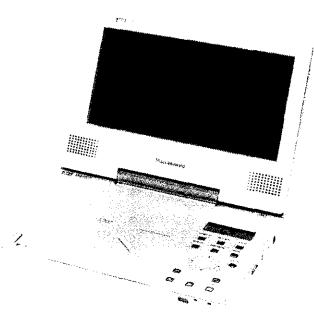




# Model No. DVD-LV75 DVD-LV70 DVD-LV55



The photographs show DVD-LV75.





## Dear customer

n Serence personale

a state and the second s

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully.

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

## For U.S.A. Only

PP

The servicenter list and warranty can be found on pages 48 and 50.

In the U.S.A.: http://www.panasonic.com

In Canada: www.panasonic.ca

RQT5897-Y

## **CAUTION!**

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUST-**MENTS OR PERFORMANCE OF PRO-**CEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN RADIATION EXPO-HAZARDOUS SURE.

DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PER-SONNEL.

## WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS **APPLIANCE TO RAIN, SPLASH-**ING, DRIPPING OR MOISTURE.

## DVD-LV75 DVD-LV55

**CAUTION:** TO PREVENT ELECTRIC SHOCK MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

THE FOLLOWING APPLIES ONLY IN THE U.S.A.

This equipment has been tested and found to

comply with the limits for a Class B digital de-

vice, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reason-

able protection against harmful interference in

a residential installation. This equipment gener-

ates, uses and can radiate radio frequency

energy and, if not installed and used in ac-

cordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interfer-

ence will not occur in a particular installation. If

this equipment does cause harmful interfer-

ence 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

CAUTION -VISIBLE AND INVISIBLE LASER ATTENTION -RAYONNEMENT LASER VISIBLE ET RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.

**CAUTION:** 

measures:

INVISIBLE EN CAS D'OUVERTURE. NE PAS REGARDER DANS LE FAISCEAU.

(Bottom of the unit)

Reorient or relocate the receiving antenna.

appliance.

- 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.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful intereference, and (2) this device must accept any intereference received, including intereference that may cause undesired operation.

The following mark and symbols are located on the bottom of the unit.



ELECTRIC SHOCK, DO NOT **REMOVE SCREWS. NO USER-**SERVICEABLE PARTS INSIDE. **REFER SERVICING TO** QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an

equilateral triangle is intended to alert the user to the presence of

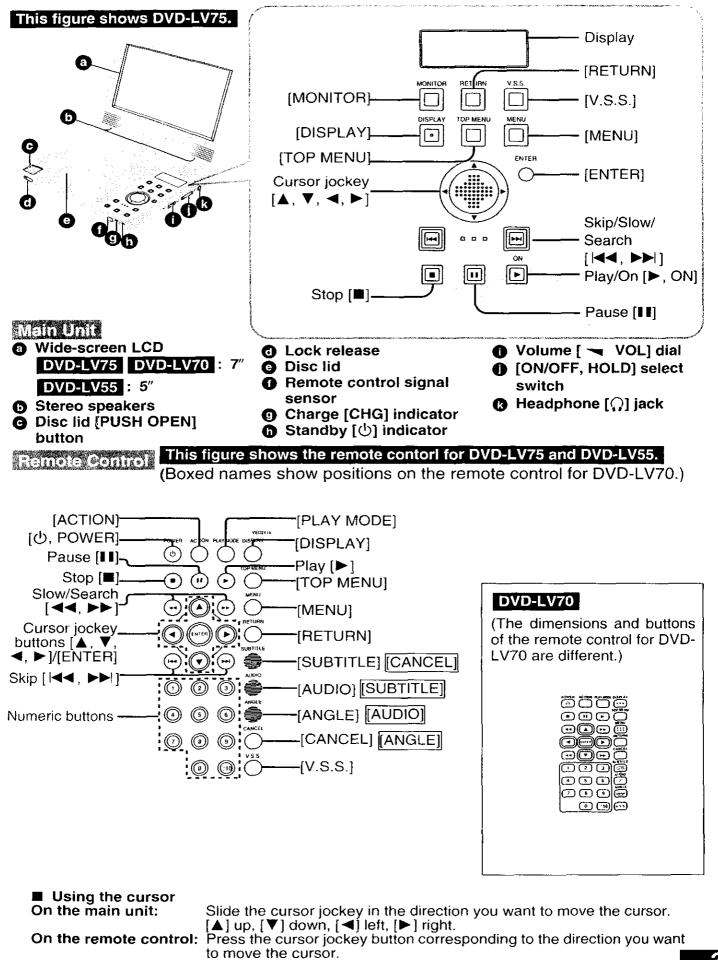
important operating and mainte-

nance (servicing) instructions in the literature accompanying the





Open this page while reading the instructions so you can see where the controls are.



<sup>[▲]</sup> up, [♥] down, [◀] left, [▶] right.



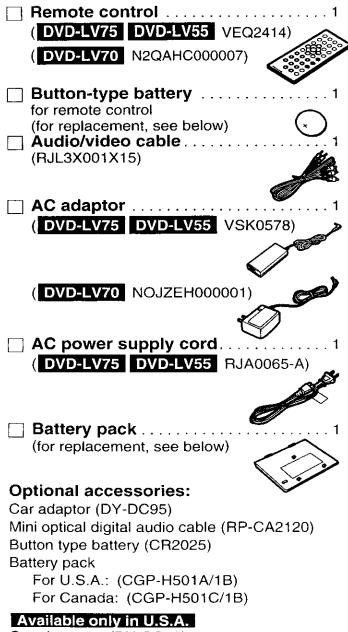
## Accessories



Please check and identify the supplied accessories.

(For U.S.A.) To order accessories contact 1-800-332-5368 or web site (http://www.panasonic.com). (For Canada)

To order accessories, call the dealer from whom you have made your purchase.



Carrying case (DY-CC20) Headphones (RP-HC100 or RP-HS900)

Use numbers indicated in parentheses when asking for replacement parts.

## Note

The included AC power supply cord and AC adaptor are for use with this unit only. Do not use them with other equipment.

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• Connecting to a television
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These operating instructions are applicable to models DVD-LV75, DVD-LV70 and DVD-LV55.

However, most of the illustrations show model DVD-LV75.



Disc and unit handling precautions	<ul> <li>Power supply</li> <li>Using the AC adaptor</li></ul>	<b>Getting Starte</b>
<ul> <li>Slow motion</li></ul>	<ul> <li>Starting play from a selected title or track</li></ul>	<b>Basic Operations</b>
Changing the monitor settings	Using On-Screen Menu Icons •Basic operation	Advanced Operations
<ul> <li>Selecting TV screen type</li></ul>	•Connection to a 2-channel digital amplifier or mini-system (Digital connection)	For Your Reference

The features available depend on the model. These marks indicate features available with the different models.
 DVD-LV75 (DVD-LV75 only)

**DVD-LV75** (DVD-LV75 only) **DVD-LV70** (DVD-LV70 only) **DVD-LV55** (DVD-LV55 only)

 Ð

# **IMPORTANT SAFETY INSTRUCTIONS**

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10)Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is



used, use caution when moving the cart/apparatus combination to avoid injury from tipover.

- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

In the U.S.A., contact the Panasonic Customer Call Center at 1-800-211-7262, or e-mail consumerproducts@panasonic. com, or web site (http://www. panasonic.com).

In Canada, contact Panasonic Canada Inc. Customer Care Centre at 1-800-561-5505 or web site (www.panasonic. ca), or an authorized Servicentre nearest you.



# **Listening caution**

## AC adaptor

This AC adaptor operates on AC between 100 V and 240 V.

- But
- In the U.S.A. and Canada, the AC power supply cord must be connected to a 120 V AC power supply only.
- •When connecting to an AC supply outside of the U.S.A. or Canada, use a plug adaptor to suit the AC outlet configuration.
- •When connecting to a supply of greater than AC 125 V, ensure the cord you use is suited to the voltage of the AC supply and the rated current of the AC adaptor.
- •Contact an electrical parts distributor for assistance in selecting a suitable AC plug adaptor or AC cord set.

## Batteries

- 1. Battery pack (Lithium ion battery pack)
- •Use this unit to recharge the battery pack.
- •Do not use the battery pack with equipment other than the specified player.
- •Do not use the player outside if it is snowing or raining. (The battery pack is not waterproof.)
- •Do not get dirt, sand, liquids, or other foreign matter on the terminals.
- •Do not touch the plug terminals (+ and -) with metal objects.
- •Do not disassemble, remodel, heat or throw into fire.

## 2. Button-type battery (Lithium battery)

- Insert with poles aligned.
- •Do not touch the terminals (+ and -) with metal objects.
- •Do not disassemble, remodel, heat or throw into fire.
- •Keep out of reach of children.

If any electrolyte should come into contact with your hands or clothes, wash it off thoroughly with water.

If any electrolyte should come into contact with your eyes, never rub the eyes.

Rinse eyes thoroughly with water, and then consult a doctor.

#### 3. Disposing of the batteries

Check and follow your local regulations before disposal.





**Getting Starter** 

Do not play your headphones or earphones at a high volume. Hearing experts advise against continuous extended play.

If you experience a ringing in your ears, reduce volume or discontinue use.

Do not use while operating a motorized vehicle. It may create a traffic hazard and is illegal in many areas.

You should use extreme caution or temporarily discontinue use in potentially hazardous situations.

Even if your headphones or earphones are the open-air type designed to let you hear outside sounds, don't turn up the volume so high that you can't hear what's around you.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing.

Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

- To establish a safe level:
- •Start your volume control at a low setting.
- •Slowly increase the sound until you can hear it comfortably and clearly, and without distortion. Once you have established a comfortable sound level:

•Set the dial and leave it there.

#### CAUTION:

The batteries used in this device may present a risk of fire or chemical burn if mistreated. Do not disassemble or incinerate the batteries. Do not heat the batteries above the following temperatures.

Button-type battery (Lithium battery) (for remote control) .....CR2025 Battery pack (Lithium ion battery pack)

For U.S.A.: CGP-H501A/1B For Canada: CGP-H501C/1B

Use of other batteries may present a risk of fire or explosion.



**DVD-Video** 

Video CD

Audio CD





VIDEO



Discs not supported by this unit

DVD with a region number other than "1" or "ALL" (See below.), **Photo CD**, CD-RW, CDV, PAL discs, DVD-RW, CD-G, DVD-ROM, DVD+RW, DVD-Audio, DVD-R, CVD, SVCD, DVD-RAM, Divx Video Disc, SACD, CD-ROM and VSD.

Do not try to play Photo CD. The data on the idsc may be damaged.

Region number supported by this unit

Region numbers are allocated to DVD players and software according to where they are sold.

- The region number of this unit is "1".
- •This unit will play DVDs marked with labels containing the region number "1" or "ALL".

#### Example:



Read the disc's instructions carefully.

