## **ONKYO**®

### **DVD** Player

# **DV-SP402E**

### **Instruction Manual**

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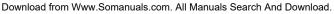
Thank you for purchasing the Onkyo DV-SP402E DVD Player. Read this manual carefully before using your new DVD Player. A good understanding of its features and operation will allow you to achieve optimum performance and enjoyment.

Keep this manual for future reference.





ភ្យីស្រ



#### WARNING:

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

#### **CAUTION:**

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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



PORTABLE CART WARNING

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



1/4

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

The lightning flash with arrowhead symbol, within an



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

15. Damage Requiring Service

Unplug the apparatus from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- A. When the power-supply cord or plug is damaged,
- B. If liquid has been spilled, or objects have fallen into the apparatus,
- C. If the apparatus has been exposed to rain or water,
- D. If the apparatus does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the apparatus to its normal operation,
- E. If the apparatus has been dropped or damaged in any way, and
- F. When the apparatus exhibits a distinct change in performance this indicates a need for service.
- 16. Object and Liquid Entry

Never push objects of any kind into the apparatus through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.

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

Don't put candles or other burning objects on top of this unit.

17. Batteries

Always consider the environmental issues and follow local regulations when disposing of batteries.

18. If you install the apparatus in a built-in installation, such as a bookcase or rack, ensure that there is adequate ventilation.

Leave 20 cm (8") of free space at the top and sides and 10 cm (4") at the rear. The rear edge of the shelf or board above the apparatus shall be set 10 cm (4")away from the rear panel or wall, creating a flue-like gap for warm air to escape.

### Precautions

This unit contains a semiconductor laser system and is classified as a "CLASS 1 LASER PRODUCT". So, to use this model properly, read this Instruction Manual carefully. In case of any trouble, please contact the store where you purchased the unit.

To prevent being exposed to the laser beam, do not try to open the enclosure.

#### **DANGER:**

VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED. DO NOT STARE INTO BEAM.

#### **CAUTION:**

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFOR-MANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARD-OUS RADIATION EXPOSURE.

The label on the right is applied on the rear panel except for USA and Canadian models.



- 1. This unit is a CLASS 1 LASER PRODUCT and employs a laser inside the cabinet.
- 2. To prevent the laser from being exposed, do not remove the cover. Refer servicing to qualified personnel.

#### For U.S. model

The laser is covered by a housing which prevents exposure during operation or maintenance. However, this product is classified as a Laser Product by CDRH (Center for Devices and Radiological Health) which is a department of the Food and Drug Administration. According to their regulations 21 CFR section 1002.30, all manufactures who sell Laser Products must maintain records of written communications between the manufacturer, dealers and customers concerning radiation safety. If you have any complaints about instructions or explanations affecting the use of this product, please feel free to write to the address on the back page of this manual. When you write us, please include the model number and serial number of your unit. In compliance with Federal Regulations, the certification, identification and the period of manufacture are indicated on the rear panel.

## FCC INFORMATION FOR USER CAUTION:

The user changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

#### For Canadian model

**NOTE:** This class B digital apparatus complies with Canadian ICES-003.

For models having a power cord with a polarized plug: **CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

#### Modèle pour les Canadien

**REMARQUE:** Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. Sur les modèles dont la fiche est polarisee: **ATTENTION:** POUR ÉVITER LES CHOCS ÉLEC-TRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRE-SPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

#### For British models

Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.

#### IMPORTANT

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

Blue: Neutral

Brown: Live

As the colours of the wires in the mains lead of this apparatus 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.

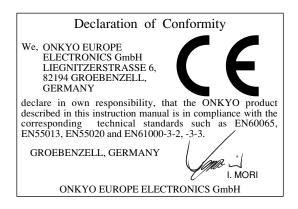
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

#### IMPORTANT

A 5 ampere fuse is fitted in this plug. Should the fuse need to be replaced, please ensure that the replacement fuse has a rating of 5 amperes and that it is approved by ASTA or BSI to BS1362. Check for the ASTA mark or the BSI mark on the body of the fuse.

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY. THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13 AMPERE SOCKET. If in any doubt, consult a qualified electrician.

