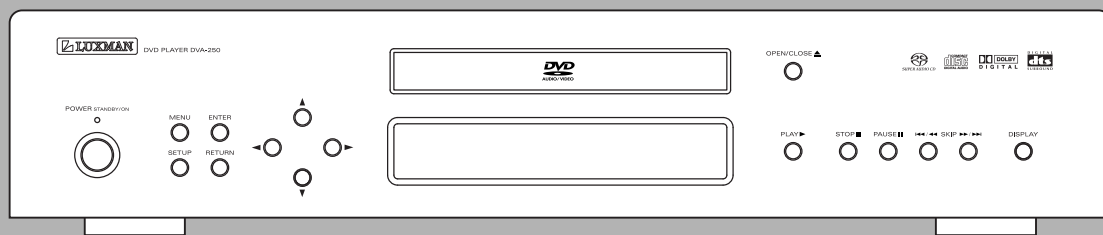


LUXMAN

DVA-250

DVD AUDIO-VIDEO/
SUPER AUDIO CD PLAYER

OWNER'S MANUAL



IMPORTANT(for U.K.Customers)

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

If this product is not provided with a mains plug, or one has to be fitted, then follow the instructions given below:

IMPORTANT. DO NOT make any connection to the larger terminal which is marked with the letter E or by the safety earth symbol \equiv or coloured GREEN or GREEN-and-YELLOW.

The wires in the mains lead on this product are coloured in accordance with the following code:

BLUE : NEUTRAL
BROWN : LIVE

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

When replacing the fuse only a correctly rated approved type should be used and be sure to re-fit the fuse cover.

IF IN DOUBT — CONSULT A COMPETENT ELECTRICIAN.

CAUTION

The product shall not be exposed to dripping or splashing and that no object filled with liquids, such as vases, shall be placed on the product.

Do not install this equipment in a confined space such as a book case or similar unit.

Thanks for choosing LUXMAN. Read this manual carefully to get the best performance from this unit.

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Conventions about This Manual

- This Owner's Manual largely describes how to control the DVA-250 from the provided remote control unit. The duplicate buttons on the DVA-250 provide the same functions.
- The types of functions and operations that can be used for a particular disc vary depending on the features of that disc. In some cases, these functions and operations may differ from the descriptions given in this Owner's Manual. In this event, follow the instructions given on the screen. This Owner's Manual only covers basic disc operations.
- For some operations, the PROHIBIT icon "⊘" may appear on the screen. This indicates that the operation described in this Owner's Manual is not permitted for the current disc.
- The drawings about the TV screen and front panel display used in this Owner's Manual are purely for the purposes of explanation. The actual displays may differ slightly from what are shown here.

Read this before operation

- As the unit may become warm during operation, always leave sufficient space above the unit for ventilation.
- The voltage supplied to the unit should match the voltage as printed on the rear panel. If you are in any doubt regarding this matter, consult an electrician.
- Choose the installation location of your unit carefully. Avoid placing it in direct sunlight or close to a source of heat. Also avoid locations subject to vibrations and excessive dust, heat, cold or moisture.
- Do not place the unit on the amplifier/receiver.
- Do not open the cabinet as this might result in damage to the circuitry or electrical shock. If a foreign object should get into the set, contact your dealer.
- When removing the power plug from the wall outlet, always pull directly on the plug, never yank the cord.
- To keep the laser pickup clean, do not touch it, and do not forget to close the disc tray.
- Do not attempt to clean the unit with chemical solvents as this might damage the finish. Use a clean, dry cloth.
- Keep this manual in a safe place for future reference.

DO NOT MOVE THE UNIT DURING PLAYBACK







During playback, the disc rotates at high speed. Do NOT lift or move the unit during playback. Doing so may damage the disc.

WHEN MOVING THIS UNIT

When changing places of installation or packing the unit for moving, be sure to remove the disc and return the disc table to its original position in the player. Then, press the power switch to turn the power off, and disconnect the power cord. Moving this unit with the disc loaded may result in damage to this unit.

Type of Discs That Can be Played on This System

This player can playback discs bearing any of the following logos:

| | |
|--|---|
|   | <p>DVD Video:</p> <ul style="list-style-type: none"> • Single-sided or double-sided discs • Single layer or dual layer discs • Dolby Digital, DTS, MPEG or Linear PCM digital audio • MPEG-2 digital video • This unit can play DVD-R/DVD-RW/DVD+R/DVD+RW discs recorded in DVD video format. <p>Discs are generally divided into one or more titles. Titles may be further subdivided into chapters.</p> |
|   | <p>DVD Audio:</p> <ul style="list-style-type: none"> • Single sided discs • Single layer or dual layer discs • Linear or packed PCM digital audio • Some discs may contain MPEG-2 video, and Dolby Digital, DTS or MPEG digital audio. <p>Discs are generally divided into one or more groups. Groups may be further subdivided into tracks.</p> |
|  | <p>Audio CD:</p> <ul style="list-style-type: none"> • 12cm or 8cm discs • Linear PCM digital audio <p>Audio CDs are divided into tracks.</p> |
|   | <p>SACD(Super Audio CD):</p> <ul style="list-style-type: none"> • 12cm discs • Digital audio <p>Super Audio CDs are divided into tracks.</p> |
|  | <p>Video CD:</p> <ul style="list-style-type: none"> • 12cm or 8cm discs • MPEG-1 digital audio • MPEG-1 digital video <p>Video CDs are divided into tracks.</p> |
|  | <p>Picture CD:</p> <ul style="list-style-type: none"> • 12cm • Digital video(JPEG) |
|  | <p>WMA(Window Media Audio):</p> <ul style="list-style-type: none"> • 12cm discs • Digital audio |

Region Number of DVD Video discs:

DVD players and discs are designed with region numbers that dictate the regions in which a disc can be played. If the region number on the disc you want to play does not match the region number of your DVD player, you will not be able to play the disc. In that case, an error message will appear on the screen.

The region number is printed on the rear panel of this unit.



Europe model



Hong Kong model

About DVD-R and DVD-RW discs

DVD-R and DVD-RW discs recorded in video format on a DVD recorder can be played on the DVA-250.

Discs that have not be finalized cannot be played.

Depending on the disc's recording status, the disc may not be accepted or may not be played normally (the picture or sound may be not be smooth, etc.).

About CD-R/RW

CD-R/RW discs recorded in Audio CD format and finalized correctly are playable. But depending on the quality of the disc and/or the condition of the recording, some CD-R/RW discs may not be playable.

MP3/JPEG compatibility

This player is compatible with CD-R/RW and CD-ROM (Kodak picture CD, etc.) discs that contain MP3 audio tracks or JPEG files.

- File names of MP3/JPEG should be alphanumeric characters. This unit cannot display symbols and full-size or 2 bytes-wide characters (such as Japanese, Chinese, etc.) correctly. Also, be sure to use the file extension ".mp3", ".jpg" or ".jpeg".
- Only the first 8 characters of folder and track names (excluding the ".mp3", ".jpg" or ".jpeg" extension) are displayed.
- Use CD-R/RW media for recording your MP3 or JPEG files. The disc must be finalized in order to play.
- The CD-ROM must be ISO 9660 compatible.
- This player is not compatible with multi-session discs.
- When more than 250 files or folders are recorded on the disc, the unit might not be able to play it correctly.
- It may take time to display a progressive JPEG picture.
- Depending on the file size and compression rate, some JPEG pictures cannot be displayed correctly.
- Mono or stereo MPEG-1 Audio Layer 3 format, 44.1 or 48kHz, fixed bit-rate.
- Not compatible with variable bit-rate (VBR) files.
- Audio encoded at 128Kbps should sound close to regular audio CD quality. Although this player will play lower bit-rate MP3 tracks, the sound quality becomes noticeably worse at lower bit-rates.

Caution:

- Some DVD Audio, DVD Video and Video CD discs do not operate as described in this manual do to the intentions of the disc's producer.
- If you record a disc using a personal computer or a DVD recorder, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)
- Unfinalized DVD-R/RW discs cannot be played.

Following discs cannot be played with this unit:






- CD-G, Data part of CD-EXTRA, CD-ROM, DVD-RAM and DVD-ROM discs
- discs recorded in a color system other than PAL or NTSC
- illegally produced discs
- scratched discs
- discs that are dusty, soiled or marked with fingerprints

Warning:

If you attempt to play back such discs, there is a risk that sudden loud noise can blast over the speakers at full volume and cause damage to the speakers and your hearing.

Copy-protected discs and other discs which do not conform to the CD standard may not play back correctly in this player. If you use such discs in this unit, LUXMAN Corporation and its subsidiaries cannot be responsible for any consequences or guarantee the quality of reproduction. If you experience problems with such non-standard discs, you should contact the producers of the disc.

Example of Icons used on DVD discs:

| | | |
|---|-------------------------|---|
|  | 1. English 2. French | number of audio tracks recorded on the disc |
|  | 1. English 2. French | number of subtitles recorded on the disc |
|  | 16:9 LB | screen aspect ratio |
|  | 2 | disc recorded with multiple camera angles |
|  | | region code |

Glossary of Disc Terms

Title (DVD)

The longest sections of a picture or a music piece on a DVD; a movie, et cetera, for a picture piece on a video software; or an album, etc., for a music piece on an audio disc. Each title is assigned a title number enabling you to locate the title you want. On most DVD movies, there will be only one title.

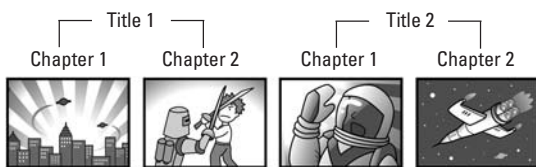
Chapter (DVD)

Sections of a picture or a music piece that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want. Depending on the disc, there may be only one chapter per title recorded.

Track (Video or Audio CD)

Sections of a picture or a music piece on a VIDEO or an audio CD. Each track is assigned a track number enabling you to locate the track you want. On most audio CD's, one track is equal to one song.

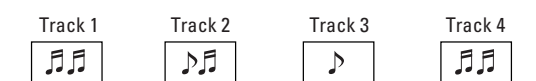
DVD



VCD



CD



- Always place the disc on the disc tray with the label side uppermost. (Compact discs can be played or recorded only on one side.)
- To remove a disc from its storage case, press down on the center of the case and lift the disc out, holding it carefully by the edges.



How to remove the disc

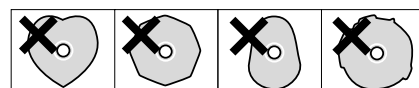


How to hold the disc

- Should the disc become dirty, wipe the surface radially (from the center hole outward towards the outer edge) with a soft, dry cloth:



- Never use such chemicals as record sprays, antistatic sprays or fluid, benzine or thinner to clean the discs. Such chemicals will do irreparable damage to the disc's plastic surface.
- Discs should be returned to their cases after use to avoid dust and scratches that could cause the laser pickup to "skip."
- Do not expose discs to direct sunlight or high humidity and temperature for extended periods. Long exposure to high temperatures will warp the disc.
- Do not play any disc that is warped, deformed or damaged. Playing such discs may cause irreparable harm to the playing mechanisms.
- CD-R/RW discs are more sensitive to the effects of heat and ultraviolet rays than ordinary CDs. It is important that they are not stored in a location where direct sunlight will fall on them, and which is away from sources of heat such as radiators or heat-generating electrical devices.
- Printable CD-R/RW discs aren't recommended, as the label side might be sticky and damage the unit.
- Do not stick papers or protective sheets on the discs and do not use any protective coating spray.
- Use a soft oil-based felt-tipped pen to write the information on the label side. Never use a ball-point or hard-tipped pen, as this may cause damage to the recorded side.
- Never use a stabilizer. Using commercially available CD stabilizers with this unit will damage the mechanisms and cause them to malfunction.
- Do not use irregular shape CDs (octagonal, heart shaped, business card size, etc.). CDs of this sort can damage the unit:



- If you are in any doubt as to the care and handling of a CD-R/RW disc, read the precautions supplied with the disc, or contact the disc manufacturer directly.

Remote Control Unit

The provided Remote Control Unit allows the unit to be operated from a distance.

When operating the remote control unit, point it towards the remote sensor on the front panel of the unit.

- Even if the remote control unit is operated within the effective range, remote control operation may be impossible if there are any obstacles between the unit and the remote control.
- If the remote control unit is operated near other appliances which generate infrared rays, or if other remote control devices using infrared rays are used near the unit, it may operate incorrectly. Conversely, the other appliances may operate incorrectly.

Battery Installation

- 1** Remove the battery compartment cover.
- 2** Insert two "AAA" (R03, UM-4) dry batteries. Make sure that the batteries are inserted with their positive "⊕" and negative "⊖" poles positioned correctly.
- 3** Close the cover.

Battery Replacement

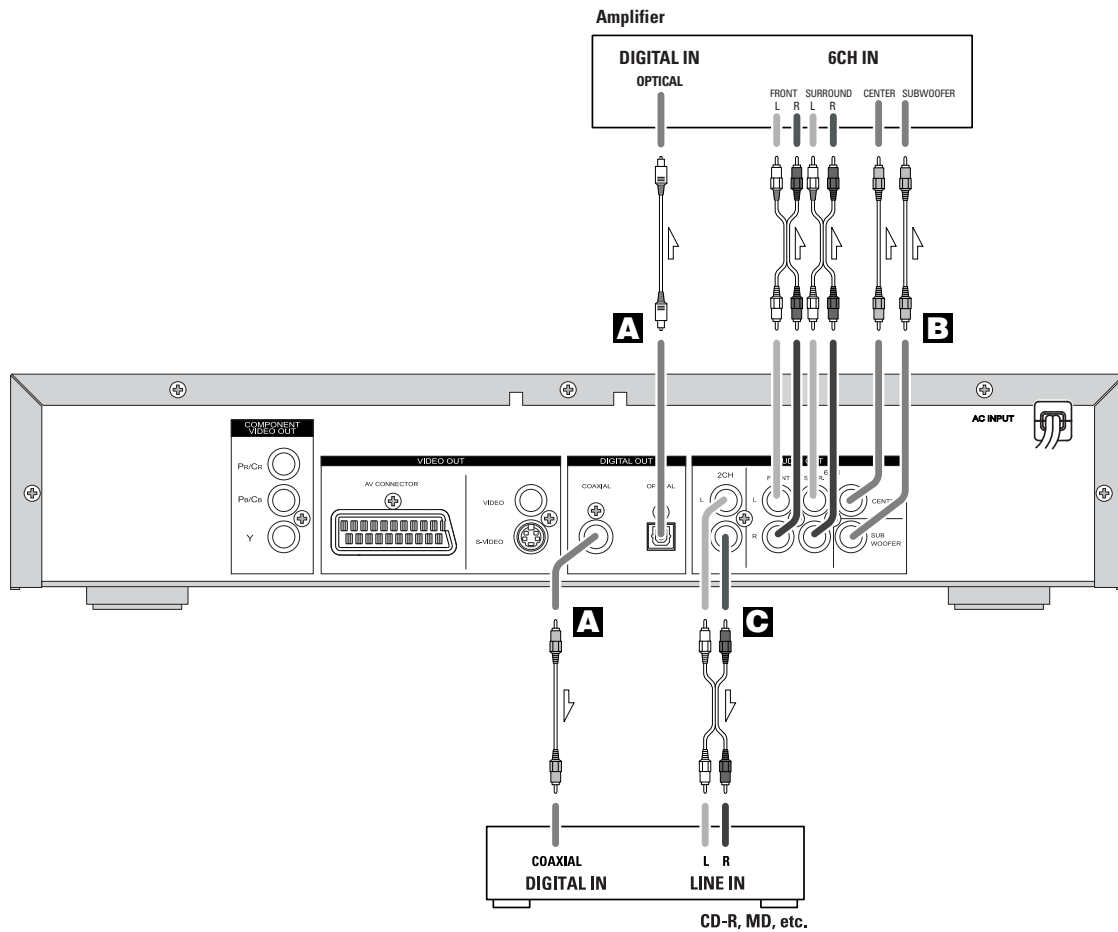
If the distance required between the remote control unit and main unit decreases, the batteries are exhausted. In this case replace the batteries with new ones.

Precautions concerning batteries

- Be sure to insert the batteries with correct positive "⊕" and negative "⊖" polarities.
- Use batteries of the same type. Never use different types of batteries together.
- Rechargeable and non-rechargeable batteries can be used. Refer to the precautions on their labels.
- When the remote control unit is not to be used for a long time (more than a month), remove the batteries from the remote control unit to prevent them from leaking. If they leak, wipe away the liquid inside the battery compartment and replace the batteries with new ones.
- Do not heat or disassemble batteries and never dispose of old batteries by throwing them in a fire.



