

# Panasonic®

## Color Television/DVD Combo Operating Instructions

**CT-20DC50**

**CT-27DC50**

**CT-27DC50U**



## Information For Your Safety

### CAUTION:

DVD PLAYER IS A CLASS I LASER PRODUCT. HOWEVER THIS DVD PLAYER USES A VISIBLE LASER BEAM WHICH COULD CAUSE HAZARDOUS RADIATION EXPOSURE IF VIEWED DIRECTLY. BE SURE TO OPERATE THE PLAYER CORRECTLY AS INSTRUCTED.

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


USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION	-LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.
ATTENTION	-RAYONNEMENT LASER EN CAS D'OUVERTURE. NE PAS REGARDER DANS LE FAISCEAU.
VORSICHT	-LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT IN DEN STRAHL BLICKEN.
ADVARSEL	-LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN.
ADVARSEL	-LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN.
WARNING	-LASERSTRÅLNING NÅR DENNA DEL ÅR ÖPPNAD. STIRRA EJ IN I STRÅLEN.
VARO!	-AVATTAESSA OLET ALTTIINA LASERSÄTELYLLE. ÄLÄ TUJOTA SÄTEESEEN.
注意	- 当打开这里会出现激光, 请不要直视激光。
注意	- ここを開くとレーザー光が出ます。 レーザー光をのぞき込まないでください。

(LABEL INSIDE OF TV)


### WARNING:

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



## WARNING

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**



**WARNING:** To reduce the risk of electric shock do not remove cover or back. No user-serviceable parts inside. Refer servicing to qualified service personnel.



The lightning flash with arrow head within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.



The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

**Information for your Safety (cont.)**

**FCC NOTE:**

This unit has been tested and found to comply with limits for a class B digital device unit, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

**FCC Caution:** To assure continued compliance, follow the attached installation instructions and use only shielded cables when connecting to other devices. Also, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate equipment.

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**IMPORTANT INFORMATION REGARDING USE OF VIDEO GAMES, COMPUTERS, DSS OR OTHER FIXED IMAGE DISPLAYS.**

The extended use of fixed image program material can cause a permanent "shadow image" on the picture tube. This background image is viewable on normal programs in the form of a stationary fixed image. This type of irreversible picture tube deterioration can be limited by observing the following steps:

- A. Reduce the brightness/contrast setting to a minimum viewing level.
- B. Do not display the fixed image for extended periods of time.
- C. Turn the power off when not in actual use.

**Note:** *The marking or retained image on the picture tube resulting from fixed image use is not an operating defect and as such is not covered by Warranty. This product is not designed to display fixed image patterns for extended periods of time.*

**Read these instructions completely before operating TV.**

**Contents are subject to change without notice or obligation.**

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## Congratulations

Your new TV/DVD combo features a solid state chassis that is designed to give you many years of enjoyment. It was thoroughly tested and tuned at the factory for best performance.

### Customer Record

The model and serial number of this product are located on the back of the TV. You should note the model and serial number in the space provided and retain as a permanent record of your purchase. This will aid in identification in the event of theft or loss. Product registration is available to U.S. customers at [www.prodreg.com/panasonic](http://www.prodreg.com/panasonic).

Model Number

Serial Number

### Care and Cleaning

#### Screen (Turn TV Off)

- Use a mild soap solution or window cleaner with a soft clean cloth. DO NOT USE ABRASIVE CLEANERS.
- Avoid excessive moisture and wipe dry.

**Note:** Do not spray any type of cleaning fluid directly on the screen.

#### Cabinet and Remote Control

- Use a soft cloth dampened with water or a mild detergent solution. Do not use benzene, thinner, or other petroleum based cleaners.
- Avoid excessive moisture and wipe dry.

### Specifications

<b>Power Source</b>	CT-27DC50 (2.0A) CT-27DC50U (2.0A) CT-20DC50 (1.5A)	120V AC; 60Hz
<b>Channel Capability - 181</b>	VHF-12; UHF-56; Cable-113	
<b>3 Video Input Jacks</b>	1Vp-p, 75 Ohm, Phono Jack Type	
<b>6 Audio Input Jacks</b>	500mV RMS 47K Ohm	
<b>To Audio AMP Jack</b>	0-2.0V RMS 4.7K Ohm	
<b>S-VHS Input Jack</b>	S-Video (Y-C) Connector	
<b>Digital Optical Output</b>	Optical Connector	
<b>Operating Humidity Range</b>	5 to 90% RH (no condensation)	

Specifications are subject to change without notice or obligation.

be used with an optional stand or entertainment center. Consult your manual for more information.

Avoid bright or bright lights, including reflections.

Avoid excessive heat or moisture. Inadequate ventilation may cause internal

components to overheat, which may reduce remote control transmitting range.

Do not place the TV near any equipment, including motors, fans, or external speakers.

Use the TV as a television receiver only with the cart, stand, tripod,

or other support device recommended by the manufacturer, or sold with the apparatus. When

using the TV, always use proper tie-up technique when moving the cart/apparatus combination to avoid

overturning. In order to avoid injury to children, never place your

TV on top of furniture that is capable of being tilted by a child

standing on it, or climbing on it.



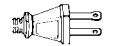
Coaxial cables should be used between components. For best results:

• Use shielded cables.

• Use cables with input and output connectors that match your component connectors.

• Use cables that minimize interference.

**ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO  
RECEPTACLE AND FULLY INSERT. DO NOT USE A PLUG WITH A  
NARROW BLADE IN A RECEPTACLE WITHOUT THE WIDE  
BLADE EXPOSURE. FOR SOME MODELS THAT ARE  
EQUIPPED WITH AN AC ADAPTOR CONNECTOR MAY**



Polarized plug

DO NOT STRETCH CABLES FROM BEING WALKED ON, ROLLED OVER, CRIMPED, BENT OR  
KINKED. DO NOT OVERHEAT CABLES, PLUGS, CONVENIENCE RECEPTACLES, AND THE POINT WHERE  
THE CABLE MEETS THE APPARATUS.

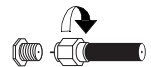
If a cable or antenna connection is required.

For more information, contact your local cable company.

A set-top box may be required for proper reception.

Contact your local cable company for compatibility information.

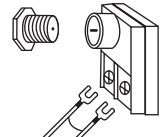
**Incoming Cable from  
Cable Company**



75 Ohm VHF/UHF  
on back of TV

For best reception of VHF/UHF channels, an external antenna is  
required. For best reception an outdoor antenna is recommended.  
If you have an outdoor antenna, it must be set to TV in the SETUP menu.

**Incoming Cable from  
Home Antenna**



The antenna must be set at the factory. Antenna users must change the antenna type in the Setup Menu.

Remote Control Operation

Remote Control

**POWER**  
Press to turn ON and OFF.

**VOL**  
Press to adjust TV sound and navigate in menus.

**TV/VIDEO**  
Press to select TV, Video or DVD Mode.

**MUTE**  
Press to mute sound. Press to access and cancel (CC) Closed Caption.

**"0"~ "9"**  
Press numeric keypad to select any channel. Selects DVD functions in DVD mode.

**SKIP/REW, PLAY, SKIP/FF, CANCEL/TV/VCR, STOP, STILL/PAUSE, REC, VCR/DBS CHANNEL SLOW/SEARCH**  
Component function buttons.



**LIGHT ★**  
Press to light remote control buttons.

**TV, DVD, CBL/DBS, VCR**  
Press to select remote operation.

**CH**  
Press to select next channel and navigate in menus.

**ACTION/ENTER**  
Press to access menus or enter selections

**R-TUNE**  
Press to switch to previously viewed channel or video mode.








**RECALL/DISPLAY**  
Press to display time, channel, sleep timer, and other options. Display on-screen menus in DVD mode

EUR511503

\*To prolong the life of the batteries, turn the light off and on pressing R-TUNE and RECALL buttons, simultaneously.












Quick Reference Functional Key Chart










Key	Operates	Function
<b>POWER</b> 	All Components	Turns On and Off selected components
<b>MUTE</b> 	TV	Mutes TV audio
<b>TV/VIDEO</b> 	TV	Selects the input mode
<b>ACTION</b>  <b>ENTER</b>	<b>TV</b> <b>DVD</b> <b>DBS</b>	<b>Activates TV menus/Enter</b> <b>Activates DVD Action/Selection</b> <b>Activates DBS menus</b>
	<b>TV</b> <b>CABLE</b> <b>DBS</b>	<b>Channel up/down, Menu navigation</b> <b>Channel up/down</b> <b>Channel up/down, Navigation up/down</b>
	<b>DVD</b> <b>VCR</b>	<b>Navigation up/down</b> <b>Channel up/down</b>
	<b>All Components</b>	<b>Search code</b>
	<b>TV</b> <b>Cable</b> <b>VCR</b> <b>DBS</b> <b>*DVD</b>	<b>TV Volume left/right, Menu navigation</b> <b>Navigation left/right</b>
	<b>TV</b> <b>VCR</b> <b>CABLE</b> <b>All Components</b> <b>DVD</b>	<b>Selects channel</b> <b>Selects code</b>  <b>Note:</b> Refer to the DVD section in this manual for DVD buttons operation.