#### Playing DVDs and Video CDs

The producer of the material can control how these discs are played. This means that you may not be able to control play of a disc with some operations described in these operating instructions. Read the disc's instructions carefully.

## How the picture appears on the LCD

The picture shown on the LCD depends on the display mode and the aspect ratio recorded on the disc ( $\Rightarrow$  page 19).

#### DVDs that can be played

This unit has a Dolby Digtal decoder so you can play DVDs with this mark.



#### DVD-LV75 DVD-LV55

These models have a DTS decoder so you can enjoy the powerful sound effects this system can provide.

#### DVD-LV70

This unit does not have a DTS decoder. Connect this unit to equipment that has a DTS decoder to enjoy DVDs with this mark.

The functions depend on the disc being played. These marks indicate the functions available.



VCD (Video CD) (Audio CD)

## Playing CD-R

This unit can play CD-DA (digital audio) format audio CD-R that has been finalized\* upon completion of recording.

It may not be able to play some CD-R due to the condition of recording.

Finalizing is a process that enables CD-R players to play audio CD-R.

## Before enjoying DVD/Video CD/CD

The On-Screen menu language of your player has been factory preset to English. You can change the menu language to French or Spanish. Refer to "3 Menu

Language" on page 27. In these instructions, it is assumed that English has been selected as the menu lan-

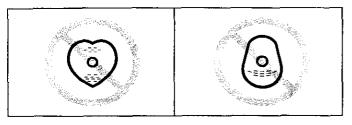
guage.

# Disc and unit handling precautions

## Concerning discs

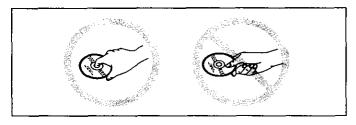
Do not use irregularly shaped discs, such as heart-shaped.

(These discs can damage the unit.)



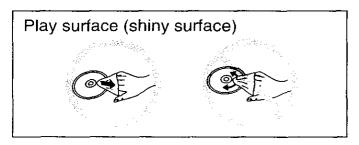
## How to hold a disc

Do not touch the recorded shiny surface.



## If the surface is dirty

Wipe it with a damp cloth and then wipe dry. Wipe from the center toward the circumference.



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

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

## Handling precautions

- Do not write on the label side with a ballpoint pen or other writing instrument.
- •Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not attach labels or stickers to discs.
- •Do not use discs with exposed adhesive from tape or left over peeled off stickers.
- •Do not use scratch-proof protectors or covers other than those specified for use with this unit.
- Do not use CDs printed with label printers available on the market.
- Do not place or store discs in the following places
- Locations exposed to direct sunlight
- Humid or dusty locations
- •Locations directly exposed to a heat vent or heating appliance

## To prevent damage

Avoid the following;

- Spraying flammable insecticides near the unit,
- Pressing the LCD,
- •Touching the lens and other parts of the laser pickup.

Do not use the unit in the following places;

- •Sandy places such as beaches,
- •On top of cushions, sofas, or hot equipment such as amplifiers.

Do not rest the unit on your lap for a long time while using it. The unit can become hot and cause burns.



# Preparing the remote control

# Insert the battery (Lithium battery) This figure shows DVD-LV75. Face upwards

#### Replacing the button-type battery

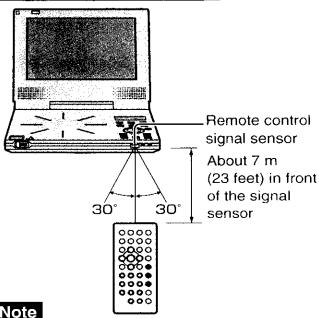
The battery normally lasts for about a year. Replace if the remote control fails to operate the unit when used within the operation range.

## Note

Refer to "IMPORTANT SAFETY INSTRUC-SIONS" on pages 6 and 7.

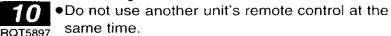
## peration range

#### This figure shows DVD-LV75.



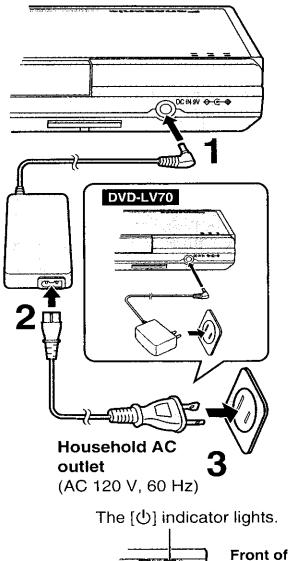


- Do not expose the remote control signal sensor to bright light.
- •Do not place obstacles between the remote control signal sensor and the remote control.



## Power supply

# Using the AC adaptor



Note

Refer to "IMPORTANT SAFETY INSTRUC-SIONS" on page 6.

this unit

The unit is in the standby condition (the [0] indicator lights) when the AC adaptor is connected. The primary circuit is always "live" as long as the AC adaptor is connected to an electrical outlet.

## When the unit is not going to be used for a long time

The unit consumes 2 W when in standby mode.

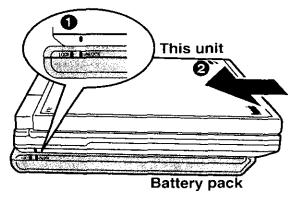
To conserve power, disconnect the AC adaptor from the AC outlet.

## Using the battery pack (Lithium ion battery pack)

- •Charge the battery pack before using it for the first time.
- The battery pack can only be recharged when the unit is off (⇒ page 13 "To turn the unit off").
- •For replacement, see page 4 "Optional accessories".

## Attach the battery pack.

Confirm that the marks match.

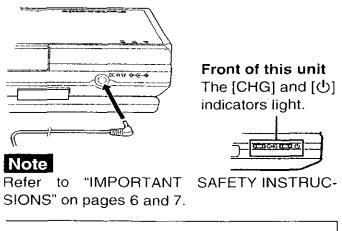


Fit the battery pack firmly so it clicks into place. Ensure the mark on the unit matches the LOCK mark on the battery pack.

l		
$\overline{}$	ŧ	
$\mathcal{T}$	LOCK I	UNLGEX
ſ	Line State	State She i
0	÷	

## **2** Recharge the battery pack.

Connect to the household AC outlet while the battery pack is attached (⇒ page 10).



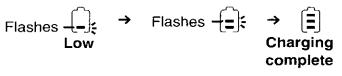
Recharging is complete when [CHG] goes out Disconnect the AC adaptor.

#### Recharging and play times

Recharging	rging Play time	
[at 20 °C (68 °F)]	LCD on	LCD off
DVD-LV75 Approx. 4 hours 30 min.	Approx. 5 hours*	Approx. 7 hours
DVD-LV70 Approx. 5 hours	Approx. 5 hours*	Approx. 8 hours
DVD-LV55 Approx. 4 hours	Approx. 4 hours*	Approx. 5 hours

\*When brightness is set to the lowest level (= page 19).

- •Times shown above depend on operating conditions.
- •The charge is shown on the unit's display during charging. Use this indicator as a guide.



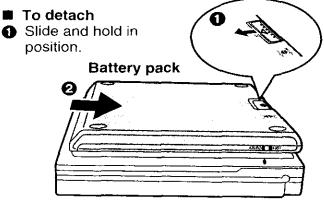
Confirm the battery charge on the unit's display



# If play time dramatically reduces after recharging

The battery pack has reached the end of its service life (it can be recharged about 300 times).

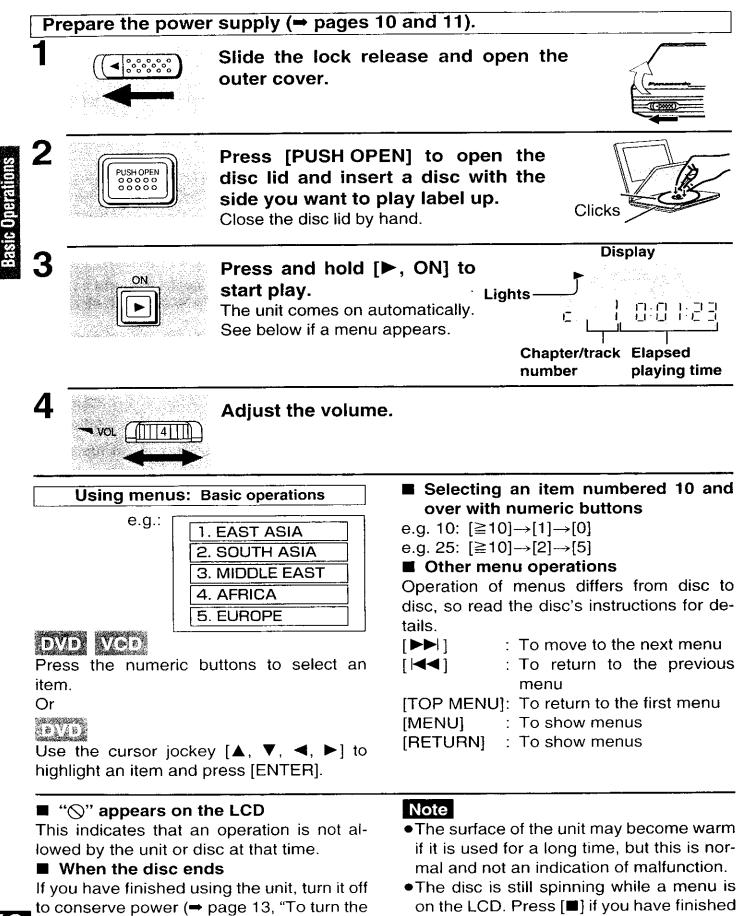
- If the unit is not to be used for a long time
   Detach the battery pack. (Even if the unit is off, it still uses some power. This can lead to over discharging of the battery and malfunction.)
- Recharge the battery pack when you are ready to use it again.





BOT5897

## **Basic play**



viewing.



## To turn the unit on

The unit can be turned on as follows.

#### <On the main unit>



"ON/OFF" until the display is turned on.

#### <On the remote control> POWER

් ර

Press [也, POWER].

The [也] indicator on the unit flashes to indicate the unit is on when the monitor's mode is set to "4 (Off)" (→ page 19) or the outer cover is closed.

## To turn the unit off

The unit can be turned off as follows. The  $[\bigcirc]$  indicator lights when you are using the AC adaptor.

## <On the main unit>



ONDEF "ON/OFF" until the display is turned off.

#### <On the remote control> POWER



Press [0, POWER].

## Note

- You cannot use the remote control to turn the unit on when it is being powered by the battery pack.
- The unit automatically turns off after being stopped for 15 minutes (5 minutes when the battery pack is being used).

#### (Auto power-off function)

## To prevent accidental operation



Slide [ON/OFF, HOLD] to "HOLD".

In the hold mode, the unit does not respond when you press the buttons. If you press a button in the hold mode, " $H_0$   $H_0$ " appears on the unit's display and the  $[\underline{0}]$  indicator flashes.