Connection 1



CAUTION:

Switch off the power to all equipment before making connections. Read the instructions of each component you intend to use with this unit.

Be sure to insert each plug securely. To prevent hum and noise, avoid bundling the signal interconnection cables together with the AC power cord or speaker cables.

Connection to audio components

A DIGITAL OUT terminal

Connect one of the digital output terminals to the appropriate digital input terminal of a digital device such as an AV digital amplifier, CD recorder, MD deck, etc.

Use a commercially-available RCA coaxial cable or optical digital cable.

When inserting the plug of the optical cable, the protective shutter of the terminal will open and you should hear it click into position when fully inserted. Be careful that you do not force the plug, because this could result in damage to the protective shutter, the cable, or the unit itself.

- Select the proper digital output setting in accordance with your connection.
- With Super audio CDs, Digital audio signals cannot be output from digital out terminals. Use analog connections.

B 6CH AUDIO OUT terminals

6 channel analog audio is output from these terminals. If your amplifier has 6 channel analog inputs, connect them with commercially-available RCA cables.

- Select Multi-Channel in the SETUP menu. (See page 32)

C 2CH AUDIO OUT terminals

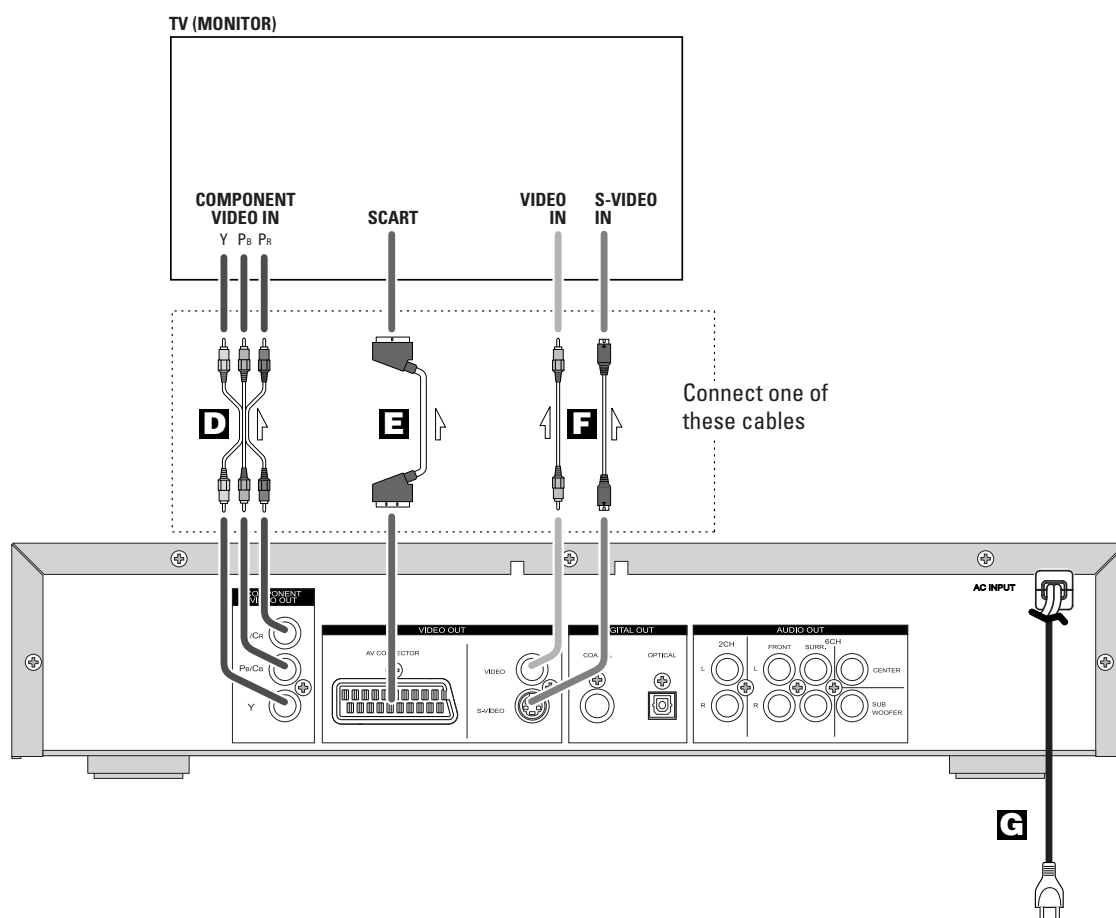
2 channel analog audio is output from these terminals.

- Select Stereo in the SETUP menu. (See page 32)

Note:

- Match the cable colors to the jack colors. Using the FRONT jacks will provide the best sound quality when playing Audio CDs and SACDs.

Connection 2



Connection to a TV

Connect the unit to your TV or monitor using one of the following types of connectors. The connections are listed in order of picture quality, beginning with the best possible. Additional information on each connection type is provided below:

If your TV or monitor is compatible with progressive scan, connect the TV via the COMPONENT VIDEO jacks using a component video cable, and select "PROG ON"

Connecting the RGB SCART output (AV CONNECTOR) using an RGB-ready SCART cable, or connecting the COMPONENT VIDEO jacks using a component video cable is the next best choice.

S-VIDEO is your third choice. If your TV has an S-Video input jack, connect the TV using a quality S-Video cable.

Composite video output (SCART-COMPOSITE or VIDEO OUT) would be your final choice.

- For better picture quality, do not connect more than one video cable.
- Connect this unit directly to the TV. If the TV is connected through a video cassette recorder, you may experience distorted picture quality during playback of a copy protected DVD disc.

D COMPONENT VIDEO jack

If your TV or monitor has COMPONENT VIDEO IN jacks, connect them with a quality component video cable, and select "COMPONENT" in the Setup menu. (See page 29)

- If your TV or monitor is compatible with progressive scan, connect the TV via the COMPONENT VIDEO jack and select "PROG ON". If your TV or monitor isn't compatible with progressive scan, do not select "PROG ON", otherwise no picture will be shown on the monitor.

E AV CONNECTOR

The AV CONNECTOR can output RGB or composite video signals.

If your TV or monitor is compatible with RGB SCART, connect the AV CONNECTOR and your TV with a 21-pin RGB-ready SCART cable, and select "RGB" in the Setup menu. (See page 29)

- Both audio and video signals are output from this socket.
- The audio signal output from this socket is stereo.

Connection 3

E S-VIDEO or VIDEO jacks

The S-VIDEO connection is your third choice, and is superior to the standard composite video connection.

If the TV or monitor has an S-VIDEO jack, connect it with a high quality S-VIDEO cable.

If neither COMPONENT VIDEO nor S-VIDEO are available, connect the TV or monitor with a high quality RCA cable designed for video applications.

G AC power cord

Insert the supplied AC power cord in the DVA-250's socket. After all other connections are complete, connect the plug to the wall socket.

To avoid fire, electric shock, etc., do not use any power cords other than the one included with the DVA-250. If you are not going to use the unit for some time, disconnect the power cord from the wall socket.

Before Going On

Once a connection with the TV or monitor has been made, you need to set the following settings. Otherwise, distorted images or no picture at all would appear on the TV screen.

CAUTION:

In the default setting, the COMPONENT (and S-VIDEO) jacks are not active. If you want to use COMPONENT VIDEO OUT (or S-VIDEO OUT), perform the following steps.

1. Connect the VIDEO jacks with an RCA video cable. You can use the provided yellow cable.
2. Connect the COMPONENT jacks with a component video cable. (Or connect the S-VIDEO jacks with an S-VIDEO cable.)
3. Turn the unit and TV on, and select "COMPONENT" (or "RGB") in the SETUP menu. (See page 29)
4. Turn the unit off and disconnect the RCA video cable from the VIDEO jacks.

COLOR SYSTEM

You have to select the color system to match your TV.

When all the connection has been done, turn the DVD player and the connected TV on.

If your TV is MULTI or PAL, press the PAL/NTSC button repeatedly until "Multi" or "PAL" appears on the TV screen.

The default setting is PAL.

PAL:

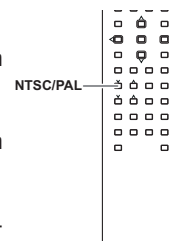
Select PAL when a PAL TV (European standard) is connected.

NTSC:

Select NTSC when a NTSC TV (American standard) is connected.

Multi:

Select Multi when a MULTI TV is connected.



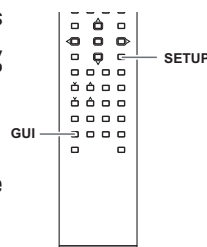
Note:

- This setting will be reset to the default when you turn the power off. Be sure to set the desired mode in the SETUP menu.

PROGRESSIVE SCAN

If your TV does not support progressive scan, do not use this setting.

1. Connect the COMPONENT VIDEO OUT jacks to your TV's COMPONENT VIDEO IN jacks, and select "COMPONENT" in the SETUP menu. (See "CAUTION" on the left column.)



2. Press the SETUP button, and then press the GUI button.

"PROG ON" will light up on the front panel display.

- The default "PROG OFF" setting is for regular TVs that are not capable of progressive scan (the technology called interlace scan is used).
- When set to PROG ON, the RGB, S-VIDEO and VIDEO terminals are disabled.
- Not all progressive scan TVs are fully compatible with this unit. If you encounter problems with progressive scan, select "PROG OFF".

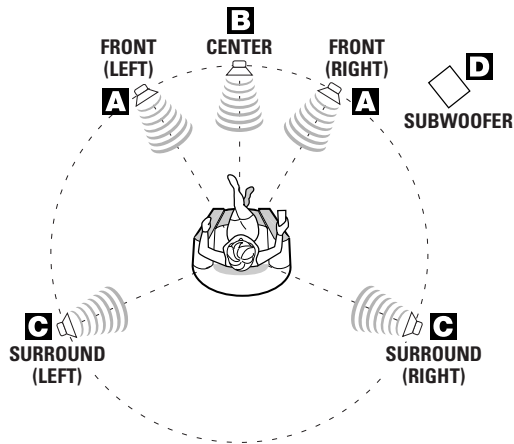
'CONSUMERS SHOULD NOTE THAT NOT ALL HIGH DEFINITION TELEVISION SETS ARE FULLY COMPATIBLE WITH THIS PRODUCT AND MAY CAUSE ARTIFACTS TO BE DISPLAYED IN THE PICTURE. IN CASE OF 525 OR 625 PROGRESSIVE SCAN PICTURE PROBLEMS, IT IS RECOMMENDED THAT THE USER SWITCH THE CONNECTION TO THE 'STANDARD DEFINITION' OUTPUT. IF THERE ARE QUESTIONS REGARDING OUR TV SET COMPATIBILITY WITH THIS MODEL 525p AND 625p DVD PLAYER, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER.'

There are additional settings you need to set before operating the DVA-250. See the section, "Settings".

Positioning of the Speakers

The positioning of speakers differs according to the size and acoustics of the listening room. While actually listening to a program source, try various speaker positions to determine which layout provides the best surround effect.

Place the speakers connected to "L" to your left, and "R" to your right.



A Front speakers

Use magnetic shielded speakers, if you are using them near your TV.

Place the front speakers in front of the listening position, to the left and right of a TV.

B Center speaker

Use a magnetic shielded speaker, if you are using it near your TV. Place a center speaker between the front speakers, on or below the TV. This speaker stabilizes the sound image.

C Surround speakers

Install these speakers above the level of the listener's ears, to the left and right.

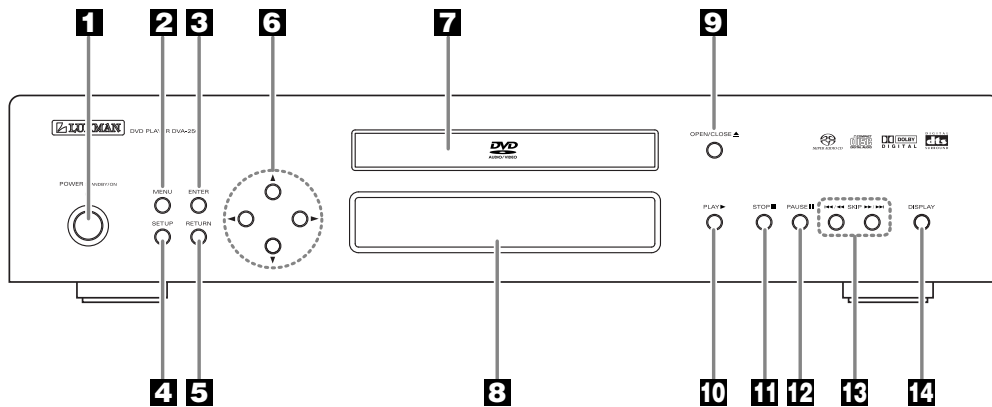
Do not install the surround speakers too far behind the listening position. It might be effective to direct the rear speakers towards a wall or ceiling to further disperse the sound.

D Subwoofer

Reproduces powerful and deep bass sounds.

Subwoofers are most effective when placed on or near the floor and in a corner of the room. Refer to the instructions that came with your sub-woofer for placement suggestions.

Names of Each Control



Front Panel

1 POWER switch

Press this switch to turn the unit on or off (standby).

The equipment draws nominal non-operating power from the AC outlet with its POWER switch in the OFF position.

2 MENU button

Use this button to display the disc's title menu.

3 ENTER button

Use this button to confirm your selection or entry.

4 SETUP button

Use this button to access SETUP menu.

5 RETURN button

- Use this button to cancel the menu when a top menu is displayed on the TV screen.
- To return to the previous menu level during playback. (PBC on/off for VCD)

6 Direction buttons

Use these buttons to select items in a menu.

7 Disc tray

8 FLT Display

9 OPEN/CLOSE button

Use this button to open and close the disc tray.

10 PLAY button (▶)

Use this button to start playback.

11 STOP button (■)

Use this button to stop playback.

12 PAUSE button (⏸)

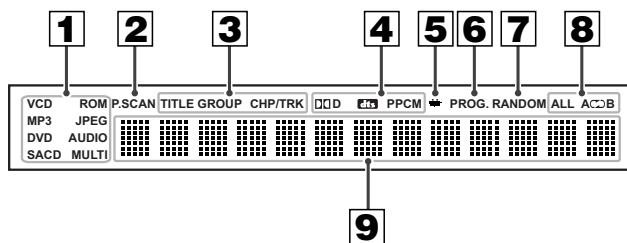
Use this button to pause playback.

13 SKIP (◀◀/◀, ▶/▶▶)

- Press these buttons to skip chapter or track, during playback.
- Press these buttons to quickly search the disc in the forward and reverse direction for more than 2 seconds, during playback.

14 Time Display button (only for FLT display)

Use this button to display information about the currently playing disc.



Front Panel Display

1 Lights to indicate the currently playing disc.

2 when progressive video signals are being output.

3 These light to indicate the names of sections of the disc being played.

4 Lights to indicate the currently playing audio format.

5 Lights during playback of multiple angle disc.

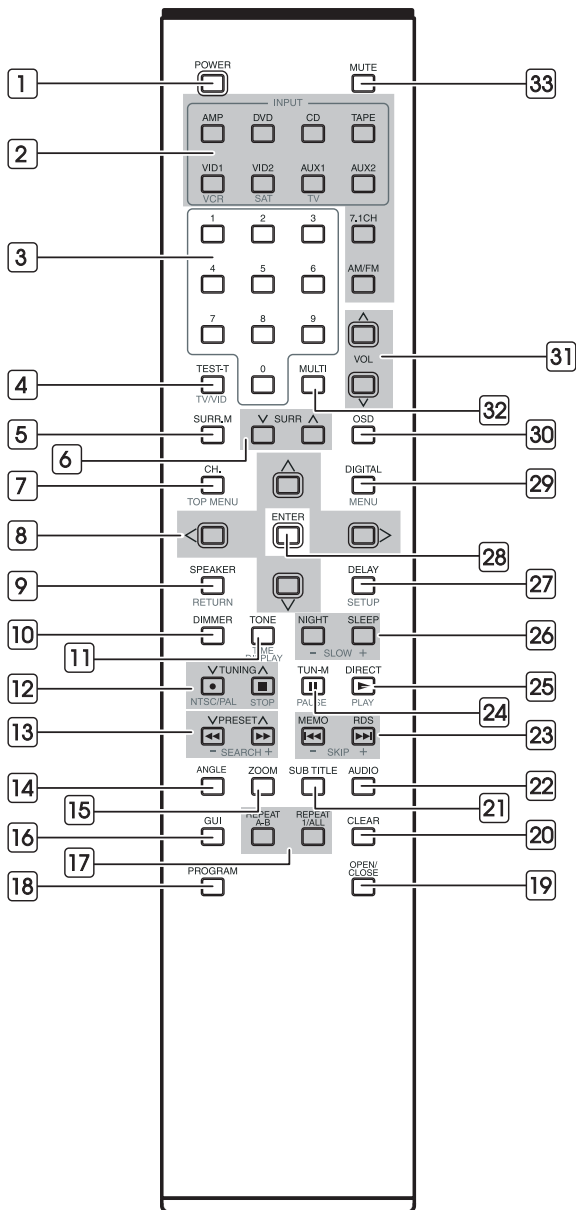
6 Lights in the programmed play mode.