\*Press TV mode button to adjust volume for DVD.

Quick Reference Functional Key Chart cont.

Key	Operates	Function
<b>RETURN<sub>≥10</sub></b> 	DVD DBS	Return <sub>≥10</sub> Guide
<b>NUM</b> 	DVD  DBS	Press to Access 0~9 Number buttons while in DVD mode  Exit
<b>R-TUNE</b> 	TV CABLE DBS	Previous channel
<b>RECALL DISPLAY</b> 	TV Cable  VCR  DVD  DBS	Display Channel, time and audio On screen display  On screen display  Display  Program Info
	TV	TV mode selection for remote control
	CABLE DBS	DBS/Cable mode selection for remote control
	VCR	VCR mode selection for remote control
	DVD	Digital Videodisc mode selection for remote control
<b>PLAY</b> 	VCR DVD	Play Play

Quick Reference Functional Key Chart (cont.)

Key	Operates	Function
<b>SKIP/FF</b> 	VCR DVD	Fast forward Skip search fast forward
<b>SKIP/REW</b> 	VCR DVD	Rewind Skip search rewind
<b>STOP</b> 	VCR DVD	Stop Stop
<b>REC</b> 	VCR	Record
<b>CANCEL TV/VCR</b> 	VCR DVD	Select TV/VCR mode Cancel
<b>STILL PAUSE</b> 	VCR DVD	Pause Still
<b>SLOW SEARCH</b> 	VCR DBS DVD	Channel up/down Page Up/Down Channel up button (search forward) Channel down button (search backward) After pressing PAUSE key, press  button for Slow Forward and  button for Slow Backward. You can press these buttons five (5) times to speed up the Slow Search in either direction.

**Battery Installation**

Use two AA batteries:

- Remove battery cover by pushing in and up near arrow.
- Install batteries matching (+) and (-) polarity signs.
- Replace the battery cover.

**Precautions**

- Replace batteries in pairs.
- Do not mix battery types (zinc carbon with alkaline).
- Do not recharge, heat, short-circuit, disassemble, or burn batteries.

**Note:** Incorrect installation can cause battery leakage and corrosion that will damage the Remote Control.

## Programming The Remote

The Universal Remote Control can be programmed to operate many manufacturers' components, using the component function buttons for CABLE, DBS, VCR, or DVD. Follow the procedures for programming your Remote Control with or without codes for the component.

**Determine the manufacturer of the component and look in the table for the code.**


### With A Code

- Confirm that the external component is plugged in and on.
- Turn the component off.
- Press the **ACTION** and **POWER** button, together, **for at least 5 seconds.**
- Press appropriate component button on the Remote Control (VCR, DBS/CBL, or DVD).
- Enter the 3-digit component code using the Remote Control numeric keypad (0-9 buttons).
- Press the Remote Control **POWER** button to test the component. If the component is successful, the component will turn on.

Helpful Hints: Unsuccessful Code
If the component does not operate with the Remote Control, repeat the procedure using another code. (Some brands have multiple codes.) If an incorrect code is entered, or if the procedure takes longer than 30 seconds, the programming will fail.

### Without A Code

This procedure searches all codes and is called the "search" procedure.

- Confirm that the external component is plugged in and on.
  - Turn the component off.
  - Press the **ACTION** and **POWER** button, together, for at least 5 seconds.
  - Press appropriate component button on the Remote Control (VCR, DBS/CBL, or DVD).
  - Press the  button to move forward or backward.
  - Press the Remote Control **POWER** button to test the component. If successful, the component will turn on.
- Note:** Repeat the procedure for each component. Repeat the procedure for each component until successful. Repeat the procedure for each component until successful. Repeat the procedure for each component until successful.
- After the code is found, the component will turn on.

## Component Codes

The Universal Remote Control is capable of operating many component brands after entering code. Some components may not operate because the codes are not available due to limited memory. The Universal Remote Control does not control all features in all models.

### Codes for VCR

Brand	Code
Admiral	135
Aiwa	127, 132
Akai	129, 114, 115, 116
Audio Dynamic	139, 111
Bell & Howell	105, 113
Broksonic	120, 126
Canon	123, 125
CCE	143
Citizen	106
Craig	105, 129, 106
Curtis Mathes	145, 124, 127
Daewoo	143, 124, 175
DBX	139, 110, 111
Dimensia	145
Emerson	143, 126, 119, 103, 125, 120
Fisher	105, 108, 109, 107, 113
Funai	120, 126, 127, 134
GE	124, 133, 145
Go Video	137, 151, 163
Goldstar	106
Gradiente	134, 156, 168, 170
Hitachi	100, 123, 127, 145, 168
Instant Replay	123, 124
Jensen	139
JVC	110, 111, 134, 139
Kenwood	106, 110, 111, 134, 139
LG	106
LXI	100, 105, 106, 107, 108, 109, 127
Magnavox	123, 124, 131
Marantz	110, 111, 139
Marta	106
Memorex	109, 124
MGA	138, 140, 141, 147, 148, 161
Minolta	100, 145
Mitsubishi	138, 140, 141, 147, 148, 161
Multitech	137
NEC	110, 111, 134, 139
Olympic	123, 124
Optimus	106, 121, 128, 135

Brand	Code
Orion	120, 126
Panasonic	121, 122, 123, 124
Penney	100, 105, 110, 111, 124, 139, 145,
Pentax	100, 111, 145
Philco	120, 123, 124, 126, 127, 143
Philips	123, 124, 131, 173
Pioneer	123
Proscan	100, 101, 102, 123, 124, 131, 133, 145, 146, 174
Quasar	121, 122, 123, 124
Radio Shack	105, 109, 124, 127, 133, 136, 140
RCA	100, 101, 102, 123, 124, 131, 133, 145, 146, 170, 172, 174, 176
Realistic	105, 109, 124, 127, 136, 140
Samsung	102, 104, 133, 137
Sansui	120, 126, 139, 152
Sanyo	105, 109, 113
Scott	102, 104, 109, 120, 126, 138, 140, 147, 148
Sears	100, 105, 106, 107, 108
Sharp	135, 136, 137
Shintom	117
Signature 2000	127, 135
Singer	117
Sony	128, 129, 130
SV2000	127
Sylvania	1123, 124, 127, 131, 178
Symphonic	127, 168, 177
Tashiro	106
Tatung	110, 111, 139
Teac	110, 111, 127, 139
Technics	1121, 122, 123, 124
Teknika	124, 127
Toshiba	101, 146, 166
Vector Research	111
Wards	106, 109, 135, 136
Yamaha	105, 110, 111, 139
Zenith	106, 169

**Codes for Cable Box**

Brand	Code
ABC	224
Archer	225, 232
Cableview	205, 232
Citizen	205, 222
Curtis	212, 213
Diamond	224, 225, 232
Eagle	229
Eastern	234
GCbrand	205, 232
Gemini	222
General Instrument/ Jerrold	211, 219, 220, 221, 222, 224, 225, 226, 227
Hamlin	212, 218, 240, 241, 242, 245
Hitachi	203, 224
Macom	203, 204, 205
Memorex	230
Movietime	205, 232
Oak	202, 237, 239
Panasonic	209, 210, 214
Philips	206, 207, 228, 229, 230
Pioneer	201, 216
Pulsar	205, 232

Brand	Code
Puser	232
RCA	215
Realistic	232
Regal	212, 218, 240, 241, 242, 245, 249
Regency	234
Rembrandt	205, 232, 237
Samsung	205
Scientific Atlanta	211, 212, 213
Slmark	201, 205
Sprucer	205, 210
Stargate	205, 210
Telecaption	248
Television	201, 205
Texscan	244
Tocom	235, 236, 247
Unika	225, 232
Universal	222, 232
Videoway	206
Viewstar	229, 230
Zenith	200, 227
Zenith/Drake Satellite	200

**Codes for DBS**

Brand	Code
Dish Network (EchoStar)	105
EchoStar	105
G. E.	106
Gradiente	114
Hitachi	103, 111, 112
HNS (Hughes)	103

Brand	Code
Panasonic	104
Philips	101, 102
Primestar	108
RCA	106, 109, 110, 113
Sony	107
Toss-up	100
Uniden	101, 102

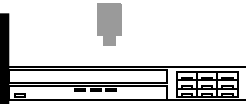
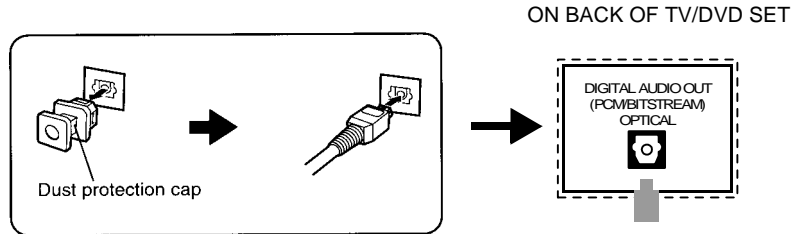


## Dolby Digital Decoder Connection

When DVDs are recorded in Dolby\* Digital or DTS, follow this diagram to connect the TV/DVD unit to a Dolby Digital decoder.