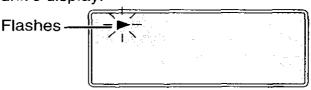
## To release:

Slide [ON/OFF, HOLD] to "ON/OFF".

## Stopping play

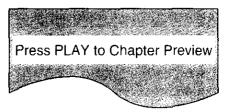
During play Press []].

The position you stopped play at is recorded by the unit when "▶" is flashing on the unit's display.



While "
" is flashing on the unit's display, press [▶] to start play from where you stopped it (Resume function).

If you are playing DVDs, the following display also appears.



Pressing [>] while this is displayed activates the Chapter Preview feature.

If you do not press [>], the message disappears and play starts from where you stopped it.

#### **Chapter Preview:**

The beginning portions of each chapter up to the current one are played. Full play resumes from the point where you stopped play. (Chapter Preview feature works only within a title.)

## To cancel Resume function

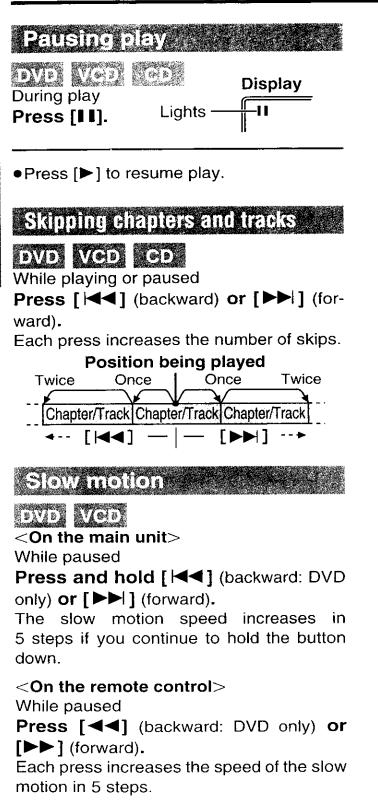
Press []].

## Note

- The resume function does not work if the disc's play time is not displayed.
- •The resume position remains in memory even if the unit is off.
- It is cleared if you open the disc lid.



**Basic Operations** 



Fast forward and rewind— SEARCH



<On the main unit>

During play

Press and hold [I◄◀] (backward) or [▶▶] (forward).

The search speed increases in 5 steps if you continue to hold the button down.

<On the remote control>

During play

**Press** [◀◀] (backward) **or** [►►] (forward).

Each press increases the speed of the search in 5 steps.

- ●Press [▶] to resume play.
- For DVDs and Video CDs, audio will be heard at the initial scan speed (forward direction only). You can turn this sound off if required (⇒ page 28, "9 Other Settings").
- •For DTS CDs, audio will not be heard at any scanning speed.

Frame-by-frame viewing



While paused

Use the cursor jockey [◀] (backward: DVD only) or [▶] (forward).

- Press and hold to move the frames in succession.
- Press [▶] to resume play.
- •You can also move forward frame-byframe if you press []].

●Press [▶] to resume play.



BOT5897

If you press [ I ◄ 4, ►► ] or [ ◄ 4, ►► ] during menu play of video CDs with playback control ( ⇒ page 46), the unit may not perform properly.

# Starting play from a selected title or track Remote control only

DVD VCD, CD.

While stopped

## Press the numeric buttons.

Play starts from the selected title/track.

- This also works during play if the disc is a karaoke DVD, Video CD, or CD. (See below if the disc has playback control.)
- •This may not work with some discs.
- When playing Video CDs with playback control

Before performing the above operation, press [I] to cancel menu play.

The "P b[" indicator on the unit's display goes out.

#### To restore menu play

While stopped

- Press [■] to clear "▶" on the unit's display.
- Press [▶].

The "P b [" indicator on the unit's display comes on.

## Returning to a menu

The actual contents of menus differ from disc to disc, so here we explain only the basic operations.

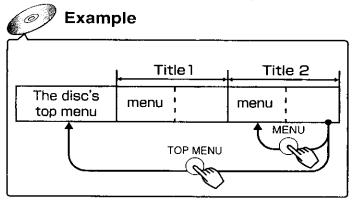
DVD)	V(915)
During	play

Press [MENU]. (DVD) Press [RETURN]. (Video CD)

With DVDs that contain multiple menus

Pressing [TOP MENU] also takes you to a menu.

•The menus displayed when you press [MENU] and [TOP MENU] may differ.



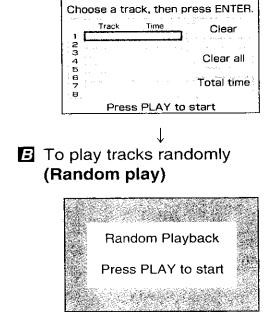
While stopped

## Press [PLAY MODE] to select program or random play.

If " $\bigcirc$ " appears on the LCD, press [**II**] to clear "**\blacktriangleright**" on the unit's display, then press [PLAY MODE].

The mode changes each time you press the button.

→ A To play a maximum of 32 tracks in a programmed order (Program play)



- Normal play mode

Select the screen for the mode then follow the procedures in the next column to start play.

## When play finishes

The disc stops and the screen corresponding to the play mode reappears.

## To restore normal play

#### While stopped

- 1. Press [■] to clear "►" on the unit's display.
- Press [PLAY MODE] to select normal play.
- 3. Press [▶].

## A Program play

- Press [ENTER].
- Use the cursor jockey [▲, ▼] to select a track and press [ENTER].

Each time you use the cursor jockey  $[\blacktriangle, \nabla]$ ,

Repeat steps 1 and 2 to program other tracks.

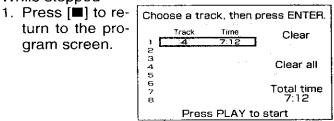
- •Instead of performing steps 1 and 2 above, you can also use the numeric buttons to highlight a track.
- "Total time" tells you the total time of the programmed tracks.
- •After you select "All", you can then clear unneeded tracks (see below).

## **3** Press [▶].

•The contents of the program are saved in memory until the unit is turned off or the disc lid is opened.

#### To change the program

#### While stopped



2. Use the cursor jockey [▲, ▼] to highlight the track and repeat "Program play" steps 1 and 2.

## To clear tracks from the program

- Use the cursor jockey [▲, ♥, ◄, ▶] to highlight the track.
- 2. Press [CANCEL].
  - •Instead of pressing [CANCEL], you can select "Clear" and press [ENTER].

#### •To erase the whole program

Use the cursor jockey  $[\blacktriangle, \lor, \triangleleft, \triangleright]$  to highlight "Clear all" and press [ENTER].



## Press [▶].

# Changing soundtracks, subtitle languages

## and angles Remote control only

## D.YD

Changing soundtracks

## During play **Press [AUDIO].**

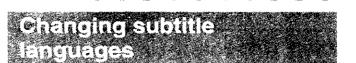
The audio number changes each time you press the button.

("-\*" is displayed if sound is not recorded on the disc.)

## Switching angles

## During play Press [ANGLE].

The angle number changes each time you press the button.



# During play **Press [SUBTITLE].**

The subtitle number changes each time you press the button.

("--\*" is displayed if subtitles are not recorded on the disc.)



■ To turn the subtitles on and off Use the cursor jockey [◄, ►].

- **Advanced Operations**
- You can also use the cursor jockey [▲, ▼], or numeric buttons to change the number to another soundtrack/subtitle language/angle.
- If you select a soundtrack/subtitle language number that is not recorded on the disc, "(\scale)" appears on the LCD.
- You can also use the On-Screen Menu Icons to change soundtrack/subtitle language/angle numbers (⇒ page 22, "Audio number", "Subtitles" and "Angle number").

## To clear the on-screen display

Press [ENTER].

The on-screen icons will disappear automatically if nothing is selected.

## Note

- •The " $\triangle$ ,  $\nabla$ " mark around the on-screen icon is not displayed if only one soundtrack/subtitle language/angle number is recorded.
- •There may be a slight delay before subtitles are shown.
- You can also adjust language settings before play with the soundtrack/subtitle language settings (⇒ page 26).
- •Some discs allow changes to soundtracks/subtitle languages/angles only by using the disc's menus.
- •You can only switch angles in scenes that have multiple angles recorded. Some discs allow you to set angles before multi-angle scenes are played. Read the instructions that come with the DVD.
- If the subtitles overlap closed captions recorded on discs, turn the subtitles off.

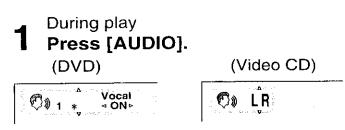


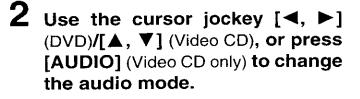
# Switching vocals ON or OFF for karaoke

## discs Remote control only

## DVD VCD

(Karaoke discs)





## DVD karaoke disc (Solo)

[---] : Vocal OFF (for karaoke) [ON] : Vocal ON

## DVD karaoke disc (Duet)

- [---] : Vocal OFF (for karaoke)
- [1+2]: Vocal 1 and 2 ON
- [V1] : Vocal 1 only ON (for duet)
- [V2] : Vocal 2 only ON (for duet)

## VCD karaoke disc

- [LR] : Vocals (Vocals seem to come from the right)
- [L] : No Vocals (for karaoke)
- [R] : Vocals (Vocals seem to come from both left and right)

## To clear the on-screen display

Press [ENTER].

The on-screen icons will disappear automatically if nothing is selected.

## Note

You cannot connect a microphone directly to this unit. Connect the unit to an amplifier (→ pages 34–37) that has a microphone jack when you want to enjoy karaoke and sing along.

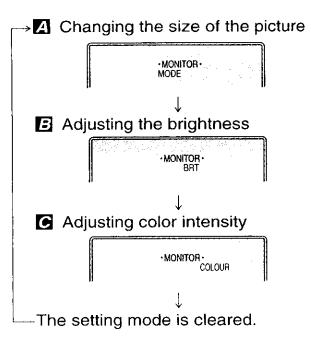
# Changing the monitor settings

## DVD VCD

While stopped or playing

Press [MONITOR] to change the monitor settings.

The setting mode changes each time you press the button.



Select the indicator for the setting you want to change then follow the procedures on page 19.

Turn the indicator off after you complete the setting.

- Picture size returns to "1 (Normal)" if the unit is turned off or [IN/OUT] (→ page 31) is pressed.
- Brightness and color intensity settings are saved even if the unit is turned off unless the settings were made while the "LINE-IN" mode is on.

## Note

These changes are effective only for this unit's LCD.

Make changes to the television's settings if you have connected one.

## A Changing the size of the picture

## Use the cursor jockey $[\blacktriangle, \nabla]$ to change the picture mode.

The mode is shown on the unit's display as follows.

1 (Normal) ←→2 (Full) ←→3 (Zoom) <sup>↑</sup>→4 (Off) ←→<sup>↑</sup>

## The picture mode and size

The picture shown on the LCD depends on the display mode and the size recorded on the disc.