#### For European Models



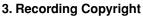
#### 1. Region Numbers

The DVD standard uses region numbers to control how discs can be played around the world, the world being divided into six regions. This unit will only play DVD discs that match its region number, which can be found on its rear panel (e.g., ()).

#### 2. About this Manual

This manual explains how to use all of this unit's functions. Although the DVD standard offers many special features, not all discs use them all, so depending on the disc being played, this unit may not respond to certain functions. See the disc's sleeve notes for supported features.

When you attempt to use a DVD feature that is not available, this logo may appear onscreen, indicating that the feature is not supported by the current disc or this unit.



Unless it's for personal use only, recording copyrighted material is illegal without the permission of the copyright holder.

#### 4. Power

#### WARNING

BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

AC outlet voltages vary from country to country. Make sure that the voltage in your area meets the voltage requirements printed on this unit's rear panel (e.g., AC 120 V, 60 Hz).

#### 5. Never Touch this Unit with Wet Hands

Never handle this unit or its power cord while your hands are wet or damp. If water or any other liquid gets inside this unit, have it checked by your Onkyo dealer.

#### 6. Installing this Unit

- Install this unit in a well-ventilated location. Ensure that there's adequate ventilation all around this unit, especially if it's installed in an audio rack. If the ventilation is inadequate, the unit may overheat, leading to malfunction.
- Do not expose this unit to direct sunlight or heat sources, because its internal temperature may rise, shortening the life of the optical pickup.
- Avoid damp and dusty places, and places subject to vibrations from loudspeakers. Never put the unit on top of, or directly above a loudspeaker.
- Install this unit horizontally. Never use it on its side or on a sloping surface, because it may cause a malfunction.
- If you install this unit near a TV, radio, or VCR, the picture and sound quality may be affected. If this occurs, move this unit away from the TV, radio, or VCR.

#### 7. Care

Occasionally, you should dust this unit all over with a soft cloth. For stubborn stains, use a soft cloth dampened with a weak solution of mild detergent and water. Dry the unit immediately afterwards with a clean cloth. Do not use abrasive cloths, thinners, alcohol, or other chemical solvents, because they may damage the finish or remove the panel lettering.

#### 8. Handling Notes

- If you need to transport this unit, use the original packaging to pack it how it was when you originally bought it.
- Do not use volatile liquids, such as insect sprays, near this unit. Do not leave rubber or plastic items on this unit for a long time, because they may leave marks on the case.
- This unit's top and rear panels may get warm after prolonged use. This is normal.
- When you've finished using this unit, remove all discs and turn off the power.
- If you do not use this unit for a long time, it may not work properly the next time you turn it on, so be sure to use it occasionally.

#### 9. To Obtain a Clear Picture

This unit is a high-tech, precision device. If the lens on the optical pickup, or the disc drive mechanism becomes dirty or worn, the picture quality may be affected. To maintain the best picture quality, we recommend regular inspection and maintenance (cleaning or worn part replacement) every 1,000 hours of use depending on the operating environment. Contact your Onkyo dealer for details.

#### **10. Moisture Condensation**

#### **Moisture condensation may damage this unit.** Read the following carefully:

When you take a glass containing a cold drink outside on a summer's day, drops of water, called condensation, form on the outside of the glass. Similarly, moisture may condense on the lens of the optical pickup, one of the most important parts inside this unit.

- Moisture condensation can occur in the following situations:
  - The unit is moved from a cold place to a warm place.
  - A heater is turned on, or cold air from an air conditioner is hitting the unit.
  - In the summer, when this unit is moved from an air conditioned room to a hot and humid place.
  - The unit is used in a humid place.
- Do not use this unit when there's the possibility of moisture condensation occurring. Doing so may damage your discs and certain parts inside this unit. If condensation does occur, remove all discs and leave this unit turned on for two to three hours. By this time, the unit will have warmed up and any condensation will have evaporated. To reduce the risk of condensation, keep this unit connected to a wall outlet.

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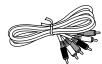
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#### **Supplied Accessories**

Make sure you have the following accessories:



#### Remote controller & 2 batteries (AA)



#### AV cable (RCA/phono) (1.5 m)



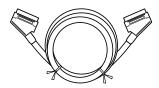
#### S-Video cable (1.5 m)



#### RI cable (0.8 m)

Cable used for system connections to an Onkyo component with an **RI** jack.