**Note:**

- Remove the dust protection cap from the optical digital audio output connection.
- For protecting against dust, reattach the dust protection cap when not using the connector.



TQB2AA0339-1 DVD COMBO.fm Page 15 Thursday



# Main Menu

## Main Menu



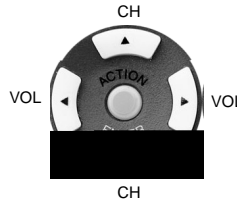
### ACTION Button

Press the **ACTION** button to display the Main Menu and submenus. Press the **ACTION** button repeatedly to exit.

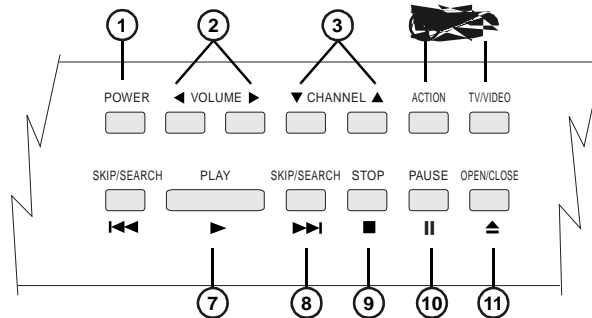
### CH / VOL Buttons

Press the **CH** (channel) or **VOL** (volume) buttons to select an icon. Use the **CH** buttons to highlight the desired features. Use **VOL** buttons to select and adjust features.

### Remote Action / Navigation Buttons





### Front Control Panel Buttons








- ① **POWER** - Press to turn ON or OFF.
- ② **VOLUME** - Press to adjust sound and navigate in menus.
- ③ **CHANNEL** - Press to select next or previous channel and navigate in menus.
- ④ **ACTION** - Press to access menus.
- ⑤ **TV/VIDEO** - Press to select TV or Video modes.
- ⑥ **SKIP/SEARCH** (Reverse) - Press during play to return to previous chapter or track.
- ⑦ **PLAY** - Press to play disc.
- ⑧ **SKIP/SEARCH** (Forward) - Press during play to select next chapter or track.
- ⑨ **STOP** - Press during play to stop disc.
- ⑩ **PAUSE** - Press during play to pause disc.
- ⑪ **OPEN/CLOSE** - Press to open or close the disc tray.

## Main Menu Feature Chart

MENU	DESCRIPTION
 <b>SET UP</b>	<b>SETUP</b>
<b>SET TIME</b>	When entered, TIME will display on screen after pressing POWER button, RECALL button, or changing channels.
<b>ANT</b>	Choose CABLE or TV to match the signal at your antenna input.
<b>AUTO PROG</b>	Automatically program channels with a signal into memory.
<b>MANUAL PROG</b>	Manually add or delete channels from memory.
<b>AUTO POWER ON</b>	Select SET to power up the TV at the same time as the Cable Box or other components or select OFF.
<b>CC MODE</b>	Select C1 or C2 for Closed Captioning display. Select OFF to display closed captioning when MUTE button is pressed.
<b>AUTO ASPECT</b>	Select ON to automatically set aspect ratio 4:3 or 16:9. This feature works <b>only</b> in DVD mode.
<b>LANGUAGES</b>	Select English, Spanish, or French menu.
 <b>AUDIO</b>	<b>AUDIO</b>
<b>AUDIO NORM</b>	Reset BASS, TREBLE and BALANCE to factory default.
<b>BASS</b>	Increase or decrease the bass response.
<b>TREBLE</b>	Increase or decrease the treble response.
<b>BALANCE</b>	Emphasize the left/right speaker volume.
<b>MODE</b>	Select the audio mode: <input type="checkbox"/> STEREO - Two channel audio reception. <input type="checkbox"/> SAP - (Second Audio Program) Tune to the alternate audio channel if available in your area (bilingual or descriptive audio). <input type="checkbox"/> MONO - One channel audio. Use when stereo signal is weak.
<b>AI SOUND</b>	Automatically maintain constant volume between programs and commercials.
<b>SURROUND</b>	Enhances audio response when listening to stereo.
<b>TV SPEAKERS</b>	Select TV SPEAKERS: <input type="checkbox"/> ON - TV SPEAKERS operate normally. <input type="checkbox"/> OFF&VAO (Variable Audio Output) - TV Speakers off — audio adjustable by TV. <input type="checkbox"/> OFF&FAO (Fixed Audio Output) - TV SPEAKERS off — audio adjustable only by the external amplifier.

**Main Menu Feature Chart (Cont.)**

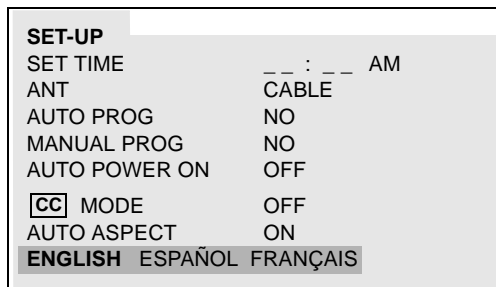
MENU	DESCRIPTION
	<b>TIMER</b>
<b>SLEEP TIMER</b>	Program TV to automatically turn off in 30, 60, or 90 minutes. Select NO to turn timer off.
<b>PROGRAM TIMER</b>	Program TV to automatically turn on and off at selected time on a selected channel, daily or only one day.
	<b>DVD SETUP</b>
<b>DVD SETUP</b>	Accessed only in DVD Mode with Disc in STOP mode. Refer to the DVD section for information on DVD setup menus.
	<b>PICTURE</b>
<b>PICTURE NORM</b>	Reset all picture adjustments to factory default settings.
<b>COLOR</b>	Adjust desired color intensity.
<b>TINT</b>	Adjust natural flesh tones.
<b>BRIGHTNESS</b>	Adjust dark areas for crisp detail.
<b>PICTURE</b>	Adjust white areas of picture.
<b>SHARPNESS</b>	Adjust clarity of outline detail.
	<b>CH CAP</b>
<b>CHANNEL CAPTION</b>	Provide labels for up to 30 stations using up to four characters for each station.
	<b>LOCK</b>
<b>GAME GUARD</b>	Program to prevent video games, cable box, and VCRs from being viewed. <b>Note:</b> For information about Motion Picture and TV Parental Guide ratings, refer to the V-Chip section in this manual.

## Special Features

### Languages



In SETUP menu, select ENGLISH, ESPAÑOL, or FRANÇAIS to change the menu language.

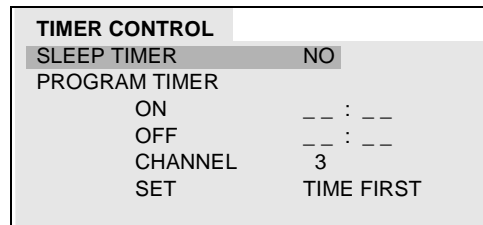


### Timer



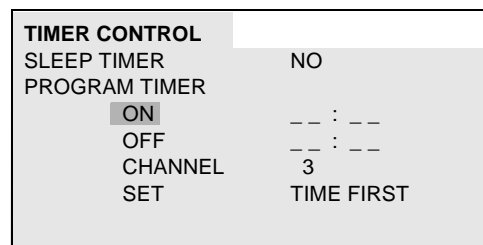
#### Sleep Timer

In TIMER menu, program to turn TV OFF in 30, 60, or 90 minutes. Select NO to turn off timer.



#### Program Timer

In Timer menu, program TV to automatically turn on and off at selected time on a selected channel, daily or one day.



**Note:** TIME must be entered in the SETUP menu to operate PROGRAM TIMER.

**Timer (cont.)**



**Turn Off After 90 Minutes**

The TV automatically turns OFF after 90 minutes when turned on by the PROGRAM TIMER. If the OFF time is programmed or if a key is pressed, the automatic OFF after 90 minutes will be cancelled.