7 Lights in the random play mode.

8 Lights in the repeat play mode.

9 Displays the title, track number and elapsed time during playback.

Names of Each Control



Remote Control Unit

1 POWER

System power on and off.

2 FUNCTION buttons

Use these buttons to select function modes.

3 Numeric buttons

These buttons serve as a 10 button numeric keypad to enter tuner preset positions.

4 TEST-T

- Output test tone for setting speaker levels. (AMP only)

TV / VID

- This button does not have a direct function on the DVA-250, but when used with a compatibly programmed VCR, DVD or satellite receiver that has a "TV / VIDEO" function, pressing this button will switch between the output of the player or receiver and the external video input to that player.

Consult the owner's manual for your specific player or receiver for the details of how it implements this function.

5 SURR. M

Press repeatedly to select the top-level group of surround modes. (AMP only)

6 SURR (v/^)

Press this button to select from among the available surround mode options for the mode group selected. (AMP only)

7 CH.

- Press to select CHANNEL LEVEL. (AMP only)

TOP MENU

- Press to call up the top menu.

8 DIRECTION

Use to more through the options on menu screens.

9 SPEAKER

- Press this button to begin to process of configuring this unit's bass management system for use with the type of speakers used in your system. (AMP only)

RETURN

- Use to go one menu back(current setting are maintained).
(PBC on/off for VCD)

10 DIMMER

Press to adjust the brightness of the front display.

11 TONE

- This button used Bass/Treble control. (AMP only)

TIME DISPLAY

- Use this button to display time information about the currently playing disc.

12 TUNING UP/DOWN

- When the tuner is in use, these buttons will tune up or down through the selected frequency band. (AMP only)

● Record

- Press to start normal recording. (VCR only)

Names of Each Control

NTSC/PAL

- Use this button to select NTSC, PAL or MULTI to match your TV standard.

■ STOP

- Press to stop playback.

13 PRESET UP/ DOWN

- Press to select a tuner preset channel. (AMP only)

SEARCH(◀◀/▶▶)

- During playback, these buttons are used for fast forward and fast reverse.

14 ANGLE

Selects a DVD camera angle if available.

15 ZOOM

Enlarges the DVD Video image.

16 GUI

Brings up the ON-SCREEN display.

17 REPEAT

A-B

- To repeat a specific section on a disc.

1/ALL

- To repeat chapter, track, title, disc(s).

18 PROGRAM

Press to programming CDs, Video CDs and SACDs.

19 OPEN / CLOSE

Open or close the disc tray.

20 CLEAR

Removes a track number on the program menu.

21 SUB TITLE

Select a subtitle language.

22 AUDIO

Selects different audio languages available in the DVD disc.

23 MEMO

- In Tuner mode to program preset radio stations. (AMP only)

RDS

- This function is used display information that is broadcasted by FM stations. (AMP only)

SKIP (I◀◀/▶▶I)

- When playing discs, press I◀◀ to go back to the beginning of the current chapter / track and ▶▶I to advance to the next chapter / track.

24 TUN-M

- Switches from tuning to (manual or auto) tuning mode. (AMP only)

PAUSE(II)

- Press to pause playback of a disc.

25 DIRECT

- Press this button when the tuner is in use to start the sequence for direct entry of a station's frequency. (AMP only)

PLAY (▶)

- Press to start or resume playback.

26 NIGHT

- Press this button to activate the night mode. This mode is available in specially encoded digital sources, and it preserves dialogue(center channel) intelligibility at low volume levels. (AMP only)

SLEEP

- Press to set the sleep timer. (AMP only)

SLOW(- , +)

- Press to watch a disc with a slower speed.

27 DELAY

- Press this button to begin the process for setting the delay times when processing surround sound. (AMP only)

SET UP

- Enter or exit the system setup menu.

28 ENTER

Press to enter setting.

29 DIGITAL

- Press this button to assign one of the digital inputs to a source. (AMP only)

MENU

- Access the menu on a DVD disc.

30 OSD

Press this button to activate the ON-Screen Display(OSD) system used to set up. (AMP only)

31 VOL (^/v)

Press to adjust volume. (AMP only)

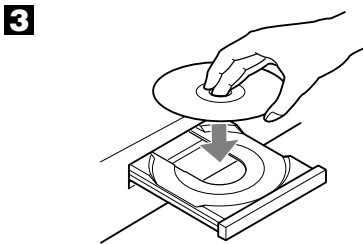
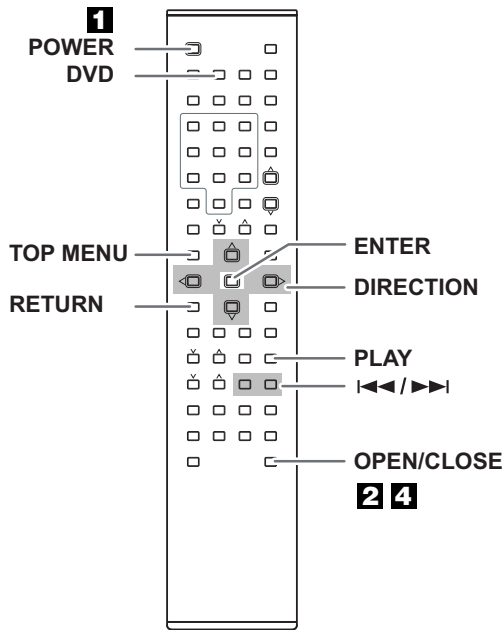
32 MULTI

Press to select ZONE II ON/OFF, ZONE II INPUT and ZONE II Volume. (AMP only)

33 MUTE

Press to activate the mute function. (AMP only)

Playback 1



- Turn the TV on and set its input to the correct position for DVD viewing.
- When this unit is connected to a stereo system, turn the system on.
- If another function is selected, press the DVD button on the remote controller.

- 1** Press the **POWER** switch to turn the unit on.
- 2** Press the **OPEN/CLOSE** button (▲).
- 3** Place a disc on the tray with the printed label face up.
Never place more than one disc on the tray.
- 4** Press the **OPEN/CLOSE** button (▲) to close the tray.

DVD

When a DVD is loaded, the playback may start automatically. If a title menu appears on the screen, select an item by pressing the ▲/▼/◀/▶ buttons and then press the ENTER button.

- Depending on the disc, you can use the numeric buttons to select an item.
- "Title menu" may simply be called "menu" or "title" in the instructions supplied with the disc.
- If you press the MENU button or the TOP MENU button during playback, title menu will appear on the screen. (In some cases, the playback might restart from the beginning of the disc.)

CD, SACD

Press the PLAY button (▶) to start playback.

Video CDs with PBC

Press the PLAY button (▶). When a Video CD (Version 2.0) with Playback Control functions(PBC) is loaded, a menu will appear on the screen. Select an item by pressing the numeric buttons to start playback.

- Press the ▶▶ button to advance to the next page. Press the ◀◀ button to return to the previous page.
- If you press the RETURN button during playback, the menu will appear on the screen.
- Following buttons does not work during PBC playback.
REPEAT, PROGRAM
- Press the MENU button to turn the PBC function on or off. If you press the MENU button during playback, playback will stop.

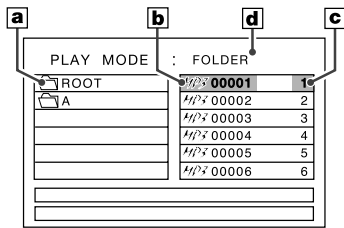
When the PBC function is off:

If you press the PLAY button (▶) in the stop mode, playback will start from the first track.

When the PBC function is on:

If you press the PLAY button (▶) in the stop mode, a menu will appear on the screen. Select an item by pressing the numeric buttons to start playback.

- If you press the numeric buttons in the stop mode, the PBC function will be turned off, and the playback will start from the selected track.



- a** directory's name
- b** file name
- c** file number
- d** play mode

MP3

When an MP3 disc is loaded, directories will be shown on the screen.

Select a directory by pressing the ▲/▼/◀/▶ buttons and press the PLAY button (▶).

Track numbers and titles(file names) will appear on the screen. Select a track and press the PLAY button (▶). Playback will start from the selected track.

- During playback, elapsed time of the current file is displayed on the front panel display.
- To change the play mode, press the REPEAT 1/ALL button until the desired mode is displayed on the TV screen.

JPEG CD

When a JPEG disc is loaded, directories will be shown on the screen.

Select a directory by pressing the ▲/▼/◀/▶ buttons and press the PLAY button (▶) or ENTER button.

File names will appear on the screen. Select a file and press the PLAY button (▶). Slide show will start from the selected file.

- During playback, you can press the SKIP buttons (◀◀/▶▶) to select another picture. You can also use the (▲/▼/▲/▼) buttons to rotate/flip the image on the TV.
- Some files on the JPEG disc may be distorted during playback due to the configuration or characteristics of the disc.

WMA

Listening to WMA (Windows Media Audio) CD-R/CD-RW

This unit can play CD-R/RW music files that have been recorded in the WMA (Window Media Audio) audio compressing format.

Windows Media and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.

WMA (Windows Media Audio) : New audio coding of Microsoft Corporation.

Uses of recordings you have made other than for your personal enjoyment are not permitted under the Copyright Law without permission of the copyright holder.

The method of playback is the same as "Listening to Recorded MP3".

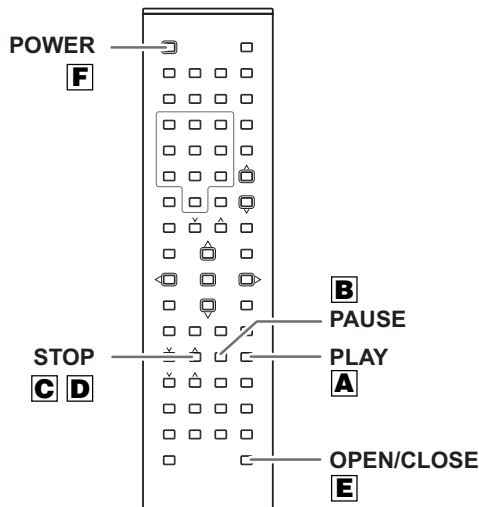
- In the file display of the disc information screen, WMA files will be displayed with the "WMA" icon instead of the "ROM" icon. (Files for which the "WMA" icon is not displayed cannot be played. There will be a skip and the next file with an icon will be played.)

NOTES:

- Files recorded with a sampling frequency (fs) of 44.1, and 48 kHz are supported.
- Programmed playback cannot be performed with WMA discs.
- The digital output at the time of WMA file playback is converted to PCM regardless of the initial settings.
- Please use discs that have been recorded in conformity with the ISO 9660 level 1/level 2 CD-ROM file system. (Extended formats are excluded.)
- Copyright protected files cannot be played. Also note that depending on the writing software and conditions, playback might not be possible, or the files might not be displayed properly.
- Playback of the CD-R/RW might not be possible depending on the disc characteristics, soiling, scratches, and other factors.
- Bit rates of 64 k to 160 kbps are supported for WMA files that have an extension of ".wma" or ".WMA".
- This unit can display the folder names and file names on the screen. Up to 11 half-width alphanumeric upper case characters and symbols (including the underscore symbol) can be displayed. Kanji, hiragana, katakana and other characters cannot be displayed.
- While in the stop condition, the TIME DISPLAY button of the remote control can be used to switch and display the title names and the artist names. (One folder has a capacity of up to 99 files.)
- Recorded discs with no more than 99 files per folder are recommended. Multiple folder configurations are possible: however, depending on the configuration, recognition and playback of all the folders and files might not be possible.
- Multi-session discs can also be played back, however, playback of discs that have had session closure within 10 sessions.
- Direct track selection using the remote control numerical keys (0 to 9, and +10) can specify up to 179 tracks (179 files) per folder. when 179 tracks are exceeded, while the unit is stopped, use the cursor buttons at the disc information screen to select the files, and use the play button or the ENTER button to play.

Playback 3

DVD/CD/SACD/VCD/MP3



A To start playback

In the stop mode, press the PLAY button (▶).

B To suspend playback temporarily (pause mode).

Press the PAUSE button (⏸) during playback.

The image stills with DVD discs, or music is interrupted with MP3 or CDs.

To resume playback, press the PLAY button (▶) or PAUSE button (⏸). (for CD, SACD, VCD, MP3 and WMA)

C To stop playback of a CD, VCD, and SACD or MP3.

Press the STOP button (■).

D To stop and resume playback of a DVD

If you press the STOP button (■) during DVD playback, the unit runs in RESUME mode, as the display indicates.

If you want to cancel the RESUME mode and stop playback completely, press the STOP button (■) again.

To resume playback

When you stop playback of DVD by pressing the STOP button (■), the interrupted point is kept in memory and playback starts from that point when you press the PLAY button (▶).

- The memory is cleared if you disconnect the power cord.
- If you open the disc tray during playback of a DVD, "OPEN" is displayed on the TV screen. If you close the disc tray with the DVD still on it, "CLOSE", "DISC LOADING" and "PRESS PLAY TO RESUME PLAY" are displayed on the TV screen and playback starts from the beginning of the disc, not the point where playback was stopped. If you press the PLAY button (▶) before that message has gone out, playback starts from the interrupted point.

E To open the disc tray

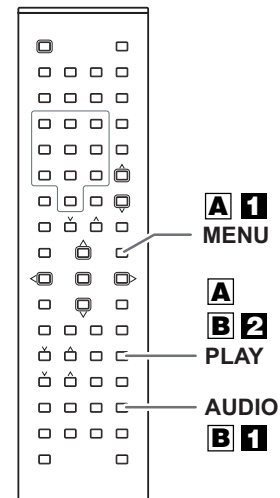
Press the OPEN/CLOSE button (▲) to open the disc tray.

F Power Off Function

When the unit is left in the stop mode for about 8 minutes, the unit enters power standby mode.

SACD Sound Mode

SACD



There are three types of Super Audio CDs: single-layer, dual-layer, and hybrid.

Each may contain two areas of recorded audio or sound modes: High Quality Two-Channel and High Quality Multi-channel.

A single-layer SACD may contain both Two-Channel and Multi-channel.

A dual layer SACD may contain both Two-Channel and Multi-channel, but twice the amount.

Hybrid SACDs have two layers, the CD and SACD layers.

Within the SACD layer are the SACD Two-Channel area and SACD Multi-channel area.

If you have a hybrid SACD, you need to choose the layer/sound mode you want to play - CD, SACD Two-Channel, or SACD Multi-channel.

A Layer Changing

1 Press the MENU button repeatedly to choose the CD layer or the SACD layer when playback is stopped.

2 Press the PLAY(▶) button.

The layer you select will play.

- You cannot switch between the CD and SACD layers during playback.

B Channel Changing

1 Press the AUDIO button repeatedly to choose the Multi-channel or the Two-Channel when playback is stopped.

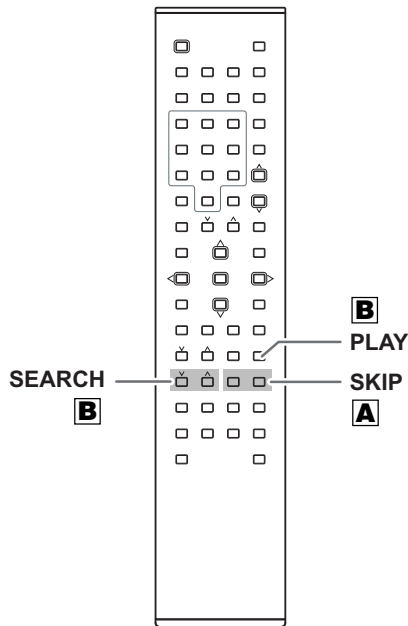
The sound mode will appear on the front panel.

2 Press the PLAY(▶) button.

Notes:

With Super audio CDs, Digital audio signals cannot be output from the digital out terminals. Use analog connections.

Playback from a specific chapter/track



A To skip to a specific chapter/track.

During playback, press the SKIP button (I◀◀ or ▶▶I) repeatedly until the desired chapter or track is found. The selected chapter/track will be played from the beginning.