(The components will not function as a system with only  $\mathbf{R}\mathbf{I}$  connections. Be sure to connect the audio connection cables correctly as well.)



SCART cable (1.5 m)



#### Power cord (2 m)

#### **DV-SP402E Features**

#### Highlights

- Dolby<sup>\*1</sup> Digital and DTS<sup>\*2</sup>
- DVD-Video / Video CD / Audio CD playback
- CD-R, CD-RW (Video CD, audio CD, MP3/WMA<sup>\*3</sup>/ JPEG)
- DVD-R (DVD-Video)
- DVD-RW (DVD-Video, VR format)

#### Video

- Advanced 54 MHz/10-bit video D/A converter
- · Component video output
- S-Video and composite video outputs
- Frame-by-frame playback
- · Slow motion playback
- · Fast forward and reverse
- · Repeat playback
- · Random playback
- Supports 4:3 and 16:9 aspect ratio TVs
- · Multiple camera angle support
- Parental Lock function
- · Screen Saver function

#### Audio

- 192 kHz/24-bit D/A converter
- · Optical / Coaxial digital output

#### Others

- Dynamic Range Control setting
- · Adjustable display brightness
- Full-function remote controller

The letter displayed at the end of the product name found in catalogs and on package represents the color of the DV-SP402E DVD player. Though the color varies, the specifications and operations are the same.

- Manufactured under license from Dolby Laboratories.
   "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.
- \*2. "DTS" and "DTS Digital Out" are trademarks of Digital Theater Systems, Inc.
- \*3. Windows Media, and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.



#### **Disc Notes**

#### Supported Discs

The DV-SP402E supports the following discs.

Disc	Logo	Format or file type
DVD-Video		See page 46 for region information.
DVD-R		DVD-Video
DVD-RW		DVD-Video, VR format
Video CD		Including PBC
Audio CD		PCM and DTS
CD-R	DIGITAL AUDIO Recordable	Video CD, audio CD, MP3, WMA, JPEG
CD-RW	DIGITAL AUDIO ReWritable	Video CD, audio CD, MP3, WMA, JPEG
JPEG CD		JPEG

- Some audio CDs feature copy protection that doesn't conform to the official CD standard. Since these are nonstandard discs, they may not play properly in the DV-SP402E.
- The DV-SP402E supports CD-R and CD-RW discs recorded in Video CD format, audio CD format, or ISO 9660 Level 1 or 2 format with MP3, WMA, and JPEG files. It also supports DVD-R and DVD-RW discs recorded in DVD-Video format. However, some CD-R, CD-RW, DVD-R, and DVD-RW discs may not work properly for any of the following reasons: incomplete disc finalization, disc burner characteristics, disc characteristics, the disc is damaged or dirty. See the manual supplied with your disc burner for more information. Condensation or dirt on the optical pickup lens can also affect playback.
- The DV-SP402E supports 8 cm and 12 cm discs.
- The DV-SP402E does not support disc types not listed.
- Don't use discs with an unusual shape, such as those shown below, because you may damage the DV-SP402E.



• Don't use discs that have residue from adhesive tape, rental discs with peeling labels, or discs with custommade labels or stickers. Doing so may damage the DV-SP402E and you may not be able to remove the disc properly.

#### Discs Made on Personal Computers

Discs made on personal computers, including those of a compatible format, may not work properly in the DV-SP402E because of incorrect settings in the disc burning software. Check the manuals supplied with your disc burning software for additional compatibility information.

#### CD-R/RW compatibility

- Compatible formats: CD-Audio, Video CD, ISO 9660 CD-ROM\* containing MP3, WMA or JPEG files
  - \* ISO 9660 Level 1 or 2 compliant. CD physical format: Mode1, Mode2 XA Form1. Romeo and Joliet file systems are both compatible with this player.
- Multi-session playback: No
- Unfinalized disc playback: No

#### DVD-R/RW compatibility

- Compatible formats: DVD-Video, Video Recording (VR)\*
  - \* Edit points may not play exactly as edited; screen may go momentarily blank at edited points.
- Unfinalized playback: No
- WMA/MP3/JPEG file playback on DVD-R/RW: No