**PROGRAM TIMER Activation**

The PROGRAM TIMER is active when the TV is OFF or ON. The TV will switch to the selected channel at the selected time set by the PROGRAM TIMER.

**CH CAP (Channel Caption)**

Program channel captions (station labels) for 30 stations using up to four characters. Use the numeric keypad for entering numbers unavailable with the select arrows.

**Note:** Delete channel captions by entering dashes (-) in all four character slots.

## Lock and Unlock

prevent video games and videotapes from being viewed.

1, 4, and video inputs for 12, 24, or 48 hours by entering a four-digit code and selecting **GAME GUARD ON**.

*Remember your code to unlock GAME GUARD before using it. Use a code that is easy to remember and record it in a safe place.*

To unlock, reentering your four-digit secret code, then selecting **GAME GUARD**

<b>LOCK</b>	
GAME GUARD	OFF
MOTION PICT. STATUS	OFF
CHANGE SETTINGS	▶
TV PARENTAL STATUS	OFF
CHANGE SETTINGS	▶
HOW LONG?	12 HRS
CHILD LOCK	OFF
ENTER CODE FIRST	- - - -

**LOCK** is **ON**, and if a blocked channel or video input is selected, the **GAME GUARD ON** displays in the upper right corner of the TV screen.



### Unlocking

If you do not remember your code, the **LOCK** will lock in 12, 24, or 48 hours depending on the current setup. Be cautious when selecting **WAYS**. If **ALWAYS** is selected, and you forget your secret code, the TV must be serviced by a qualified technician in order to clear the **LOCK** setup.



## V-Chip Operation (cont.)

## Motion Picture Ratings Chart

<b>NR</b>	<b>CONTAINS NO RATING. (NOT RATED) AND NA (NOT APPLICABLE) PROGRAMS. MOVIE HAS NOT BEEN RATED OR RATINGS DO NOT APPLY.</b>
<b>G</b>	<b>GENERAL AUDIENCES. All ages admitted.</b>
<b>PG</b>	<b>PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.</b>
<b>PG-13</b>	<b>PARENTS STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.</b>
<b>R</b>	<b>RESTRICTED. Under 17 requires accompanying parent or adult guardian.</b>
<b>NC-17</b>	<b>NO ONE 17 AND UNDER ADMITTED.</b>
<b>X</b>	<b>ADULTS ONLY</b>

## TV Parental Guide

This TV model features the “V-Chip technology” which allows you to use TV Parental Guide ratings when viewing TV programs. This innovation allows parents to block various types of TV Programming at their discretion.

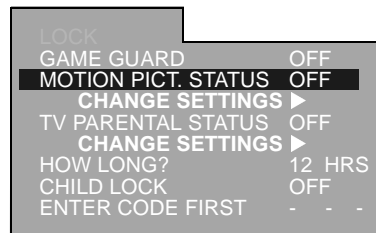


Fig. 4

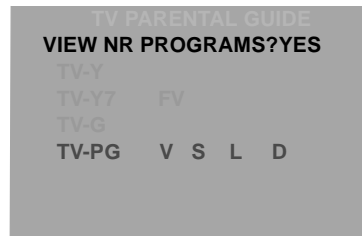


Fig. 5

## Procedure

1. In the Main Menu press the **CH ▲▼** or **VOL ◀▶** buttons to highlight LOCK icon.
2. Press **ACTION** button to display LOCK menu.
3. Use the numeric keypad to enter your four digit code. (*Use a code that is easy to remember and record it in a safe place.*)
4. Press **CH ▲▼** buttons to highlight TV PARENTAL STATUS.
5. Press **VOL ◀▶** buttons to select OFF or ON.
6. Press **CH ▼** button to highlight CHANGE SETTINGS. (See Fig. 4)
7. Press the **VOL ◀▶** buttons to display TV PARENTAL GUIDE sub menu. (See Fig. 5).
8. Press the **VOL ◀▶** buttons to select VIEW NR PROGRAMS? YES or NO. (**Selecting, “Yes” NR programs will be received. Selecting “NO”, NR programs will be blocked. See Customer Caution below.**)
9. Press **CH ▲▼** buttons to move between different ratings. Use **VOL ◀▶** buttons to select the ratings you want to block.

**Note:** See the TV PARENTAL GUIDE RATINGS chart.

10. Press **VOL ◀▶** buttons to block (RED) and unblock (GREEN).
11. Press **ACTION** button repeatedly to exit menus.





**Customer Caution**

The V-Chip system that is used in this set is capable of blocking "NR" programs (non rated, not applicable and none) per FCC Rules Section 15.120(e)(2). If the option of blocking "NR" programs is chosen "unexpected and possibly confusing results may occur, and you may not receive emergency bulletins or any of the following types of programming:"

- Emergency Bulletins (Such as EAS messages, weather warnings and others)
- Locally originated programming
- News
- Political
- Public Service Announcements
- Religious
- Sports
- Weather

**TV PARENTAL GUIDE RATINGS CHART**

<b>NR</b>	<b>Not Rated.</b> SEE CUSTOMER CAUTION on previous page.
<b>TV-Y</b>	<b>All children.</b> The themes and elements in this program are specifically designed for a very young audience, including children from ages 2-6.
<b>TV-Y7</b>	<b>Directed to older children.</b> Themes and elements in this program may include mild physical or comedic violence, or may frighten children under the age of 7.
<b>TV-G</b>	<b>General audience.</b> It contains little or no violence, not strong language, and little or no sexual dialogue or situations.
<b>TV-PG</b>	<b>Parental guidance suggested.</b> The program may contain infrequent coarse language, limited violence, some suggestive sexual dialogue and situations.
<b>TV-14</b>	<b>Parents strongly cautioned.</b> This program may contain sophisticated themes, sexual content, strong language and more intense violence.
<b>TV-MA</b>	<b>Mature audiences only.</b> This program may contain mature themes, profane language, graphic violence, and explicit sexual content.
<b>FV</b>	<b>FANTASY/CARTOON VIOLENCE</b>
<b>V</b>	<b>VIOLENCE</b>
<b>S</b>	<b>SEX</b>
<b>L</b>	<b>OFFENSIVE LANGUAGE</b>
<b>D</b>	<b>DIALOGUE WITH SEXUAL CONTENT</b>

## Blocking Message

If V-Chip is enabled and the program exceeds the rating limit set by the user, the blocking message will appear and the audio will be muted. (See Fig. 6). Enter your code if you wish to continue viewing the program. After entering the code, all locks and ratings are disabled until the TV is turned off or until all settings are off.

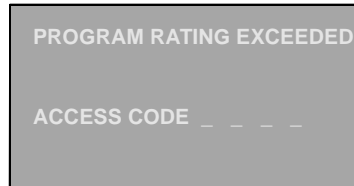
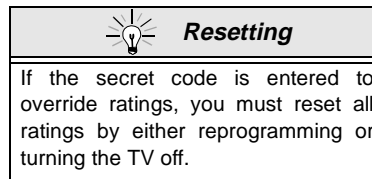
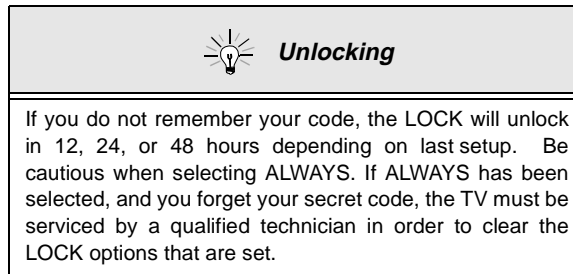
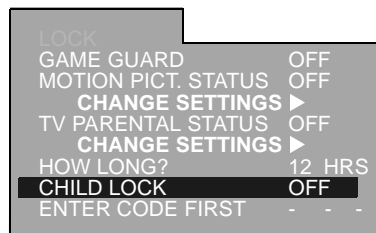


Fig. 6



## Child Lock

This feature allows parents to lock the DVD disc tray to prevent children from playing DVDs or CDs. To unlock disc tray select OFF.











### Procedure

1. In the Main Menu press the **CH ▲▼** or **VOL ◀▶** buttons to highlight LOCK icon.
2. Press **ACTION** button to display LOCK menu.
3. Use the numeric keypad to enter your four digit code (*Use a code that is easy to remember and record it in a safe place*).
4. Press the **CH ▲▼** buttons to highlight CHILD LOCK.
5. Press **VOL ◀▶** buttons to select DVD or OFF.
6. Press **ACTION** button repeatedly to exit menus.