When the I◀◀ button is pressed during playback, the track being played will be played from the beginning. To return to the beginning of the previous track, press the I◀◀ button twice.

- During PBC playback of a VCD, you cannot return to the previous track.

B Search for a part of a chapter/track

To quickly search the disc in the forward or reverse direction, press the SEARCH button (◀◀ or ▶▶) during playback. Press the PLAY button (▶) when the part you want to listen to is found.

Each time the SEARCH button (◀◀ or ▶▶) is pressed, the Search speed is incremented.

- The sound is muted during playback of DVD/VCD.
- This function may not work with some discs.

Slow-Motion Playback

DVD

To play a disc in slow-motion, press the SLOW button during playback.

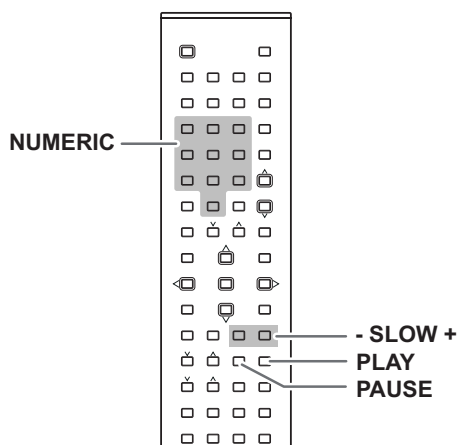
SLOW (+) : slow forward playback

SLOW (-) : slow reverse playback

Each time the SLOW button is pressed, the speed is changed.

To resume normal playback, press the PLAY button (▶).

- The sound is muted during slow-motion playback.
- This function is not available for CD, SACD, VCD, MP3 and WMA.



Single Stepping Playback

DVD

To play a disc step by step, press the PAUSE button (||) during playback. Each time the PAUSE button (||) is pressed, the picture advances by one frame.

To resume normal playback, press the PLAY button (▶).

- This function is not available for CD, SACD, VCD, MP3 and WMA.

Direct Playback

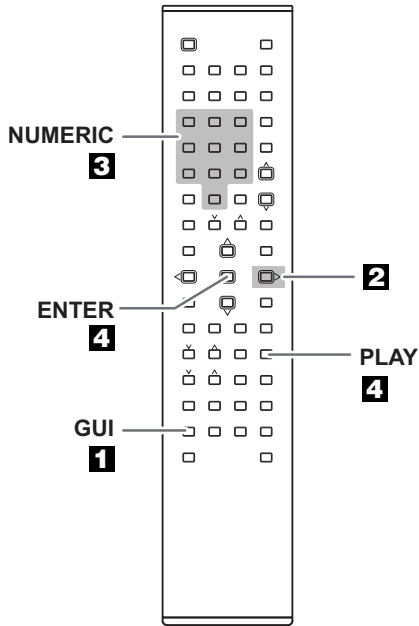
DVD/CD/SACD/VCD/MP3/WMA

Select a track by pressing the numeric buttons.

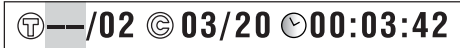
Example : To select track No.18



Playback starts from the selected track.



2



2

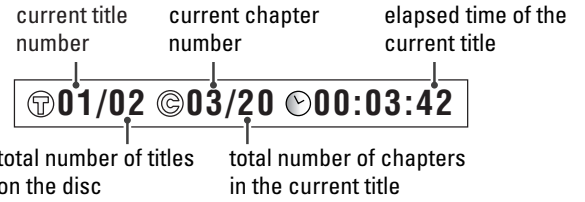


Title Select

You cannot select a track and a time at one time.

1 Press the GUI button during playback or pause.

- When in the STOP mode, the display will look like "--/02" and



only the title can be selected. If this is the case, go to step **3**.

2 Press the ► button to change the title number to "--".

3 Press the numeric buttons to select a title.

Example:

To select Title 2, press 0 and 2.

4 Press the PLAY button (►) or the ENTER button.

The selected title starts play.

- If you select numbers which don't exist on the disc, PROHIBITED icon ⊘ will be displayed.
- Depending on the DVD disc, the Title select may not be allowed.

Chapter Select

1 Press the GUI button during playback or pause mode.

2 Press the ► button twice to change the chapter number to "--".

3 Press the numeric buttons to select a chapter.

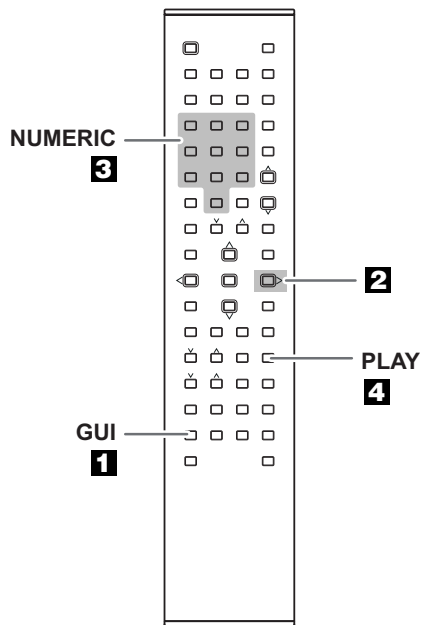
4 Press the PLAY button (►) or the ENTER button.

Playback starts from the selected chapter.

- If you select numbers which don't exist on the disc, PROHIBITED icon ⊘ will be displayed.

Time Select

DVD



1 Press the GUI button.

Ⓣ 01/02 Ⓞ 03/20 Ⓜ 00:00:00

2 Press the ► button three times to change the time indication to "--:--:--".

Ⓣ 02/03 Ⓞ 03/20 Ⓜ --:--:--

3 Input the time by pressing the numeric buttons.

Example:

To select a scene 2 hours 30 minutes 10 seconds from the beginning of the selected title, press 023010.

Ⓣ 01/02 Ⓞ 03/20 Ⓜ 02:30:10

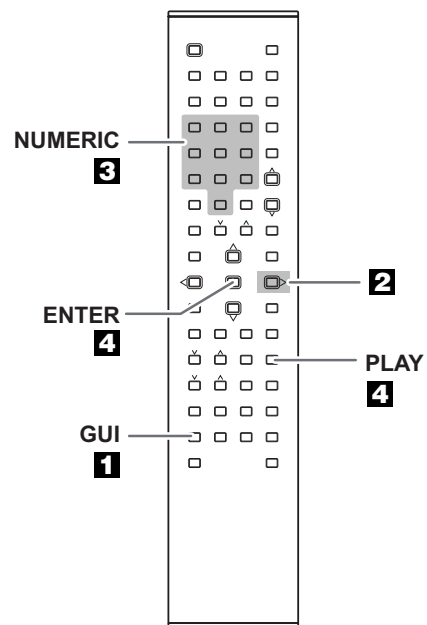
4 Press the PLAY button (►).

Playback starts from the selected part.

- If you select the numbers which doesn't exist on the disc, PROHIBIT icon (⊘) will be displayed.

Track or Time Select

CD/SACD/VCD



You cannot select a track and a time at one time.

1 Press the GUI button in the playback mode.

A GUI bar appears on the TV screen.

Track (current track number)

TRACK 01/10 Ⓜ 00:02:35

Time (elapsed time of current track)

2 Press the ► button once or twice to highlight "Track" or "Time".

TRACK --/10 Ⓜ 00:02:35

TRACK01/10 Ⓜ --:--:--

3 Input the track number or the time from the beginning of the current track using the numeric buttons.

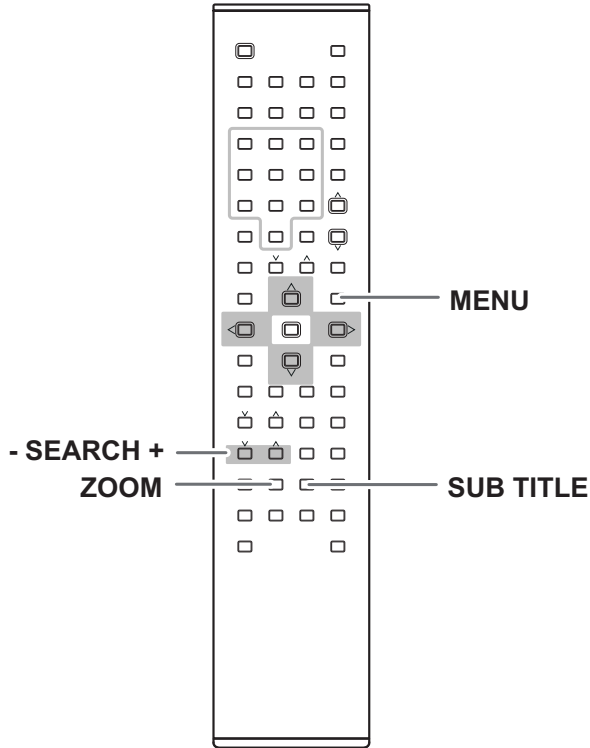
Example:

To select Track 5, press 5.

To select Track 12, press 1 and 2.

To select a part 1 minute 10 seconds from the beginning of the selected track, press 1, 1, 0.

4 Press the PLAY(►) button or ENTER button.



Picture Zoom

To zoom the picture, press the ZOOM button during playback.

Each time the ZOOM button is pressed, the magnification level changes.

- You can shift the zoom point by pressing the ▲/▼/◀/▶ buttons during zoom playback.
- Zooming does not work on subtitles or menu screens.
- The magnification level varies depending on the TV DISPLAY selection in the SETUP menu.

Select a Subtitle Language

To select a subtitle language, press the SUB TITLE button during playback.

Each time you press the SUB TITLE button, the subtitle languages included on the disc appear on the display.

- It may take a few seconds till a selected subtitle appears on the screen.
- When no subtitles are recorded on the disc, "OFF" will be displayed.
- In some cases, a subtitle cannot be turned off even if you select "OFF".
- Some discs allow you to change subtitles only via the disc menu. In that case, press the MENU button and change the settings.
- You can set a preferred language for subtitle in the SETUP menu. (See page 36)

JPEG

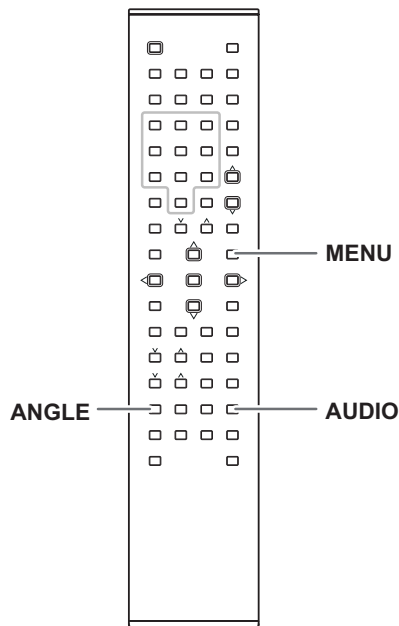
JPEG

- Turn around
 - ▶: Toward the right
 - ◀: Toward the left
- Turn over
 - ▲: Up and down
 - ▼: Left and right
- Zoom

Press the ZOOM button. and then,

 - Each time the +SEARCH button(▶▶) is pressed, the magnification level changes.
 - Each time the -SEARCH button(◀◀) is pressed, the reduction level changes.

When ZOOM on, it will be at pause mode. Turn ZOOM off will have the play mode back.

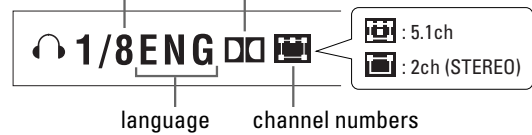


Select an Audio Language

To select an audio language, press the AUDIO button during playback.

Each time you press the AUDIO button, a language and its sound recording system included on the disc appears on the screen.

the total number of the audio included on the disc sound recording system



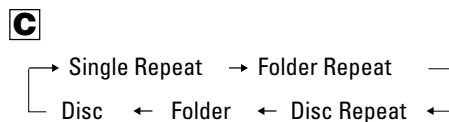
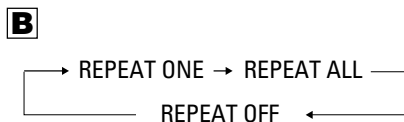
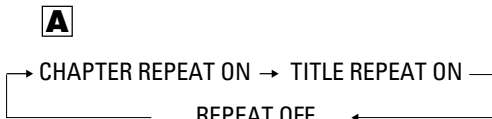
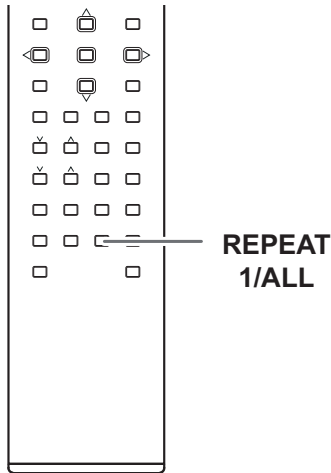
- When no other audio is recorded on the disc, PROHIBIT icon ⊘ will be displayed.
- Some discs allow you to change audio language only via the disc menu. In that case, press the MENU button and change the settings.

Change the Angle

When a scene recorded with multiple angles is played, "ANGLE AREA IN" briefly appears on the screen.

Each time you press the ANGLE button during playback of a multi-angle scene, the camera angle changes.

- When the multi-angle scene ends, "ANGLE AREA OUT" briefly appears on the screen.
- You can change the setting so that the angle message isn't displayed even when a scene recorded with multiple angles is played. See page 33 for details.
- When no other angle is recorded, PROHIBIT icon ⊘ will be displayed.



Repeat Playback 1

Repeat Playback of DVD

Each time the REPEAT 1/ALL button is pressed during playback, the mode changes as follows: **A**

Chapter Repeat

The chapter being played will be played repeatedly. If you select another chapter in CHAPTER REPEAT mode, the chapter you selected will be played repeatedly.

Title Repeat

All the chapters of the current title will be played repeatedly. During programmed playback, programmed chapters will be played repeatedly.

- The REPEAT 1/ALL button does not work in the RESUME and STOP modes.
- If one of the following buttons is pressed, repeat mode will be cancelled:

STOP in the stop mode, OPEN/CLOSE, A-B, MENU, POWER

Repeat Playback of CD, SACD, VCD

Each time the REPEAT 1/ALL button is pressed, the mode changes as follows: **B**

Repeat One

The track being played will be played repeatedly. If you select another track in REPEAT ONE mode, the track you selected will be played repeatedly.

It is also possible to select a track in the pause and stop modes. Press the REPEAT 1/ALL button and then select the track number by pressing the numeric buttons.

Repeat All

All the tracks of the disc will be played repeatedly.

During programmed playback, programmed tracks will be played repeatedly.

- This function is unavailable during PBC playback of a VCD.
- If one of the following buttons is pressed, repeat mode will be cancelled:

STOP, OPEN/CLOSE, A-B, POWER

Repeat playback of MP3, WMA

Each time the REPEAT 1/ALL button is pressed, the mode changes as follows: **C**

Single Repeat

The current track will be played repeatedly.

Folder Repeat

The current folder will be played repeatedly.

Disc Repeat

The disc will be played repeatedly.

Folder (normal playback)

The current folder will be played once.

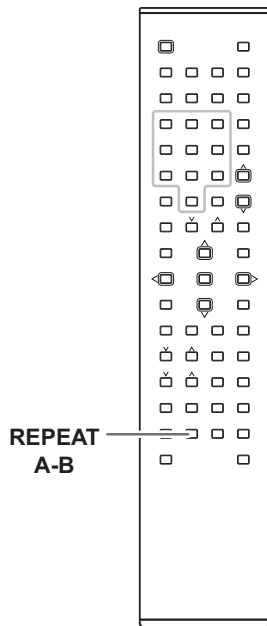
Disc

The disc will be played once.

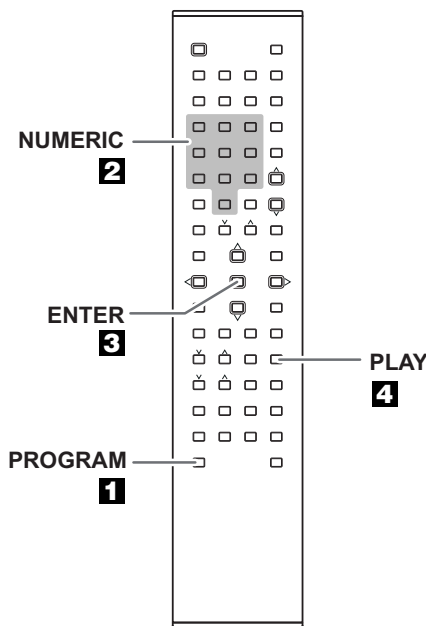
- If one of the following button is pressed, repeat mode will be cancelled.

