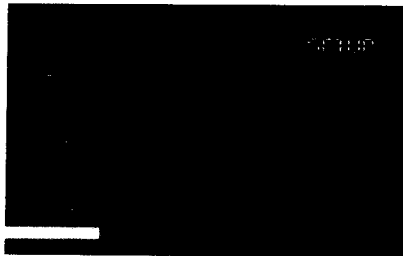
Achieving the clearer and higher definition picture than the normal composite output can be done by selecting YPbPr(480i) or YPbPr(480p). If you want to see the picture in COMPONENT, choose COMPONENT and connect to the TV set using COMPONENT video cable connector. When COMPONENT selected, S-Video (YC) will not come out. On the contrary COMPONENT will not come out when S-VIDEO selected. Set to S-VIDEO to view in S-Video (YC) via SVHS output terminal. See the 'basic connection/3(page 13)' for more information.

5 CAPTIONS (NTSC only)



CLOSED CAPTION was invented for hearing impaired person. But it is very useful when learning foreign languages. If your TV supports closed caption, select ON. If not, closed caption won't be displayed.

7.3 Other

If you select OTHER, OTHER's sub item is displayed as shown in the figure below. The sub item of OTHER is related to system control on various subjects.



1 ANGLE MARK (Valid for DVD only)

It is possible to have 9 different angles on a DVD disc. This selects whether to display  OSD (On Screen Display) showing multi-angle on the TV screen or not, when playing DVD disc supporting multiple angles. If you select ON, you can see the  OSD when multi-angle is detected while playing.

2 SCREEN SAVER

If a bright picture does not move for a long time, the TV may be damaged. If on longer than 5 minutes, the screen saver works when ON is selected. The screen saver protects the CRT (Cathode Ray Tube) from damage by displaying a moving DVD logo continuously on the screen.



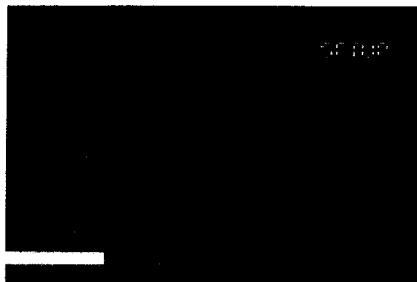
3 FLT DISPLAY

There are three levels of brightness to control FL display on the front panel. They are BRIGHT, MEDIUM and DIM. In the bright daylight, you may select BRIGHT and DIM for dark nights.

- 4 **FLT AUDIO CH (Dolby Digital DVD only)**
If playing a Dolby Digital DVD disc, the audio channel configuration is varied according to the disc loaded. When you select ON, this feature displays the audio channel configuration on the FL display on the front panel.
- 5 **FRONT KEY**
To prevent children from pressing buttons on the front panel, you can select lock. This feature is only effective when the power is on. Whenever you turn on the power, you should select LOCK again to protect then front panel buttons.
- 6 **DEFAULTS**
If you are not confident about what you have selected in setup submenu items, you can initialize them to the factory adjusted values. Be aware that, the password you already have set, remains the same even after the values are changed to the factory defaults. If you forget the password, please contact where you bought this unit.

7.4 Languages (DVD only)

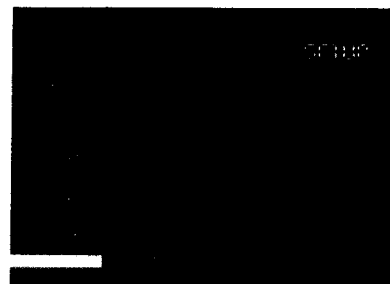
If you select LANG., LANG's sub item is displayed as shown in the figure below. The sub item of LANG is related to preferable language for audio, subtitle or disc menu.



- 1 **AUDIO**
Set this value to the preferred audio language. If an audio language is selected, whenever you start playing a new disc, the selected audio language is played, if the selected language is contained in the disc. For example, if you select ENGLISH as the preferred audio language and ENGLISH audio language is contained in the disc, when the disc plays it will be in English.
- 2 **SUBTITLE**
Set this value to the preferred subtitle language. If a subtitle language is selected, whenever you start playing a new disc, the selected subtitle language is played, if the selected language is contained in the disc. For example, if you select ENGLISH as the preferred subtitle language and ENGLISH subtitle language is contained in the disc. When you start playing the disc, you can see English subtitles.
- 3 **DISCMENU**
Set this value to the preferred disc menu language. If a disc menu language is selected, whenever you start playing a new disc, the selected disc menu language is played if the selected language is contained in the disc. For example, if you select ENGLISH as the preferred disc menu language and ENGLISH disc menu language is contained in the disc. When you start playing the disc, you can see the disc menu in English.

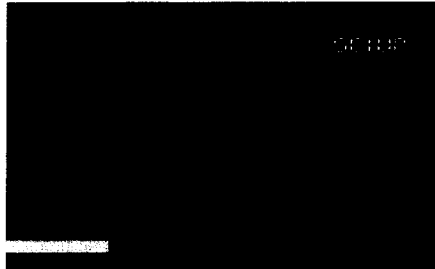
7.5 Parental Lock (DVD only)

This function is to disable the playing of specified DVD discs that are unsuitable for children. As each disc has slightly different codes, please refer to the disc instruction. There are a total of 8 levels. If the level is 8, the contents of the disc are suitable for adult. If the level is 1, the contents of the disc are suitable for children. If you didn't set a new password, there is no restriction in changing parental level. When you turn on this unit for the first time, a new password set is recommended.