Mode Software	1 (Normal)	2 (Full)	3 (Zoom)	4 (Off)
Wide- screen	Full screen	Full screen	Top and bottom edges are cut off.	
	Te quiero	Te quiero	Te quiero	Off
Regular (4:3)	Screen with black bands on the right and left	The " <b>Mode 1</b> " screen is horizontally enlarged.	Top and bottom edges of the " <b>Mode 2</b> " screen are cut off.	
	Je quigro	Tre quiero		Off
Regular (4:3), Letterbox	The picture is surrounded by a black frame.	The " <b>Mode 1"</b> screen is horizontally enlarged.	Full screen	
		ro quero	se quisto	Off

• If you are not using the LCD on this unit, select "4 (Off)" to conserve power.

- The LCD is turned off if you close the unit.
- •Horizontal lines may appear in the picture when the mode is switched to "3 (Zoom)", but this is not an indication of malfunction.

## B Adjusting the brightness

# Use the cursor jockey $[\blacktriangle, \nabla]$ to adjust the brightness.

-5: dark  $\leftrightarrow$  5: light

Power consumption increases with the level of brightness.



Use the cursor jockey  $[\blacktriangle, \nabla]$  to adjust the color shade.

-5: dark  $\leftrightarrow$  5: light



# **Enjoying Virtual Surround Sound (V.S.S.)**

## DWD)

(Dolby Digital, 2 or more channels)

## Virtual Surround Sound

V.S.S. adds breadth to sound, allowing you to enjoy a surround-like effect even if you are using only 2 front speakers or headphones.

# If the disc has surround signals recorded on it

As well as enjoying sound with more breadth, surround sound will also seem to come from non-existent speakers.

# Enjoying surround effects through headphones

See page 31 for headphone connection.

## During play

# Press [V.S.S.] to select the V.S.S. level.

The level changes each time you press the button. The level is shown on the unit's display.

#### 1 (Natural effect)→2 (Emphasized \_\_\_\_ offect) \_\_\_\_ OFF (Cancel)

You can also use the On-Screen Menulcons to perform this operation.
(= page 23, "V.S.S. mode/V.S.S. level")

## Note

•On the unit's display, "SP" is displayed when using V.S.S. and "HP" is displayed when using headphone V.S.S.

•V.S.S. will not work, or will have less effect, with some discs.



 V.S.S. may cause distortion with some discs. Turn V.S.S. off if this occurs.

# Enjoying surround effects through 2 speakers

The speakers on this unit will not produce any discernible effect. Speakers must be connected to enjoy this feature. Ensure surround effects on connected equipment are off.

- During play
- Press [DISPLAY] to show the On-Screen Menu Icons (→ page 23) on the LCD and highlight the V.S.S. icon with the cursor jockey [◄, ►].



# 2 Select the V.S.S. mode with the cursor jockey [▲, ▼].

<V.S.S.>

<Headphone V.S.S.> DVD-LV75 DVD-LV55 \*

When using speakers

When using headphones

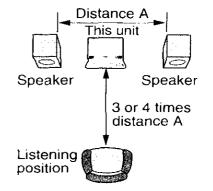


•Use the appropriate setting for the connections you have made.

\*DVD-LV70 does not have Headphone V.S.S.

**3** Press [V.S.S.] to select the V.S.S. level.

To get the most from V.S.S.



# Using On-Screen Menu Icons

EVER WER GE

On-Screen Menu Icons are long thin menus that contain information about the disc or unit. These menus allow you to perform operations by changing this information.

## Operations available only with On-Screen Menu Icons

Time, A-B repeat play, Repeat play, Dialogue Enhancer, Marker, V.S.S. mode (For details, ➡ pages 22 and 23)

**Basic operation** 

While stopped or playing Press [DISPLAY] to select the On-Screen Menu Icons.

The screen changes each time you press the button.

## Example: DVDs

## $\rightarrow$ lcons for disc information:

(➡ page 22)

You can change items like the track or chapter and audio.

T1 C30 1.06:37 01 D0 Deptial

## Icons for unit information:

(⇒ page 23)

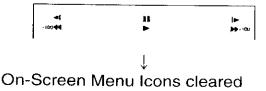
You can start repeat play or mark parts you want to play again.

() () or 134 or / / .....

## Shuttle screen:

(**⇒** page 24)

You can fast forward, rewind, or start slow motion play.



# 2 Use the cursor jockey [▲, ▼, ◄, ▶] to select the item.

The item is highlighted in yellow.

- 3 Use the cursor jockey [▲, ▼] to change the setting.
  - Step 3 is not necessary when using the shuttle screen.
  - If numbers are used, you can change with the numeric buttons.
  - If the change doesn't take effect, press [ENTER] or [▶].

■ To clear the on-screen display Press [RETURN] or [CANCEL].

## Note

- If part of the On-Screen Menu Icons is cut off or fails to appear, go to the initial settings menu to change the position of On-Screen Messages. The color of the On-Screen Menu Icons can also be changed (- page 28, "4 On-Screen Messages").
- Items displayed depend on how the disc is being played and the type of disc.
- •Functions that can be operated depend on how the disc is being played and the type of disc.
- Some items can not be changed while the disc is stopped.
- "△, ▽" around the on-screen icon means that the item can be changed using the cursor jockey [▲, ▼].



## leons for disc information

	<b>Title number</b> (DVD) <b>Track number</b> (Video CD and CD) Select a number to start play from the title/track.
<b>C</b> 30	Chapter number (DVD) Select a number to start play from the chapter.
1:06:37	Time (DVD) Play starts from a time you specify with the numeric buttons. For example: To start play from 1 hour 6 minutes and 37 seconds into the disc, $[1] \rightarrow [0] \rightarrow [6] \rightarrow [3] \rightarrow [7] \rightarrow [ENTER]$
<b>8</b> 3:37	Time (Video CD and CD) (Cannot be changed here.) Each time you use the cursor jockey [▲, ▼]: Elapsed time of current track ↔ Remaining time of current track
DD Digital ENG 3/2.1ch	<ul> <li>Audio number (DVD)</li> <li>Specify an audio track number.</li> <li>a Soundtrack language: For details, see below (a).</li> <li>b Signal: For details, see below (b).</li> </ul>
S LR	Audio mode (Video CD) Specify an audio channel. LR↔L↔R ↑↑
	<ul> <li>Subtitles (DVD)</li> <li>Specify a subtitle number or turn the subtitles on and off.</li> <li>Subtitle language: For details, see below (a).</li> </ul>
	Angle number (DVD) Specify an angle number.
PBC	<b>Menu play</b> (Video CDs with playback control) (Cannot be changed here.) Indicates whether menu play (PBC) is on or off.

## Audio/Subtitle language

ENG : English	POR : Portuguese
FRA : French	RUS : Russian
DEU : German	JPN : Japanese
ITA : Italian	CHI : Chinese
ESP : Spanish	KOR : Korean
NLD : Dutch	MAL : Malay
SVE : Swedish	VIE : Vietnamese
NOR : Norwegian	THA : Thai
DAN : Danish	* : Others

## Signal type/data

LPCM/DD Digitał/DTS: Signal type
k : Sampling frequency (kHz)
b : Number of bits (bit)
ch : Number of channels
Vocal : Vocals indication
<ul> <li>You can switch vocals ON or OFF with the</li> </ul>
cursor jockey [▲, ▼].
/ON : Soło karaoke
/V1+V2/V1/V2 : Duet karaoke

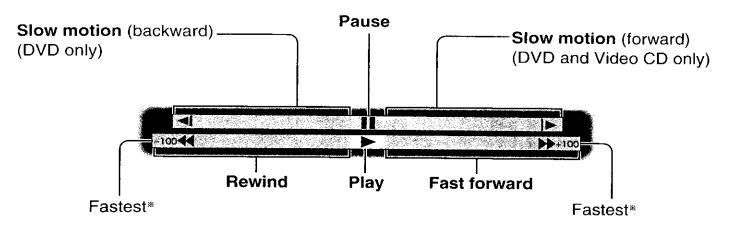


**RQT5897** 

## Icons for unit information

٥	<ul> <li>A-B repeat play</li> <li>Play repeats between 2 specified points.</li> <li>During play</li> <li>Each time you press [ENTER];</li> <li> → → → → → → → → → → → → → → → → → → →</li></ul>	
OFF	Repeat play         Repeat play starts after you select a type of play.         (DVD)       (Video CD and CD)         C (Chapter) ↔ T (Title) ↔ OFF       T (Track) ↔ A (All) ↔ OFF         ^       ^         •"1 🍅" lights on the unit's display during Chapter/Track repeat play.         •" ♠" lights on the unit's display during Title/All repeat play.	Advanced Operations
£	Play modes (Video CD and CD) (Cannot be changed here.) (Normal)/PRG (Program)/RND (Random)	Adv
(	<ul> <li>Dialogue Enhancer (Only with DVDs recorded with Dolby Digital/DTS, 3 or more channels)</li> <li>Dialogue Enhancer raises dialogue from the center channel.</li> </ul>	
****	Marker         Up to 5 positions can be marked.         Press [ENTER] once to highlight a marker.         Press [ENTER] at the point you want to mark.         • To select another marker, first select another marker with the cursor jockey [▶].         • All the markers are cleared when the unit is turned off or the disc lid is opened.         ■ To recall a position         ■ To recall a position         Select the marker no. with the cursor jockey [◄, ▶] and press [ENTER].         [ENTER].	
the second	V.S.S. mode/V.S.S. level (→ page 20) (DVDs recorded with Dolby Digital, 2 or more channels) • Select the V.S.S. mode. DVD-LV75 DVD-LV55 (Headphone V.S.S.) (V.S.S.) • Select the V.S.S. level. 1 (Natural effect) ← 2 (Emphasized effect) ← OFF (Cancel) 1	<b>23</b>

## Shuttle screen



- \*The numbers indicate the maximum speed and do not change when the search speed is changed.
  - There are 5 speeds of fast forward, rewind, and slow motion. The speed increases if you hold the cursor jockey [◄, ▶] in position or repeat the operation.
  - You can advance frame by frame if you press [■] while the picture is paused. (DVD and Video CD)



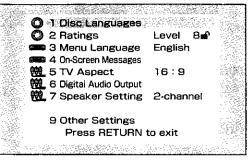
# **Changing initial settings**

Change the initial settings to suit your preference and to suit the unit to the circumstances in which it is being used.

These settings are retained in memory until they are changed, even if the unit is turned off. Screen illustrations are from DVD-LV75.

## **Common procedures**

While stopped **Press [ACTION] or [MENU] to display the initial settings screen.** 



2 Use the cursor jockey [▲, ▼] to highlight the item/setting and press [ENTER].

The menu for the selected item is displayed.

•Some items require additional steps.

## Items for initial settings

## 1 Disc Languages (→ page 26)

Change the audio soundtrack language, subtitle language and the language used for disc menus.

