harman/kardon

A Harman International Company 250 Crossways Park Drive, Woodbury, New York 11797 www.harmankardon.com Harman Consumer International: 2, route de Tours, 72500 Château-du-Loir, France © 2000 Harman Kardon, Incorporated Part #J9020000300X

DVD5 5-Disc DVD Changer

OWNER'S MA	NUAL		
harma	an/kardon DVD 5	ווון אינער אינע אינער אינער אינע	
	\bigcirc		
Power	Phones Phones Level		
0	• •		
			harman/kardon [®]
			Power for the Digital Revolution™

Table of Contents

Iu	bie of contents	
-		
2	Table of Contents	
3	Introduction	Declaration of Conformity
4	Safety Information	-
5	Disc Compatibility and Terminology	
6	Front Panel Control	
7	Front Panel Information Display	
8	Rear Panel Connections	
9	Remote Control Functions	We, Harman Consumer International
11	Setup and Connections	2, route de Tours
11	to a Stereo TV and Stereo or Pro Logic	72500 Château-du-Loir,
	Amplifier/Receiver	FRANCE
12	to a Dolby Digital/DTS Amplifier/Receiver	
13	to a TV monitor with SCART Connectors	declare in own responsibility, that the product described in
14	Remote Control and Headphones	this owner's manual is in compliance with technical
14	Battery installation	standards:
14	Remote control operation range	staliualus.
14	Connecting Headphones	
		EN 60 065:1993
15	Digital Audio Connections	
15	Notes on Dolby Digital and DTS	EN 55 013/A12/8.1994
	sound formats	
16	Playback Basics	EN 55 020/12.1994
16	Basic Play	
16	Playback Features	EN 61000-3-2/4.1995
17	System Setup	
17	Setup Menu	EN 61000-3-3/1.1995
17	Audio Language	(BOW TOW UNDER C
		Carsten Olesen
18	Subtitle Language	Harman Kardon Europe
18	Menu Language	04/00
19	Rating	04/00
20	Password	
22	TV Aspect	
22	Dynamic Range	
23	Digital Audio Out	
24	DVD Playback	
24	Using the On-Screen Banner Display	NOTE: This player is designed and for playback of discs with Region Code 2, or
24	Selecting a Title	
		manufactured for compatibility with Region for discs that do not contain Region Code
24	Selecting a Chapter	Management Information that is encoded on information. If there is any other Region Code
25	Changing the Audio Language or Track	most DVD discs. This player is designed only on a disc, that disc will not play on the DVD 5.
25	Changing the Subtitel Language	
25	Changing the Camera Angle	
26	Using Booksmarks	
26	Recalling a Bookmarked Scene	
26	Clearing a Bookmarks	
27	Programmed Play with DVD	
27	Repeat Play	
27	A-B repeat Play	
27	Random Play	
28	Program Play	
29	CD Playback	
29	Compatibility of Discs	
29	To Load and Play an Audio CD	
29	Audio CD Playback Features	
29	Using the Banner Display	
30	Selecting a Track	
30	Using IntroScan	
30	Using Booksmarks	
30	Selecting Time Display	
	Drogrammad Dlay with CD	
31	Programmed Play with CD	
31	Repeat Play	
31	Random Play	
32	Program Play	
33	DVD Language Codes	
34	Troubleshooting Guide	
35	Technical Specifications	

Thank you for choosing the Harman

Kardon DVD 5. The DVD 5 is a multipurpose five-disc player, capable of playing both DVD discs and conventional CD audio discs with the highest fidelity. To enable you to get the maximum quality from DVDs, the DVD 5 is equipped with the latest in design techniques, including advanced 10-bit video digital-to-analog connectors (DAC) and component video outputs, to ensure that you get all the guality inherent in today's DVD medium. In addition, Harman Kardon's audio heritage continues into the digital video era with audiophile-grade AKM output DACs to ensure that the audio quality matches the superb video. Of course, both coaxial and optical digital audio outputs are available for direct connection to A/V receivers or processors so that you may take advantage of Dolby Digital* and DTS[®] soundtracks. When playing audio CDs, the playback quality is state-of-theart, matching that of the finest players available while delivering the convenience of a five-disc changer.

A wide range of programming features makes it easy to program an evening's worth of entertainment, selecting from tracks on multiple discs. When playing DVDs, easy-to-understand onscreen menus and icons make it simple to change languages, soundtracks, subtitles or aspect ratio, while a parental-lock function enables you to control which discs may be viewed by younger members of the household.

DVD players are among the fastest growing consumer electronics products ever brought to market, but this may, nevertheless, be the first DVD player you've owned. Although many of the features of the DVD 5 resemble those of standard CD changers or players, there are a number of functions that you may be unfamiliar with. To ensure that you are able to take advantage of all the power and flexibility the DVD 5 has to offer, we encourage you to review this manual. That small investment in your time will pay major dividends in the enjoyment you will get from proper use of the DVD 5.

If you have additional questions about this product, or its installation or operation, that are not answered in this manual, please contact your dealer, as he is your best source of local information. You may also contact Harman Kardon via e-mail through our Web site at www.harmankardon.com.

High quality video

- Advanced sophisticated 10-bit MPEG-2 video decoding circuits.
- Direct RGB output via SCART for optimum video performance.
- Second SCART connector for throughput of VCR or other video source to TVs with only one SCART input.
- Dual-laver compatibility for extended play DVD.

High quality digital audio

- By connecting a DTS (Digital Theater Systems) or a Dolby Digital decoder, you can enjoy high guality 5.1 digital surround sound from DTS or Dolby Digital discs.
- With linear PCM audio at 16-24 bits and 44-96 kHz (not on digital output, see table page 15), audio quality exceeding that of CD becomes possible.

Many convenient features

- On-Screen Menu lcons for disc information or player information and access to many major functions of this unit.
- Multiple options for dialog language and soundtrack selection (limited to DVDs recorded with multiple dialog languages or soundtracks).
- Programming of up to 9 scenes in memory (markers)
- Parental lock settings to prevent play of discs unsuitable for some audiences [DVD only]
- Intuitive menu operating system.
- Separate Buttons for convenient Fast Forward/Fast Reverse Search and Track Skip.

- Backlit, ergonomically designed remote control.
- Five-disc-capacity changer with play-exchange feature.

Compatible with CD as well as DVD.

■ The DVD5 will play any conventional Audio CD or erasable CDs** (CD-RW), bearing the logos as shown below as well as any DVD with the region code 0 or 2.

Disc formats supported by this player

The unit can play discs bearing any of the following marks:



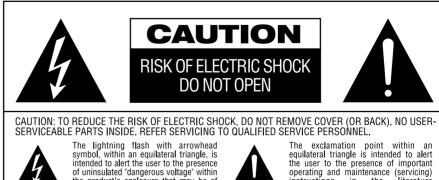
- 3" (8 cm) disc 3" (8 cm) disc 5" (12 cm) disc 5" (12 cm) disc 5" (12 cm) disc
- ** Discs with good reflectibility, cheep ones with low reflectibility may not be played.

Accessories

Remote control unit. Batteries for remote control unit (size "AA"). Video/Audio Cable.

Optional Accessories

S-Video Cable. Optical Digital Audio Cable. Coaxial Digital Audio Cable.





the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

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

Dear Customers

We strongly recommend that you carefully study the Operating Instructions before attempting to operate the unit and that you note the listed precautions.

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and retain this booklet as a permanent record of your purchase to aid identification in the event of theft.

MODEL NUMBER

SERIAL NUMBER

Verify Line Voltage Before Use

Your DVD 5 has been designed for use with 220-240-volt AC current. Connection to a line voltage other than that for which it is intended can create a safety and fire hazard and may damage the unit.

If you have any questions about the voltage requirements for your specific model, or about the line voltage in your area, contact your selling dealer before plugging the unit into a wall outlet.

Handle the AC Power Cord Gently

When disconnecting the power cord from an AC outlet, always pull the plug, never pull the cord.

Do Not Open the Cabinet

There are no user-serviceable components inside this product. Opening the cabinet may present a shock hazard, and any modification to the product will void your guarantee. If water or any metal object such as a paper clip, wire or a staple accidentally falls inside the unit, disconnect it from the AC power source immediately, and consult an authorized service station.

Installation Location

- To assure proper operation, and to avoid the potential for safety hazards, place the unit on a firm and level surface. When placing the unit on a shelf, be certain that the shelf and any mounting hardware can support the weight of the product.
- Do not place the unit directly on a carpeted surface.
- Avoid moist or humid locations.
- Avoid installation in extremely hot or cold locations, or an area that is exposed to direct sunlight or heating equipment.

Cleaning

When the unit gets dirty, wipe it with a clean, soft, dry cloth. If necessary, wipe it with a soft cloth dampened with mild soapy water, then a fresh cloth with clean water. Wipe immediately with a dry cloth. NEVER use benzene, aerosol cleaners, thinner, alcohol or any volatile cleaning agent. Do not use abrasive cleaners, as they may damage the finish of metal parts. Avoid spraying insecticide near the unit.

Unpacking

The carton and shipping materials used to protect your new receiver during shipment were specially designed to cushion it from shock and vibration. We suggest that you save the carton and packing materials for use in shipping if you move, or should the unit ever need repair.

To minimize the size of the carton in storage, you may wish to flatten it. This is done by carefully slitting the tape seams on the bottom, and collapsing the carton down to a more twodimensional appearance. Other cardboard inserts may be stored in the same manner. Packing materials that cannot be collapsed should be saved along with the carton in a plastic bag.

If you do not wish to save the packaging materials, please note that the carton and other sections of the shipping protection are recyclable. Please respect the environment and discard those materials at a local recycling center.

Moving the Unit

Before moving the unit, be certain to disconnect any interconnection cords with other components, and make certain that you disconnect the unit from the AC outlet.

IMPORTANT NOTE: To avoid damage to the DVD 5, which may not be covered by the warranty, be certain that all discs are removed from the unit before it is moved. Once the DVD 5 is installed, discs may be left in the unit when it is turned off, but the unit should NEVER be moved with discs left in any of the positions of the disc tray.

Important Information for the User

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 communication. However, there is no guarantee that harmful interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

CAUTION: The DVD 5 uses a laser system. To prevent direct exposure to the laser beam, do not open the cabinet enclosure or defeat any of the safety mechanisms provided for your protection. DO NOT STARE INTO THE LASER BEAM. To ensure proper use of this product, please read this Owner's Manual carefully and retain it for future use. Should the unit require maintenance or repair, please contact your local Harman Kardon Service Station. Refer servicing to qualified personnel only.

Disc Compatibility

The DVD 5 is more than a DVD player; it will play the following disc formats:

- Both 5-inch (12cm) and 3-inch (8cm) discs
- CD audio discs
- DTS audio discs
- CD-RW audio discs (only discs with good reflectibility, cheep ones with low reflectibility may not be played).
- DVD movie discs
- However, it will NOT play the following:
- DVD discs with a Region Code other than the one the player is set for.
- DVD-ROM data discs
- DVD-RAM discs
- VCD discs
- CD-R discs
- CD-I discs
- CD-G discs
- SVCD discs
- Photo CD discs
- MP3 Audio Discs

NOTE: Due to differences in the format of certain discs, it is possible that some discs may include a mix of features that are not compatible with the DVD 5. Similarly, although the DVD 5 is capable of a wide range of features, not all discs include every capability of the DVD system. For example, although the DVD 5 is compatible with multi-angle discs, that feature is only possible when the disc is specially encoded for multipleangle play. In addition, the DVD 5 is capable of playing back both Dolby Digital and DTS soundtracks, but the number and types of tracks available will vary from disc to disc. To make certain that a specific feature or soundtrack option is available, please check the options noted on the disc jacket.

- Playback of DTS audio discs requires connection to a processor or receiver with a DTS decoder.
- Playback capability for CD-RW discs may vary due to variations in the quality of the CD-RW disc and the recorder used to create the disc.