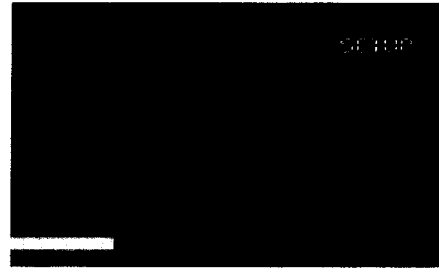


1 PARENTAL

Used to adjust the level of parental lock. Once selected, whenever you play a disc, the selected parental level is compared to the level on the disc. If the level you selected is greater than the level of the disc, you may play the loaded disc. If not, you may not play the disc. To set appropriate parental level do the following instructions. If you move to the PARENTAL sub item, you can see the values for the PARENTAL sub item. You can move to the value position by pressing the RIGHT arrow button. Select proper value using UP and DOWN arrow button and then press the SELECT button. If you press the SELECT button then it asks for the current password. If there is no current password then it doesn't ask. A parental level change will be done by entering the current stored password.



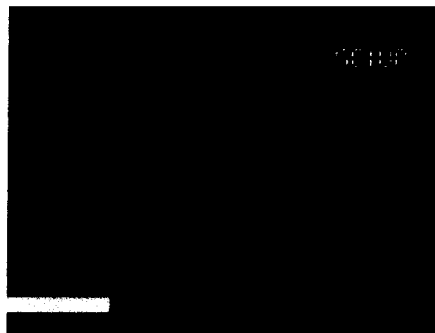
PARENTAL Values



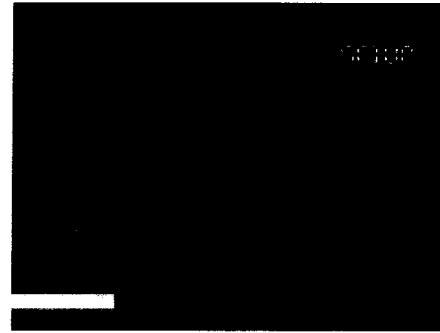
Current PASSWORD

2 PASSWORD

Used to change the saved password to a new one. To change the current password, move to PASSWORD sub item using UP and DOWN arrow buttons. If you move to the PARENTAL sub item, you can see the value for the PASSWORD. Just one sub item CHANGE can be shown. You can move to the value position by pressing RIGHT arrow button. Press SELECT button to change password. If you press SELECT button, password change window appears as shown below. If it is the first time change then there is no old password. If not, you should enter old password. Enter new password in 4 digits. Re-enter new password for confirm then press SELECT button. To store the password press SELECT button, password change is finished.



Change Sub item



Password Change Finish

Trouble Shooting

Before asking after service for this player, please check the chart below for the possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your unit may eliminate the problem and restore proper operation.

Trouble	Action
No power	Insert the AC power plug securely into the power outlet.
No picture	Make sure that the equipment is connected properly. Make sure that the input setting for the TV is Video (AV).
No sound	Make sure that the equipment is connected properly.
Distorted sound	Make sure that the input settings for the TV and stereo system are correct.
No fast forward or fast reverse	Some discs may have sections that prohibit fast forward or fast reverse.
No proper aspect ratio	Select the correct setup for TV aspect ratio that matches your TV set.
No operations can be performed with the remote controller	Check the batteries are installed with the correct polarities. Point the remote control unit at the remote control sensor and operate. Remove the obstacles between the remote control unit and remote control sensor.
No button operation	Set the POWER button to OFF and then back to ON. Alternatively, turn off the power, disconnect the power plug and then reconnect it.
Audio soundtrack and/or Subtitle language is not the one you selected.	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.
No Angle change	This function is dependent on software availability. Even if a disc has a number of angles recorded, these angles may be recorded for specific scenes only.

Specifications

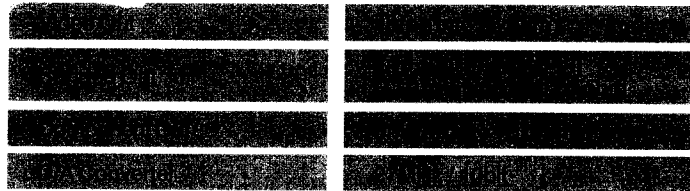
Playback System



Television Signal System



Video Performance



Audio Performance

Frequency Response	DVD 20-20KHz 4Hz - 22/18 kHz
Output Level	
THD @ 1000Hz	
S/N Ratio	110 dB

Connections

Component Video In	X
Component Video Out	X
Composite Video In	X
Composite Video Out	X
S-Video In	X
S-Video Out	X

Power Supply

Power Source	AC 100 - 240V 50/60Hz
Power Consumption	<14 Watt

Set

Dimensions (W X H X D)	240 X 44 X 270 (mm)
Net Weight	3.0 Kg
Gross Weight	3.6 Kg

Audio output and Disc

Digital Audio output setting	DVD						VCD			CD & MP3		
	Dolby Digital Disc			LPCM(48/96KHz) Disc			Bitstream	PCM	Analog	Bitstream	PCM	Analog
	Bitstream	PCM	Analog	Bitstream	PCM	Analog						
Analog Audio output	X	X	48KHz	X	X	48/96KHz	X	X	44.1KHz	X	X	44.1KHz
Digital Audio output	Dolby digital Bitstream	PCM 48KHz	X	PCM 48KHz	PCM 48KHz	X	PCM 44.1KHz	PCM 44.1KHz	X	PCM 44.1KHz	PCM 44.1KHz	X

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Certain specifications in this instruction manual are subject to change without prior notice to improve quality and function.

MEMO

MEMO

MEMO