**Note:** *When CHILD LOCK is set to DVD, all keys for the DVD player on the control panel are locked.*

**Remote Control Buttons - DVD Operation**

**DVD Quick Reference Functional Chart**

Remote Key	Description
<b>TOP MENU</b> 	Displays the complete menu of the particular DVD with top most item highlighted.
<b>MENU</b> 	Press MENU during play. The DVD menu available on the disc is now displayed. Press MENU again to resume play.
<b>ANGLE</b> 	Press ANGLE during play. Number of angle being played back is displayed. Press ▲▼ until the preferred angle is selected. Press ANGLE or ENTER to clear the display.
<b>SUBTITLE</b> 	Press SUBTITLE during play. When no subtitles are available, "--" will be displayed instead of the language number. Press ▲▼ until the preferred language is selected. Press SUBTITLE or ENTER to clear the display.
<b>AUDIO</b> 	Press AUDIO during play. When no audio sound track is available, "-" will be displayed instead of the language number. Press ▲▼ until the preferred language is selected. Press AUDIO or ENTER to clear the display.
<b>PLAY MODE</b>  (VIDEO CD / CD)	Press PLAY MODE in the stop mode. The program playback screen appears on the TV screen. Press ▲▼ to select the preferred track number. Press ENTER to store in memory. Repeat to program up to 18 tracks. Press PLAY to begin the programmed sequence. To return to normal play, press STOP, PLAY MODE twice, and PLAY.
<b>MARKER</b> 	Press MARKER during play. The marker screen appears on the TV screen. "*" indicates no marker has been stored yet. Press ENTER during play at the starting point to be viewed (listened to) again. Up to 5 markers can be stored in the memory. Press MARKER to clear the display.
<b>REPEAT MODE</b> 	Press REPEAT MODE during play. Each time this button is pressed, the TV screen changes and the disc will repeat a chapter or title (DVD). To return to normal play, press REPEAT MODE several times until "OFF" is displayed.

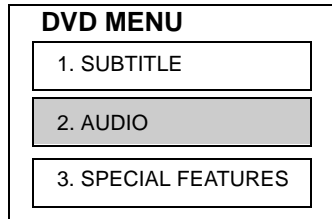
DVD Quick Reference Functional Chart (Cont.)

Remote Key	Description
<b>A-B REPEAT</b> 	Press A-B REPEAT during play at the point where repeat play is to start (A). Press A-B REPEAT at the point where repeat play is to be concluded (B). To return to normal play press A-B REPEAT several times until "OFF" is displayed.
<b>VSS</b> 	This set can reproduce a virtual surround sound effect. Press VSS during play.
<b>NUM</b> 	Press NUM key in DVD mode to access the number keys.
<b>RETURN<sub>≥10</sub></b> 	When the MENU continues onto another screen, press RETURN to return to the previous menu screen. This key also lets you enter a number equal to or greater than 10 while in the DVD mode.
<b>CANCEL TV/VCR</b> 	Press CANCEL in DVD mode to cancel selections.
<b>STOP</b> 	Press STOP in DVD mode to stop play.
<b>STILL PAUSE</b> 	Press STILL during play, the DVD player will be in the still picture mode. Press PAUSE during play, the CD player is placed in the pause mode. Press PLAY to resume the normal operation.
<b>PLAY</b> 	Press PLAY in DVD mode to start play.
<b>VOL</b>  <b>VOL</b> 	Adjusting volume in DVD mode: <ul style="list-style-type: none"> <li>• Press TV mode button.</li> <li>• Press VOL left/right to adjust volume.</li> <li>• Press DVD mode button.</li> </ul>
<b>SKIP/REW</b> 	Press SKIP/REW in DVD mode to skip search or fast rewind (search or fast rewind with compact disc).
<b>SKIP/FF</b> 	Press SKIP/FF in DVD mode to skip search or fast forward (search or fast forward with compact disc).
<b>SLOW SEARCH</b>  	Press SLOW/SEARCH in the STILL mode to view slow motion play in reverse or forward direction. Press PLAY to resume normal operation.

ing Play. This will bring up the DVD menu with the top menu  
TER button twice to exit TOP MENU.

l menus. These menus may include guides to unique contents,  
es, special features, etc. Contents and operation may vary  
Following steps show the basic procedure.

g play. The menu of the particular disc is displayed.

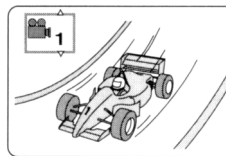


s (◀▶▲▼) to select the desired feature.  
ure has sub-menu, repeat step 2 to select the desired feature  
desired feature is activated. Press **MENU** again resumes play  
n MENU was first press

### Angle (DVD)

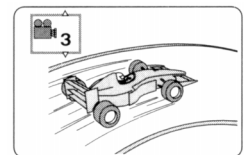
n scenes which have been shot simultaneously from a  
es. For these discs, the same scene can be viewed from each  
es using the ANGLE button. (The recorded angles differ  
sed.)

lay  
back.



the cu ns ▲▼ until the preferred angle is

sted.  
essing tions also changes the angle.  
TER to clear the display.



works for titles having scenes recorded at

an be programmed beforehand with some DVDs; the angle  
e selected number when ANGLE lights up.

on the TV screen while a button is being pressed, it means that the  
ration is unavailable on the disc.

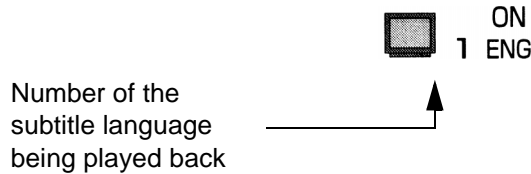
**SUBTITLE**

**Changing subtitle language (DVD)**

It is sometimes possible to change subtitles to a different language. This operation works only with discs on which multiple subtitle languages are available.

Press **SUBTITLE** during play.

When no subtitles are available, "--" will be displayed instead of the language number.



Press the cursor buttons (▲▼) until the preferred language is selected.

Pressing the numeric buttons also selects the subtitle language.

Press **ENTER** to clear the display.

**To display subtitles or clear screen:**

Press the cursor buttons ◀▶ to select ON or OFF.

Note:

- In some cases, the subtitle language will not change to the selected one immediately.
- When a disc supporting closed captioning is played, subtitles and closed captioning may overlap on the TV screen. In this case, turn the subtitle off.

**For your reference:**

- When the preferred language is not selected even after pressing the cursor buttons ▲▼ several times, it means that the language is not available on the disc.
- When the power is turned on or the disc is removed, subtitles appear in the language selected at the initial settings. If this language is not recorded on the disc, subtitles appear in the disc's priority language.

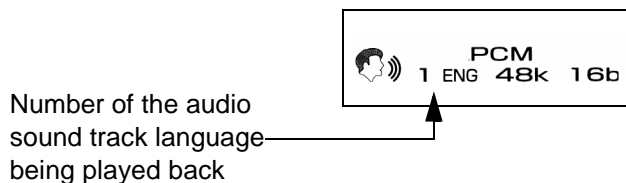
**AUDIO**

**Changing audio sound track language (DVD)**

It is sometimes possible to change the audio sound track to a different language. This operation works only with discs on which multiple audio sound track languages are available.

Press **AUDIO** during play.

When no audio sound track is available, “-” will be displayed instead of the language number.



Press the cursor buttons (▲▼) until the preferred language is selected.

Pressing the numeric buttons also changes the audio sound track language.

Press **ENTER** to clear the display.

For your reference:

- When the preferred language is not selected even after pressing the cursor buttons ▲▼ several times, it means that the language is not available on the disc.
- When the power is turned on or the disc is removed, the language heard is the one selected at the initial settings. If multiple languages are not available on the disc, only the language recorded on the disc will be heard.

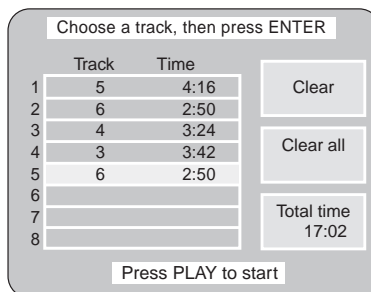
**PLAY MODE**

PLAY MODE (VIDEO CD/CD) feature lets you play the tracks in an order you specify.

Press **PLAY MODE** in the stop mode.

The program playback menu appears on the TV screen.

Press **ENTER**, then cursor buttons (▲▼) to select the preferred track number or press **NUM** key and the numeric buttons on the remote control to enter the preferred track number.



Press **ENTER**. The selected track is stored in memory.

## **Play Mode (cont.)**

Repeat steps to select another track.

**Press PLAY.**

Play now begins in the programmed sequence.

### **After playback**

Play is stopped and the program playback menu is displayed.

### **To return to normal play**

- Press STOP. (Program play is suspended.)
- Press PLAY MODE twice.
- Press PLAY.

Normal play begins from the beginning of the disc. (The content of the program is still retained in the memory.)