OPEN/CLOSE, POWER

DVD / CD / SACD / VCD



CD / VCD / SACD



Repeat Playback 2

Repeat Playback of a Designated Section (A-B Repeat)

1 Start playback and designate the point at which the A-B repeat should start (point A) by pressing the REPEAT A-B button.

"A TO B REPEAT SET A" appears on the screen and the "AC" indicator lights up in the front panel display.

2 When the point at which repeat playback should end (point B) is reached, press the REPEAT A-B button again.

"A TO B REPEAT ON" appears on the screen and the "ACB" indicator lights up in the front panel display.

The designated section will be played repeatedly.

- When playing a CD/SACD/VCD, the point A and B should be selected from the same track.
- When playing a DVD, the point A and B should be selected from the same title.
- When playing a DVD, the SEARCH button can be used to fast-forward to point B after designating point A.
- There should be more than one second between A and B.
- If one of the following buttons is pressed, A-B repeat mode will be cancelled:

STOP (CD, SACD, VCD), STOP in the stop mode (DVD), MENU (DVD), A-B, SKIP, OPEN/CLOSE, POWER

Programmed Playback 1

Up to 32 tracks can be programmed in the desired order.

1 Press the PROGRAM button in the stop mode.

2 Press the numeric buttons to select a track.

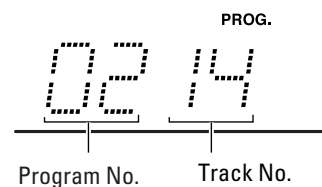
Example:

To select Track No.3, press 0 and 3.

3 Press the ENTER button.

The track is programmed.

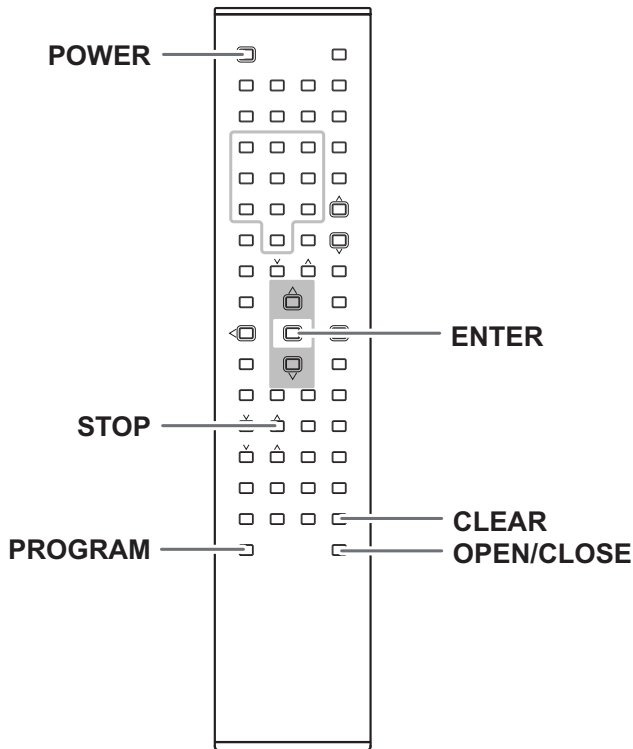
Repeat steps **2** and **3** to program more tracks.



- When the total time of the programmed tracks exceeds 99 minutes 59 seconds, "99:59" will be displayed instead of the actual time.

4 When the selection of track numbers has been finished, press the PLAY button (▶) to start programmed playback.

- If you press the REPEAT 1/ALL button and select "REPEAT ALL", the programmed tracks will be played repeatedly.
- During programmed playback, the numeric buttons don't work.
- Program does not work, when PBC ON for VCD.



Programmed Playback 2

To check the programmed content

In the stop mode, press the ▲ or ▼ button repeatedly. The programmed content (program number, track number and playback time) will be shown on the display in the programmed order.

To delete a programmed track

In the stop mode, press the ▲ or ▼ button repeatedly until the programmed track to be deleted is displayed. Then press the CLEAR button. The selected track is deleted from the program and the track programmed next is moved to take its place, and is shown on the display.

To overwrite a programmed track

In the stop mode, press the ▲ or ▼ button repeatedly until the programmed track to be changed is displayed. Select a new track number using the numeric buttons, and then press the ENTER button.

To add a track to the end of the program

In the stop mode, press the ▲ button repeatedly until "--" is displayed. Select a track number using the numeric buttons, and then press the ENTER button. The track is added to the end of the program.

To resume normal playback

In the stop mode, press the PROGRAM button to resume normal playback. The "PROG." indicator will go off and the program mode will be cancelled.

However, the programmed content isn't lost. You can return to the programmed playback by pressing the PROGRAM button and the PLAY button.

To clear the programmed content

With the unit stopped and the "PROG." indicator lit, press the CLEAR button to clear the programmed content.

If you are checking the programmed content, press the STOP button and the CLEAR button.

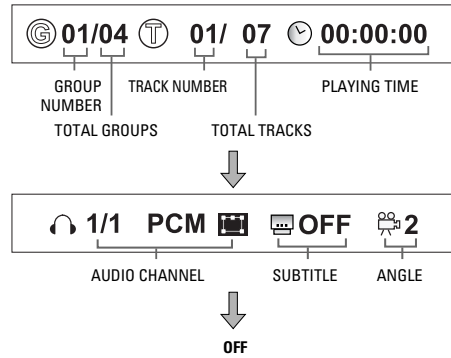
If one of the following buttons is pressed, the programmed content will also be cleared:

- OPEN/CLOSE, POWER

GUI 2

During playback or pause of DVD-Audio

When you press the GUI button during the playback or pause, the TV display changes as follows.

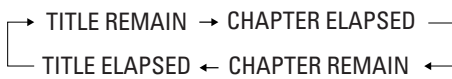


Time Display 1

Press the TIME DISPLAY button or the DISPLAY button on the front panel repeatedly during playback to display different information on the front panel display about the disc.

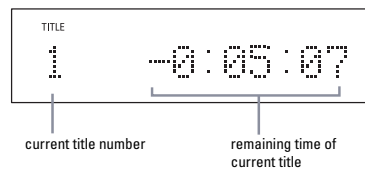
The display changes as follows : **A**, **B**, **C**, **D**, **E**

A DVD

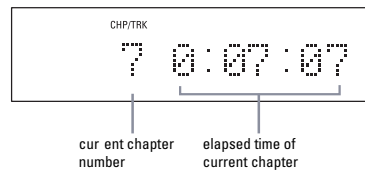


A DVD

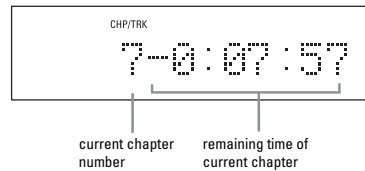
TITLE REMAIN



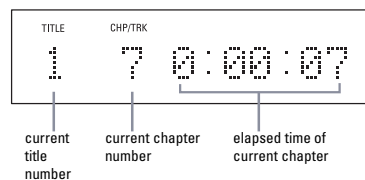
CHAPTER ELAPSED



CHAPTER REMAIN

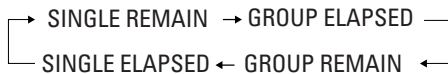


TITLE ELAPSED



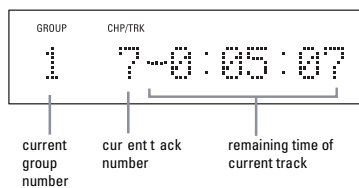
Time Display 2

B DVD-Audio

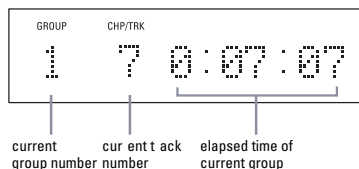


B DVD-Audio

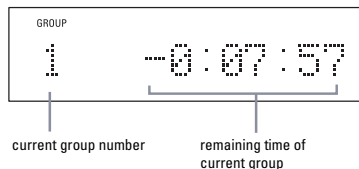
SINGLE REMAIN



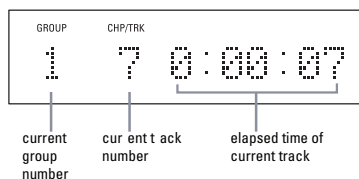
GROUP ELAPSED



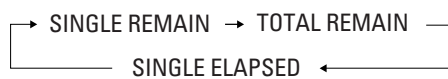
GROUP REMAIN



SINGLE ELAPSED

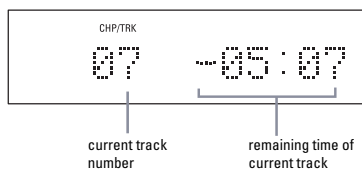


C CD, VCD

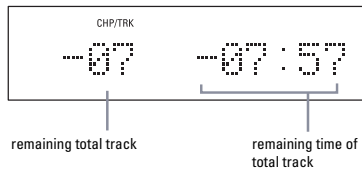


C CD, VCD

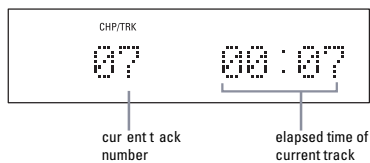
SINGLE REMAIN



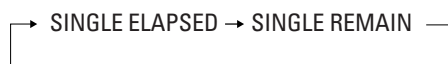
TOTAL REMAIN



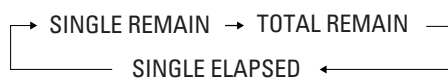
SINGLE ELAPSED



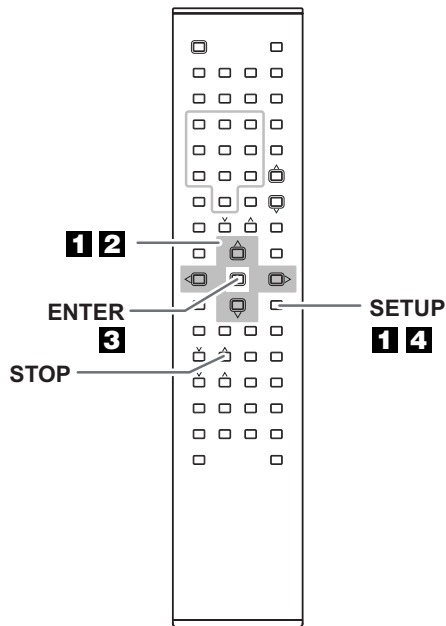
D MP3, WMA



E SACD



Settings 1



This chapter describes how to use the SETUP menu. Most settings and adjustments are required to be set when you first use the system.

Using the SETUP menu, you can adjust the picture size, set a language for the subtitles and the OSD (on screen displays), limit playback by children, et cetera.

Notes

- Some settings cannot be selected during playback and RESUME mode of DVD. In that case, press the STOP button once or twice to stop playback completely, "STOP" lighting in the display.
- Make sure your TV is connected to the DVD player and turned on. Setup uses ON-SCREEN MENUS to program.

1 Press the SETUP button in the stop mode.

The setup menu appears on the TV screen. Select a tab using the ◀/▶ buttons.

2 Select an item you want to change using the ▲/▼ buttons.

3 Press the ENTER button as many times as necessary to select the desired option.

Use the numeric buttons (0 to 9) to key in numbers, such as the password for parental control.

Repeat steps 2 and 3 to set other settings.

4 When the settings have been finished, press the SETUP button to exit the SETUP menu.

A

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|---------------------|-------|---------|------|--------|
| TV Display | | | | 4:3 LB |
| TV Type | | | | PAL |
| Video Output | | | | RGB |
| Picture Mode | | | | Auto |
| Slide show Mode | | | | None |
| Angle Mark | | | | On |
| Captions | | | | Off |
| Set TV Display Mode | | | | |

Basic Mode

Expert Mode

B

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|-----------------|-------|---------|------|--------|
| TV Display | | | | 4:3 LB |
| TV Type | | | | PAL |
| Video Output | | | | RGB |
| Picture Mode | | | | Auto |
| Slide show Mode | | | | None |
| Angle Mark | | | | On |
| Captions | | | | Off |
| Set TV Standard | | | | |

C

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|---------------------|-------|---------|------|--------|
| TV Display | | | | 4:3 LB |
| TV Type | | | | PAL |
| Video Output | | | | RGB |
| Picture Mode | | | | Auto |
| Slide show Mode | | | | None |
| Angle Mark | | | | On |
| Captions | | | | Off |
| Set Video Output | | | | |

A TV Display

Select the aspect ratio to match your TV.

4:3 PS (Pan & Scan mode)

When you connect a normal TV to the system, this setting displays a wide picture on the whole TV screen with a portion (right and left sides of the picture) automatically cut off.

4:3 LB (Letterbox mode)

When you connect a normal TV to the system, this setting displays a wide picture with bands displayed on the upper and lower portions of the screen.

16:9 Wide (Wide-screen mode)

Use this setting when you connect a wide-screen TV to the system.

- Some wide-screen discs that do not permit Pan & Scan mode playback are automatically played in Letterbox mode.
- Depending on the DVD, 4:3 Letterbox may be selected automatically instead of 4:3 Pan & Scan and vice versa.
- You must also set the screen mode on your wide-screen TV to "FULL".
- If WIDE is selected and a normal TV is connected, 16:9 content will appear distorted during playback (objects look thin).

B TV Type

PAL :

Select PAL when a PAL TV (European standard) is connected.

NTSC :

Select NTSC When a NTSC TV (American standard) is connected.

Multi :

Select Multi When a Multi TV is connected.

C Video Output

Component:

Select this when your TV or monitor is connected via the COMPONENT VIDEO jacks.

A component video signal is output from the COMPONENT VIDEO OUT jacks.

RGB (default):

Select this when your TV or monitor is compatible with RGB. An RGB video signal is output from the AV CONNECTOR.

- Regardless of the setting, the VIDEO OUT jack is always active.
- If you select an improper setting, no picture will be shown on the screen. In this case, connect your TV via the VIDEO jack or AV CONNECTOR to display the Setup menu, and select the proper video output setting.

D

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|---------------------|-------|---------|------|-------------|
| TV Display | | | | 4:3 LB |
| TV Type | | | | PAL |
| Video Output | | | | RGB |
| Picture Mode | | | | Auto |
| Slide show Mode | | | | None |
| Angle Mark | | | | On |
| Captions | | | | Off |
| Set Picture Mode | | | | |

Basic Mode

Expert Mode

D Picture Mode

This setting is accessible only when SETUP MENU MODE is set to EXPERT. (See page 36)

This integrated solution takes advantage of utilizing the embedded flag information in the MPEG stream and makes the proper compensation for re-construction of the progressive frame.

Auto:

This deinterlacing mode is controlled purely based on the progressive/interlace flag information embedded in the bitstream. If the source is flagged as progressive, then the "weave" method is used to deinterlace the film source. If flagged as interlace, then the "bob" method is used. If both progressive and interlace flags exist in the same bitstream, then it will default to interlace source mode.

Film:

Regardless of the progressive/interlace flag information embedded in the bitstream, the deinterlacer will always assume the video source as progressive and process the information by the "weave" deinterlacing method.

Video:

Regardless of the progressive/interlace flag information embedded in the bitstream, the deinterlace will always assume the video source as interlace and process the information by the "bob" filtering method.

Smart:

Regardless of the progressive/interlace flag information embedded in the bitstream, the deinterlace will always assume the video source as progressive. Additional multi-tap vertical filtering is applied. Smart mode is an excellent mode to use for progressive and interlaced material with limited motion.

SSmart (Super Smart):

This mode enables the MPEG proprietary advanced pixel-based motion-adaptive algorithm for high quality video deinterlacing. SuperSmart mode combines temporal and spatial information with additional multi-tap medium filtering to accurately reconstruct 480P/576P video from any source format. With the combination of flag reading and pixel-based motion-adaptive processing, SmartScan accurately recreates the most perfect progressive video to be displayed on a 480P/576P TV. This is the best mode to use for deinterlacing interlaced or progressive source material.

E

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM | |
|------------------------|-------|---------|------|--------|-------------|
| TV Display | | | | 4:3 LB | Basic Mode |
| TV Type | | | | PAL | |
| Video Output | | | | RGB | |
| Picture Mode | | | | Auto | |
| Slide show Mode | | | | None | Expert Mode |
| Angle Mark | | | | On | |
| Captions | | | | Off | |
| Set Slide show Mode | | | | | |

F

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM | |
|-------------------|-------|---------|------|--------|--|
| TV Display | | | | 4:3 LB | |
| TV Type | | | | PAL | |
| Video Output | | | | RGB | |
| Picture Mode | | | | Auto | |
| Slide show Mode | | | | None | |
| Angle Mark | | | | On | |
| Captions | | | | Off | |
| Angle Mark On/Off | | | | | |

G

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM | |
|-----------------|-------|---------|------|--------|--|
| TV Display | | | | 4:3 LB | |
| TV Type | | | | PAL | |
| Video Output | | | | RGB | |
| Picture Mode | | | | Auto | |
| Slide show Mode | | | | None | |
| Angle Mark | | | | On | |
| Captions | | | | Off | |
| Closed Caption | | | | | |

E Slide show Mode

This setting is accessible only when Setup Menu Mode is set to Expert. (See page 36)

Some DVD discs contain still pictures that cycle automatically while audio is played. The default setting is None.