## 2 Ratings (⇒ page 27)

Change the ratings level to prevent play of discs, skip violent scenes, or replace scenes with others.

- 3 Menu Language (→ page 27) Change the language used for the onscreen displays and initial settings menus.
- 4 On-Screen Messages (→ page 28) Choose whether "Play", "Still" and other displays will be displayed or not, and the color and position of these displays as well as On-Screen Menu Icons.

## 5 TV Aspect (= page 33)

Change the settings to suit the type of television you have connected.

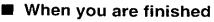
## 6 Digital Audio Output (→ page 40) Change the settings to suit the type of digital equipment you have connected.

7 Speaker Setting (→ page 38) DVD-LV75

Change the settings to suit the type of speakers you have connected.

9 Other Settings (→ page 28) Choose the kind of picture mode shown when play is paused, and various other settings to enhance your viewing experience.

#### ■ To return to the previous menu Press [RETURN].



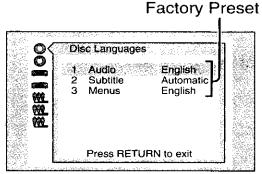
Press [RETURN] as many times as necessary to clear the initial settings screen.



## **Changing initial settings**

## 1 Disc Languages (→ page 25 for operation)

These settings allow you to choose the languages used when a DVD is played. If the language selected is not available on the disc, the language designated by each disc will be selected. There are cases where the selected language is recorded but the disc designates another language.



#### 1 Audio

- 1 English 2 French 3 Spanish 4 Original\*1
- 5 Other \*\*\*\*\*
- 2 Subtitle
  - 1 Automatic<sup>\*2</sup> 2 English 3 French 4 Spanish 5 Other  $* * * * *^{3}$

#### 3 Menus

- 1 English 2 French 3 Spanish
- 4 Other \*\*\*\*\*
- \*1 The original language of each disc will be selected.
- \*2 If the language selected in "Audio" is actually used during play, the subtitles will not appear.
- \*<sup>3</sup> Enter the language code with the numeric buttons and press [ENTER] if you select "Other". (See the language code list below.)

Press [CANCEL] to erase a number you entered in error.

#### Language code list

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

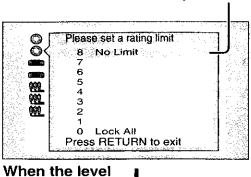
For Your Reference

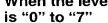


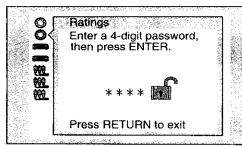
## 2 Ratings (- page 25 for operation)

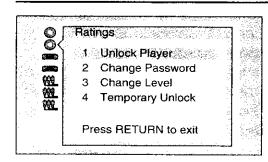
Factory Preset

You can limit play of DVDs which are unsuitable for some audiences, for example, children. Play and changes to the settings are not possible unless a password is entered.









Level 8 : All DVDs can be played.

- Level 7 to 1 : Prevents play of DVDs with ratings recorded on them (those that contain adult or violent scenes).
- Level 0 : Play of all DVDs is prohibited.
- •Enter your 4-number password and press [ENTER] if you select level 7 or below. (This locks the unit.) Press [CANCEL] to erase a number you entered in error.

#### Note

- •When the rating is locked, the settings cannot be changed unless the correct password is entered. Therefore, do not forget your password.
- •Select "0" to prevent play of discs that do not have ratings recorded on them.

■ Changing ratings (When the level is "0" to "7") First enter your 4-number password and press [ENTER].

- **1 Unlock Player** : To unlock the unit (the rating level returns to "8")
- 2 Change Password : To change the password
- 3 Change Level : To change the rating level
- 4 Temporary Unlock: To unlock the unit temporarily
- If you select "4 Temporary Unlock", the rating is unlocked temporarily only for the current disc. The unit is locked again when the disc lid is opened or the unit is turned off.

3 Menu Language (- page 25 for operation)

You can change the language used for the on-screen display menus.

Factory Preset

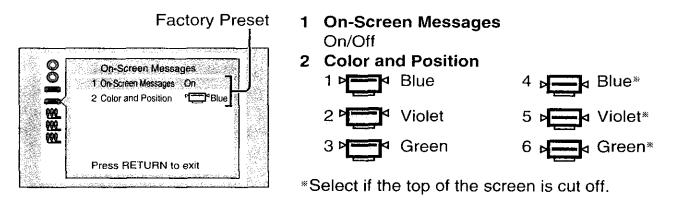
- Select the language for these Menus. 1 English 2 Français 3 Español Press RETURN to exit
- 1 English
- 2 Français
- 3 Español



## **Changing initial settings**

## 4 On-Screen Messages (- page 25 for operation)

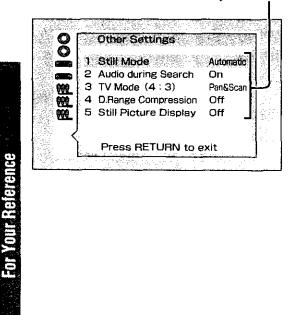
You can choose to display on-screen messages or not, and you can choose their color and position.



9 Other Settings (- page 25 for operation)

The following special settings can be made.

**Factory Preset** 



#### 1 Still Mode (⇒ page 29)

You can select either "Field still" or "Frame still" in the still picture mode (→ page 46 for the difference between "Field still" and "Frame still").

- 2 Audio during Search (→ page 29) You can choose whether audio is heard during search (forward) at the initial scan speed or not. (DVD and Video CD only)
- 3 TV Mode (4:3) (→ page 29) You can choose how software made for a widescreen television (16:9) is displayed on a conventional TV (4:3).
- 4 D. (Dynamic) Range Compression (→ page 29) You can compress the dynamic range (the difference between the loudest sound and the softest sound). (Dolby Digital DVD only)
- 5 Still Picture Display (→ page 29) You can display the picture type I, P or B in the still picture mode. (DVD only)

## Note

- Audio is heard at any scanning speed (forward/backward) when playing CDs, regardless
  of any settings at "2 Audio during Search".
- Audio is not heard at any scanning speed (forward/backward) when playing DTS CDs, regardless of any settings made here.



#### <Still Mode>

- 1 Automatic: The unit automatically selects field still or frame still.
- 2 Field: The unit shows field stills. Select this setting when jittering occurs when "1 Automatic" is selected.
- 3 Frame: The unit shows frame stills. Select if small text or fine patterns cannot be seen clearly when "1 Automatic" is selected.

## <Audio during Search>

- 1 On
- 2 Off:

Select if you do not want audio during search.

## <TV Mode (4:3)>

## 1 Pan & Scan:

The picture is shown with either one or both sides cut off.

г	allering and some	<b>-</b> .
I.		
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## 2 Letterbox:

Black bands appear at the top and bottom of the screen.



## Note

The "Pan & Scan" or "Letterbox" specifications on discs have priority.

## <D. (Dynamic) Range Compression>

(➡ page 46)

- 1 Off
- 2 On:

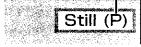
Select when viewing discs at low volume, such as late at night.

## <Still Picture Display>

The picture type will be displayed as "I", "P" or "B" ( $\Rightarrow$  page 46).

2 On:

Indicates the picture type in the still picture mode. Example: P-picture





<sup>1</sup> Off

## **Connecting other equipment**

You can connect this unit to the following types of equipment to enhance your experience. Refer to the relevant pages for connection. Initial settings that need to be changed are indicated in inverted commas ("").

What you want to do	How to accomplish it	Initial settings	Reference page
Connect to a television to enjoy a larger screen		"5 TV Aspect" "7 Speaker Setting" DVD-LV75	32
Enjoy surround sound with 3 or more speakers	Analogue connection Use the unit's built-in decoder and connect to an amplifier. DVD-LV75	"7 Speaker Setting" DVD-LV75	34
	Digital connection Connect digitally and use the decoder in another piece of equipment.	"6 Digital Audio Output"	35
Connect 2 speakers to enjoy stereo	Analogue connection Connect to a mini-system or amplifier (including Dolby Pro Logic amplifiers).	"7 Speaker Setting" DVD-LV75	36
	Digital connection Connect digitally to a mini- system or amplifier.	"6 Digital Audio Output"	37
Record to a cassette or MD deck	Analogue recording	"7 Speaker Setting" DVD-LV75	36
	Digital recording	"6 Digital Audio Output"	37
Use headphones			31
View the images from a video camera on this unit's LCD			31

Peripheral equipment and cables shown on pages 31 to 37 sold separately unless otherwise indicated.

## Note

Close the LCD to conserve power when you have connected this unit to another monitor and speakers. The LCD and speakers are off while the LCD is closed.

## Preparations

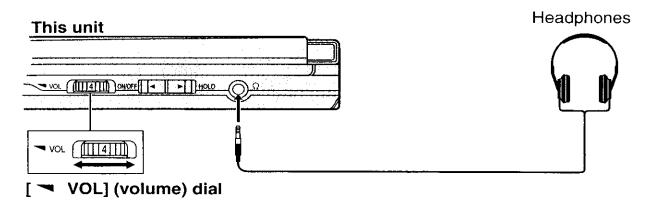
• Ensure that this unit and other equipment to be connected are set to the standby mode or are off, and disconnect the AC power supply cords, before commencing connection.

•Read through the instructions before connecting other equipment.

# Using headphones

## Preparations

- •Turn down the volume before connection, and then adjust the level.
- •Headphones with a 3.5 mm (1/8") stereo plug can be connected.



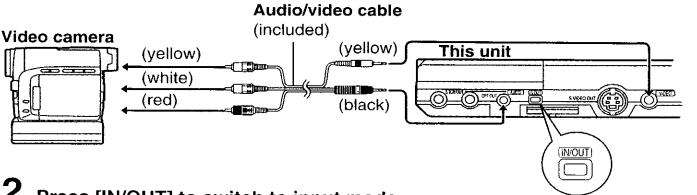
## Note

When headphones are connected, no sound will be output from the unit's stereo speakers.

# Watching video from a video camera

This figure shows DVD-LV75. (DVD-LV70 and DVD-LV55 have only one AUDIO terminal.)

Connect the camera to this unit.



# **2** Press [IN/OUT] to switch to input mode.

"LINE-IN" lights on the unit's display.

## Note

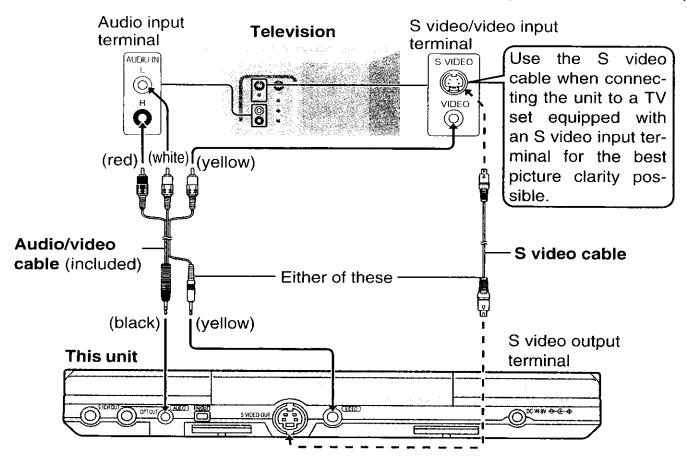
- "LINE-IN" mode is cancelled when this unit is turned off. Press [IN/OUT] again so "LINE-IN" lights on the display again.
- Auto power-off function (→ page 13) does not work while the "LINE-IN" is on. Turn the unit off when you have finished using it.