#### Compressed audio compatibility

- Compatible formats: MPEG-1 Audio Layer 3 (MP3), Windows Media Audio (WMA)
- Sampling rates: 32, 44.1 or 48kHz
- Bit-rates: Any (128Kbps or higher recommended)
- VBR (variable bit rate) MP3 playback: No
- VBR WMA playback: No
- WMA lossless encoding compatible: No
- DRM (Digital Rights Management) compatible: Yes (DRM-protected audio files will not play in this player—see also DRM in the "Glossary" on page 49)
- File extensions: .mp3, .wma (these must be used for the player to recognize MP3 and WMA files do not use for other file types)
- File structure: Up to 299 folders; up to 648 folders and files combined

#### About WMA

WMA is an acronym for Windows Media Audio and refers to an audio compression technology developed by Microsoft Corporation. WMA content can be encoded by using Windows Media<sup>®</sup> Player version 7, 7.1, Windows Media<sup>®</sup> Player for Windows<sup>®</sup> XP, or Windows Media<sup>®</sup> Player 9 Series.

#### JPEG file compatibility

- Compatible formats: Baseline JPEG and EXIF 2.2\* still image files up to a resolution of 3072 x 2048. \* File format used by digital still cameras
- Progressive JPEG compatible: No
- File extensions: .jpg (must be used for the player to recognize JPEG files do not use for other file types)
- File structure: Up to 299 folders; up to 648 folders and files combined

#### PC-created disc compatibility

Discs recorded using a personal computer may not be playable in this unit due to the setting of the application software used to create the disc. In these particular instances, check with the software publisher for more detailed information.

Discs recorded in packet write mode (UDF format) are not compatible with this player.

Check the DVD-R/RW or CD-R/RW software disc boxes for additional compatibility information.

#### Copyright

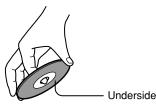
It is forbidden by law to copy, broadcast, show, broadcast on cable, play in public, or rent copyrighted material without permission.

DVD-Video discs are copy-protected, and any recordings made from these discs will be distorted.

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

#### Handling Discs

• Never touch the underside of a disc. Always hold discs by the edge, as shown.



· Never attach adhesive tape or sticky labels to discs.



#### **Cleaning Discs**

• For best results, keep your discs clean. Fingerprints and dust can affect the sound and picture quality and should be removed as follows. Using a clean soft cloth, wipe from the center outwards, as shown. Never wipe in a circular direction.

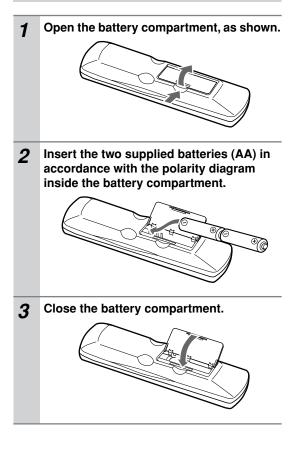


- To remove stubborn dust or dirt, wipe the disc with a damp soft cloth, and then dry it with a dry cloth.
- Never use solvent-based cleaning fluids, such as thinner or benzine, commercially available cleaners, or antistatic sprays intended for vinyl records, because they may damage the disc.

#### Storing Discs

- Don't store discs in places subject to direct sunlight, or near heat sources.
- Don't store discs in places subject to moisture or dust, such as in a bathroom or near a humidifier.
- Always store discs in their cases and vertically. Stacking, or putting objects on unprotected discs may cause warping, scratches, or other damage.

#### **Installing the Batteries**

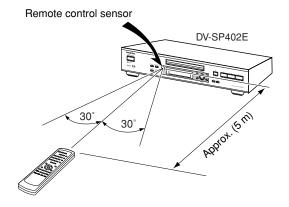


#### Notes:

- The supplied batteries should last for about six months, although this will vary with usage.
- If the remote controller doesn't work reliably, try replacing both batteries.
- Don't mix new and old batteries, or different types of batteries.
- If you intend not to use the remote controller for a long time, remove the batteries to prevent possible leakage and corrosion.
- Flat batteries should be removed as soon as possible to prevent possible leakage and corrosion.

#### Using the Remote Controller

To use the remote controller, point it at the DV-SP402E's remote control sensor, as shown below.