Terminology

Since they share some of the characteristics and technology of CD players, many of the terms and operational concepts used in a DVD player are similar to what you may be familiar with from CD players and changers, or older video disc formats such as Laser Disc. However, if this is your first DVD product, some of the terms used to describe the features of a DVD player may be unfamiliar. The following explanations should solve some of the mysteries of DVD, and help you to enjoy all the power and flexibility of the DVD format and the DVD 5.

Aspect Ratio: This is a description of the width of a video image in relation to its height. A conventional video screen is four units wide for every three units of height, that's why the ratio is called "4.3". Newer wide aspect ratio video displays are 16 units wide for every nine units of height, making them more like the screen in a movie theater. The program material on a DVD may be recorded in either format and, in addition, you may configure the DVD 5 to play back in either format, depending on the features recorded on a disc.

Chapter: DVD programs are divided into chapters and titles. Chapters are the sub-sections programmed into a single title on a disc. Chapters may be compared to the individual tracks on an audio CD. Press the PROG. button on the remote to see the numbers of chapters of each individual title on a disc (below the "Chapter" icon) after the disc was read and player is in Stop mode. To escape from the program menu press RETURN.

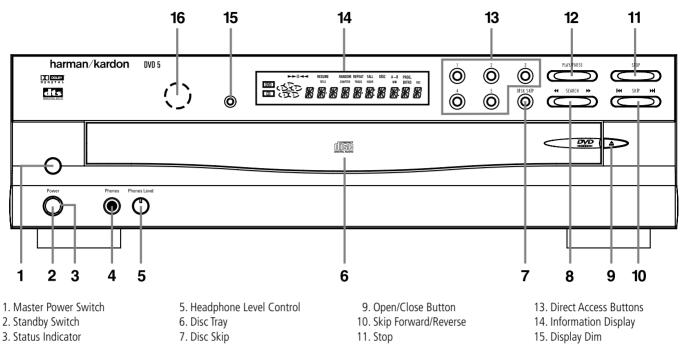
Title: For a DVD, a title is defined as an entire movie or program. There may have as many chapters within a title as the producers decide to include. Most discs include only one title, but some may have more than one, to give you a "Double Feature" presentation. Press the PROG. button on the remote to see the numbers of titles on a disc (below the "Title" icon) after the disc was read and player is in Stop mode. To escape from the program menu press RETURN.

Multiple Angle: DVDs have the capability to show up to four different views of the same scene in a program. When a disc is encoded with multiple-angle information, pressing the Angle button will enable you to switch between these different views. Note that at present, few discs take advantage of this capability and, when they do, the multiple-angle technology may only be present for short periods of time within the disc. Producers will usually insert some sort of icon or graphic in the picture to alert you to the availability of multiple-angle scenes.

Reading: This is a message that you will see when you first press the Play button. It refers to the fact that the player must first examine the contents of the disc to see if it is a CD or DVD, and then extract the information about the type of material on the disc, such as languages, aspect ratios, subtitles, number of titles and more. The slight delay while the contents of the disc are read is normal.

Resume: The operation of the Stop Button on the DVD 5 works differently from what you are used to on CD or CD players. On a traditional CD player, when you press the Stop button, the unit does just that: it stops playback. On a CD player, when you press the start button again, the disc starts from the beginning. With the DVD 5, however, you have two options when playing DVD discs. Pressing Stop once will stop the playback, but it actually puts the unit in the Resume mode. This means that you can turn the machine off and, when you press play the next time, the disc will resume or continue from the point on the disc where the Stop button was pressed. This is helpful if you are watching a movie and must interrupt your viewing session but wish to pick up where you left off. Pressing the Stop button twice will stop the machine in a traditional manner and, when the disc is played again, it will start from the beginning.

Front Panel Controls



4. Headphone Jack

8. Search Forward/Reverse

6. Disc Tray: This tray holds as many as five DVD or CD discs that can be played one at a

time in the DVD 5.

12. Play/Pause

7. Disc Skip: Press this button to change the disc being played. Each press of the button will move the tray forward to the next occupied position in the tray. Note that the unit will skip over the empty disc positions.

8. Search Forward/Reverse: Press this button to move forward or backward through a CD or DVD at one of four speeds. Each press and release will increase the search speed, as indicated in the on-screen display. Once you have selected the desired speed, release the button and the disc will continue to search at fast speed. To resume normal playback speed, press the play button.

9. Open/Close Button: Press this button to open or close the Disc Tray (6).

10. Skip Forward/Reverse: Press this button to move forward or backward through the music tracks on a CD disc or the chapters on a DVD disc.

11. Stop: Press this button once to place the disc in the Resume mode, which means that playback will stop, but as long as the tray is not opened or the disc changed, DVD playback will continue from the same point on the disc when the Play Button is pressed again. Resume will also work if the unit was turned off. To stop a disc and have play start from the beginning, press the button twice.

12. Play/Pause: Press this button to momentarily pause playback. To resume playback, press the button again. If a DVD is playing, action will freeze and a still picture will be displayed when the button is pressed.

16. Remote Sensor

13. Direct Access Buttons: Press one of these buttons to play any of up to five discs loaded in the Disc Tray.

14. Information Display: This display contains a variety of indicators that provide information about the status of the DVD 5 and the disc currently playing.

15. Display Dim: Press this button to adjust the brightness of the Information Display by 50% or to turn the display off completely in the following order: FULL BRIGHTNESS \rightarrow HALF BRIGHTNESS \rightarrow OFF \rightarrow FULL BRIGHTNESS.

16. Remote Sensor: The sensor that receives the infrared commands from the remote control is behind this area. Do not cover or obscure this part of the front panel in order to avoid a malfunction with the remote.

1. Master Power Switch: Press this switch to apply power to the DVD 5. When the unit is first turned on, the Status Indicator (3) will turn orange. Once the unit has been turned on with this switch, it may be operated from either the front panel or remote control. Press the switch again to turn the unit completely off.

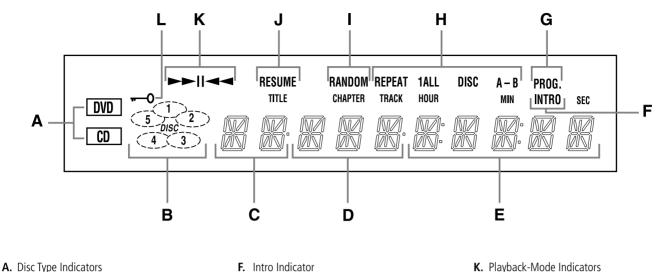
2. Standby Switch: Press the button once to turn the DVD 5 on, press it again to put the unit in the Standby mode. Note that in order for this switch to operate, the Master Power Switch (1) must be pressed in so that it is in the ON position.

3. Status Indicator: When the DVD 5 is in the On mode, this indicator will glow green. When the unit has been placed in the Standby mode by pressing the **Power-Off** button on the remote, the indicator will glow amber, indicating that the unit is still connected to the AC main supply and is ready to be turned on from the remote control.

4. Headphone Jack: Connect standard headphones to this jack for private listening.

5. Headphone Level Control: Turn this control to adjust the volume level to the headphones. Note that the use of this control will not change the analog output levels at the rear panel audio outputs.

Front Panel Information Display



- **B.** Disc-Number Indicators
- **C.** Title Indicators
- **D.** Chapter/Track Number Indicators
- **E.** Program Time Indicators

A. Disc Type Indicators: The DVD or CD indicator will illuminate to show the type of disc currently being played.

B. Disc-Number Indicators: When the DVD 5 has sensed that a disc is loaded in one or more of the tray positions, the number inside the corresponding disc icon will illuminate. The disc position that is currently playing will flash. Note that if a disc is added to, or removed from, the tray while a disc is playing, the indicator will not show the change until all discs are cycled.

C. Title Indicators: These two positions in the display will show the current title number when a DVD disc is playing.

D. Chapter/Track Number Indicators: When a DVD disc is playing, these two positions in the display will show the current chapter. When a CD disc is playing they will show the current track number.

E. Program Time Indicators: These positions in the indicator will show the running time of a DVD in play. When a CD is playing, these indicators will show the current track time, time remaining in the current track, or the total remaining time on the disc.

F. Intro IndicatorG. Program Indicator

- **H.** Repeat Indicators
- I. Random Indicator
- J. Resume Indicator

NOTE: The Program Time Indicators will also display text messages about the DVD 5's status, including **R e a d i n g** when a disc is loading, **B y e** when the unit is turned off, and **D i s c E r r o r** when a disc not compatible with the DVD 5 is put into the play position.

F. Intro Indicator: This indicator lights when the Intro Scan function is active.

G. Program Indicator: This indicator lights when the programming functions are in use.

H. Repeat Indicators: These indicators light when any of the Repeat functions are in use.

I. Random Indicator: This indicator lights when the unit is in the Random Play mode.

J. Resume Indicator: This indicator lights when the Stop button has been pressed once to put the unit in the Resume mode.

K. Playback-Mode Indicators: These indicators light to show the current playback mode:

Lights when a disc is playing in the normal mode

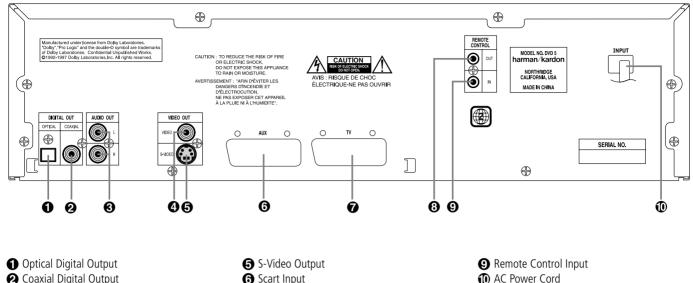
▶ Lights when the disc is in the Fast Search Forward mode. For DVDs, when both triangles glow steadily, the disc plays at 2x normal speed. When the right triangle is flashing, the disc plays at 4x normal speed. When the left triangle is flashing, the disc plays at 8x normal speed. When both triangles are flashing, the disc plays at 16x normal speed. For CDs, only the first three Fast Search modes are available.

Lights when the disc is paused.

L. Parental Lock Indicator

◄ Lights when the disc is in the Fast Search Reverse mode. For DVDs, when both triangles glow steadily, the disc plays at 2x normal speed. When the left triangle is flashing, the disc plays at 4x normal speed. When the right triangle is flashing, the disc plays at 8x normal speed. When both triangles are flashing, the disc plays at 16x normal speed. For CDs, only the first three Fast Search modes are available.

L. Parental Lock Indicator: This indicator lights when the parental-lock system is engaged in order to prevent anyone from changing the rating level without a code.



- 2 Coaxial Digital Output
- Analog Audio Outputs
- 4 Composite Video Output

1 Optical Digital Output: Connect this jack to the optical digital input of an A/V receiver or surround processor for Dolby Digital, DTS or PCM audio playback.

2 Coaxial Digital Output: Connect this jack to the coaxial digital input of an A/V receiver or surround processor for Dolby Digital, DTS or PCM audio playback.

NOTE: The coaxial digital output should only be connected to a digital input. Even though it is the same RCA-type connector as standard analog audio connections, DO NOT connect it to a conventional analog input jack.

 Analog Audio Outputs: Connect these jacks to an audio input on an A/V receiver or surround processor for analog audio playback.

Composite Video Output: Connect this jack to the video input on a television or video projector, or to a video input on an A/V receiver or processor if you are using that type of device for video input switching.

S-Video Output: Connect this jack to the S-Video input on a television or video projector, or to an S-Video input on an A/V receiver or processor if you are using that type of device for S-Video input switching.

- 6 Scart Input
- Scart TV Output Remote Control Output

G SCART IN (AUX): If an external playback unit has a SCART socket, you can connect a SCART cable to it and to your DVD Player. The SCART cable carries both audio and video signals of the external unit. These signals will be routed through the SCART connector of the DVD to the TV automatically when the DVD player is turned off (to Standby) and the external unit plays.