For Your Reference

## **Enjoying a larger screen**

## Connecting to a television

This figure shows DVD-LV75. (DVD-LV70 and DVD-LV55 have only one AUDIO terminal.)



## Note

For Your Reference

During DVD play, TV volume may be lower than during TV broadcasts, etc. If you turn the volume up while playing DVD, ensure that you reduce the volume again before playing other sources so that a sudden increase in output does not occur.

**Connect Your Portable DVD/Video CD/CD Player Directly To Your Television** If the unit is connected to the television through a video cassette recorder, the picture may not be played back correctly due to the copy guard. So we strongly recommend you do not connect the unit to your video cassette recorder when setting up your home entertainment system.

## Selecting TV screen type

These settings are not necessary when using a widescreen television (16:9).

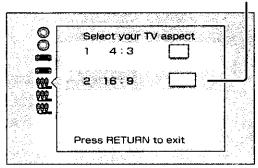
## Preparations

- •Turn on your television and the unit ( $\Rightarrow$  page 13, "To turn the unit on").
- •Switch the video input mode on the television to suit the type of connection you have made.
- While stopped
- Press [ACTION] or [MENU] to display the initial settings screen.

2 Use the cursor jockey [▲, ▼] to select "5 TV Aspect" and press [ENTER].

3 Use the cursor jockey [▲, ♥] to select the TV aspect and press [ENTER].

Factory Preset



## •4:3

Select when a conventional television is connected.

•16:9

Select when a wide-screen television is connected or when the unit's LCD is used.

**4** Press [RETURN] to finish the setting.

## To return to the previous menu

Press [RETURN].

## Note

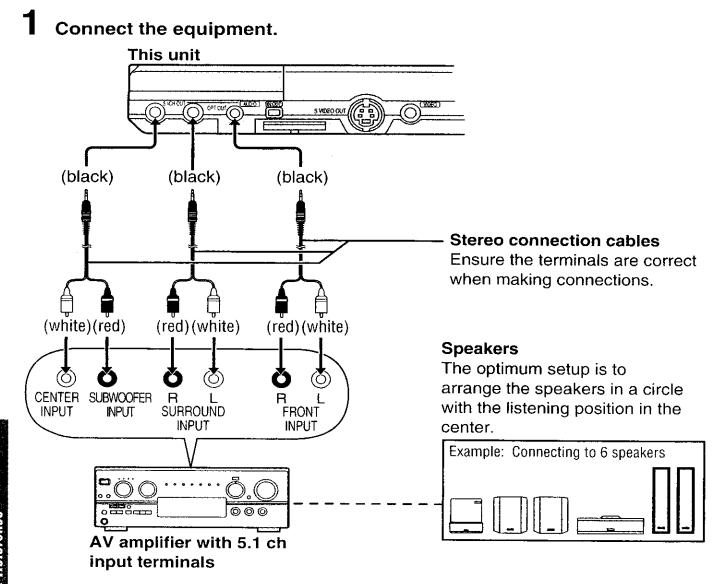
Select "16:9" when using the unit's LCD without connecting a TV set.

## DVD-LV75

Ensure "7 Speaker Setting" is set to "2-channel" (→ page 38).

## Enjoying more powerful sound

## Connection to an amplifier with 5.1 channel input terminals (Analogue connection) DVD-LV75



 If you have not connected a subwoofer, you should connect front speakers that are capable of producing bass under 100 Hz if possible.

2 Adjust the settings to suit the speakers you have connected (→ page 38, "Speaker settings").

## Note

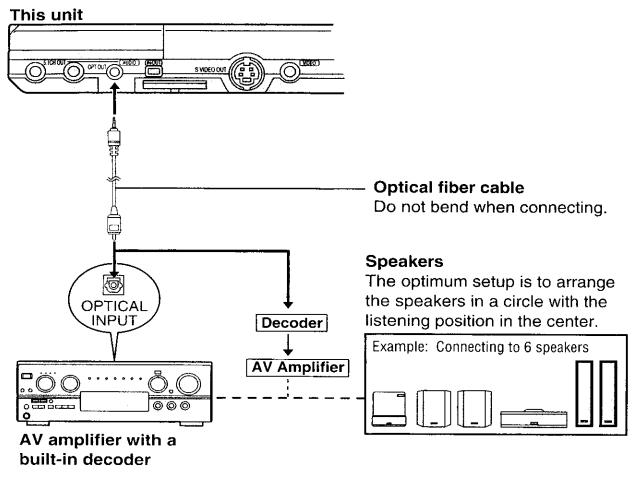
Turn V.S.S. off. Sound will only come from the front speakers if V.S.S. is on.



## Connection to an amplifier with a built-in decoder (or an amplifier and decoder combination) (Digital connection)

This figure shows DVD-LV75. (DVD-LV70 and DVD-LV55 have only one AUDIO terminal.)

## Connect the equipment.



f 2 Adjust the settings to suit the equipment you have connected (→ page 40, "Digital settings").

#### Note

You cannot use a DTS decoder that cannot handle signals from DVDs.

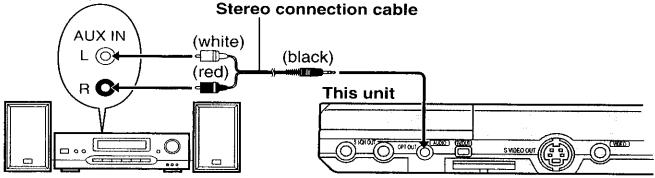


# Connection to a 2-channel amplifier or mini-system (Analogue connection)

This figure shows DVD-LV75. (DVD-LV70 and DVD-LV55 have only one AUDIO terminal.)

## Connect the equipment.

Audio input terminal



2-channel analogue amplifier or mini-system (Including amplifier with Dolby Pro Logic)

## DVD-LV75

2 Select "2-channel" in "7 Speaker Setting" (→ page 38).

## ■ To enjoy Dolby Pro Logic (→ page 46)

As well as the connections shown above, you will need to connect center and surround speakers. See the operating instructions for the other equipment for connection procedures.

•Turn V.S.S. off. Surround effects will not work correctly if V.S.S. is on.

## When recording audio

You can connect recording equipment either through an amplifier or directly to this unit. When connecting directly, use the same method used for connecting a 2-channel amplifier or mini-system (→ page 36, 37).

## <Analogue recording>

You can record to a cassette or MD deck without sound being affected by copy guard if you use analogue connection.

Use a stereo connection cable for analogue connection.

## DVD-LV75

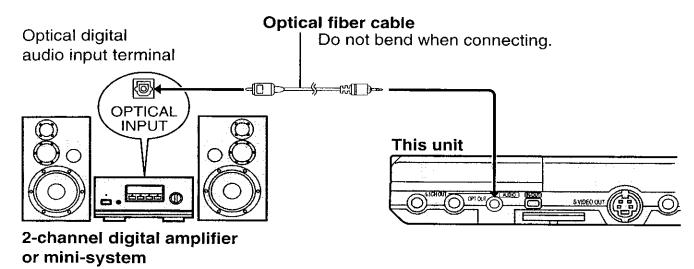
When making analogue recordings, change the setting in "7 Speaker Setting" ( $\Rightarrow$  page 38, "Speaker settings") to "2-channel" even if you have connected 3 or more speakers to an amplifier. This will ensure that you record the full soundtrack instead of just the 2 front speaker channels.



### mechonic a 2-channel digital amplification minesystem.

This figure shows DVD-LV75. (DVD-LV70 and DVD-LV55 have only one AUDIO terminal.)

### Connect the equipment.



 ${f 2}$  Adjust the settings to suit the equipment you have connected (→ page 40, "Digital settings").

#### <Digital recording>

You can record the digital signal directly onto an MD.

- •Use an optical fiber cable for digital connection. Ensure the following conditions are met.
  - 1. There is no copy guard recorded on the disc.
  - 2. The recording equipment can handle a sampling frequency of 48 kHz/16 bit.
  - 3. Settings in "6 Digital Audio Output" (→ page 40, "Digital settings") have been set as follows:

PCM Down Conversion	: Yes
Dolby Digital	: PCM
DTS Digital Surround	: PCM*
% DVD-LV70 Off	



# Speaker settings DVD-LV75

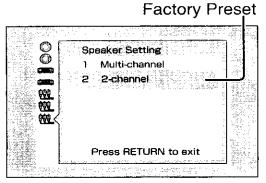
#### Preparation

Turn on this unit and the equipment you have connected.

- While stopped
- Press [ACTION] or [MENU] to show the initial settings screen.

2 Use the cursor jockey [▲, ▼] to select "7 Speaker Setting" and press [ENTER].

### Use the cursor jockey [ $\blacktriangle$ , $\triangledown$ ] to select an item and press [ENTER].



#### Multi-channel

When you have connected 3 or more speakers.

#### •2-channel

When you have connected 2 speakers or a Dolby Pro Logic amplifier.

The initial settings screen is restored if you select "2-channel".

## **4** When you select "Multi-channel"

The screen shown below appears.

Use the following procedure to adjust the settings for (a), (b) and (c).

- 1. Use the cursor jockey  $[\blacktriangle, \nabla, \blacktriangleleft, \triangleright]$  to select the item and press [ENTER].
- 2. Use the cursor jockey [ $\blacktriangle$ ,  $\triangledown$ ] to change the setting and press [ENTER].
- 3. Select "Exit" and press [ENTER].

# **5** Press [RETURN] to complete the settings.

#### To return to the previous menu

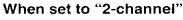
Press [RETURN].

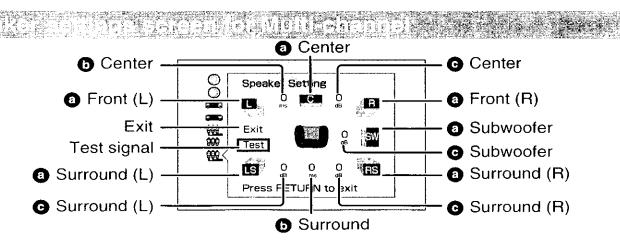
#### Note

• If you have used an optical fiber cable to connect this unit digitally to another unit, make the settings on the other unit.