### **Clearing the program**

When the program playback menu is displayed.

- To clear the last program one by one:

Move to "Clear" and press ENTER.

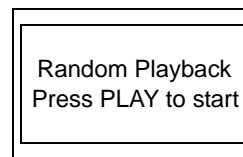
- To clear all the programs:

Move to "Clear All" and press ENTER. (The programs are also cleared when the player is turned off, or OPEN/CLOSE is pressed.)

### **Random Play (Video CD/CD)**

The player plays the tracks on the disc in random order.

- Press PLAY MODE twice in STOP mode. The random playback screen appears on the screen.



- Press PLAY.

To exit the random playback mode and return to normal operation:

- Press STOP. (Random play is suspended.)
- Press PLAY MODE once.
- Press PLAY. (Normal play begins from the beginning of the disc.)

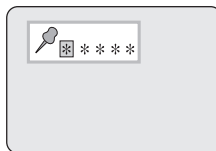


## MARKER

To Store markers in memory to be viewed (listened to) again.

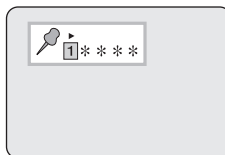
Press **MARKER** during play.

The MARKER menu appears on the TV screen.



“\*” indicates no marker has been stored yet.

Press **ENTER** during play at the starting point to be viewed (listened to) again.



Indicates MARKER 1 is stored in the memory

(If **ENTER** is pressed where any number is already displayed, the previous starting point will be replaced by the new one.)

Up to 5 markers can be stored in the memory.

Press **MARKER** to clear the display.

### Recalling/clearing a marker

Press **MARKER** during play.

Press the cursor buttons (◀▶) to select the marker to be recalled/cleared.

Press the cursor button (▲) to recall a marker.

or

Press **CANCEL** to clear a marker.

Play resumes from the point corresponding to the selected marker.

or

The selected marker is cleared. (Press **MARKER** to clear the display.)

Note:

- Some subtitles recorded around the marker may fail to appear. (DVD)
- These operations do not work with an interactive DVD or during menu play of a Video CD with playback control.

For your reference:

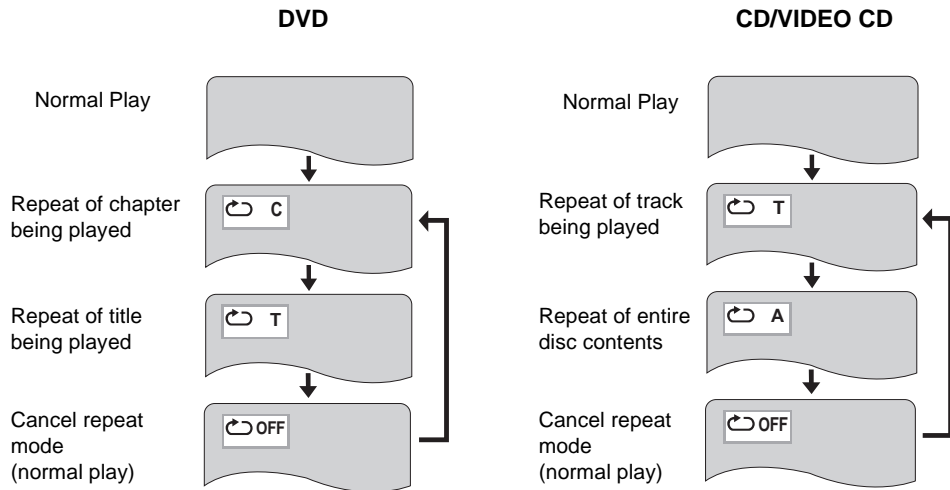
- All the markers are cleared when the player turned off, or **OPEN/CLOSE** is pressed.

## REPEAT MODE

### Repeat play/viewing (listening)

Press **REPEAT MODE** during play.

Each time this button is pressed, the TV screen changes as shown below and the disc will repeat a chapter or title (DVD) or a track or the entire disc (Video CD/CD).



#### To return to normal play

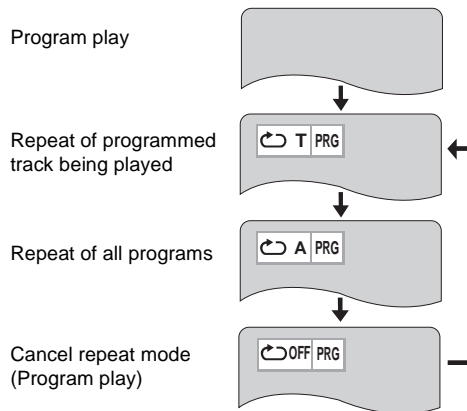
Press **REPEAT MODE** several times until "OFF" is displayed.

Notes:

- Repeat play may not work correctly with some DVDs.
- Repeat play does not work with an interactive DVD or during menu play of a Video CD with playback control.

#### To enjoy program repeat play while playing CDs.

If **REPEAT MODE** is pressed during program play the display changes as follows:



#### To return to program play

Press **REPEAT MODE** several times until "OFF" is displayed.

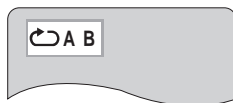
## **A-B REPEAT**

A-B Repeat allows you to repeat sections between two specific points (A-B repeat)

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



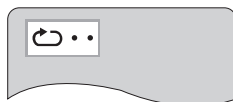
**Press A-B REPEAT at the point where repeat play is to be concluded (B).**



Repeat play of the selection between points A and B.

### **To return to normal play**

Press A-B REPEAT several times until the following display is shown.



### Notes:

- A-B repeat play does not work with an interactive DVD.
- Some subtitles recorded around point A or B may fail to appear. (DVD)
- A-B repeat play works only within a title (DVD) or a track (Video CD/CD).

### For your reference:

- If the title/track is completed before end location B is specified, the end point of the title/track serves as end location B.



## Volume Adjustment in DVD Mode

Follow these steps to adjust volume in the DVD mode.

1. Press the TV MODE on the remote control.
2. Press the VOL ◀▶ buttons on the remote control to adjust the volume.
3. Press the DVD MODE button on the remote control to return to DVD operation.

**Note:** Volume can also be adjusted by pressing the VOL ◀▶ buttons on the front control panel.

## General information about On-Screen Menu Icons

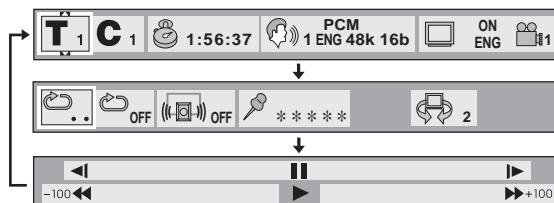
The DVD player in this unit features On-Screen Menu Icons providing various functions. A banner will be displayed on the television screen by pressing the **DISPLAY** on the remote control. Operating the cursor buttons and **ENTER** button on the remote control will show the following disc information:

- Title/chapter/track numbered playing time, audio/subtitle language, and angle.
- Player information such as repeat play, play mode, marker, Virtual Surround Sound, etc.

### Common procedures

Press **DISPLAY** button during Play or in the STOP mode.

Each time this button is pressed, the following display sequence appears on-screen:



1. Press the cursor buttons ◀▶ to select the preferred item. The selected item is indicated by the yellow frame on the On-Screen Menu Icons.
2. Press the cursor buttons ▲▼ to select the preferred setting. For some items, the selection will be registered immediately; for others, **ENTER** or **PLAY** must be pressed. When numbers are displayed in the on-screen menus, the numeric buttons are also effective for selecting instead of the cursor buttons (▲▼).
3. Press RETURN or CANCEL to clear the three different styles for On-Screen Menu Icons.

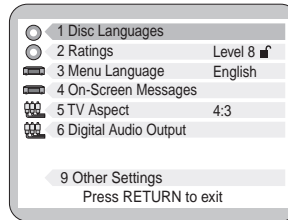
## DVD Setup Menus

Using the DVD SETUP menus, you can pre-program the following choices:

1. Disc Languages
2. Ratings Level
3. Menu Languages
4. On-Screen Messages
5. TV Aspect
6. Digital Audio Output
7. Other Settings

### Procedure

- Press the TV button on the remote control.
- Press **ACTION/ENTER** button to display the Main Menu.
- Press **▲▼** or **◀▶** button to highlight the DVD SETUP Icon.
- Press **ACTION/ENTER** button to display the DVD SETUP menu.
- Press **DVD** button on the remote control and stop the disc (if playing).
- Press the cursor buttons **▲▼** to select the preferred item and press **ENTER** to display the sub-menus of the preferred item.