SCART OUT (TV): If your TV has a SCART socket, you can connect a SCART cable to your TV and to your DVD Player for improved video quality. The SCART cable carries both audio and video signal. Your DVD5 is equipped with two SCART connectors, one for direct connection to the TV, the second for throughput of VCR (playback only) or any other playback video source to conform to a TV with only one SCART input.

(3) Remote Control Output: Connect this jack to the infrared (IR) input jack of another compatible Harman Kardon remote controlled product to have the built-in Remote Sensor on the DVD5 provide IR signals to other compatible products.

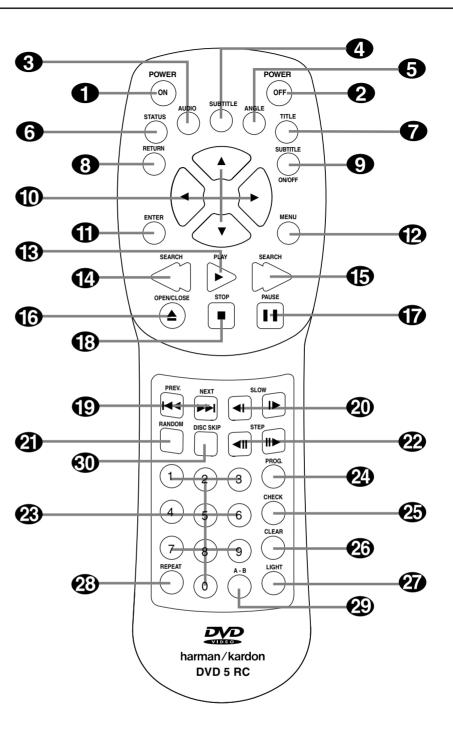
 Remote Control Input: Connect the output of a remote infrared sensor, or the remote control output of another compatible Harman Kardon product, to this jack. This will enable the remote control to operate even when the front panel Remote Sensor on the DVD5 is blocked. This jack may also be used with compatible IR remote control-based automation systems.

(D) AC Power Cord: Connect this plug to an AC outlet. If the outlet is controlled by a switch, make certain that it is in the ON position.

Note: you'll find more details about all Audio/Video connections under Setup and Connections on the following pages.

Remote Control Functions

- POWER ON
 POWER OFF
 AUDIO
- 6 ANGLE
- 6 STATUS
- 7 TITLE
- 8 RETURN
- SUBTITLE ON/OFF
- ARROWS
- ENTER
- MENU
- PLAY
- SEARCH (REV)
- SEARCH (FWD)
- OPEN/CLOSE
- PAUSE
- STOP
- PREV./NEXT
- SLOW (REV/FWD)
- RANDOM
- STEP (REV/FWD)
- NUMBERS
- PROGRAM
- CHECK
- CLEAR
- IIGHT
- 🐼 REPEAT
- A-B-Repeat
- DISC SKIP



Remote Control Functions

POWER ON: Turns on the player when it is in standby mode (Harman Kardon logo appears on screen).

POWER OFF: Turns off the player to standby mode.

3 AUDIO: Press to access various audio languages on a disc (If the disc contains multiple audio streams).

SUBTITLE: When a disc is playing, press to access subtitles menu (If the disc contains subtitles).

S ANGLE: Press to access various camera angles on a disc (If the disc contains multiple camera angles).

STATUS: Press while playing a disc to see Banner Display on the screen. The Banner Display contains various playback features and information about the disc.

TITLE: When a disc is playing, press to see Title Menu on the screen (if the disc was created with Title).

8 RETURN: When using the DVD Player's menu system, press to return to preceding menu screen (depends on DVD title format)

9 SUBTITLE ON/OFF: Turns the subtitles on and off when playing a DVD (If the disc contains subtitles).

ARROW buttons (LEFT/RIGHT/

UP/DOWN): Use to select and execute items or settings.

ENTER: Press to select a highlighted menu item.

MENU: Displays the DVD Disc Menu on the TV screen in play mode and Setup Menu in stop mode.

PLAY: Begins to play disc (closes disc tray first, if it is open.)

SEARCH (REV): Allows you to search in reverse through a disc while it is in play mode. Each time you press this button, search speed changes as below:

DVD:

R.SEARCH1 → R.SEARCH2 → R.SEARCH3 → R.SEARCH4 → R.SEARCH1 →

CD:

R.SEARCH1 → R.SEARCH2 → R.SEARCH3 → R.SEARCH1 →

FWD (SEARCH): Allows you to search forward through a disc while it is in play mode. Each time you press this button, search speed changes as below:

DVD:

F.SEARCH1 → F.SEARCH2 → F.SEARCH3 → F.SEARCH4 → F.SEARCH1 →

CD:

 $\begin{array}{l} \text{F.SEARCH1} \twoheadrightarrow \text{F.SEARCH2} \twoheadrightarrow \text{F.SEARCH3} \twoheadrightarrow \\ \text{F.SEARCH1} \twoheadrightarrow \end{array}$

OPEN/CLOSE: Press to open or close the disc tray.

PAUSE: Freezes a picture when a disc is playing. Press again for normal playback.

STOP: Stops playing a disc. When disc is playing, if you press STOP and PLAY, the disc will resume play, i.e. it will start just from that point on the disc where the unit was stopped. If you press STOP twice and PLAY button, disc will start play from the beginning.

PREV./NEXT: Allows you to move to the previous chapter or track / the next chapter or track on a disc.

SLOW: Allows you to play movie in slow mode. Each time you press this button, slow speed will be changed as below;

F.SLOW 1/16 \rightarrow F.SLOW 1/8 \rightarrow F.SLOW 1/4 \rightarrow F.SLOW 1/2 \rightarrow F.SLOW 1/16

R.SLOW 1/16 → R.SLOW 1/8 → R.SLOW 1/4 → R.SLOW 1/2 → R.SLOW 1/16

RANDOM: Press for RANDOM playback in, random order.

STEP(REV/FWD): Freeze a picture when a disc is playing. Also the picture advances frame by frame each time this button is pressed.

WUMBER (0~9): Select numbers by pressing these buttons.

PROG: Press to see Program Edit Display on the screen when in STOP mode.

CHECK: Press during playback to check the program status on VFD (front display). Press during stop mode for program edit on VFD.

CLEAR: Press to remove Banner menu from the screen or pro-grammed tracks/chapters from the Program Edit Display.

27 LIGHT: Press to lilluminate remote controller.

REPEAT: Press to go to the Repeat menu. You can repeat a chapter, track or the entire disc.

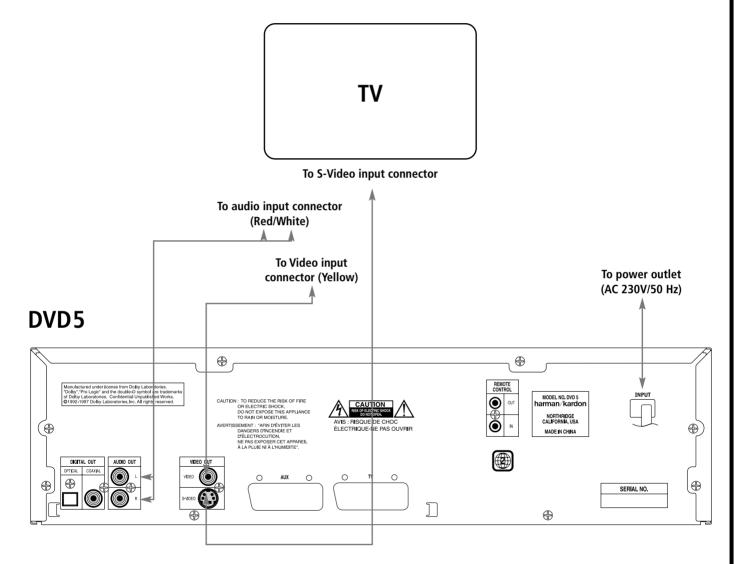
A-B: Press to select section A-B and to play repeatedly.

DICSC SKIP: Press this button to move to the next available disc in the tray. Note that the unit will skip over the empty disc positions.

Setup and Connections

- Ensure that the power switch of this unit and other equipment to be connected is set to off before commencing connection.
- Do not block ventilation holes of any of the equipment and arrange them so that air can circulate freely.
- Read through the instructions before connecting other equipment.
- Ensure that you observe the color coding when connecting audio and video cables.
- Select the appropriate screen shape at the initial setting "TV Aspect" according to your TV set (4:3 or 16:9), see page 22.

Connecting to a stereo TV set and stereo or Pro Logic Amplifier/Receiver



Note:

- If the DVD/CD player is connected to the TV through a video cassette recorder, the picture may not be played back normally with some DVDs. If this is the case, do not connect the player via the VCR.
- The S (separate) video output connector separates the color (C) and luminance (Y) signals before transmitting them to the TV set in order to achieve a sharper picture. Use the S-video cable (optional) when connecting the

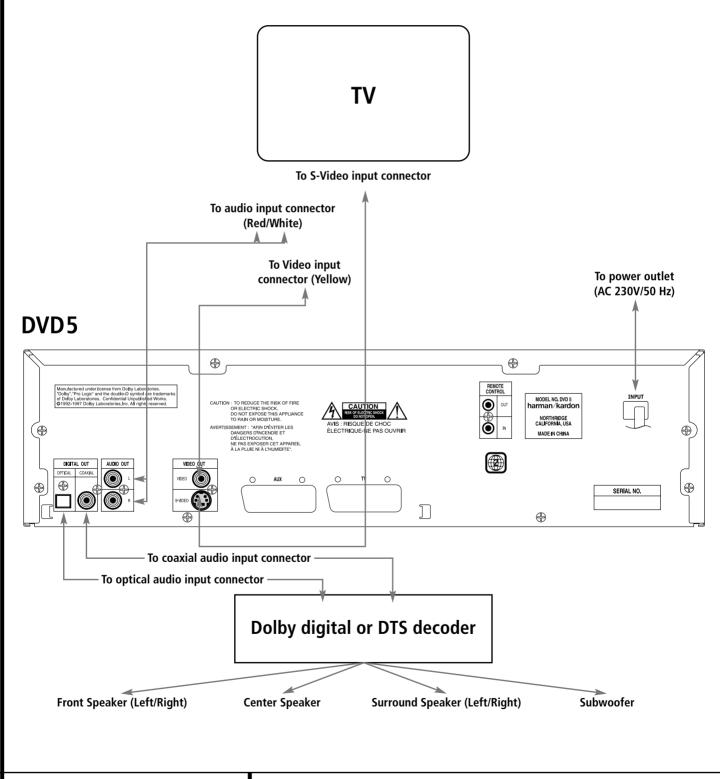
player to a TV set equipped with an S-video input for improved picture clarity.

- Most European TV's are equipped with SCART connectors rather than with a normal video input (yellow cinch). In that case the SCART connection should be used, providing the audio signal too, (see page 13). Use separate analog audio connections to TV only if your TV is connected to the video or S-video output.
- When the audio signal should be fed to stereo or Pro Logic amplifiers/decoders or receivers rather than to the TV, connect the Audio Out jacks to any normal audio input on your amplifier/decoder/receiver. The DVD5 will "downmix" Dolby Digital recordings to Pro Logic, available on these connectors, all analog surround or stereo signals will be fed to them directly.

Connecting to a receiver/amplifier with Dolby Digital (AC-3) or DTS (Digital Theater Systems) decoder

When DVD's encoded in Dolby Digital or DTS are played, the Dolby Digital or DTS bitstream is output from the player's OPTICAL or COAXIAL digital audio output. When the player is connected to a Dolby Digital or DTS decoder, you can enjoy theater-quality audio in your home. An optical digital audio cable or coaxial audio cable (both optional) is required for these connections, as shown below.

■ Note: With multiple video sources, your Audio/Video device can be used for selecting the video signal and routing it to the TV. Connect the video or S-video output of the DVD5 (whatever is provided with your device) to the video or S-video input on your device and the video/S-video output of this device to your TV. For more details, see the manual of your Audio/Video amplifier/receiver.