 The setting is shown on the unit's display when a multi-channel disc is being played (= right). When set to "Multi-channel"









#### Type of speakers to be connected

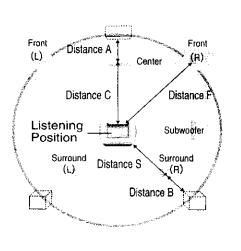
- Front (L/R) : Large/Small
- •Center : Large/Small/No
- •Subwoofer : Yes/No
- •Surround (L/R): Large/Small/No

Example: surround speaker (L) Large Small No

"Large" speakers are capable of reproducing sounds under 100 Hz. "Small" speakers are any other type.

#### **Delay time** (Dolby Digital DVDs, center/surround channel only)

The optimum position for speakers is to arrange them in a circle as shown. If you cannot do this, changing the delay time can make up for differences in distance.



### Center

Distance A=Distance F-Distance C

Distance A	Delay time
Approx. 50 cm (1 <sup>1</sup> / <sub>2</sub> feet)	1.3 ms
Approx. 100 cm (3 feet)	2.6 ms
Approx. 150 cm (5 feet)	3.9 ms
Approx. 200 cm (6 feet)	5.3 ms

#### Surround

Distance B=Distance F-Distance S

Distance B	Delay time
Approx. 200 cm (6 feet)	5.3 ms
Approx. 400 cm (12 feet)	10.6 ms
Approx. 600 cm (18 feet)	15.9 ms

#### **G** Output balance

#### 1 Select "Test" and press [ENTER].

A test signal is output from one speaker at a time, starting with the front left speaker and proceeding clockwise.

Use the cursor jockey  $[\blacktriangle, \nabla]$  to adjust the volume of the center and surround speakers so they are the same apparent volume as the front speakers.

#### 2 Press [ENTER].

The test signal stops.

• There is no test signal output for the subwoofer. Play a source to check the level, then return to this screen to adjust the volume if necessary.



# **Digital settings**

#### Preparation

Turn on this unit and the equipment you have connected.

- While stopped
- Press [ACTION] or [MENU] to show the initial settings screen.

2 Use the cursor jockey [▲, ▼] to select "6 Digital Audio Output" and press [ENTER].

**3** Use the cursor jockey [▲, ▼] to select an item and press [ENTER]. (For details, see page 41)

> Digital Audio Output PCM Down Conversion No 2 Dolby Digital Bitstream 3 DTS Digital Surround PCM Press RETURN to exit

**Factory Preset** 



To return to the previous menu Press [RETURN].



#### Sauheas

#### PCM Down Conversion: Output during play of DVDs recorded in 96 kHz linear PCM.

No: When you have connected an amplifier with stereo connection cables.

Yes: When you have connected an amplifier with an optical fiber cable.

Copyright protection limits digital output to 48 kHz/16 bit.

#### When playing DVDs recorded in 96 kHz

Sound is output as follows in accordance with the connections and settings you have made.

Connection Setting	Analogue	Digital
No	Output as 96 kHz	No output (Audio will be output at 96 kHz if the DVD has not had copyright protection recorded on it.*)
Yes	Converted and output as 48 kHz	Converted and output as 48 kHz/16 bit

\*The connected equipment must be able to handle 96 kHz LPCM in order to take advantage of high quality audio found on these discs.

#### Dolby Digital: Output during play of DVDs recorded with Dolby Digital.

Bitstream: When you have connected a unit with a built-in Dolby Digital decoder

- **PCM** : When you have connected a unit that doesn't have a built-in Dolby Digital decoder
- DTS Digital Surround: Output during play of DVDs recorded with DTS Digital Surround.

PCM\* : When you have connected a unit that doesn't have a built-in DTS decoder \* DVD-LV70 Off

Bitstream: When you have connected a unit with a built-in DTS decoder

#### Note

Ensure "Dolby Digital" and "DTS Digital Surround" are set to "PCM" (or "Off") if you connect this unit to a digital amplifier without a decoder. If the signals are output as bitstream, "noise" will be output which can cause harm to your ears and speakers and the signal will not be correctly recorded onto MDs.

## **Troubleshooting Guide**

Before requesting service, make the below checks. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem:

In the U.S.A., contact the Panasonic Customer Call Center at 1-800-211-7262, or e-mail consumerproducts@panasonic.com, or web site (http://www.panasonic.com).

In Canada, contact Panasonic Canada Inc. Customer Care Centre 1-800-561-5505 or web site (www.panasonic.ca), or an authorized Servicentre nearest you.

Problem	Solution		
No power.	Check connections to the AC adaptor or battery pack.		
	Release the hold mode.	13	
	Confirm the battery charge on the unit's display.		
	You cannot turn on the unit with the remote control if the unit is powered by the battery pack.		
Unit turns off automatically.	The unit turns off after it has been stopped for about 15 minutes (5 minutes when using the battery pack) to conserve power. Turn the unit on again.		
Cannot charge battery	The battery pack can only be recharged when the unit is off.	11, 13	
pack or the [CHG] indicator fails to light.	The charging time increases if the battery pack is warm and charging may not be possible under some circumstances. Wait for the battery pack to cool off.	_	
	Check connection to the AC adaptor.		
Unit doesn't work when powered by the battery pack.	The battery pack has protection circuitry that activates if the pack becomes too hot or too cold. The battery pack will not work if this occurs. Use the unit at about 20 °C (68 °F).		
No response when	Some discs prohibit certain operations.		
buttons are pressed.	Release the hold mode.	13	
	If there is no response at all, the unit may have been affected by lightning or static electricity. Try turning the unit off and on again. Alternatively, turn the unit off, disconnect the power source (AC or battery pack), reconnect the power and turn the unit on again.	_	
Play fails to start or stops soon after starting.	Condensation may have formed in the unit. Wait an hour for it to clear.		
	This unit cannot play discs other than those specified.	8	
	Wipe the disc clean.	9	
	Ensure the disc is inserted correctly.		
	Check the ratings setting.	27	



Problem	Problem Solution			
No operation with remote	Check the battery is inserted correctly.	10		
control.	Replace the battery if it is drained.	10		
	Aim the remote control at the remote control signal sensor.	10		
There are no vocals while playing Karaoke DVD.	When you have connected this unit to other equipment with an optical fiber cable, go to "6 Digital Audio Output" in the initial settings and change the setting for "2 Dolby Digital" to "PCM".			
A menu is shown after playing each song on a Karaoke DVD.	Most Karaoke DVDs are designed to do this. Some discs have an item in the menu that allows you to play all the songs.			
The audio soundtrack or subtitle language cannot	Languages can only be selected if they are recorded on the DVD.			
be changed.	Some DVDs require you to change the languages through menus.			
Subtitles not shown.	Subtitles appear only if they are recorded on the DVD.			
	Turn the subtitles on.	17		
	Subtitles may fail to appear around the A and B points in A–B repeat, and around the points you marked to play again.			
Angles cannot be changed.	Angles can only be selected if they are recorded on the DVD. There may be parts of multi-angle DVDs where different angles are not recorded.			
You have forgotten your ratings password. You want to reset the unit	Do the following to reset the unit to its original factory settings. While the unit is stopped, press and hold [II],			
to the factory settings.	disappears from the unit's monitor, then turn the unit off.			
There is a lot of noise.	Separate the unit from mobile phones if they are being used close to each other.			
No sound from the unit's speakers.	The speakers are off if the LCD is closed or headphones are connected.			
	Turn up the volume.	12		
No sound from other	Check all connections and settings.	34-41		
speakers.	Check input mode of the other equipment.			
Some parts of the soundtrack are missing.	Ensure the settings are appropriate to the speakers you have connected. <b>DVD-LV75</b>	38		
	Turn V.S.S. off if you have connected this unit to other equipment with stereo connection cables and are using 3 or more speakers.	20		



### **Troubleshooting Guide**

Problem	Solution	Page		
The monitor is dark.	Adjust the brightness.			
The picture is disrupted during fast forward and rewind.	Some disruption is normal.			
No picture on the monitor	Check connections.	31		
(including video from another unit).	<ul> <li>Ensure the video input setting is correct.</li> <li>While you are playing a disc "LINE-IN" should be off.</li> <li>While you are viewing video from other equipment "LINE-IN" should be on.</li> </ul>	31		
	Select a picture mode other than "4 (Off)".	19		
	Ensure the power of the connected equipment is on.	<u> </u>		
Picture doesn't appear on	Check connections.	32		
the television (or the size of the picture seems	Check that the television is on.			
wrong).	Check that the input mode on the television is correct.			
	Check the settings in "5 TV Aspect".	33		
LCD pixels turn black or radiate different colors.	The LCD is constructed with precision technology so 99.99 % of the pixels are active, but of the remaining of 0.01 %, there are pixels that may be black or emit light constantly. This phenomenon is not a malfunction.			

# Displayer

	NO PLAY	The unit cannot play this disc.	8
For Your Reference	"bAT Err" and a number appear on the display.	<ul> <li>"bAT Err 1": A problem has occurred with the battery pack. Consult your dealer.</li> <li>"bAT Err 2": The pack has been recharging for 12 hours but has failed to recharge for some reason. Recharge again.</li> <li>"bAT Err 3": The battery pack has overheated during recharging. Allow the pack to cool down before recharging again.</li> </ul>	
	Messages do not appear on the television.	Go to the initial settings menu and turn the On-Screen Messages on.	
	On-Screen Menu Icons are cut off or are not displayed at all.	Go to the initial settings menu and change the position of the On-Screen Menu Icons.	
	U11	Wipe the disc clean.	9
•	H III CIII stands for a number.	Trouble has occurred. The number appearing after H depends on the problem. Turn the unit off and on again. Alternatively, turn the unit off, disconnect the power source (AC or battery pack), reconnect the power and turn the unit on again.	_
<b>44</b>		If the service numbers fail to clear, note the service number and contact a qualified service person.	



### [[]] and [[]] Indicators

This chart shows how these indicators flash under certain conditions.

[也] indicator				
Flashes slowly	<ul> <li>The unit is on and the LCD is closed or the display mode is set to "4 (off)". Turn the unit off when you have finished.</li> </ul>			
Flashes when you press a button	<ul> <li>The unit is in hold mode or "LINE-IN" is on. Release hold mode or press [IN/OUT] to turn off "LINE-IN".</li> </ul>			
[CHG] i	ndicator			
Flashes slowly          • Battery pack charge is low. The unit will turn off after a few minutes.          I second				
Flashes	<ul> <li>A problem occurred with the battery pack. Confirm the display on the unit's display (- page 44).</li> </ul>			

#### Note

#### The following do not indicate malfunction.

- •A sound is heard from the AC adaptor during recharging.
- The battery pack warms up after recharging or during use.
- •Small parts of the LCD turn black or radiate different colors (this is a peculiarity of the LCD).

# Maintenance

To clean this unit, wipe with a soft, dry cloth.

If the surfaces are extremely dirty, use a soft cloth dipped in a soap-and-water solution or a weak detergent solution.

- •Use eyeglass cleaner to remove stubborn dirt from the LCD.
- •Never use alcohol, paint thinner or benzine to clean this unit.
- •Before using chemically treated cloth, read the instructions that came with the cloth carefully.