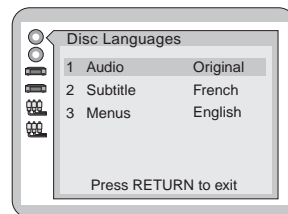
- Press **RETURN** repeatedly to exit menus.

## Disc Languages

This menu selects the audio sound track language, sub-title language and the language used in the menus of DVD menus. The same settings will be used for every disc to be played back.

### Procedure

- In DVD SETUP menu, press **▲▼** buttons to highlight DISC LANGUAGES.
- Press **ACTION/ENTER** button to display the sub-menu.
- Press **▲** or **▼** button to select the Audio, Subtitle or Menu.



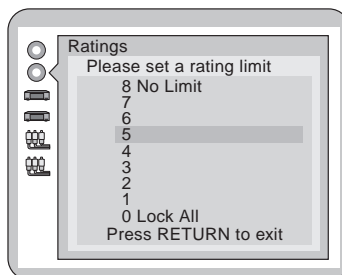
- Press **ACTION/ENTER** button to enter your selection.
- To select a non-listed language, select OTHER \*\*\*\*, then refer to the language codes in back of this manual.
- Press the **NUM** button, then use the 0~9 button to enter code.
- Press **CANCEL** if an incorrect language code is entered.
- Press **RETURN** to exit the Disc Languages sub-menu.

## Ratings Level

The Ratings Level menu lets parents set a specified rating level. If the rating level of the disc is higher than the preset level, playback of the disc is prohibited.

### Procedure

- In DVD SETUP menu, press **▲** or **▼** button to highlight Ratings.
- Press **ACTION/ENTER** button to display Ratings menu.
- Press **▲** or **▼** button to select the preferred rating level.
- Press **ACTION/ENTER** button to enter your selection.



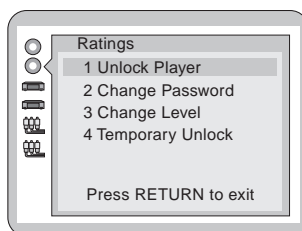
Following is the explanation of Rating Levels:

Level 8	All DVDs can be played back. (Factory preset)
Level 7 to 2	DVDs for general audiences/children can be played back. (DVDs for adults are prohibited.)
Level 1	DVDs for children can be played back. (DVDs for adults/general audiences are prohibited.)
Level 0 (Lock All)	Playback of DVDs are prohibited (e.g. playback of DVDs for adults which are not encoded with rating level information).

- When a level 7 or lower is selected, an on-screen display appears and prompts you enter a four digit code. Press **NUM** key and the 0 - 9 number keys on the remote control to enter the four digit code. Make sure to remember this code. You'll need to input this code to change the rating level if you decide later.
- Press **ENTER** to activate your rating level selection.

The rating is locked. Any disc whose rating is higher than the setting cannot be played back unless the correct password (4-digit code) is entered.

When the player is locked and you wish to play a DVD whose rating is different than the rating level you selected, enter the four digit secret code, press **ENTER**, and the following menu appears on the screen.

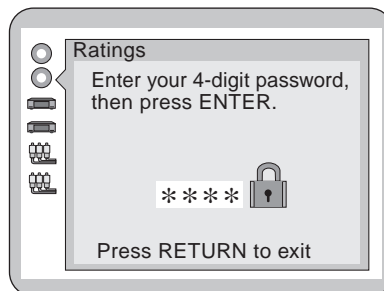


## Rating Level (cont.)

To unlock the player follow the procedure below.

### Procedure

- Highlight Unlock Player, then press **ENTER**.
- Highlight Change Password and press **ENTER**. Enter a new password and press **ENTER** twice.



**Note:** Press NUM key and 0 - 9 number keys on the remote control to enter the four digit password.

- Highlight Change Level and press **ENTER**.
- Select a new rating by using **▲** or **▼** button, then press **ENTER**.

### To unlock the player temporarily

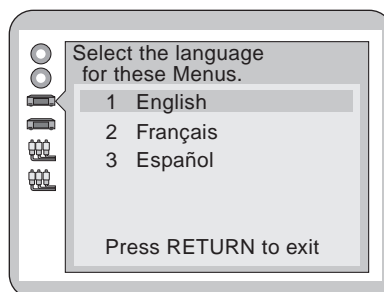
- Highlight Temporary Unlock and press **ENTER**. The player is unlocked temporarily only for the disc.

## Selecting language of On-Screen display menus

This menu lets you to select the language to be used to display the on-screen menus.

### Procedure

- In the DVD SETUP menu, press **▲** or **▼** button to highlight Menu Languages.
- Press **ACTION/ENTER** button to display the sub-menu.



- Press **▲** or **▼** button to select English, Français or Español.
- Press **ACTION/ENTER** button. Initial setting menu is displayed.

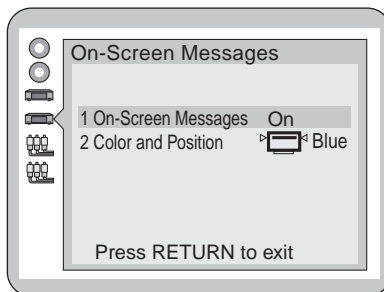


## On-Screen Messages

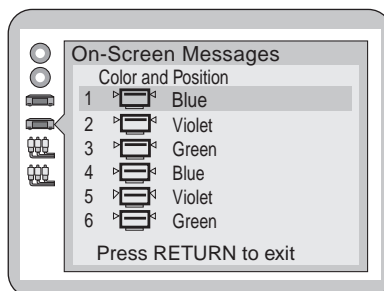
This menu lets you decide whether “Play”, “Still” and other on-screen displays will be displayed or not. It also lets you select the color and positioning of displays.

### Procedure

- In the DVD SETUP menu, press ▲ or ▼ button to highlight On-Screen Messages.
- Press **ACTION/ENTER** button. The following sub-menu is displayed.



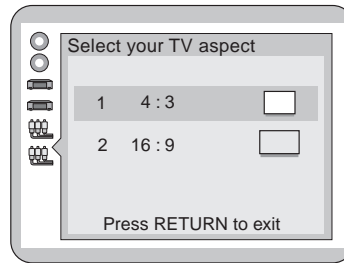
- Press ▲ or ▼ button to select the preferred item and press **ENTER**.
- If On-screen Message is highlighted, select On or Off.
- If Color and Position is selected, make your selection from the screen displayed on-screen.



- Press **ACTION/ENTER** button to enter your selection.
- Press RETURN to exit the menu.

## TV Aspect

This menu lets you select the aspect ratio of your television. Select 4:3 (conventional TV) or 16:9 (wide screen).



### Procedure

- In the DVD SETUP menu, press ▲ or ▼ button to highlight TV Aspect.
- Press **ACTION/ENTER** button to display the sub-menu.
- Press ▲ or ▼ button to select either 4:3 or 16:9.
- Press **ACTION/ENTER** button to enter your selection.

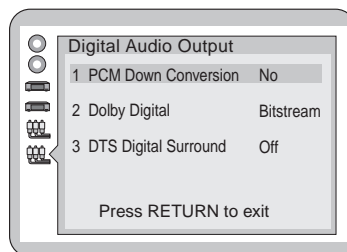
**Note:** When *AUTO ASPECT* is ON and the TV Aspect is set to 16:9, a DVD disc in widescreen mode (squeeze or anamorphic widescreen) will be played back in vertical compressed 16:9 mode.

## Digital Audio Output

This menu lets you select the digital output to be outputted from the optical digital audio output connector of the TV set.

### Procedure

- In the DVD SETUP menu, press ▲ or ▼ button to highlight Digital Audio Output.
- Press **ACTION/ENTER** button to display the sub-menu.



- Highlight PCM Down Conversion (Item 1). Press **ENTER** to display the sub-menu. Select either No or Yes.
- Press **ACTION/ENTER** button.
- Highlight Dolby Digital. Press **ACTION/ENTER** button to display Dolby Digital sub-menu.
- Select either Bitstream or PCM.

Example: in the case of the P-Picture  
If Bitstream is selected, Dolby Digital bitstream (6 Ch) is output during playback of DVDs recorded in the Dolby Digital. (Factory preset)

Use this setting when the audio output is connected to the Dolby Digital Decoder.

**Digital Audio Output (cont.)**

If PCM is selected the digital audio is converted to PCM (2ch) of 48kHz/16 bit and is output during playback of DVDs recorded in the Dolby Digital.

- Press **ACTION/ENTER** button.
- Highlight DTS Digital Surround.
- Press **ACTION/ENTER** button to display sub-menu.
- Select either Off or Bitstream.

Off - No digital audio is output from the Dolby Digital output jack during playback of the DVDs recorded in DTS. (factory preset)

Bitstream - DTS bitstream is output from the Dolby Digital audio output jack during playback of the DVDs recorded in DTS. Select this setting when the player is connected to a DTS decoder.