Press the ENTER button to select the desired mode from the following:

TYPE 1-11

- TYPE 1 : wipes from top to bottom
- TYPE 2 : wipes from bottom to top
- TYPE 3 : wipes from top/bottom to center
- TYPE 4 : wipes from center to top/bottom
- TYPE 5 : vertical blinds
- TYPE 6 : wipes from left to right
- TYPE 7 : wipes from right to left
- TYPE 8 : wipes from left/right to center
- TYPE 9 : wipes from center to left/right
- TYPE 10 : wipes from edge to center
- TYPE 11 : horizontal blinds

Random

Wipes randomly

None

No effect

F Angle Mark

This setting is accessible only when SETUP MENU MODE is set to EXPERT. (See page 36)

Select whether the angle message appears on the TV screen or not when a multi-angles scene is being played. You can change the angles using the ANGLE button.

G Captions

This setting is accessible only when SETUP MENU MODE is set to EXPERT. (See page 36)

Select ON or OFF for closed captions. The default setting for this feature is "OFF". If you wish to view a movie with captions, turn this feature on.

H

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|--------------|-------|---------|------|---------------|
| Digital Out | | | | Bitstream |
| MPEG Out | | | | PCM |
| 96K LPCM Out | | | | 96K>48K |
| Downmix | | | | Multi-Channel |
| Audio DRC | | | | Off |
| Set SPDIF | | | | |

Basic Mode

Expert Mode

I

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|----------------------|-------|---------|------|---------------|
| Digital Out | | | | Bitstream |
| MPEG Out | | | | PCM |
| 96K LPCM Out | | | | 96K>48K |
| Downmix | | | | Multi-Channel |
| Audio DRC | | | | Off |
| Set MPEG Digital Out | | | | |

J

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|-------------------------|-------|---------|------|---------------|
| Digital Out | | | | Bitstream |
| MPEG Out | | | | PCM |
| 96K LPCM Out | | | | 96K>48K |
| Downmix | | | | Multi-Channel |
| Audio DRC | | | | Off |
| Set 96K LPCM To 48K Out | | | | |

K

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|-------------------------|-------|---------|------|---------------|
| Digital Out | | | | Bitstream |
| MPEG Out | | | | PCM |
| 96K LPCM Out | | | | 96K>48K |
| Downmix | | | | Multi-Channel |
| Audio DRC | | | | Off |
| Set Speaker Output Mode | | | | |

Digital Out

Bitstream:

Select this when the unit is connected to an audio component equipped with a built-in Dolby Digital or DTS decoder via the DIGITAL OUT terminal.

PCM:

Select this when the unit is connected to an audio component such as amplifier/receiver, CD recorder or MD deck via the DIGITAL OUT terminal.

Off:

Select this when you don't use the DIGITAL OUT terminal. No signal is output from the DIGITAL OUT terminal.

MPEG Out

You need this setting only when this DVD player is connected to audio equipment via DIGITAL audio output.

Bitstream:

Select this when the unit is connected to an audio component equipped with a built-in MPEG decoder via the DIGITAL OUT terminal.

PCM:

Select this when the unit is connected to an audio component such as an amplifier/receiver, CD recorder or MD deck via the DIGITAL OUT terminal.

96K LPCM Out

You need this setting only when this DVD player is connected to an audio equipment via DIGITAL audio output.

96K:

Select this when the connected audio equipment is capable of 96 kHz audio.

96K > 48K:

Select this if the connected audio equipment is not capable of 96 kHz audio.

Downmix (Setup at STOP Mode)

To play a DVD disc recorded with surround multi-channel audio correctly, select either one according to your audio system.

When an audio component equipped with a built-in Dolby Digital or DTS decoder is connected via the DIGITAL OUT terminal and "Digital Out" is set to "Bitstream", the Downmix setting has no effect.

Lt/Rt:

Select this when the unit is connected to an audio component equipped with a built-in Dolby Digital decoder.

Stereo:

This setting outputs 2-channel stereo sound for listening through the left and right analog outputs.

Select this when the unit is connected to a TV, stereo amplifier, CD recorder, MD deck, etc.

Multi-Channel:

If you connected this player to your amplifier using the 6 channel analog outputs (front, surround, center and sub-woofer outs), set this to Multi-Channel. If you connected only the stereo outs, set to Lt/Rt.

Notes

- The default setting is Multi-Channel.
- Depending on the disc content, the actual sound output may not match the chosen setting.
- Even if you set Downmix to Multi-Channel, you'll get sound from all speakers only when playing a multi-channel DVD disc.
- If Lt/Rt is selected, Dolby Digital, DTS and MPEG audio are mixed down to two channels to allow you to listen to all the audio recorded on the disc.

L

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|---------------------------|-------|---------|------|---------------|
| Digital Out | | | | Bitstream |
| MPEG Out | | | | PCM |
| 96K LPCM Out | | | | 96K>48K |
| Downmix | | | | Multi-Channel |
| Audio DRC | | | | Off |
| Dynamic Range Compression | | | | |

Basic Mode

Expert Mode

L Audio DRC (Dynamic Range Compression)

This setting is accessible only when Setup Menu Mode is set to Expert. (See page 36)

In many listening situations, you may find loud passages objectionable. Adjusting this setting allows you to compress the sounds into a range that you may find more suitable for a particular listening situation. Dolby Digital satisfies these needs through the dynamic range controlling.

Select the dynamic range compression to fit the individual listening situation of the audience. The variable range is from 8 to 1, or OFF.

8 ~ 1

Audio with partially compressed dynamic range.

OFF:

Audio with uncompressed dynamic range.

- This function is effective only when playing back a DVD disc recorded with Dolby Digital. No effect on other discs.

M

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|--------------------------|-------|---------|------|----------|
| Front | | | | Large |
| Center | | | | Large |
| Rear | | | | Large |
| Sub Woofer | | | | Yes |
| Front Position | | | | 5ft/1.5m |
| Center Position | | | | 5ft/1.5m |
| Rear Position | | | | 5ft/1.5m |
| Setup Front Speaker Size | | | | |

M Speaker Configuration (Setup at STOP Mode)

This setting is accessible only when the Downmix is set to Multi-Channel. (See page 32)

Select the size of your speakers.

Select Large if the speaker can reproduce frequencies below 80 Hz. Note that the left (L) and right (R) speakers cannot be set independently.

- If Sub Woofer is set to None, only Large can be selected for the Front speakers.
- If the Front speakers are set to Small, only Small or None can be selected for the Center and Rear (surround) speakers.
- You cannot select None for the Front speakers.
- The subwoofer (SW) can only be set to Yes or No.

N

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|----------------------------|-------|---------|------|----------|
| Front | | | | Large |
| Center | | | | Large |
| Rear | | | | Large |
| Subwoofer | | | | Yes |
| Front Position | | | | 5ft/1.5m |
| Center Position | | | | 5ft/1.5m |
| Rear Position | | | | 5ft/1.5m |
| Set Front Speaker Position | | | | |

N Speaker Distance (Setup at STOP Mode)

Press the ENTER button repeatedly to input the distance to each speaker from the listening position.

You can change the setting from 5 feet/1.5 meters to 30 feet/9.2 meters in 1 foot/0.3 meter increments.



| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|--------------------------|-------|------------------|------|--------|
| Audio | | English | | |
| Subtitle | | Off | | |
| Disc Menu | | English | | |
| DVD-Audio Play Mode | | Audio Navigation | | |
| Super Audio CD Play Mode | | STEREO | | |
| Preferred Audio Language | | | | |

Basic Mode

Expert Mode

🔍 Languages on DVD Movies

You can select a preferred language for audio, subtitle and disc menu respectively.

- When you select a preferred language that is not recorded on the DVD, one of the actual recorded languages is automatically selected.
- You can override the AUDIO and the SUBTITLE language settings in the SETUP menu simply by pressing the AUDIO and the SUBTITLE button respectively on the remote control unit while a DVD disc is playing.

• Language code list •

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

P

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|----------------------------|-------|---------|------|-------------------------|
| Audio | | | | English |
| Subtitle | | | | Off |
| Disc Menu | | | | English |
| DVD-Audio Play Mode | | | | Audio Navigation |
| Super Audio CD Play Mode | | | | STEREO |

Set DVD-Audio Play Mode

Basic Mode

Expert Mode

P DVD-Audio Play Mode

This setting is accessible only when Setup Menu Mode is set to Expert. (See page 36)

The DVD video play mode can be set to play the DVD video contents included on a DVD audio disc.

Press ENTER button to switch between Audio Navigation and Video Navigation.

Audio Navigation: Set this to play the DVD audio signals as such.
Video Navigation: Set this to play the DVD video contents include on a DVD audio disc.

Need to stop and reload the disc before activated the changing.

Q

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|---------------------------------|-------|---------|------|------------------|
| Audio | | | | English |
| Subtitle | | | | Off |
| Disc Menu | | | | English |
| DVD-Audio Play Mode | | | | Audio Navigation |
| Super Audio CD Play Mode | | | | STEREO |

Set Super Audio CD Play Mode

Q Super Audio CD Play Mode

This setting is accessible only when Setup Menu Mode is set to Expert. (See page 36)

On a Super Audio CD, the stereo and multi-channel areas are separate. Hybrid discs comprise 2-layer structure of Super Audio CD layer and a CD layer.
The area/layer can be set to be played with priority.

Multi Channel: When playing a Super Audio CD disc, the multi-channel area will be played back with priority.

STEREO: When playing a Super Audio CD disc, the stereo area will be played back with priority.

CD Layer: When playing a Super Audio CD disc, the CD layer will be played back with priority.

Need to open and close the tray again to activate the changing.

R

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|---------------------|-------|---------|------|----------------|
| OSD Language | | | | English |
| Parental Rating | | | | Unlock |
| Password | | | | Change |
| Defaults | | | | Reset |
| Setup Menu Mode | | | | Expert |

Set OSD Language

R Selecting the Language for OSD (On Screen Display)

You can select the language for OSD (On Screen Display). This setting determines in what language the SETUP menu and operating messages are displayed. It has nothing to do with languages on DVD movies. The default language is ENGLISH.

S PARENTAL RATING

Playing some DVD discs can be limited depending on the age of the users. The parental rating system allows playback limitation level to be set by the parent. The default setting is "UNLOCK".

Notes

- The lower the level is set, the stricter the limitation is offered.
- To change the parental control level, a correct password is needed to key in.

1. Select "PARENTAL RATING" on the SYSTEM tab and press the ENTER button. You will be asked for a password.
2. Use the numeric buttons to enter "2580" (or your privacy password if already established).
3. Press the ENTER button as many times as necessary to select the desired parental rating.

- If the parental rating of the loaded DVD disc is higher than the level you set, the system will require a password. Enter your password to start playback.

S

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|------------------------|-------|---------|------|---------------|
| OSD Language | | | | English |
| Parental Rating | | | | Unlock |
| Password | | | | Change |
| Defaults | | | | Reset |
| Setup Menu Mode | | | | Expert |

Set Parental Control

T

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|-----------------|-------|---------|------|---------------|
| OSD Language | | | | English |
| Parental Rating | | | | Unlock |
| Password | | | | Change |
| Defaults | | | | Reset |
| Setup Menu Mode | | | | Expert |
| Change Password | | | | |

U

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|-----------------------|-------|---------|------|--------------|
| OSD Language | | | | English |
| Parental Rating | | | | Unlock |
| Password | | | | Change |
| Defaults | | | | Reset |
| Setup Menu Mode | | | | Expert |
| Load Factory Settings | | | | |

V

| VIDEO | AUDIO | SPEAKER | DISC | SYSTEM |
|------------------------|-------|---------|------|---------------|
| OSD Language | | | | English |
| Parental Rating | | | | Unlock |
| Password | | | | Change |
| Defaults | | | | Reset |
| Setup Menu Mode | | | | Expert |
| Setup Menu Mode | | | | |

T Password

You can set a new password as follows.

1. After selecting "PASSWORD" in the SYSTEM tab, press the ENTER button.
2. Enter "2580" (or your privacy password) using the numeric buttons.
3. Enter a new password.
You will be asked to confirm, then enter the same password again.
4. Press the ENTER button.

U Defaults

You can re-initialize the settings back to the factory defaults.

1. Select "DEFAULTS" and press the ENTER button.
2. Enter your password using the numeric buttons.
3. Press the ENTER button.

All the settings in the SETUP menu (except for Password) will be reset to the default settings.

- In case no picture is shown on the screen after resetting the unit, connect your TV via the VIDEO jack or AV CONNECTOR to display the Setup menu, and select the proper video output setting.

V Setup Menu Mode

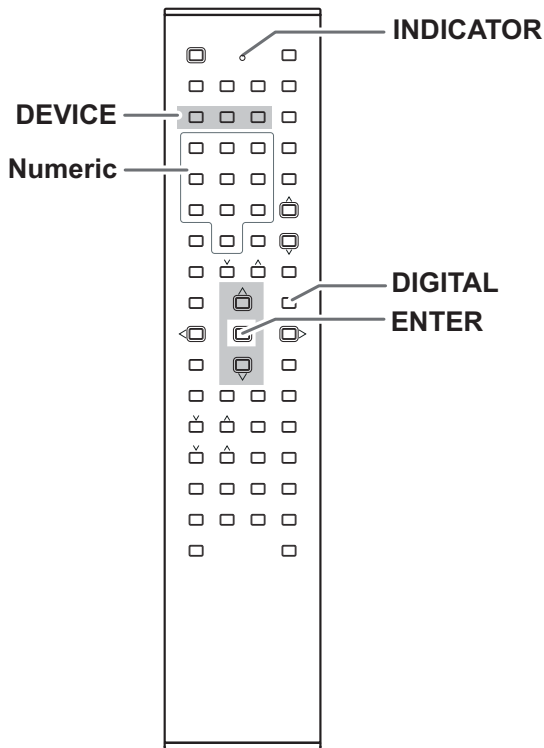
You can switch between Basic and Expert modes.

The following settings are hidden and are not available to set when in the Basic mode:

- Picture Mode
- Slide show Mode
- Angle Mark
- Captions
- Audio DRC
- DVD-Audio Play Mode
- Super Audio CD Play Mode

Controlling other Components Connected to the DVA-250

The DVA-250 is equipped with a powerful remote control not only DVD's functions, but also most popular brands of audio and video equipment, including CD players, cassette decks, TV sets, cable boxes, VCRs, satellite receivers and other home theater equipment.



Learning a Pre-programming Code

By following one of the methods below, you may program the remote to operate a wide range of devices from other manufacturers.

A Direct Code Entry Method

- 1 Find the 3-digit number for the brand name of the component that you want to operate in the code list following pages. (See 38 page.)
- 2 Turn on the component that you want to operate.
- 3 While holding down the DEVICE button on the remote controller that you want to program, press the ENTER button for 2 seconds, and then release both buttons.
Then the indicator blinks twice.
- 4 Within 10 seconds, enter the 3-digit code number.
(Correct input: Indicator blinks fourth.
Incorrect input: Indicator blinks once.)
- 5 If the component does not operate properly, return to step 3 and repeat the steps above.

B Manual Search Method

- 1 Turn on the unit that you wish to include in the DVA-250 remote controller.
- 2 Press the DEVICE button (VCR, SAT, TV) and the ENTER button at the same time for 2 seconds until the indicator blinks twice.
- 3 Press the ▲ or ▼ button. Each press will send out a series of codes from the remote's built-in database.
- 4 When the unit being programmed turns off, press the ENTER button.
(Correct input: Indicator blinks fourth.
Incorrect input: Indicator blinks once.)

C Code Check Method

Check if enter the 3-digit code number directly.

- 1 While holding down the DEVICE button, press the ENTER button for 2 seconds and then release both buttons and then the indicator blinks twice.
- 2 Press the DIGITAL button.
- 3 The 3-digit code number blinks in order.
Example: If you enter '105'
 1. 1: Indicator blinks once.
 2. 0: Indicator blinks tenth.
 3. 5: Indicator blinks fifth.