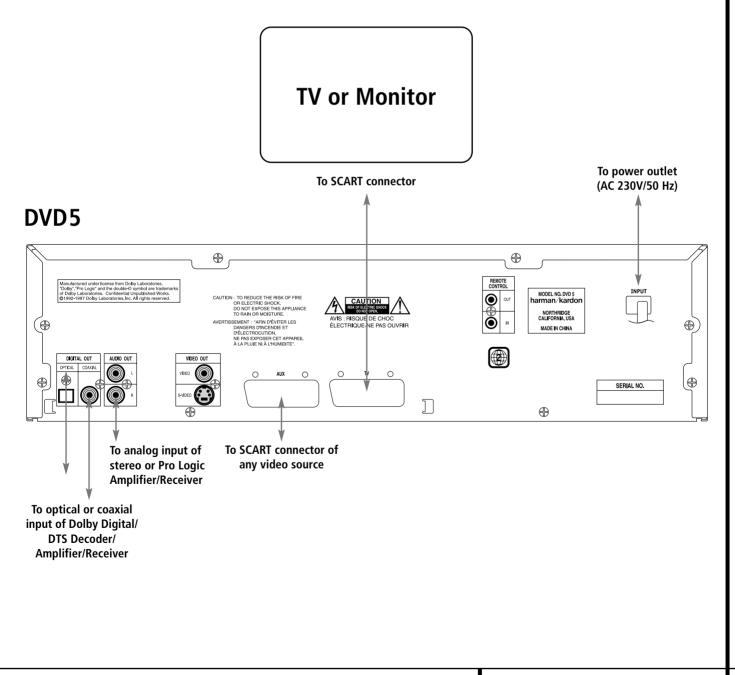
Connecting to a TV set or monitor with SCART connectors

Important Notes on SCART and RGB format:

- Your DVD5 is equipped with two SCART connectors, one for direct connection to the TV, the second (AUX) for throughput of VCR or any other video source to a TV with only one SCART input. The signal from this video source will be routed through the SCART connector of the DVD to the TV automatically when the unit plays (composite video only).
- Both SCART connectors provide the video signal as well as audio (stereo L/R) signals.
- The SCART connector for the TV provides the composite video signal as well as the direct RGB signal, delivering the best video performance possible. To view RGB video on your TV, the RGB compatible SCART connector must be used. Configure this connector to RGB (e.g. in the TV's menu), if necessary. Note that with RGB video the colour intensity cannot be adjusted with most TVs. When the SCART connector of your TV cannot be con-

figured to RGB but to S-Video only, probably the RGB signal cannot be viewed on your screen. Then you should use an adapter from S-Video to SCART and link the S-Video Output of the DVD5 with the S-Video compatible SCART connector on your TV, configured to S-video (with yourTV's menu system).

When the RGB video signal is used, DVD's recorded with the NTSC format (with regional code "Zero" or "2") can be viewed even on Non-NTSC compatible TVs.



Battery installation

Insert the batteries supplied while observing the correct (+) and (–) polarities.

Service life of batteries

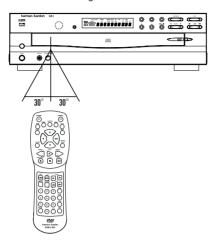
- The batteries normally last for about one year, although this depends on how often, and for what operations, the remote control is used.
- If the remote control unit fails to work even when it is operated near the player, replace the batteries.
- Use size "AA" batteries.

Notes:

- Do not attempt to recharge, short-circuit, disassemble, heat or throw the batteries into fire.
- Do not drop, step on or otherwise impact the remote control unit. This may damage the parts or lead to malfunction.
- Do not mix old and new batteries.
- Wipe away any leakage inside the remote control unit, and install new batteries.
- If leakage should come into contact with parts of your body, wash it off thoroughly with water.
- Batteries contain chemical substances and we recommend that you dispose of them properly and in compliance with any local regulations. Do not simply through them away but return to your dealer or special battery assembly centres.

Remote control operation range

Point the remote control unit from no more than about 7 m from the remote control sensor and within about 60 degrees of the front of the unit.



The operating distance may vary according to the brightness of the room.

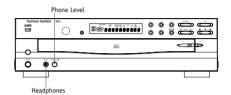
Notes:

- Do not point bright lights at the remote control sensor.
- Do not place objects between the remote control unit and the remote control sensor.
- Do not use this remote control unit while simultaneously operating the remote control unit of any other equipment.

Connecting headphones

- 1. Connect the headphones.
- Headphones with a 6.3 mm stereo plug can be connected.
- 2. Adjust the volume.

Caution: Avoid listening to sound at levels which may be harmful to your ears.



Notes when connecting the optical digital audio cable (optional)

- Remove the dust protection cap from the optical digital audio output and connect the cable firmly so that the configurations of both the cable and the connector match.
- Keep the dust protection cap and always reattach the cap when not using the connector.

Concerning the audio output from the unit's optical/coaxial digital audio output connector:

Disc:	Sound recording format:	Optical/Coaxial digital audio output
DVD	Dolby Digital (AC-3)	Dolby Digital bitstream (2-5.1ch) or PCM (2ch, 48 KHz/16bit)*1
	Linear PCM (48/96 kHz 16/20/24bit)	Linear PCM (2ch) (48 kHz sampling/ 16 bit only) * ²
	DTS	Bitstream or no output *3
CD	Linear PCM	Linear PCM (44.1 kHz sampling)

- *1 Digital Audio Output (see page 23) selected "Dolby Digital" or "PCM".
- *2 For copyright protection sound with 96 kHz sampling is converted into 48 kHz sampling when it is output from the unit's optical/coaxial digital audio outputs, but high quality sound with original sampling frequency and full bit resolution is available on the analog AUDIO OUT connectors.
- *³ Digital Audio Output selected "DTS" or other (see page 23).

For your reference:

- Dolby Digital (AC-3) is a digital sound compression technique developed by the Dolby Laboratories Licensing Corporation. Supporting 5.1-channel surround sound, as well as stereo (2-channel) sound, this technique enables a large quantity of sound data to be efficiently recorded on a disc.
- Linear PCM is a signal recording format used in CDs. While CDs are recorded in 44.1 kHz/16 bit, DVDs are recorded in 48 kHz/16 bit up to 96 kHz /24 bit.
- If you have a Dolby Pro Logic Surround decoder connected to the DVD5's analog AUDIO OUT connectors, you will obtain the full benefit of Pro Logic from the same DVD movies that provide full 5.1-channel Dolby Digital soundtracks, as well as from titles with the Dolby Surround mark.

Caution for the optical/coaxial digital audio outputs:

- When connecting an amplifier (with an optical/coaxial digital input) which does not contain the Dolby Digital (AC-3) or DTS decoder, be sure to select "PCM" at "Dolby Digital" and "DTS" of the initial setting "Digital Audio Output" (see also page 23). Otherwise any attempt to play DVDs may cause such a high level of noise that it may be harmful to your ears and damage your speakers.
- CD's can be played as they would normally be played.

Notes:

- Some DTS decoders which do not support DVD-DTS interface may not work properly with the DVD/CD player.
- When you use optical digital audio cable, please remove dust protection cap from Optical Jack on the rear panel.

Dolby Digital and DTS

Both Dolby Digital and DTS are audio formats used to record 5.1-channel audio signals onto the digital track of film. Both of these formats provide six separate channels: left, right, center, left rear, right rear, and common subwoofer.

Remember, that Dolby Digital or DTS will only play 5.1-channel sound if you've connected a DTS or Dolby Digital receiver or decoder and if the disc was recorded in the Dolby Digital or DTS format.

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works. 1992-1997 Dolby Laboratories, Inc. All rights reserved.

Dolby Digital is a trademark of Dolby Laboratories Licensing Corporation. DTS is a registered trademark of Digital Theater Systems.

Playback Basics

Basic Play

Preparation

- Switch the TV ON and select "Video" as the TV input.
- Switch on the stereo system's power, if the player has been connected to a stereo system.
- 1. Press POWER ON to switch on the power.
- 2. Press OPEN/CLOSE to open the disc tray.
- 3. Place a disc onto the disc tray.

Hold the disc without touching either of its surfaces, position it with the side which you wish to play facing down, align it with the guides, and place it in its proper position.

To move the discs in the tray so that you may insert discs in slots that are partially hidden inside the disc tray drawer, press the **Disk-Skip Button**. Each press of the button will move the carousel tray one position to the left (counterclockwise).

- To access all disc positions, the unit must be in the full-stop position. If the unit is in the Play mode, press the **Stop Button** twice.
- If the disc tray drawer is opened while a disc is playing, the Play Exchange feature allows you to change the remaining four discs. Simply press the **Disk Skip Button** to move the discs in the tray in one direction or the other.

IMPORTANT NOTES ON DISC LOADING

- Remove all discs from the tray before moving the player.
- Make certain that all discs are properly seated before closing the disc tray drawer.
- Do not push the disc tray drawer with the power off.
- Do not attempt to change discs or touch the disc tray carousel while it is moving.
- Do not attempt to rotate the disc tray by hand. If the tray drawer or carousel tray appears to be stuck, contact your local Harman Kardon authorized service center.
- Do not load more than one disc in each slot in the tray and do not attempt to place a standard 5-inch (12cm) disc over a smaller 3inch (8cm) disc.

4. Press PLAY, the disc tray is automatically closed and play begins.

- When the disc tray is closed by pressing OPEN/CLOSE, play will start automatically.
- In case of interactive DVDs, a Disc Menu appears on the screen. Select specific menu item by using ARROW buttons, then press ENTER.

DVD and CD Disc Playback Features

- To move to the next disc in the unit, press the **Disk-Skip Button**.
- To select a specific disc in the player, press the Direct-Access Button corresponding to the slot where that disc is loaded.
- To momentarily pause playback and freeze the current picture frame on a DVD, press the Pause Button. To resume playback after pressing the Pause button, press the Play Button.
- To move forward or backward through the tracks on a CD or the chapters on a DVD, press the Skip Forward/Reverse Buttons on the front panel or the Previous/ Next Buttons on the remote.
- To move forward or backward through the DVD or CD disc being played at fast speed, press the **Search Forward/Reverse Buttons**. Once one of these buttons is pressed, the fast search will continue until the **Play Button** is pressed. Note that the fast-play speeds vary for CD discs and DVDs.

For DVD playback, there are four fast-play speeds. Each press of the **Search Forward/Reverse Buttons** will cycle to the next speed in the following order:

- In Fast Search x2, the **◄** and **▶ Playback Mode Indicators** will both light steadily.
- In Fast Search x4, the outside ◀◀ or ▶ Playback Mode Indicator will flash and the inside indicator will remain steadily lit.
- In Fast Search x8, the inside ◀◀ or ▶▶ Playback Mode Indicator will flash and the outside indicator will remain steadily lit.
- In Fast Search x16, both ◀◀ and ▶▶ Playback Mode Indicators will flash.

Note that there will be no audio playback during fast-forward or -reverse play of DVD discs. This is normal for DVD, as A/V receivers and surround processors cannot process the digital audio streams during fast-play modes; audio will be heard during fast-play of conventional CDs.

For CD playback, there are three fast-play speeds. Each press of the of the **Search Forward/Reverse Buttons** will cycle to the next speed in the following order:

- In Fast Search x2, the ◀◀ and ▶▶ Playback Mode Indicators will both light steadily
- In Fast Search x4, the outside ◀◀ or ►► Playback Mode Indicator will flash and the inside indicator will remain steadily lit.

In Fast Search x8, the inside d or Playback Mode Indicator will flash and the outside indicator will remain steadily lit.

When playing a DVD disc, you may move slowly forward or backward through the program being played in one of four speeds by pressing the **Slow-Play Buttons** on the remote. Each press of the buttons will move to the next speed in the following order:

- In the 1/16th Speed Slow mode, the ◀◀ and ▶▶ Playback Mode Indicators will both flash.