#### Maintenance of the lens

- If dust is attached to the lens, remove dust carefully with an air blower for camera lenses (optional).
- •Be careful not to touch the lens with your fingers.



### Glossary

#### Bitstream

This is the digital form of multiple channel audio data (e.g., 5.1 channel) before it is decoded into its various channels.

#### Chapter

This is the smallest division on DVDs and is roughly equivalent to a track.

#### **Dolby Digital**

This is a method of coding digital signals developed by Dolby Laboratories. The signals are highly compressed, enabling a large amount of information to be recorded on 1 disc.

#### **Dolby Pro Logic**

A surround system where a 4-channel audio track is recorded as 2 channels and then is restored to 4 channels for play. The surround channel is monaural and can reproduce up to 7 kHz.

#### **DTS (Digital Theater Systems)**

This is a method of coding digital signals developed by Digital Theater Systems. The signals are compressed at a low ratio to maintain sound quality.

#### Dynamic range

Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs.

#### Field

One frame is made up of 2 fields.

A regular television shows these fields one after the other to create frames.

#### Frame

Frames are the still pictures that go together to make a moving picture.

There are about 30 frames shown each second.

#### Frame still and field still

A still is shown when you pause a moving picture.

A frame still is made up of 2 alternating fields, so the picture may appear blurred, but overall quality is high.

A field still is not blurred, but it has only half the information of a frame still so picture quality is lower.

#### I/P/B

MPEG 2, the video compression standard adopted for use with DVDs, codes frames using these 3 picture types.

I: Intra coded picture (I-picture)

This is the standard picture and is a complete picture in itself. This means it has the best picture quality and is the best to use when adjusting the picture.

P: Predictive coded picture (P-picture)

This picture is calculated based on past I or P-pictures.

B: Bidirectionally-predictive coded picture (B-picture)

This picture is calculated by comparing past and future I and P-pictures so it has the lowest volume of information.

#### Linear PCM (pulse code modulation)

PCM is the usual digital method used for music CDs. DVDs have a greater volume so they use linear PCM, which has a higher sampling rate.

#### Playback control (PBC)

This method of controlling disc play is included on version 2.0 Video CDs. You are able to interact with the disc through menus.

#### Title

This is the largest division on DVDs.

#### Track

This is the smallest division on Video CDs and CDs and usually equates to a single song.



# Specifications

Power supply: Power consumption:	DC 9 V (AC adaptor terminal) / DC 7.2 V (Exclusive battery terminal) DVD-LV75 16 W (10 W: Unit only) DVD-LV70 DVD-LV55 13 W (8 W: Unit only)			
AC adaptor Power supply:	DVD-LV75 DVD-LV55 AC 100–240 V, 50/60 Hz DVD-LV70 AC 120 V, 60 Hz			
Power consumption: DC output:	DVD-LV75         DVD-LV55         30           DVD-LV75         DVD-LV55         9	W DVD-LV7		
Dimensions:	185 (W) $\times$ 140 (D) $\times$ 25.1 (H) (when the LCD screen is clo	mm [7º/₃₂″ (W)> sed, excluding	<5¹/₂″ (D)×1″ (H)] protrusions)	
Mass:	DVD-LV75 DVD-LV70 61	3 g (21.8 oz.)	DVD-LV55 560 g (19.8 oz.)	
Operating temperature	·····			
Signal system:	5–35 °C (41–95 °F) : 5–90 % RH (no condensatio NTSC	n)		
<b>Discs played:</b> (1) DVD-VIDEO disc (2)	Compact disc (CD-DA, VIDE	O CD) (3) CD-B		
LCD screen:	DVD-LV75 DVD-LV70 7	, , ,		
202 00:00	<b>DVD-LV55</b> 5" α-Si, TFT with			
S video output:	Y output level:	1 Vp-p (75 Ω		
	C output level:	0.286 Vp-p (	75 Ω)	
	Output terminal:	S terminal (1		
Video output/input:	Output/input level: Output/input terminal:	1 Vp-p (75 Ω Mini-jack	)	
	output input torrinnal.	•	utput/input selectable)	
Audio output/input:	Output/input level: Output/input terminal:	1.5 Vrms (1 k		
	DVD-LV75 2 ch (MIX) Output (L/R)/5. Stereo	mini-jack (1 sys	ont L/R): stem, Output/input selectable) used for digital audio output)	
	5.1 ch Output (Surround L		Stereo mini-jack (1 system)	
	5.1 ch Output (Center/Sub DVD-LV70 DVD-LV55 2 ch (MIX) Output (L/R):	woofer):	Stereo mini-jack (1 system)	
			stem, Output/input selectable) used for digital audio output)	
Audio signal output characteristics:	(1) Frequency response:			
output characteristics.	•DVD (linear audio):		: (48 kHz sampling) : (96 kHz sampling)	
	•CD audio:	2 Hz–20 kHz		
	<ul><li>(2) S/N ratio:</li><li>●CD audio:</li></ul>	115 dB		
	(3) Dynamic range:			
	•CD audio:	97 dB		
Digital audio output:	Optical digital output:	Mini optical te		
Pickup:	Wave length:	(Also used to 660 nm/780 i	or audio output/input)	
	Laser power:	CLASS II/CL		
Note Specifications are subject to				

Specifications are subject to change without notice. Mass and dimensions are approximate.



# Panasonic Technics Quasar.

For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact: 1-800-211-PANA (7262), Monday–Friday 9 am–9 pm; Saturday–Sunday 9 am–7 pm, EST.

Web Site: http://www.panasonic.com You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

#### **Accessory Purchases:**

1-800-332-5368 (Customer Orders Only) Panasonic Services Company 20421 84th Avenue South, Kent, WA 98032 (6 am to 5 pm Monday-Friday; 6 am to 10:30 am Saturday; PST) (Visa, MasterCard, Discover Card, American Express, Check)

#### **Factory Servicenters Locations**

**CALIFORNIA** 6550 Katella Avenue Cypress, CA 90630

800 Dubuque Avenue S. San Francisco CA 94080

20201 Sherman Way Suite 102 Canoga Park, CA 91306

3878 Ruffin Road Suite A San Diego, CA 92123

COLORADO 1640 South Abilene Street Suite D Aurora, CO 80012

FLORIDA 3700 North 29<sup>th</sup> Avenue Suite 102 Hollywood, FL 33020 **GEORGIA** 8655 Roswell Road Suite 100 Atlanta, GA 30350

ILLINOIS 9060 Golf Road Niles, IL 60714

1703 North Randall Road Elgin, IL 60123 (Pick-up/Drop-off only)

MARYLAND 62 Mountain Road Glen Burnie, MD 21061

MASSACHUSETTS 60 Glacier Drive Suite G Westwood, MA 02090 MICHIGAN 37048 Van Dyke

Avenue Sterling Heights, MI 48312

MINNESOTA 7850-12<sup>th</sup> Avenue South Airport Business Center Bloomington, MN 55425

OHIO 2236 Waycross Road Civic Center Plaza Forest Park, OH 45240

PENNSYLVANIA 2221 Cabot Blvd. West Suite B Langhorne, PA 19047

#### TEXAS

13615 Welch Road Suite 101 Farmers Branch TX 75244

WASHINGTON 20425-84<sup>th</sup> Avenue South Kent, WA 98032

#### HAWAII

99-859 Iwaiwa Street Aiea, Hawaii 96701 Phone (808) 488-1996 Fax (808) 486-4369

Service in Puerto Rico

Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company/Factory Servicenter: Ave. 65 de Infanteria, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985 Phone (787) 750-4300 Fax (787) 768-2910



# **Product Service**

Do not attempt to remove the cover(s) or repair the unit yourself. Refer servicing to qualified personnel only.

Product information

For product service, product information or assistance with product operation, refer to the servicenter directory.

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 keep for future reference.

MODEL NUMBER \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

Apparatus Claims of U.S. Patent Nos. 4,631,603, 4,577,216, and 4,819,098, licensed for limited viewing uses only.

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Panasonic Consumer Electronics Company, Division of Matsushita Electric Corporation of America

One Panasonic Way Secaucus, New Jersey 07094

#### Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc.

Ave. 65 de Infantería, Km. 9.5 San Gabriel, Industrial, Bark, Ca

San Gabriel Industrial Park, Carolina, Puerto Rico 00985

### Panasonic/Technics DVD Player Limited Warranty

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the warrantor") will repair this product and all included accessories with new or refurbished parts, free of charge, in the USA or Puerto Rico, from the date of original purchase in the event of a defect in materials or workmanship as follows.

**Parts**–New or rebuilt parts in exchange for defective parts for one (1) year from the date of original purchase.

Labor-Carry-in or mail-in service for ninety (90) days from the date of original purchase. After the ninety (90) day labor period, purchaser pays for all labor charges.

**Batteries**–(if included) New rechargeable batteries in exchange for defective rechargeable batteries for ten (10) days from the date of the original purchase. Non-rechargeable batteries are not warranted.

Carry-in or mail-in service in the USA can be obtained during the warranty period by contacting a Panasonic Services Company (PASC) Factory Servicenter listed in the Servicenter Directory. Or call, toll free, 1-800-211-7262 to locate an authorized PASC Servicenter. Carry-in or mail-in service in Puerto Rico can be obtained during the warranty period by calling the local telephone number in the Servicenter Directory.

This warranty is extended only to the original purchaser.

A purchase receipt or other proof of date of original purchase will be required before warranty service is rendered.

This warranty only covers failures due to defects in materials and workmanship which occur during normal use and does not cover normal maintenance. The warranty does not cover damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accident, misuse, abuse, neglect, mishandling, faulty installation, misapplication, improper set-up adjustments, operation or maintenance, alteration, modification, power line surge, lightning damage, interference, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or serviced by anyone other than an PASC Factory Servicenter or an authorized PASC Servicenter, or damage that is attributable to acts of God.

#### LIMITS AND EXCLUSIONS

There are no express warranties except as listed above.

THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDEN-TAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING WITHOUT LIMI-TATIONS, DAMAGE TO DISCS. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MER-CHANTABILITY, AND FITNESS FOR A PARTICULAR PUR-POSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the Consumer Affairs Department at the company address indicated above.

If you ship the product

Carefully pack and send it prepaid, adequately insured and preferably in the original carton. Attach a postage-affixed letter, detailing the complaint, to the outside of the carton.

DO NOT send the product to the Executive or Regional Sales offices. They are NOT equipped to make repairs.

	Customer's Record	
Model No	Dealer's Name	
Serial No or		
Code No	Dealer's Address	
Date of Purchase		



#### Panasonic Consumer Electronics Company, Division of Matsushita Electric Corporation of America One Panasonic Way Secaucus, New Jersey 07094 http://www.panasonic.com

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#### Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc. ("PSC") Ave. 65 de Infantería, Km. 9.5 San Gabriel Industrial Park, Carolina,

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