Programming the Remote

VCR Brand List

| Brand | CODE No. | | | | |
|---------------|----------|-----|-----|-----|-----|
| AKAI | 033 | 042 | 022 | 052 | 032 |
| ALBA | 008 | 020 | | | |
| AMSTRAD | 011 | | | | |
| ANITSCH | 009 | | | | |
| ARC EN CIEL | 042 | 056 | 052 | | |
| ARISTONA | 045 | 031 | | | |
| ASA | 018 | | | | |
| AWIA | 011 | 042 | | | |
| BAIRD | 042 | 033 | | | |
| BAUER. BOSCH | 014 | 043 | | | |
| BLAUPUNKT | 014 | 043 | 055 | 031 | 054 |
| | 040 | | | | |
| BRANDT | | | | | |
| ELECTRONIQUE | 042 | 056 | 052 | | |
| BRIONVEGA | 041 | | | | |
| BUSH | 008 | 020 | | | |
| C.EDISON | 041 | | | | |
| CANON | 014 | | | | |
| CAPEHART | 020 | | | | |
| CGE | 011 | 042 | 052 | | |
| CONTINENTAL | | | | | |
| EDISON | 042 | 056 | 052 | | |
| CRAIG | 000 | 013 | | | |
| CURTIS MATHES | 019 | | | | |
| DAEWOO | 001 | 020 | 021 | | |
| DAYTRON | 020 | | | | |
| DECCA | 011 | 042 | | | |
| DEGRAAF | 003 | 006 | 011 | 045 | 018 |
| DUAL | 042 | 052 | | | |
| DUMONT | 003 | 011 | 018 | | |
| DYNATECH | 011 | | | | |
| EMERSON | 002 | 010 | 011 | 019 | 025 |
| FERGUSON | 042 | 036 | 030 | 052 | 034 |
| FIDELITY | 011 | | | | |
| FINLANDIA | 003 | 018 | | | |
| FINLUX | 003 | 006 | 011 | 018 | |
| FISHER | 000 | 003 | 005 | | |
| FUNAI | 011 | | | | |
| GE | 019 | | | | |
| GENERAL | 014 | | | | |
| GOLDSTAR | 004 | | | | |
| GOODMANS | 008 | 011 | 046 | | |
| GRAETZ | 041 | 042 | 056 | 050 | 052 |
| | 038 | | | | |
| GRANADA | 003 | 005 | 018 | | |
| GRUNDIG | 014 | 043 | 018 | 055 | 031 |
| | 053 | 054 | | | |
| HANSEATIC | 043 | | | | |
| HARMAN-KARDON | 004 | | | | |
| HIFIVOX | 042 | 056 | 052 | | |
| HINARI | 002 | 008 | 024 | 027 | |
| HITACHI | 006 | 007 | 011 | 042 | |
| IMPERIAL | 011 | | | | |
| INGELEN | 042 | 056 | 052 | 038 | |
| INGERSOL | 027 | | | | |
| ITT | 005 | 041 | 042 | 056 | 050 |
| | 052 | 033 | 038 | | |

| Brand | CODE No. | | | | |
|---------------|----------|-----|-----|-----|-----|
| JENSEN | 042 | | | | |
| JVC | 042 | 056 | 030 | 052 | |
| KENWOOD | 005 | 042 | | | |
| KRIESLER | 045 | 031 | | | |
| KUBA | 043 | | | | |
| LLOYD | 011 | | | | |
| LOEWE OPTA | 014 | 018 | 029 | 031 | |
| LOGIK | 008 | 027 | | | |
| LUXOR | 033 | 038 | | | |
| MAGNADYNE | 041 | | | | |
| MAGNASONIC | 038 | | | | |
| MAGNAVOX | 019 | | | | |
| MARANTZ | 004 | 014 | 046 | 018 | 031 |
| MATUI | 010 | 025 | 027 | | |
| MEMOREX | 000 | 003 | 005 | 011 | 045 |
| METZ | 014 | 043 | 031 | 054 | 037 |
| MGA | 017 | | | | |
| MINERVA | 055 | 054 | | | |
| MINOLTA | 006 | 007 | | | |
| MITSUBISHI | 017 | 049 | | | |
| MTC | 011 | 013 | | | |
| MULTITECH | 008 | 011 | | | |
| MURPHY | 011 | | | | |
| NAONIS | 042 | 056 | 052 | | |
| NATIONAL | 040 | | | | |
| NEC | 004 | 042 | 052 | | |
| NECKERMANN | 002 | 041 | 014 | 042 | 052 |
| NOGAMATIC | 042 | 056 | 052 | | |
| NOKIA | 003 | 005 | 041 | 042 | 056 |
| | 050 | 052 | 033 | 038 | |
| NORDMENDE | 039 | 042 | 056 | 052 | 053 |
| | 035 | | | | |
| OPTONICA | 045 | 046 | | | |
| ORION | 002 | 010 | 025 | 027 | |
| OSAKI | 011 | | | | |
| OTTO VERAND | 043 | | | | |
| P. CINEMA | 014 | | | | |
| PALLADIUM | 041 | 014 | | | |
| PANASONIC | 023 | 051 | 040 | | |
| PATHE MARCONI | 042 | 056 | 052 | | |
| PENTAX | 006 | 007 | | | |
| PERDIO | 011 | | | | |
| PHILIPS | 012 | 014 | 045 | 046 | 018 |
| | 029 | 031 | | | |
| PHONOLA | 014 | 045 | 018 | 029 | 031 |
| PORTLAND | 020 | | | | |
| PROLINE | 011 | | | | |
| PYE | 014 | 045 | 018 | 029 | 031 |
| QUARTZ | 005 | | | | |
| QUELLE | 002 | 044 | 054 | | |
| RADIOLA | 045 | 031 | | | |
| RADIOMARELLI | 041 | | | | |
| RCA | 019 | | | | |
| REALISTIC | 000 | 003 | 005 | 011 | 013 |
| | 045 | 046 | | | |
| REX | 042 | 056 | 052 | | |
| SABA | 039 | 042 | 056 | 052 | 035 |

Programming the Remote

VCR Brand List

| Brand | CODE No. | | | |
|--------------------|----------|-----|-----|---------|
| SAISHO | 002 | 010 | 025 | 027 |
| SALORA | 005 | 017 | | |
| SAMSUNG | 013 | 019 | 032 | |
| SANSUI | 042 | | | |
| SANYO | 000 | 003 | 005 | 025 038 |
| SBR | 018 | 029 | | |
| SCHAUB LORENZ | 041 | 042 | 056 | 050 052 |
| | 038 | | | |
| SCHNEIDER | 008 | 011 | 045 | 031 |
| SEI-SINUDYNE | 027 | | | |
| SELECO | 042 | 056 | 052 | |
| SENTRA | 020 | | | |
| SHARP | 045 | 046 | 105 | 048 |
| SHINTOM | 008 | | | |
| SIEMENS | 014 | 043 | 055 | 031 054 |
| | 038 | | | |
| SIERA | 045 | 031 | | |
| SINUDYNE | 027 | | | |
| SONY | 044 | 015 | 016 | 026 028 |
| STERN | 042 | 056 | 052 | |
| STS | 006 | | | |
| SUNKAI | 025 | | | |
| SYLVANIA | 011 | 017 | | |
| SYMPHONIC | 011 | 017 | | |
| TASHIKO | 011 | | | |
| TATUNG | 011 | 042 | | |
| TEAC | 011 | 042 | | |
| TEKNIKA | 011 | | | |
| TELEAVIA | 042 | 056 | 052 | |
| TELEFUNKEN | 042 | 056 | 052 | |
| TENOSAL | 008 | | | |
| THOMSON | 042 | 056 | 052 | |
| THORN- FERGUSON | 039 | 042 | 030 | 052 |
| | 034 | 036 | | |
| TOSHIBA | 001 | 042 | 056 | 017 |
| | 052 | | | |
| TOTELEVISION | 013 | | | |
| UHER | 042 | | | |
| ULTRA VOX | 041 | | | |
| UNITECH | 013 | | | |
| UNIVERSUM | 041 | 014 | 043 | |
| URANYA | 041 | | | |
| VECTOR | 004 | | | |
| VICTOR | 042 | | | |
| VIDITAL | 041 | | | |
| WESTING HOUSE | 041 | | | |
| WARDS | 019 | | | |
| YAMAHA | 004 | 042 | | |
| ZANUSSI | 042 | 056 | 052 | |
| ZENDER | 052 | | | |
| ZOPPAS | 042 | 056 | | |

SAT Brand List

| Brand | CODE No. | | | |
|------------|----------|-----|-----|---------|
| ALBA | 030 | | | |
| AMSTRAD | 008 | 019 | 027 | |
| ARCON | 021 | | | |
| ARISTONA | 016 | | | |
| ASTRA | 028 | | | |
| BLAUPUNKT | 033 | | | |
| BUSH | 016 | | | |
| CH.MASTER | 030 | | | |
| CITY COM | 005 | | | |
| DDC | 030 | | | |
| DYNASAT | 005 | | | |
| ECHOSTAR | 002 | 009 | 032 | 020 |
| EMME ESSE | 005 | | | |
| FAIT | 005 | | | |
| FERGUSON | 014 | | 016 | 017 018 |
| FINLUX | 006 | 007 | 013 | |
| FRACARRO | 005 | | | |
| FTE | 022 | | | |
| GOLDSTAR | 004 | 021 | | |
| GRAETZ | 026 | 037 | | |
| GROTHUSEN | 004 | | | |
| GRUNDIG | 033 | 016 | 018 | 036 |
| HINARI | 030 | | | |
| HIRSCHMANN | 003 | 006 | | |
| HITACHI | 013 | | | |
| INGELEN | 026 | 037 | | |
| ITT | 034 | | | |
| ITT-NOKIA | 032 | 018 | 026 | 037 |
| JERROLD | | 014 | | |
| KATHREIN | 005 | 022 | 023 | |
| KOSMOS | 004 | | | |
| KRIESLER | 016 | | | |
| LENCO | 004 | 021 | | |
| LUXOR | 026 | 037 | | |
| MAGAI | 022 | | | |
| MARANTZ | 012 | | | |
| MASPRO | 016 | | | |
| MATSUSHITA | 000 | | | |
| METZ | 036 | | | |
| MINERVA | 036 | | | |
| MULTISTAR | 022 | | | |
| MURATO | 004 | | | |
| NEC | | | | |
| NEIRU | 021 | | | |
| NOKIA | 026 | 037 | | |
| NORSAT | 015 | | | |
| PACE | 001 | 016 | 017 | 018 |
| PANASONIC | 032 | | | |

Programming the Remote

SAT Brand List

| Brand | CODE No. | | | |
|------------------------------|----------|-----|-----|-----|
| PHILIPS | 003 | 011 | 012 | 029 |
| PHONOLA | 016 | | | |
| PROSAT | 030 | | | |
| PYE | 016 | | | |
| QUADRAL | 030 | | | |
| QUELLE | 036 | | | |
| RADIOLA | 016 | | | |
| REDIFFUSION | 015 | | | |
| SABA | 035 | | | |
| SALORA | 026 | | | |
| SAMSUNG | 003 | 022 | | |
| SAT PARTNER | 004 | | | |
| SATPORTNER | 021 | | | |
| SCHAUB LORENZ | 026 | 037 | | |
| SCHNEIDER | 005 | 016 | | |
| SIEMENS | 033 | 036 | | |
| SIERA | 016 | | | |
| SILVA | 004 | 021 | | |
| SKY | | | | |
| STARCOM | | | | |
| STARSAT | 022 | | | |
| TECHNISAT | 003 | | | |
| TELEFUNKEN | 025 | | | |
| TELESYSTEM | 005 | | | |
| THORN- FERGUSON | 010 | 014 | 016 | 017 |
| | 018 | | | |
| TRIAD | 004 | | | |
| UNIDEN | 022 | | | |
| UNITED CABLE V TECHNOLOGY | 004 | | | |
| VORTEC | 003 | 024 | 025 | |
| ZENDER | 022 | | | |

TV Brand List

| Brand | CODE No. | | | | |
|------------------------|----------|-----|-----|-----|-----|
| ADMIRAL | 050 | 134 | | | |
| AKAI | 093 | 049 | 123 | | |
| ALBA | 068 | | | | |
| ALBIRAL | 116 | | | | |
| ALCATEL | 022 | | | | |
| AMSTRAD | 021 | | | | |
| ANAM | 000 | | | | |
| ARC EN CIEL | 028 | 039 | 043 | 145 | 081 |
| ARISTONA | 099 | 049 | 050 | 019 | 142 |
| | 149 | 078 | | | |
| ARTHUR MARTIN | 053 | 139 | 117 | 120 | 122 |
| | 123 | 125 | 128 | | |
| ASA | 050 | 055 | 057 | 113 | 134 |
| ATLANTIC | 099 | 111 | | | |
| AUDIOSONIC | 054 | | | | |
| AUSIND | 053 | | | | |
| AUTOVOX | 099 | 144 | 055 | 019 | 057 |
| | 069 | | | | |
| BAIRD | 083 | | | | |
| BASICLINE | 006 | | | | |
| BAUR | 011 | | | | |
| BEKO | 023 | 049 | | | |
| BLAUPUNKT | 094 | 100 | 102 | 111 | 114 |
| BRANDT | 028 | 039 | 040 | 043 | 145 |
| | 081 | | | | |
| BRION VEGA | 050 | | | | |
| BRUNS | 048 | 050 | | | |
| BSR | 059 | 110 | 132 | | |
| BUSH | 033 | 068 | 124 | 074 | |
| CENTURY | 098 | 101 | 050 | 079 | 136 |
| CGE | 016 | 101 | 124 | 079 | 132 |
| | 136 | | | | |
| CIHAN | 065 | | | | |
| CLARIVOX | 048 | 116 | | | |
| CONDOR | 099 | 111 | | | |
| CONTEC | 087 | | | | |
| CONTINENTAL EDITION | 028 | 039 | 040 | 043 | 145 |
| | 081 | | | | |
| CROSLEY | 101 | 050 | 109 | | |
| CROWN | 147 | | | | |
| CTC CLATRONIC | 046 | | | | |
| DAEWOO | 089 | | | | |
| DECCA | 099 | 060 | 063 | 115 | 118 |
| DEGRAAF | 036 | | | | |
| DIXI | 049 | 090 | | | |
| DRYNATRON | 049 | | | | |
| DUAL | 099 | 141 | | | |
| DUAL-TEC | 096 | 099 | 132 | | |
| DUMONT | 046 | 050 | 057 | 073 | |
| ELBE | | 016 | 116 | | |
| ELBIT | 065 | | | | |
| ELCIT | 046 | 097 | 103 | 050 | 109 |
| | 127 | 132 | | | |
| ELMAN | 046 | 132 | | | |
| ELTA | 090 | | | | |
| EMERSON | 098 | 050 | | | |