Note that there will be no audio playback during slow-forward or -reverse play of DVD discs. This is normal for DVD, as A/V receivers and surround processors cannot process the digital audio streams during slow modes. Slow play is not available for CD discs.

To illuminate the buttons on the remote control so that they may be seen in low-light conditions, press the **Light Button**.

Note: Playback of discs with 96kHz/24-bit audio requires the use of circuitry normally used for other features. Accordingly, Slow Play Reverse and Step Advance features are not available with these discs.

System Defaults

The final step of the installation is to establish the system's defaults. It is helpful to take a few minutes to familiarize yourself with these settings, as they may require change before the first use and later from time to time.

Set Up Menu

The first step in checking or changing the system defaults is to access the Setup Menu. First, make certain that the DVD5 is properly connected to a video display, and that power is connected. For this process, however, you do not need to load any discs into the unit.

During STOP mode, if you press MENU on the remote, current Set Up Menu Display appears on the screen.

Auto Auto	French Eparish English
resson	1
TY Aspect	at Letterhow
Oynumic Range Digital Audio Out	On Doily Digital
Recurse	Raturn

Audio Language

Select Audio Language

This step will define the default audio language (if disc was created with different language tracks). Choosing an audio language from the Banner Display (see page 25) will overwrite this setting only temporarily.

- 1. Press ARROW (UP or DOWN) on the remote to select Audio on the SET UP MENU DISPLAY.
- 2. Press ENTER or ARROW (right), AUDIO MENU appears.



- 3. Press ARROW (UP or DOWN) on the remote to select specific Audio Language.
- 4. Press ENTER.
- 5. Press PLAY to resume normal playback or RETURN to delete Set Up Menu display.
- You can exit the Audio menu at any time by pressing the ARROW (left).

Select Other Language

1. Select Other and Press ENTER.



- Input first number of language code (see table on page 33) into the first digit by pressing ARROW (UP or DOWN) on the remote, then ENTER or ARROW (right) and enter the other 3 digits the same way. The code can also be entered directly with the NUMBER (0~9) keys.
- 3. When cursor is on OK icon press ENTER.
- 4. Press PLAY to resume normal playback or RETURN to delete Set Up Menu display.
- If language selected is not available on disc, the language designated as default by each disc will be selected.
- Note that when a default language is selected, it will be used whenever that language is present on the DVD disc being played. However, when that language is not present, the language used will be the one preprogrammed into the disc itself. (Typically, that default will be English, but the selection will vary at the discretion of the disc's producer.)

Although the default will set the language that will be used when a disc is first put into play, the language may easily be changed at any time by using the **Audio Button**. See page 25 for more information.

Subtitle Language

Select Subtitle Language

With this set up you define the default subtitle language (if disc was created with different language tracks). Choosing a subtitle language from the Banner Display (see page 25) will overwrite this setting only temporaily.

- 1. Press ARROW (UP or DOWN) on the remote to select Subtitles on the SET UP MENU DISPLAY.
- 2. Press ENTER or ARROW (right), Subtitle Menu appears.



- 3. Press ARROW (UP or DOWN) on the remote to select specific Subtitle Language.
- 4. Press ENTER.
- 5. Press PLAY to resume normal playback or RETURN to delete Set Up menu display.

Select Other Language

1. Select Other and Press ENTER.



- 2. Input first number of language code (see table on page 33) into the first digit by pressing ARROW (UP or DOWN) on the remote, then ENTER or ARROW (right) and enter the other 3 digits in the same way. The code can also be entered directly with the NUMBER (0~9) keys.
- 3. Select OK icon and press ENTER.
- 4. Press PLAY to resume normal playback or RETURN to delete Set Up Menu display.
- Note that when a default subtitle language is selected, it will be used whenever that language is present on the DVD disc being played. However, when that language is not present, the language used will be the one preprogrammed into the disc itself (typically, that default will be English, but the selection will vary at the discretion of each disc's producer.)

Although the default will set the language that will be used when the disc is first put into play, the language may easily be changed at any time by using the **Subtitle Button** (see page 25 for more information).

Menu Language

Defines the language of the menus and other short messages shown on the screen.

- 1. Press ARROW (UP or DOWN) on the remote to select Menus on the SET UP MENU DIS-PLAY.
- 2. Press ENTER or ARROW (right), Menus Menu appears.



- 3. Press ARROW (UP or DOWN) on the remote to select specific Menu Language.
- 4. Press ENTER.
- 5. Press PLAY to resume normal playback or RETURN to delete the Set Up Menu display.

Rating

This chapter is to disable the playing of some DVDs (particulary U.S. types) which are insuitable for some audiences, for example children. These DVDs are encoded with a specific rating level. If the rating level of the disc is higher than the preset in the settings operations described in this chapter, playback of the disc will be prohibited unless the password memorized (see next page) is entered.

Set the rating level in the following way:

- 1. Press ARROW (UP or DOWN) on the remote to select Rating in SET UP MENU DISPLAY.
- 2. Press ENTER or ARROW (right), Rating Menu as shown below appears, when no password (see next page) is entered yet.



- 3. Press the ARROW (UP or DOWN) on the remote to select rating level (lowest blue highlighted number). As indicated below the rating scale, all DVDs with a rating level within the blue number area will require password before being played, all those with rating level within the amber number area will have free access.
- Press ENTER. The rating menu will disappear and rating level selected will be indicated in the Set Up Menu.
- If any password was memorized (see next page), rating menu is available only after correct password has been entered.

The rating levels:

The rating system is based on information encoded on the DVD disc being played, so movies may carry a rating symbol, the disc may or may not contain that rating in its software. In addition to the five standard (MPAA) rating symbols of "G" (level 2), "PG" (Parental Guidance, level 4), "PG13" (Parental Guidance and 13 years old, level 4), "R" (Restricted, level 6) and "NC17" (from 17 years old, level 7), the DVD5 will accommodate a total of eight rating steps, as set by the DVD creators. These additional steps allow for more critical control of program playback for all audiences.

- Level 8: All DVDs can be played (Factory preset).
- Level 7 to 2: DVDs for general audiences/ children can be played.
- Level1: DVDs for children can be played, DVDs for adults/general audiences are prohibited.
- Level 0: Playback of all DVDs is prohibited (e.g. to prohibit playback of DVDs for adults which are not encoded with rating level information).

Password

The DVD 5's Password System is used to control viewing of restricted programs and one's capability to change the password itself. The DVD 5 is shipped without a password and with the settings for the password system unlocked. The following instructions will show how to add a password and to lock the settings.

Input Password

For disabling the playback of rated DVDs a password, consisting of four digits, must be entered:

- Press ARROW (UP or DOWN) on the remote to select Password on the SET UP MENU DIS-PLAY.
- 2. Press ENTER or ARROW (right), Password Menu appears.



3. Select Set Password, press ENTER, Enter Password Display appears.



 Now enter a four digit password by pressing four times on the NUMBER (0~9) buttons on the remote, a black dot will appear each time a number was entered. When the OK icon is highlighted, press ENTER to finish password input, Confirm Password display appears below the Enter Password Display.



6. Press the NUMBER (0~9) buttons on the remote to enter same password for confirmation.



- 7. When incorrect password is entered, new password menu appears and you can enter and confirm the password again. This time, as help the correct password is repeated in each digit of the upper "Try Again" menu and the incorrect password in the lower "Confirm Password" menu, appearing after the upper is passed.
- 8. After the correct password is entered in all menus, press ENTER, the main password menu will return and a red key symbol appears in the front display. To return to Set Up Menu press ARROW (left). The lock symbol in the Set Up Menu appears closed to show that the rating is locked.

- After password is memorized, all password menus are available only after correct password is entered. If incorrect password is entered, new password menu appears where the correct password can be entered again.
- Note that the time delay before the password can be re-entered will increase with each attempt. This prevents attempts to find the correct password by trial and error.
- It's most important that you note the password in a safe place or remember it reliably as access to rated discs or rating/password menus or changing or clearing the password (see next pages) is not possible without entering the correct password.

Change Password

Password can be changed at any time but at first the current password must be entered:

- 1. Press ARROW (UP or DOWN) on the remote to select Password on the SET UP MENU DISPLAY.
- 2. Press ENTER or ARROW (right), Enter Password Display appears.



 Press the ARROW (UP or DOWN) or NUM-BER(0~9) on the remote to enter the actual password and press ENTER again, Password Display appears.



- 4. Press ARROW (UP or DOWN) on the remote to select Change Password and press ENTER, Enter Password Display appears again.
- 5. Enter new password, press ENTER, Confirm Password Display appears.



 Press the ARROW (UP or DOWN) or NUMBER (0~9) on the remote to enter same password for confirmation.



7. After new password is entered correctly in all menus, press ENTER.

The main password menu will return. To return to Set Up Menu, press ARROW (left).

Clear Password

Password can be cleared easily, but at first the current password must be entered:

- 1. Press ARROW (UP or DOWN) on the remote to select Password on the SET UP MENU DISPLAY.
- 2. Press ENTER or ARROW (right), Enter Password Display appears.



- Press the ARROW (UP or DOWN) or NUMBER (0~9) on the remote to enter the current password and press ENTER again, Password Display appears.
- 4. Press ARROW (UP or DOWN) on the remote to select Clear Password.



- 5. Press ENTER, Password is cleared.
- 6. To return to Set Up Menu, press ARROW (left). To delete the Set Up Display, press RETURN.

TV Aspect

This step selects the TV aspect, conventional screen shape (4:3) or widescreen (16:9), according to your TV set:

- 4 x 3 letterbox: Choose this setting if the DVD5 is connected to a conventional (4:3) TV set and you would prefer to see movies in their original aspect ratio. You will see the entire frame of the movie and DVDs recorded with normal 4:3 format will fill the entire screen. But movies in widescreen will occupy a smaller portion of the screen, with black bars at the top and bottom of the screen.
- 4 x 3 Pan Scan: Choose this setting if the DVD5 is connected to a conventional (4:3) TV set and you want widescreen movies to fill the entire screen. Note that this setting is effective only with some (less) specific widescreen DVDs recorded with the Pan and Scan mode. With those movies you won't see parts of the picture (particularly the right and left edges).

Most discs produced in a wide screen format can't be cropped in this fashion, which means the black bars will further appear at the top and bottom of the screen (letterbox format). Some widescreen DVDs, particulary anamorph types (with full vertical line resolution), may be shown with original width but spread vertically. With those disc the letter box format must be selected.

Thus this selection is usefull only with some less specific DVDs, with all others the selection of the letterbox format fits best.

16 x 9 Widescreen: Choose this setting if your DVD player is connected to a widescreen TV or to a conventional (4:3) TV, set to widescreen (16:9) mode.

With this set up, discs recorded in 4:3 aspect ratio will appear as a boxed image in the center, with black columns on the left and right side of the screen. But true widescreen discs (anamorph recordings, i.e. those shown spread vertically when DVD5 is set to "4:3 Pan Scan" mode, see above) will be shown optimally, i.e. with full vertical resolution. With some 4:3 TVs, set to 16:9 format, discs with 4:3 format may be played compressed vertically. With those discs the TV must be set to 4:3 format. To select TV Aspect follow these steps:

- 1. Press ARROW (UP or DOWN) on the remote to select TV Aspect on the SET UP MENU DISPLAY.
- 2. Press ENTER or ARROW (right), TV Aspect Menu appears.



- 3. Press ARROW (UP or DOWN) on the remote to select specific TV Aspect Menu.
- 4. Press ENTER.
- 5. Press PLAY to resume normal playback or RETURN to delete Set Up Display from screen.

Dynamic Range

This setting enables Dolby Digital recordings to be played back with full dialogue intelligibility while reducing peak levels and increasing low levels by 1/4 to 1/3. This smooth level compression prevents abrupt loud transitions from disturbing others without reducing the impact of the digital source perceptibly.