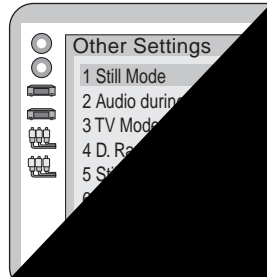
- Press **ACTION/ENTER**.

**Other Settings**

This menu lets you perform other special features of the DVD player.

**Procedure**

- In the DVD SETUP menu, press **▲** or **▼** button to highlight Other Settings.
- Press **ACTION/ENTER** button to display the sub-menu.



**Still Mode**

Lets you select Audio  
Frame still are  
vents jittering  
picture mo

**Audi**

This

## Other Settings (Cont.)

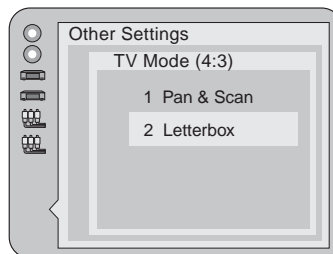
### TV Mode

Select either Pan & Scan or Letterbox.

**Pan & Scan:** The video material for a wide-screen will be played back in the Pan & Scan style on a conventional television.

**Note:** Video material not formatted in the Pan & Scan style will be played back in the letterbox style.

**Letterbox:** The video material for a wide-screen will be played back in the letterbox style with black bars top and bottom on the screen.



### D. Range Compression

Select D.(Dynamic) Range Compression Off or On.

**Off** mode is selected to hear the normal audio range.

**On** mode is selected to listen to dynamic sound even on low volume. Dynamic range is the difference in volume between the quietest and loudest sounds heard. Dynamic compression limits the level for listening at low volume. This is useful late at night, for example.

**Note:** This function only works with Dolby Digital DVD.

### Still Picture Display

This menu is used to select the type of still picture displayed on the screen. Select either Off or On.

If **Off** mode, the picture type (I/P/B) will not be displayed on the TV screen in the still picture mode. (Factory preset)

If **On** mode is selected, the picture type (I/P/B) will be displayed on the TV screen in the still picture mode.

### For your reference:

When On is selected in the Still Picture Display, the following screen is displayed in the still picture mode.



### Explanation of I/P/B

The MPEG 2 standard adopted for DVD uses the following 3 picture types for the coding of each picture (frame) on the TV screen.

- **I-Picture (Intra coded picture)**

This is the standard picture type, and each picture is coded separately. Since it features the best picture quality, it is recommended that the screen be frozen with I-Picture when the picture quality is to be adjusted.

- **P-Picture (Predictive coded picture)**

This picture type is computed on the basis of a past I-Picture or P-Picture.

- **B-Picture (Bidirectionally-predictive coded picture)**

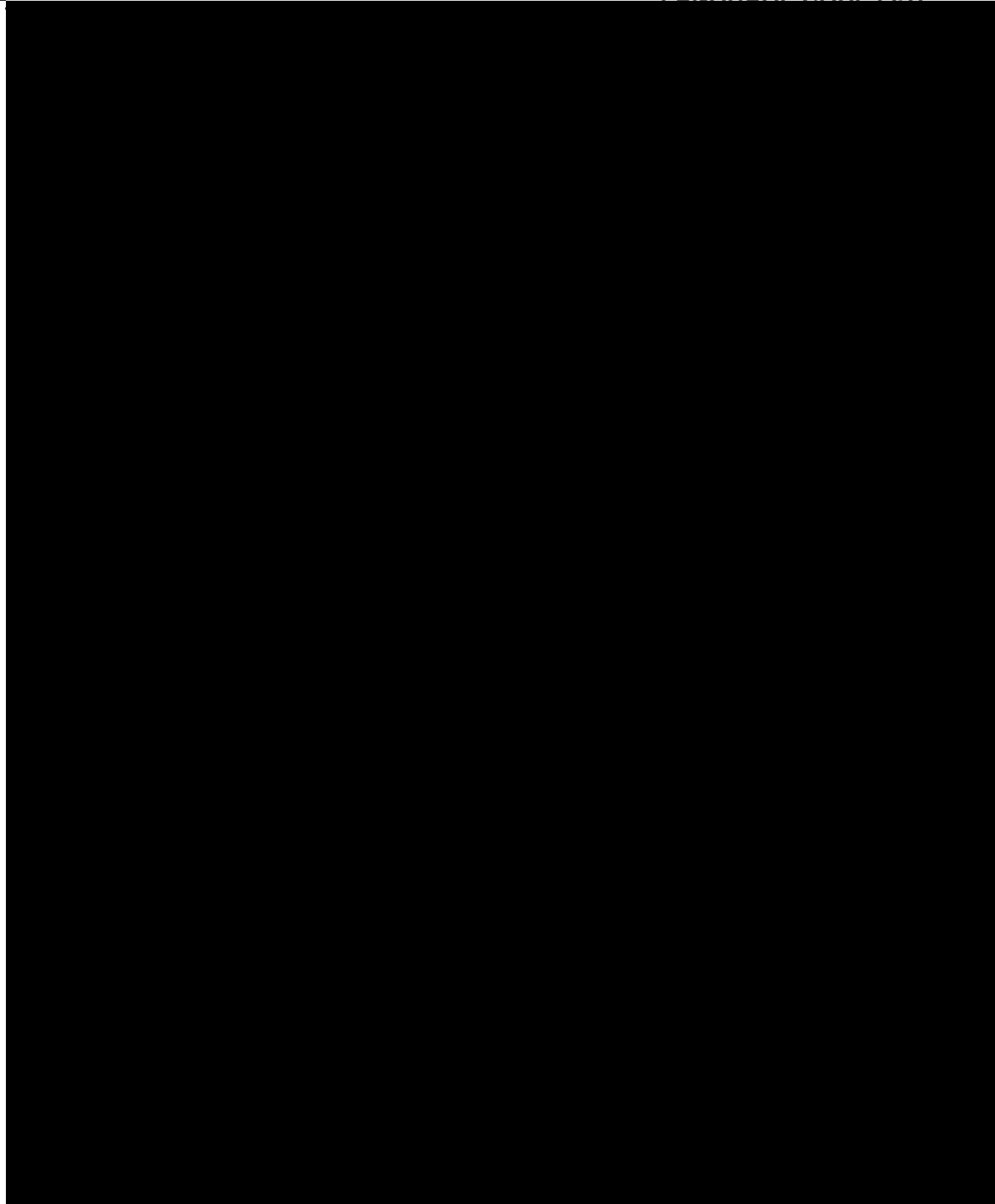
This picture type is computed by comparing the previous and subsequent I-Picture or P-Picture. It has the lowest volume of information.

### Black Level Control

This menu lets you select the black level of the picture, "Lighter" or "Darker".

### Procedure

- In Other Settings menu, press ▲ or ▼ button to select Black Level Control.
- Press ACTION/ENTER button to display the sub-menu.
- Press ▲ or ▼ button to select either "Lighter" or "Darker".
- Press **ENTER**.
- Press **RETURN** repeatedly to exit the DVD SETUP menu.





## Troubleshooting Chart - DVD

Before calling for service, determine the symptoms and follow suggested solutions.

<i>SYMPTOMS</i>	<i>Solutions</i>
Play fails to start even after PLAY is pressed.  Play starts but then stops immediately.	This player cannot play a disc other than DVD, VIDEO CD and CD.  The disc may be dirty and may require cleaning. Make sure that the disc is installed with the label side facing up.
Can't adjust Volume with remote control while in DVD mode	Press the TV Mode button, then press VOL buttons. Press the DVD mode button to return to DVD operation.
No sound.	Make sure that the TV speakers are turned On. If connected to stereo systems, check all the connections and check the amplifier's input selection.
Play does not start even when title is selected.	Check the Ratings level setting. The disc has a different rating than the one selected in the DVD SETUP menu.
Picture distorted during rapid advance or rapid reverse.	The picture will be somewhat distorted at times: this is normal.
No key operation (by the controls on the TV set or remote control unit) is effective.	Some operations may be prohibited by the disc.
No 4:3 (16:9) picture.	Choose the correct TV aspect from the DVD SETUP menu.
No on-screen display.	The "Off" setting is selected for On-screen Messages. Select "On" to view the On-screen Messages.
No subtitles	Subtitles appear only with discs containing them. Subtitle option turned Off. Select "On" from subtitle sub-Menu.
Angle cannot be changed.	This function dependent on software availability. Even if a disc has a number angles recorded, these angles are for specific scenes only.
Audio sound track and/or subtitle language is not the one selected at the initial settings.	If the audio sound track and/or subtitle language does not exist on the disc, the language selected at the initial settings will not be seen or heard.



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