Programming the Remote

TV Brand List

| Brand | CODE No. | | | | |
|------------|----------|-----|-----|-----|-----|
| ERRES | 049 | 142 | | | |
| EUROPHON | 098 | 046 | 097 | 099 | 051 |
| | 115 | 132 | | | |
| FERGUSON | 146 | 040 | 041 | 150 | 057 |
| | 061 | 116 | 149 | | |
| FIDELITY | 099 | 149 | | | |
| FINLUX | 034 | 046 | 053 | 055 | 057 |
| | 109 | 113 | 073 | 074 | 079 |
| FISHER | 015 | 048 | 050 | 052 | 109 |
| | 136 | | | | |
| FORGESTONE | 149 | | | | |
| FORMENTI | 099 | 053 | 109 | 111 | 125 |
| FORTRESS | 137 | | | | |
| FRABA | 075 | | | | |
| FRONTECH | 054 | | | | |
| FUJITSU | 025 | | | | |
| FUNAI | 054 | 059 | | | |
| GBC | 109 | 132 | | | |
| GEC | 099 | 060 | 109 | 115 | 134 |
| | 088 | | | | |
| GELOSO | 103 | 109 | 132 | 134 | 090 |
| GOLDSTAR | 092 | 003 | 017 | 099 | 049 |
| | 075 | 076 | 077 | 090 | |
| GOODMANS | 033 | 049 | 060 | 077 | |
| GORENJE | 066 | 136 | | | |
| GREATZ | 001 | 058 | 109 | 122 | 123 |
| | 128 | 129 | 130 | 134 | |
| GRANADA | 033 | 099 | 049 | 058 | 060 |
| | 142 | 115 | 125 | 134 | |
| GRUNDIG | 094 | 100 | 057 | 058 | 108 |
| | 112 | 114 | 082 | | |
| HANSEATIC | 033 | 047 | 099 | 049 | 109 |
| | 139 | 111 | | | |
| HANTAREX | 097 | | | | |
| HEMMERMANN | 127 | | | | |
| HIFIVOX | 028 | 039 | 043 | 145 | 081 |
| HINARI | 033 | 045 | 143 | 090 | |
| HITACHI | 014 | 033 | 034 | 036 | 099 |
| | 145 | 056 | 109 | 139 | 110 |
| | 067 | 117 | 132 | 134 | 084 |
| | 091 | 081 | 088 | | |
| HYPER | 093 | 099 | | | |
| IMPERIAL | 016 | 101 | 124 | 079 | 132 |
| | 133 | | | | |
| INGELEN | 001 | 058 | 109 | 122 | 128 |
| | 129 | 130 | 134 | | |
| INNO HIT | 093 | 098 | 097 | 099 | 143 |
| | 077 | 090 | | | |
| INTERFUNK | 047 | 049 | 050 | 145 | 058 |
| | 109 | 142 | 123 | 128 | 129 |
| | 091 | | | | |
| IRRADIO | 093 | 143 | 053 | 077 | 090 |
| ITT | 001 | 140 | 058 | 105 | 109 |
| | 122 | 123 | 128 | 148 | 129 |
| | 130 | 134 | 135 | 083 | 089 |
| JVC | 033 | | | | |
| KTV | 099 | | | | |

| Brand | CODE No. | | | | |
|--------------|----------|-----|-----|-----|-----|
| KAISUI | 006 | | | | |
| KARCHER | 006 | | | | |
| KENDO | 098 | | | | |
| KENNEDY | 144 | 019 | 109 | | |
| KORTING | 050 | 059 | 111 | | |
| KRIESLER | 099 | 049 | 050 | 019 | 142 |
| | 149 | 078 | | | |
| LENOIR | 099 | | | | |
| LOEWE OPTA | 008 | 097 | 047 | 049 | 050 |
| | 115 | 072 | | | |
| LOGIK | 118 | 149 | | | |
| LUMA | 049 | 120 | 134 | | |
| LUXOR | 058 | 139 | 117 | 120 | 123 |
| | 129 | 135 | 083 | | |
| MAGNADYNE | 046 | 097 | 103 | 050 | 109 |
| | 115 | 127 | 132 | | |
| MAGNAFON | 046 | 097 | 099 | 051 | 053 |
| | 115 | | | | |
| MARANTZ | 049 | | | | |
| MATSUI | 090 | 099 | 106 | 060 | 118 |
| | 068 | 134 | | | |
| McMICHAEL | 088 | | | | |
| MEMOREX | 090 | | | | |
| METZ | 094 | 050 | 114 | 133 | |
| MINERVA | 094 | 100 | 057 | 058 | 114 |
| MISTRAL | 149 | | | | |
| MITSUBISHI | 033 | 035 | 047 | 049 | 050 |
| | 062 | 118 | 119 | 148 | 080 |
| | 138 | | | | |
| MIVAR | 097 | 099 | 115 | 077 | |
| MULTITECH | 046 | 099 | 115 | 136 | |
| MURPHY | 134 | | | | |
| MAONIS | 096 | 144 | 019 | 110 | 134 |
| NATIONAL | 042 | 104 | 109 | | |
| NEC | 033 | 085 | | | |
| NECKERMANN | 099 | 050 | 139 | 120 | 136 |
| NEI | 049 | | | | |
| NIKKAI | 060 | | | | |
| NOBLEX | 015 | | | | |
| NOBLIKO | 098 | 046 | 099 | 053 | 057 |
| NOGAMATIC | 028 | 039 | 043 | 145 | 081 |
| NOKIA | 001 | 140 | 058 | 105 | 109 |
| | 122 | 123 | 128 | 148 | 129 |
| | 130 | 134 | 135 | 083 | 089 |
| NORDMENDE | 028 | 032 | 039 | 043 | 145 |
| | 131 | 091 | 081 | | |
| OCEANIC | 109 | 064 | 123 | | |
| ONCEAS | 099 | | | | |
| OPTONICA | 137 | | | | |
| ORION | 090 | 059 | 118 | 068 | 127 |
| OSAKI | 060 | | | | |
| OSIO | 077 | | | | |
| OSUME | 087 | | | | |
| OTTO VERSAND | 033 | 047 | 049 | 109 | 139 |
| P.T ACTTRON | 065 | | | | |
| PAEL | 099 | 053 | | | |
| PANASONIC | 030 | 042 | 095 | 104 | 107 |

Programming the Remote

TV Brand List

| Brand | CODE No. | | | | |
|---------------|----------|-----|-----|-----|-----|
| PATHE CINEMA | 109 | 121 | 126 | | |
| PERDIO | 099 | 111 | 116 | 132 | |
| PHILCO | 060 | | | | |
| | 016 | 030 | 101 | 050 | 109 |
| | 124 | 079 | 132 | 136 | |
| PHILIPS | 009 | 010 | 013 | 018 | 024 |
| | 099 | 049 | 050 | 019 | 142 |
| | 148 | 149 | 078 | 088 | |
| PHOENIX | 099 | 053 | 109 | 111 | 125 |
| PHONOLA | 099 | 049 | 050 | 019 | 142 |
| | 149 | 078 | | | |
| PIONEER | 020 | 049 | 145 | 091 | |
| PRANDONI- | | | | | |
| PRINCE | 098 | 097 | 053 | 115 | 134 |
| PREMIER | 124 | | | | |
| PRINCE | 098 | 097 | 053 | 134 | |
| PROTECH | 049 | 054 | | | |
| PYE | 099 | 049 | 050 | 019 | 142 |
| | 148 | 149 | 078 | | |
| QUASAR | 046 | 097 | 051 | 053 | 077 |
| QUELLE | 047 | 099 | 100 | 049 | 053 |
| | 055 | 057 | 058 | 111 | 112 |
| | 113 | 114 | 118 | 123 | 073 |
| | 074 | 128 | | | |
| RADIOLA | 099 | 049 | 050 | 019 | 142 |
| | 149 | 078 | | | |
| RADIOMARELLI | 046 | 097 | 103 | 050 | 109 |
| | 062 | 127 | 132 | | |
| RANK | 074 | | | | |
| RBM | 074 | | | | |
| REDIFFUSION | 062 | 123 | 134 | | |
| REX | 096 | 144 | 019 | 141 | 110 |
| | 069 | 134 | | | |
| ROBOTRON | 048 | 050 | | | |
| RTF | 048 | 050 | | | |
| SABA | 028 | 031 | 032 | 037 | 039 |
| | 040 | 043 | 097 | 050 | 145 |
| | 115 | 120 | 086 | 091 | 081 |
| SAISHO | 090 | 099 | 118 | 119 | 068 |
| SALORA | 053 | 139 | 117 | 120 | 122 |
| | 123 | 125 | 128 | 135 | 083 |
| SAMBERS | 046 | 097 | 051 | 053 | 115 |
| | 077 | | | | |
| SAMPO | 121 | | | | |
| SAMSUNG | 015 | 026 | 099 | 054 | 077 |
| | 136 | 090 | | | |
| SANYO | 001 | 002 | 005 | 033 | 044 |
| | 048 | 060 | 113 | 118 | 071 |
| | 054 | | 136 | | |
| SBR | 049 | 142 | 148 | 149 | 088 |
| SCHAUB LORENZ | 001 | 058 | 109 | 122 | 123 |
| | 128 | 129 | 130 | 134 | |
| SCHNEIDER | 096 | 099 | 049 | 050 | 052 |
| | 019 | 141 | 109 | 142 | 125 |
| | 149 | 078 | 132 | | |
| SEG | 046 | | | | |
| SEI | 059 | | | | |

| Brand | CODE No. | | | | |
|--------------|----------|-----|-----|-----|-----|
| SELECO | 016 | 096 | 144 | 019 | 141 |
| | 110 | 069 | 134 | | |
| SHARP | 033 | 087 | 137 | | |
| SIAREM | 046 | 097 | 050 | 109 | 115 |
| SICATEL | 116 | | | | |
| SIEMENS | 005 | 094 | 036 | 100 | 111 |
| | 114 | 087 | | | |
| SIERA | 099 | 049 | 050 | 019 | 142 |
| | 149 | 078 | | | |
| SILVER | 054 | | | | |
| SINGER | 016 | 046 | 050 | 109 | |
| SINUDYNE | 127 | 046 | 050 | 059 | 109 |
| SONOKO | 049 | 090 | | | |
| SONY | 146 | 007 | 027 | 033 | 038 |
| | 118 | | | | |
| STERN | 096 | 144 | 019 | 110 | 069 |
| | 134 | | | | |
| TANDBERG | 133 | | | | |
| TANDY | 099 | 060 | 137 | | |
| TASHIKO | 002 | 033 | | | |
| TATUNG | 099 | 060 | 063 | 065 | 115 |
| | 118 | | | | |
| TEC | 096 | 099 | 132 | | |
| TELEAVIA | 028 | 039 | 040 | 043 | 145 |
| | 091 | 081 | | | |
| TELEFUNKEN | 028 | 041 | 145 | 150 | 086 |
| | 091 | | | | |
| TELETECH | 090 | | | | |
| TELEVIDEON | 099 | 053 | 109 | 111 | 125 |
| TENSAI | 049 | | | | |
| THOMSON | 012 | 028 | 032 | 039 | 040 |
| | 043 | 145 | 091 | 081 | |
| THORN- | | | | | |
| FERGUSON | 014 | 040 | 041 | 054 | 150 |
| | 057 | 061 | 116 | 149 | 086 |
| TOCOM | 029 | | | | |
| TOSHIBA | 004 | 016 | 033 | 070 | 074 |
| TRANS | | | | | |
| CONTINENTS | 098 | 097 | 053 | 134 | |
| UHER | 052 | 111 | 125 | | |
| ULTRA VOX | 098 | 046 | 099 | 050 | 109 |
| | 120 | | | | |
| UNIVERSUM | 092 | 034 | 054 | 077 | |
| UNIVOX | 116 | | | | |
| VEGAVOX | 079 | | | | |
| VOXSON | 050 | 134 | | | |
| WATSON | 111 | | | | |
| WATT RADIO | 046 | 099 | 051 | 109 | 116 |
| | 127 | | | | |
| WEGA | 033 | | | | |
| WHITE | | | | | |
| WESTINGHOUSE | 099 | 111 | | | |
| YOKO | 099 | | | | |
| ZANUSSI | 096 | 144 | 019 | 110 | 069 |
| | 134 | | | | |
| ZOPPAS | 096 | 144 | 019 | 110 | 134 |

Troubleshooting

In case of any trouble with this unit, please take the time to look through this chart and see if you can solve the problem yourself before you call your dealer or a LUXMAN service center.

No power

- ➔ Check the connection to the AC wall outlet.

Playback does not start.

- ➔ Reload the disc with the label side UP.
- ➔ If the disc is dirty, clean the surface of the disc.
- ➔ A blank disc has been loaded. Load a prerecorded disc.
- ➔ Check the region code of the DVD.

PROHIBIT icon appears on the screen.

- ➔ The operation is not permitted by the disc or the unit.
- ➔ Note that during playback of a title part (cautions, software maker's logo, etc.), most operations are prohibited by the disc.
- ➔ If another operation is still in process, wait a moment and try again.

Picture playback stops and operation buttons do not work.

- ➔ Turn the unit off and back on again and restart the playback.

No picture.

- ➔ Turn on the TV.
- ➔ Check that the system is connected properly.
- ➔ Make sure you have selected the proper video input on the TV so that you can view the pictures from the DVD player.
- ➔ If your TV is not compatible with progressive scan, do not set the progressive mode on. (See page 9)

Picture noise.

- ➔ If video from this system has to go through your VCR to get to your TV, the copy-protection applied to some DVD programs could affect picture quality. Please connect the unit directly to your TV.

The image is distorted or monochromatic.

- ➔ The color system selected does not match your TV. Press the NTSC/PAL button of the remote control unit once or twice.
- ➔ Select the aspect ratio to match your TV.

The aspect ratio of the screen cannot be changed.

- ➔ The aspect ratio might be fixed by the disc.
- ➔ Depending on the TV, you may not be able to change the aspect ratio.

There is no sound or only a very low-level sound is heard.

- ➔ Check that the speakers and components are connected securely.
- ➔ Check the operation of the connected component.
- ➔ Check the Downmix setting. (See page 32)
- ➔ The sound is muted during pause, slow-motion, fast forward/reverse, and stepping playback. Press the PLAY button to resume normal playback.

Severe hum or noise is heard.

- ➔ Check that the speakers and components are connected securely.
- ➔ This unit cannot play such discs as CD-ROMs. Use a playable disc.

Remote control doesn't work.

- ➔ If the batteries are dead, change the batteries.
- ➔ Use remote control unit within the range (5m /15ft) and point at the front panel.
- ➔ Clear obstacles between the remote control unit and the main unit.
- ➔ If a strong light is near the unit, turn it off.

Sound skips.

- ➔ Place the unit on a stable place to avoid vibration and shock.
- ➔ If the disc is dirty, clean the surface of the disc.
- ➔ Don't use scratched, damaged or warped discs.

Playback sound isn't full.

- ➔ If you are listening to multi-channel sound through 2CH AUDIO OUT, set Downmix setting to Stereo or Lt/Rt.

Some settings in the SETUP menu do not appear.

- ➔ Setup Menu mode is set to "Expert". (See page 36)

Cannot play multi-channel audio.

- ➔ Set the Downmix to "Multi-Channel".
- ➔ Check that the settings in the Speaker Setting screen are correct.
- ➔ Display the disc menu and select a multi-channel audio.

No digital audio output.

- ➔ Check that Digital Out setting is not set to Off.

Cannot output 96kHz or 88.2kHz digital audio.

- ➔ Check that 96K LPCM Out is not set to 96K > 48K.
- ➔ Some copy protected discs do not output high sampling rate digital audio.

ANGLE mark doesn't appear on the screen.

- ➔ Set both the Angle Indicator option and the On Screen Display option to "On".

If normal operation cannot be recovered, unplug the power cord from the outlet and plug it in again. This resets the internal micro-computer which can be disturbed during electrical storms, power interruptions, et cetera.

Beware of condensation

When the unit (or a disc) is moved from a cold to a warm place, or used after a sudden temperature change, there is a danger of condensation; vapor in the air could condense on the internal mechanism, making correct operation impossible. To prevent this, or if this occurs, leave the unit for one or two hours with the power turned on. Then the unit will stabilize at the temperature of its surroundings.

Maintenance

If the surface of the unit gets dirty, wipe with a soft cloth or use diluted neutral cleaning liquid. Be sure to remove any fluid completely. Do not use thinner, benzine or alcohol as they may damage the surface of the unit.

Specifications

DVD Player

Signal system:
PAL/NTSC

Laser:
Semiconductor laser, wavelength 650/790 nm

Frequency range:
DVD: 2 Hz to 22 kHz (fs:48kHz)
2 Hz to 44 kHz (fs:96kHz)
CD: 2 Hz to 20 kHz
SACD: 2 Hz to 100 kHz

Signal-to-noise rating (DVD):
105 dB

Audio dynamic range (DVD):
100 dB

Harmonic distortion (DVD):
0.005%

Wow and flutter:
Below measurable level
(less than $\pm 0.001\%$ (W,PEAK))

Operating conditions:
Temperature: 5°C to 35°C
Operation status: Horizontal

Outputs

Video output:
RCA jack x 1
1.0 V (p-p), 75 Ω , negative sync.

S-video output:
S-video jack x 1
(Y) 1.0 V (p-p), 75 Ω , negative sync.
(C) 0.3 V (p-p) 75 Ω

Component output:
RCA jack x1
(Y) 1.0 V (p-p), 75 Ω , negative sync.
(P_B, P_R) 0.7 V (p-p), 75 Ω

AV connector output:
SCART x1

Audio output (digital audio):
RCA jack x 1,
1.15 V (p-p), 75 Ω
OPTICAL digital jack x 1

Audio output (analog audio):
RCA jack x 1 (2CH),
2.1 Vrms (1 kHz, 0 dB)
RCA jack x 1 (6CH)

General

Power supply:
AC 230 V, 50 Hz

Power consumption:
17 W

Weight:
4.24Kg

External dimensions (W x H x D):
440 x 97.3 x 304.5 mm

Accessories

Audio cable (RCA) x 1
Video cable (RCA) x 1
Optical cable x 1
Owner's manual x 1
Remote control x1
Battery (AAA, R03, UM-4) x2

- Design and specifications are subject to change without notice.
- Weight and dimensions are approximate.
- Illustrations may differ slightly from production models.

LUXMAN CORPORATION, JAPAN