To select Dynamic Range Compression:

1. Press ARROW (UP or DOWN) on the remote to select Dynamic Range on the SET UP MENU DISPLAY.

2. Press ENTER (Dynamic Range Menu appears).



- 3. Press ARROW (UP or DOWN) on the remote to select dynamic range mode (on or off).
- 4. Press ENTER.

5. Press PLAY to resume normal playback.

- This function only works with Dolby Digital DVD and in conjunction with the Dolby Digital Decoder connected to the digital output of DVD5, depending on its "Night Mode" setting:
 - a) When Dynamic Range is off, normal audio range is selected.
 - b) When Dynamic Range is On and "Night Mode" on decoder is off, normal audio range is selected.
 - c) Dynamic compression is activated only when Dynamic Range on DVD5 is on AND "Night Mode" on the decoder is on.

Digital Audio Out

This setting determines the digital signal format to be output from the optical/coaxial digital audio output of the DVD5. The optimal setting will depend on the digital decoder connected to that output.

- PCM: Choose this setting if the decoder connected to the digital output is able to decode only normal PCM (only left and right front channels) data rather than Dolby Digital or DTS. PCM and Dolby Digital tracks will be output as PCM datastream only, DTS tracks will output no signal (see also comment in "Dolby Digital"below).
- Dolby Digital: Choose this setting if you connected a Dolby Digital receiver or decoder to your DVD player, but without DTS decoder. PCM and Dolby Digital tracks will be output originally, DTS tracks will output no signal (see also information note below). But with virtually all DTS discs a 2-channel digital audio track can be selected optionally (by pressing the Audio button on remote, see page 25), that will feed a PCM signal to the digital output.
- DTS: Choose this setting if you connected a receiver or decoder with Dolby Digital and DTS decoding to your DVD player. Then all recordings will be output and played optimally, whether PCM, Dolby Digital or DTS format.

To select Digital Audio Output format follow these steps:

- 1. Press ARROW (UP or DOWN) on the remote to select Digital Audio Out on the SET UP MENU DISPLAY.
- 2. Press ENTER or ARROW (right), Digital Audio Out Display appears.



- 3. Press ARROW (UP or DOWN) on the remote to select specific Digital Audio Out Menu.
- 4. Press ENTER.
- 5. Press PLAY to resume normal playback or RETURN to delete Set Up Display from screen.

Important DTS information

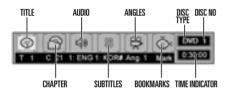
If you set the Digital Audio Out Menu to DTS, to listen to DTS you must have your DVD player connected to a receiver or DTS decoder with DTS decoding and the disc you play must contain DTS audio. If you choose DTS and you play a DTS disc, but your receiver or decoder doesn't support DTS, you won't hear any audio when you play the disc.

Using the On-Screen Banner Display

The on-screen Banner Display contains many playback features. To see the Banner Display, press STATUS on the remote while a disc is playing. Use the ARROW buttons on the remote to move through the different features in the Banner Display. Each feature is illustrated with an icon.

Use the ARROW buttons on the remote to highlight a Banner Display icon. When an icon is highlighted, press ENTER on the remote to select it.

Please remember you can only access the Banner Display when playing a disc. Also, each Banner Display feature is only available if the disc was created with that particular feature (i.e., if you select the Subtitle icon, you won't be able to change the subtitle language unless the author of the disc created the disc with subtitles).



Title: The number shown indicates the number of the title that is currently playing.

Chapter: The number shown indicates the number of the chapter that is currently playing.

Audio: The number and abbreviation show the audio language soundtrack that is currently playing. Consult the DVD jacket for the key to available audio tracks on the disc.

Subtitles: The number and abbreviation show the subtitle language that is currently playing. Consult the DVD jacket for the key to available subtitle languages on the disc.

Angles: The number shown indicates the multiple angle view that is currently playing.

Bookmarks: Highlight this area and press the Enter Button to mark or go to previously bookmarked locations on a disc.

Disc Type: The type of disc playing (DVD or CD) is shown.

Disc Number: The slot number of the disc being played is shown.

Time Indicator: The elapsed time of the current title is shown.

The invalid symbol \mathcal{O} appears on the screen when you press a button that doesn't have any function. If one of the icons is "grayed out," the Banner Display feature isn't available for the disc you're playing. To make the Banner Display disappear from the screen, press STATUS or CLEAR on the remote control.

Selecting a Title

Some discs contain more than one title. For example, intros and "making of" often are divided into several titles. You can press PROG. to view the number of titles recorded on a disc (in parenthesis below the "Title" icon) after a disc was read and the player is in Stop mode. To return to the normal display press RETURN. To select a specific title use the Title section in the Banner Display:

1. During disc playback, press STATUS on the remote.

- 2. Press the appropriate ARROW button(s) on the remote to highlight the Title icon.
- 3. Use the NUMBER button(s) on the remote to enter the title number. When you enter a onedigit Title number, you may have to press ENTER on the remote after pressing the NUM-BER (1~9) on the remote. Otherwise press 0 first and then the second digit. Then play starts. This varies depending on number of Titles on the disc you're playing.

Notes :

■ Some discs only have one title.

Selecting a Chapter

Because DVD discs use digital technology, a title can be divided into individual chapters (similar to tracks on a CD). You can press PROG. on the remote to see the numbers of chapters of each individual title on a disc (below the "Chapter" icon) after the disc was read and player is in Stop mode. To escape from the program menu press RETURN. You can skip to a specific chapter by using the Chapter section in the Banner Display:

- 1. While a disc is playing, press STATUS button on the remote.
- 2. Press the ARROW (RIGHT or LEFT) on the remote until the Chapter icon is highlighted.
- 3. Use NUMBER (0~9) on the remote to enter the number. When you enter a one-digit number, you may have to press ENTER on the remote after pressing the NUMBER (1~9) on the remote. Otherwise press 0 first, then the second digit. Then play starts. This varies depending on number of Chapters within the disc you're playing

Notes :

The Chapter feature won't work if the disc isn't formatted with separate chapters.

Changing the Audio Language or Track

DVD discs may contain a variety of audio tracks, including foreign languages, special commentaries, descriptive video for the sight impaired, and various digital formats. In normal play, the unit will always look for the default setting for the audio track, but you may change the audio track at any time using the Menu Status Bar or the AUDIO button on the remote and following these steps:

- 1. During disc play, press STATUS on the remote. Press the ARROW (LEFT OR RIGHT) on the remote until the Audio icon on the Banner Display is highlighted.
- 2. Press ENTER, the Audio Menu appears.



- 3. Press ENTER on the remote until the audio language you want to use appears in the text window.
- 4. To make the menu disappear from the screen, press CLEAR or STATUS on the remote.

Notes :

- The audio feature only works if the disc was created with multiple audio tracks.
- When you choose an audio language from the Banner Display, you only override the audio language setting in the DVD Player's main menu (in the Language Preferences menu within Setup menu) temporarily.
- Shortcut: You also can choose the audio language/track any time by pressing AUDIO on the remote control, regardless of whether the Banner Display is on the screen or not.

Changing the Subtitle Language

DVD discs may contain a variety of subtitles. In normal play, the unit will always look for the default setting for the subtitle language, but you may temporarily change that language at any time using the Menu Status Bar or the SUBTITLE button on the remote and by following these steps:

- 1. While a disc is playing, press STATUS on the remote.
- Press the ARROW (LEFT OR RIGHT) until the Subtitle icons (the letter "S") is highlighted. Press ENTER, the Subtitle menu appears.



- 3. Press ENTER on the remote to change subtitle language.
- 4. Each time subtitle on/off is pressed, the subtitle appears (and a check mark icon to the right of the Subtitle menu as confirmation) or disappears on the screen.
- 5. To make the menu disappear from the screen, press the CLEAR or STATUS on the remote.

Notes :

- If you press SUBTITLE on remote when there is no Banner Display on screen, subtitle menu of current disc appears, pressing repeatedly will change subtitle language.
- The subtitle feature only works if the disc was created with subtitles.

Changing the Camera Angle

A special feature of the DVD format is its capability of showing more than one view, or camera angle, of the same scene. This feature enables you to become the director, selecting the view of a scene that you wish. Note, however, that this feature does not appear on many discs and, when it does appear, it will typically be for only certain scenes and not for the entire disc's program.

To see if a disc contains multiple angles, check the disc's cover or jacket. When a disc does contain scenes with multiple angles, the producers will usually include some sort of special onscreen icon to alert you to the availability of different angles of view. When you see such an icon, the angle may be changed by the following steps:

1. While a disc is playing, press STATUS on the remote, the Banner Display appears.



- Press the ARROW (LEFT OR RIGHT) until the Camera icon is highlighted, and press ENTER, the Angle menu appears.
- 3. Press ENTER or ANGLE on the remote to change angle.
- To make the Banner Display disappear from the screen, press CLEAR or STATUS on the remote.
- Shortcut: The Angle menu can be called anytime, regardless of whether Banner Display is on or not, by pressing the ANGLE button on the remote, pressing repeatedly will change the angle (if disc was created with multiple angles).

Using Bookmarks

Bookmarks

Bookmarks are a feature of the DVD 5 that allows you to mark up to nine different points on a disc and to quickly return to those points later. The Bookmarks feature works on both DVD and CD discs.

To Enter a Bookmark, Follow These Steps:

- 1. While a disc is playing, press STATUS on the remote.
- Use the ARROW (LEFT OR RIGHT) on the remote until the Mark icon is highlighted and press ENTER, the Bookmark menu appears.



- 3. When you reach the scene you want to mark, press ENTER.
- 4. To add any mark, move the cursor (yellow frame) with the ARROW (DOWN) to the "Mark" check line, then move it to any free frame with the ARROW (RIGHT) and press ENTER when the scene you want to mark is reached.
- 5. Press CLEAR or STATUS on the remote to make the Banner Display disappear from the screen.

Recalling a Bookmarked Scene:

- 1. While playing a disc, press STATUS on the remote, the Banner Display appears.
- 2. Press the ARROW (LEFT OR RIGHT) on the remote until the Bookmark icon is highlighted.
- 3. Press ENTER.
- 4. Press the ARROW (UP) on the remote to move to the "Go To" parts of the Bookmark menu.
- 5. Use the ARROW (LEFT OR RIGHT) on the remote to select the bookmarked scene you want to activate.
- 6. Press ENTER go to the bookmark.
- 7. To make the Banner Display disappear from the screen, press CLEAR or STATUS on the remote.

Clearing a Bookmark

The bookmarks are cleared each time a disc is removed from the player or when the power is turned off completely (not to Standby only).

If all 9 bookmarks are in use, you can still mark new scenes, but the previous bookmarks will be erased.

Programmed Play with DVD

The DVD 5 is equipped with a wide range of programmed play functions that enable you to have the unit select or repeat tracks for you, or you may program a specific order for discs and tracks to play.

Repeat Play

The DVD 5 offers five repeat functions that allow you to take advantage of the five-disc capacity of the unit for unattended playback:

- Repeat All: Plays all discs in the unit in order from beginning to end.
- Repeat 1 Disc: Plays a specific disc from start to finish until the disc is manually stopped.
- Repeat Title: For DVD discs only, this mode repeats the title currently being played until the disc is manually stopped.
- Repeat Track/Chapter: Repeats the CD track or DVD chapter currently being played until the disc is manually stopped.
- Repeat A-B: Repeats any selected portion of a disc until the disc is manually stopped.
- To select any repeat mode, follow this way:
- 1. While a disc is playing, press REPEAT on the remote, the Repeat Display appears.
- 2. Access menus in the following order by pressing REPEAT on the remote repeatedly until the desired function is displayed . REPEAT ALL → REPEAT 1 DISC → REPEAT TITLE → REPEAT CHAPTER → REPEAT OFF
- To make the menu disappear from the screen, press the CLEAR or STATUS on the remote or wait some seconds.
- To stop any Repeat Play function, press the Repeat Button until the Repeat Off Banner appears in the on-screen display or the Repeat Indicators in the Information Display go out.
- Repeat Play may also be stopped by pressing the Stop Button twice.

A-B Repeat Play

The Repeat A-B function allows you to select any portion of a DVD or CD and have it repeat continually unit the unit is manually stopped.

To initiate a Repeat A-B playback sequence, follow these steps while a disc is playing:

1. While a disc is playing, press A-B on the remote when you want to choose a scene as the beginning point, the Repeat A-Display appears.



- 2. Press A-B again to choose a scene as the end point, Repeat A-B setting is done. A-B section will be played continuously.
- Press A-B on the remote again to cancel repeat A-B mode, press twice, if Repeat display is no longer on screen.
- To make the menu disappear from the screen, press the CLEAR or STATUS on the remote or wait a few seconds.

Random Play

The Random Play function will play all of the tracks on a CD or chapters on a DVD in a random order as selected by the DVD 5. Once the disc has played all of the tracks, it will stop.

1. While a disc is playing, press RANDOM on the remote, the Random Display appears.



- 2. Each time you press RANDOM on the remote, Random play will turn on or off.
- 3. To make the Banner Display disappear from the screen, press the CLEAR or STATUS on the remote or wait a few seconds.

Note :

If you want to cancel Random while a disc is RANDOM playing, press RANDOM on the remote again, Standard Play Display appears.



Programmed Play with DVD

Program Play

Programmed play allows you to select any track, title or chapter from any disc in the DVD 5 for playback in a specific order. This type of programming is particularly useful for parties or other situations where you want continual playback of specific selections for a long period of time. To program the discs in the DVD 5 for playback, follow these steps:

Program Edit

1. In Stop mode, press PROGRAM on the remote, Program Edit Display appears.



- Select the disc position for the first playback selection by pressing the ARROW (Up or Down). When the desired disc number appears in the disc's box in white over a blue background, press the ENTER or ARROW (right) to move to the next selection.
- 3. Select specific Title by pressing ARROW (UP or DOWN) or holding it pressed (will quickly scan through title numbers). When title is selected, press ENTER or ARROW (right). You can also select title directly by entering its number with NUMBER (0~9) keys. Note that a "0" must be entered in front of a single number (depending on the total number of titles on disc, indicated in parenthesis under the "Title" box).
- 4. Select chapter in the same way as above, the number of chapters, contained in the present title selected, is indicated in parenthesis under the "Chapter" box. Then ADD will be highlighted automatically. Press ENTER to add selected chapter onto Playlist.
- 5. You can select maximum 32 items by repeating step 3 and 4.
- 6. When you complete program edit, select PLAY icon and then press ENTER on the remote or press PLAY on the remote to start program play.
- While a disc is playing, press PROGRAM on the remote to start Program Play.

Delete Program

- 1. To delete any programmed Title/Chapter, press ARROW (RIGHT or LEFT) on the remote to Move Arrow icon to the Playlist.
- 2. Press ARROW (UP or DOWN) to select the Title/Chapter to be deleted. When it is highlighted (grey), press CLEAR or select DELETE icon on the Program Edit Display and press ENTER, selected Value will be deleted.

Insert Chapter

Inserting chapters is possible only if chapters are already programmed on the playlist and will change the order of playback.

- 1. Press PROGRAM on the remote to insert Chapter (Program Edit Display appears).
- 2. To insert Chapter, move cursor to playlist and press ARROW (UP or DOWN) on the remote to select location where you want to insert a Chapter (will be inserted above icon highlighted grey).
- 3. Move cursor to TITLE icon and select title and chapter to be inserted as described in the chapter Program Edit above.
- 4. Select INSERT icon on the Program Edit Display.
- 5. Press ENTER, Chapter will be inserted.
- When you finish adding values to Playlist and want to return to normal play mode, press RETURN or select DONE icon and press ENTER on the remote.

Stop Program Play

Program Play will stop:

- 1. When you open tray; this will delete the complete program.
- 2. When you turn Power off (to Standby).
- 3. When you press STOP twice. Then the red PROG indicator will disappear from display and the player will resume normal play mode, but the program will remain in memory and can be recalled by pressing PROGRAM again.

Editing the Program without Screen

To edit the contents of a Play List using the Front Panel Information Display only, and not the onscreen display, follow these steps:

- Press the Check Button.
- Press the Check Button again to step through each of the programmed items. The Program Sequence Number will appear on the far right side of the Information Display, next to the PR indication.
- Use the F/G Navigation Buttons to select the disc, track or chapter to be edited.
- Use the D/E Navigation Buttons to change the selection.
- Press the Clear Button to remove a program step.
- When all steps have been programmed, press the **Play Button** to begin programmed play, or the **Return Button** to exit the programming function and return to normal operation.

Compatibility of Discs

Before you load a disc, make sure that it is compatible with the player.

Note that the following discs CANNOT be used with this player.

- Laserdisc
- CD-I, CD-ROM, CD-R, DVD-ROM
- MiniDisc
- CD-RW (erasable CD) with low reflectivity, those with high reflectivity will be accepted and played (if finalized, see also page 3).

To Load and Play an Audio CD

Make sure that you have properly connected the DVD player

- 1. Press OPEN/CLOSE on the front of the DVD player or on the remote, the disc tray opens.
- 2. Place a disc gently into the tray with the disc's label facing up.

To move the discs in the tray so that you may insert discs in slots that are partially hidden inside the disc tray drawer, press the **Disk-Skip Button**. Each press of the button will move the carousel tray one position to the left (counterclockwise).

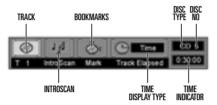
- To access all disc positions, the unit must be in the full-stop position. If the unit is in the Play mode, press the **Stop Button** twice..
- If the disc tray drawer is opened while a disc is playing, the Play Exchange feature allows you to change the remaining four discs. Simply press the **Disk Skip Button** to move the discs in the tray in one direction or the other.
- 3. Press PLAY to close the disc tray. The DVD player reads the disc's table of contents and the disc starts to play.
- 4. To search forward or reverse through the track, press SEARCH (forward/reverse) on the remote or on the front panel. To pause play, press PAUSE on the remote or PLAY/PAUSE on the front panel. To release the pause, press PAUSE or PLAY on remote or PLAY/PAUSE on front panel again.
- 5. Press STOP to stop playback.
- To move to the next disc in the unit, press the **Disk-Skip Button**.

■ To select a specific disc in the player, press the **Direct-Access Button** corresponding to the slot where that disc is loaded.

Note that all playback basics and transport functions are described in detail on page 16 of the manual.

Audio CD Playback Features

When playing audio CDs, your DVD player has the same features as a CD player, including track skip, repeat play and programmed playback. The on-screen Info Display, appearing when REPEAT or RANDOM is pressed (see page 31), and the Banner Display shown below, appearing automatically when the CD is played, let you choose various playback features.



Track: The number shown indicates the number of the track that is currently playing.

IntroScan: When the IntroScan feature is active, the musical notes in this icon will change.

Bookmarks: Highlight this area and press enter to enter or go to bookmarked locations on a disc.

Time Display Type: This shows the type of time indication being shown: Time Remaining for the Current Track, Total Elapsed for the Disc, or Total Remaining for the Disc.

Disc Type: Shows the type of disc being played.

Disc Number: The slot number of the disc being played is shown.

Time Indicator: The time indication selected is shown.

Using the Banner Display

As soon as a CD is played the Banner Display will appear automatically. To delete it from screen, press STATUS or CLEAR on the remote, to re-access it, while the CD is playing, press STATUS again. The Banner Display cannot be accessed in Stop mode, only in Pause or Play mode. In the Display some of the playback features are illustrated with an icon. To access a feature, press the appropriate ARROW on the remote to highlight the icon. Each feature is described in the following pages.

Note:

To see the Info Display, you must turn on your TV and tune it to the appropriate Video Input Channel.

Selecting a Track

- During disc playback, enter the track number directly with the NUMBER (0~9) buttons on the remote or press STATUS on the Remote to see Banner Display on the screen if it's not on already (as normally in play mode).
- Press ARROW (RIGHT or LEFT) on the remote to highlight the Track No icon if not already highlighted (in play mode this icon is highlighted automatically). Enter the Track NUM-BER (0~9) on the Remote to select Track No.
- In Pause or Play mode any track can be selected directly by entering its number with the NUMBER (0~9) buttons on the remote, no matter if the Banner Display is on or not. To select tracks from Stop mode, press Play and enter the track number directly.
- You can skip through tracks forward or backward by pressing the NEXT/PREV. buttons (track skip x / w) on the remote or SKIP (forward/reverse) on the front panel. When you hold these buttons pressed, track numbers will be skipped, the formerly played track will continue until buttons are released, then the selected track will be played.
- To view the number of tracks recorded on the CD selected (in parenthesis below the "Track" icon) press PROG. after the disc was read and the player is in Stop mode. To return to the normal display press RETURN.

Using IntroScan

IntroScan plays the first ten seconds of each track on the CD similar to the scan feature on many car radios. To use IntroScan:

- 1. Press STATUS on the remote if the banner Display is not on already.
- 2. Press the ARROW (RIGHT or LEFT) on the remote to highlight the IntroScan icon. Press ENTER, the INTRO indicator will appear in the front panel display and the first 10 seconds of each track will be played.
- 3. After IntroScan has gone through all of the tracks, it stops.
- If you want to stop IntroScan while it's in progress, just press PLAY on the remote, the INTRO indicator is deleted and the current track is played normally.
- IntroScan cannot be used with Program play (see page 31). If intro is selected while a program is played, all tracks on disc will be played with intro.

Using Bookmarks

Bookmarks are a feature of the DVD5 that allows you to mark up to nine different points on a disc and to quickly return to those points later. The Bookmarks feature works on both DVD and CD discs.

To Enter a Bookmark, Follow These Steps:

- 1. While a disc is playing, press STATUS on the remote to see the Banner Display (if not already on).
- 2. Use the ARROW (RIGHT or LEFT) until the Bookmark icon is highlighted and press ENTER, the Bookmark menu appears.



- When you reach the place on disc you want to mark, press ENTER.
- 4. To add marks, move the cursor (yellow frame) with the ARROW (DOWN) to the "Mark" line (if not already there), then move the cursor to any free frame with the ARROW (RIGHT). Select the track you wish to mark and press ENTER when the next place on disc you want to mark is reached.
- 5. Press CLEAR on the remote to make the Banner Display disappear.

Recalling a Bookmarked Track

- 1. While you're playing a disc, press STATUS on the remote to see the Banner Display (if not already on).
- 2. Press the ARROW (RIGHT or LEFT) on the remote until the Bookmark icon is high-lighted.
- 3. Press ENTER.
- 4. Press the ARROW (UP) to move to the "Go To" parts of the Bookmark menu.
- 5. Use the ARROW (RIGHT or LEFT) arrow to select the Bookmarked Track you want to activate.
- 6. Press ENTER to go to the bookmark.
- 7. To make the Banner Display disappear from the screen, press CLEAR in the remote.

Clearing a Bookmark

The bookmarks are cleared each time a disc is removed from the player or when the power is turned off completely (not to Standby only).

If all 9 bookmarks are in use, you can still mark new scenes, but the previous bookmarks will be erased.

Selecting Time Display

The time display in the front panel display or at the right of the Banner Display can be selected too:

- 1. If Banner Display is on, press ARROW (right) on the remote to highlight the Time icon
- 2. In normal operation the running time of the track being played is displayed, the Banner Display reads the Track Elapsed Time.
- 3. Press the ENTER button once to display the Track Remain Time, press again to display the elapsed time of all tracks played (Disc Elapsed Time). If you press ENTER a third time the Disc Remain Time will be displayed.
- All time indications are available also with Program play (see page 31).

Programmed Play with CD

The DVD 5 is equipped with a wide range of programmed play functions that enable you to have the unit select or repeat tracks for you, or you may program a specific order for discs and tracks to play.

Repeat Play

With CDs the DVD5 offers four repeat functions that allow you to take advantage of the five-disc capacity of the unit for unattended playback:

- Repeat All: Plays all discs in the unit in order from beginning to end.
- Repeat 1 Disc: Plays a specific disc from start to finish until the disc is manually stopped.
- Repeat Track: Repeats the CD track currently being played until the disc is manually stopped.
- Repeat A-B: Repeats any selected portion of a disc until the disc is manually stopped.

To select any repeat mode, follow this way:

- 1. While a disc is playing, press REPEAT on the remote, the Repeat Display appears.
- 2. Select Repeat function in following order each time you press REPEAT on the remote: REPEAT ALL → REPEAT 1 DISC → REPEAT TRACK → REPEAT OFF. When Repeat Track is selected, REPEAT TRACK is indicated in the front panel display, while TRACK is flashing. When Repeat is off REPEAT will disappear from the front panel display.
- 3. To make the menu disappear from the screen, press CLEAR on the remote.
- To stop any Repeat Play function, press the Repeat Button until the Repeat Off Banner appears in the on-screen display or the Repeat Indicators in the Information Display go out.
- Repeat Play may also be stopped by pressing the Stop Button twice.
- If Repeat Disc is selected with Program play, the complete program will be repeated. Note that Repeat Track is not available with Program play.

A-B Repeat Play

The Repeat A-B function allows you to select any portion of a CD and have it repeat continually unit the unit is manually stopped.

To initiate a Repeat A-B playback sequence, follow these steps while a disc is playing:

1. While a disc is playing, press A-B on the remote when you want to choose a beginning point, the Repeat A- Display appears.



- 2. Press A-B again to choose a sound as the end point (Repeat A-B setting is done), A-B section will be played continuously and REPEAT A-B appears in the front panel display.
- 3. Press A-B on the remote again to cancel repeat A-B mode, press twice if the Repeat Display has disappeared from screen.
- 4. To make the menu disappear from the screen, press CLEAR or STATUS on the remote or wait a few seconds.

Random Play

The Random Play function will play all of the tracks on a CD or chapters on a DVD in a random order as selected by the DVD 5. Once the disc has played all of the tracks, it will stop.

1. While a disc is playing, press RANDOM on the remote, the Random Display appears.



- 2. Each time you press RANDOM on the remote, Random play will turn on or off.
- 3. To make the Banner Display disappear from the screen, press CLEAR or DISPLAY on the remote or wait a few seconds.

Note :

If you want to cancel Random while a disc is RANDOM playing, press RANDOM on the remote again, Standard Play Display appears.

Standard Play

Programmed Play with CD

Program Play

Programmed play allows you to select any track from any disc in the DVD5 for playback in a specific order. This type of programming is particularly useful for parties or other situations where you want continual playback of specific selections for a long period of time. To program the discs in the DVD5 for playback, follow these steps:

Program Edit

1. In Stop mode, press PROGRAM on the remote, Program Edit Display appears.



- Select the disc position for the first playback selection by pressing the ARROW (Up or Down). When the desired disc number appears in the disc's box in white over a blue background, press the ENTER or ARROW (right) to move to the next selection. The number below the TRACK icon indicates the number of Tracks on the disc (there are no Chapters on CDs).
- 3. Select specific Track by pressing ARROW (UP or DOWN) on the remote or holding it pressed (will scan through title numbers). If track is selected, press ENTER or ARROW (right) twice. You also can select track directly by entering its number with NUMBER (0~9) keys (note that a "0" must be entered in front of a single number, depending on the total number of titles on disc), then press ENTER or ARROW (right) twice.
- When ADD icon is highlighted, press ENTER to add selected track to playlist.
- 5. You can select maximum 32 Tracks by repeating step 3.
- 6. After you complete program edit, select PLAY icon on Program Edit Display and press ENTER or press PLAY on the remote to start program play. A red PROG indicator will light in the front panel display and program will be played.

Delete Program

- 1. To delete any programmed Track, press ARROW (RIGHT or LEFT) on the remote to move Arrow icon to the playlist.
- 2. Press ARROW (UP or DOWN) on the remote to select the Track to be deleted until it's highlighted (grey) and press CLEAR or select DELETE icon on the Program Edit Display and press ENTER, selected Track will be deleted.

Insert Track

Inserting Tracks is possible only if a track is already programmed. This will change the order of playback.

- 1. Press PROGRAM on the remote to insert Track (Program Edit Display appears).
- To insert a track, move cursor to playlist and press ARROW (UP or DOWN) on the remote to select location where you want to insert a Track (will be inserted above the icon highlighted grey).
- 3. Now move cursor to TRACK icon and select track to be inserted as described with Program Edit above.
- 4. Select INSERT icon on the Program Edit Display.
- 5. Press ENTER, the Track will be inserted.

Stop Program Play

Program Play will stop:

- 1. When you open and close tray (complete program will be deleted).
- When you press STOP twice, this will end program play but keep the program in memory (recallable at once by pressing PROG on remote).
- 3. When you turn Power off and on (to Standby), this will end program play but keep the program in memory. If Power is turned off completely the program will be deleted.

Note:

When you don't add tracks onto Playlist and want to return to normal play mode press RETURN on the remote or select DONE icon and press ENTER on the remote. The availability of specific languages for the main audio track or subtitles is dependent on the choices made by a disc's producer. You should always consult the disc's jacket for information on languages for any disc. In the case of some languages, you may be required to enter a code from the list below to access that language. See page 17 for more information on entering language codes.

Language	Code	Language	Code	Language	Code
Abkhazian	6566	Hungarian	7285	Russian	8285
Afar	6565	Icelandic	7383	Samoan	8377
Afrikaans	6570	Indonesian	7378	Sangho	8371
Albanian	8381	Interlingua	7365	Sanskrit	8365
Ameharic	6577	Interlingue	7369	Scots Gaelic	7168
Arabic	6582	lunpiak	7375	Serbian	8382
Armenian	7289	Irish	7165	Servo-Groatian	8372
Assamese	6583	Italian	7384	Sesotho	8384
Aymara	6588	Japanese	7465	Setswana	8478
Azerbaijani	6590	Javanese	7487	Shona	8378
Bashkir	6665	Kannada	7578	Sindhi	8368
Basque	6985	Kashmiri	7583	Singhalese	8373
Bengali; Bangla	6678	Kazakh	7575	Siswati	8383
Bhutani	6890	Kinyarwanda	8287	Slovak	8375
Bihari	6672	Kirghiz	7589	Slovenian	8376
Bislama	6673	Kirundi	8278	Somali	8379
Breton	6682	Korean	7579	Spanish	6983
Bulgarian	6671	Kurdish	7585	Sundanese	8385
Burmese	7789	Laothian	7679	Swahili	8387
Byelorussian	6669	Latin	7665	Swedish	8386
Cambodian	7577	Latvian, Lettish	7686	Tagalog	8476
Catalan	6765	Lingala	7678	Tajik	8471
Chinese	9072	Lithuanian	7684	Tamil	8465
Corsican	6779	Macedonian	7775	Tatar	8484
Croatian	7282	Malagsy	7771	Telugu	8469
Czech	6783	Malay	7783	Thai	8472
Danish	6865	Malayalam	7776	Tibetan	6679
Dutch	7876	Maltese	7784	Tigrinya	8473
English	6978	Maori	7773	Tonga	8479
Esperanto	6979	Marathi	7782	Tsonga	8483
Estonian	6984	Moldavian	7779	Turkish	8482
Faroese	7079	Mongolian	7778	Turkmen	8475
Fiji	7074	Naru	7865	Twi	8487
Finnish	7073	Nepali	7869	Ukrainian	8575
French	7082	Norwegian	7879	Urdu	8582
Frisian	7089	Occitan	7967	Uzbek	8590
Galician	7176	Oriya	7982	Vietnamese	8673
Georgian	7565	Oromo (Afan)	7977	Volapuk	8679
German	6869	Panjabi	8065	Welsh	6789
Greek	6976	Pashto, Pushto	8083	Wolof	8779
Greenlandic	7576	Persian	7065	Xhosa	8872
Guarani	7178	Polish	8076	Yiddish	7473
Gujarati	7185	Portuguese	8084	Yoruba	8979
Hausa	7265	Quechua	8185	Zulu	9085
Hebrew	7387	Rhaero-Romance	8277		
Hindi	7273	Romanian	8279		

Troubleshooting Guide

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	 SOLUTION Press in Main Power Switch Check AC power plug and make certain any switched outlet is turned on Load disc label-side up Check to see that disc is CD, CD-RW or DVD-Movie; other types will not play Use Region two or zero disc only Enter password to override or change rating settings 	
Unit does not turn on	Main Power Switch turned OffNo AC power		
Disc does not play	 Disc loaded improperly Incorrect disc type Invalid Region Code Rating is above parental preset 		
No picture	Intermittent connectionsWrong Input	Check all video connectionsCheck input selection of TV or reveiver	
No sound	 Intermittent connections Incorrect digital audio selection DVD disc is in fast or slow mode 	 Check all audio connections Check digital audio settings There is no audio playback on DVD discs during fast or slow modes 	
Picture is distorted or jumps during fast forward or reverse play	MPEG-2 decoding	• It is a normal artifact of DVD playback for pictures to jump or show some distortion during rapid play	
Some remote buttons do not operate during DVD play	• Function not available for this disc	• Some discs do not include all DVD features	
The menu is in a foreign language	• Incorrect menu language	• Change menu language selection	
"Ø" Symbol Appears	• Requested function not available at this time	• Certain functions may be disabled during passages of a disc	
Picture is displayed in the wrong aspect ratio	• Incorrect match of aspect ratio settings to disc	Change Aspect Ratio settings	
Remote control inoperative	Weak batteriesSensor is blocked	 Change both batteries Clear path to sensor or use remote sensor 	
Disc will not copy to VCR	Macrovision protection	 Most DVDs are encoded with Macrovision to prevent copying to VCR 	

Technical Specifications

Applicable Disc:	5 inch (12 cm) or 3 inch (8 cm) DVD-Movie, CD or CD-RW discs, Region 2 DVD-Movie Discs, DVD: Single Side/Single Layer, Single Side/Dual Layer, Dual Side, Dual Layer, Linear PCM, Dolby Digital or DTS Audio Discs		
Video Signal System:	PAL/NTSC		
Composite Video Output:	1 V p-p/75 Ohms, sync negative polarity		
S Video Output:	Y/Luminance: 1 V p-p/75 Ohms, sync negative polarity C/Chrominance: 0.286 V p-p		
Analog Audio Output:	2 Vrms ±0.2		
Frequency Response:	DVD (Linear PCM): CD:	2 Hz - 22 kHz +0/-0.5 dB (48 kHz sampling) 2 Hz - 44 kHz +0/-0.5 dB (96 kHz sampling) 2 Hz - 20 kHz +0/-0.5 dB	
Signal/Noise Ratio (SNR):	110 dB (A-weighted)		
Dynamic Range:	DVD: 105 dB (20 Bit) CD: 91 dB		
THD:	DVD/CD: 0.0035 %		
Wow & Flutter:	Below Measurable Limits		
Headphone Output:	1,2 RMS @ 32 Ohms		
AC Power:	220-240 V/50 Hz		
Power Consumption:	25 Watts (On)		
Dimensions (WxHxD):	440x130x420 mm		
Weight:	7.6 Kg		

All specifications subject to change without notice.

Harman Kardon and Power for the digital revolution are trademarks of Harman Kardon, Inc.

Manufactured under license from Dolby Laboratories. Dolby, AC-3, ProLogic and the double-D symbol are trademarks of Dolby Laboratories. Confidential. Unpublished Work. © 1992-1997 Dolby Laboratories, Inc. All rights reserved.

DTS is a trade mark of Digital Theater Systems, Inc.

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