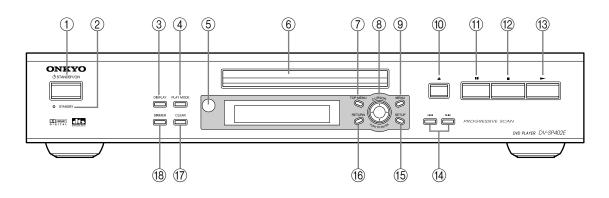
#### Notes:

- The remote controller may not work reliably if the DV-SP402E is subjected to bright light, such as direct sunlight or inverter-type fluorescent lights. Keep this in mind when installing the DV-SP402E.
- If another remote controller of the same type is used in the same room, or the DV-SP402E is installed close to equipment that uses infrared rays, the remote controller may not work reliably.
- Don't put anything, such as a book, on the remote controller, because the buttons may be pressed inadvertently, thereby draining the batteries.
- The remote controller may not work reliably if the DV-SP402E is installed in a rack behind colored glass doors. Keep this in mind when installing the DV-SP402E.
- The remote controller will not work if there's an obstacle between it and the DV-SP402E's remote control sensor.

### Front & Rear Panels

For detailed information, refer to the pages in brackets.

#### **Front Panel**



#### 1 STANDBY/ON button [22, 24]

This button is used to set the DV-SP402E to On or Standby.

#### 2 STANDBY indicator [22]

This indicator lights up when the DV-SP402E is in Standby.

#### ③ DISPLAY button [37]

This button is used to display information about the current disc, title, chapter, or track, including the elapsed time, remaining time, total time, and so on. Press it repeatedly to display more information.

#### ④ PLAY MODE button [32–35]

This button is used to open and close the Play Mode menu.

#### **(5)** Remote control sensor [10]

This sensor receives control signals from the remote controller.

- 6 **Disc tray [24]** Discs are loaded here.
- (7) TOP MENU button [26]

This button is used to display the top menu of a DVD-Video disc.

(8) Cursor ◄/►/▲/▼ & ENTER buttons [23] The four cursor buttons located around the central [ENTER] button are used to navigate DVD-Video menus and the onscreen setup menus. The central [ENTER] button is used to start play-

back of the selected title, chapter, or track and to confirm settings.

#### 9 MENU button [26]

This button is used to display a menu on a DVD-Video disc or to open the Disc Navigator when using a Video CD, audio CD, WMA/MP3/ JPEG disc, or VR format DVD-RW disc.

- (i) (open/close) button [24]
   (ii) button is used to open and close the disc tray.
- II (pause) button [25]This button is used to pause playback.
- (2) (stop) button [25]
   This button is used to stop playback.
- (3) ► (play) button [24, 25] This button is used to start playback.
- Previous/Next I ↓ buttons [25] The Previous button is used to select the previous chapter or track. During playback it selects the beginning of the current chapter or track. The Next button is used to select the next chapter or track.
- (5) SETUP button [23]

This button is used to open and close the onscreen setup menus.

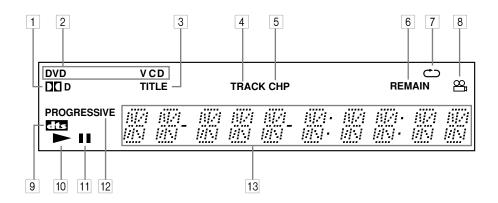
(16) RETURN button [23, 26]

This button is used to return to the main menu without saving your changes.

- CLEAR button [34] This button is used to cancel various functions.
- 18 DIMMER button

This button is used to adjust the display brightness.  $rac{}{} \rightarrow normal \longrightarrow dim \longrightarrow dimmer_{}{}$ 

#### Display



#### 1 D indicator

This indicator appears when playing Dolby Digital material.

#### 2 Disc type indicators

These indicators show the type of disc loaded.

#### 3 TITLE indicator

While stopped, the total number of titles on the current DVD-Video disc is displayed here. During playback, the number of the current title is displayed.

#### 4 TRACK indicator

This indicator appears while track numbers are being displayed. While stopped, the total number of tracks on the current Video CD, audio CD, or MP3/ WMA disc are displayed. During playback, the number of the current track is displayed.

#### 5 CHP indicator

This indicator appears while the number of the current chapter is being displayed.

#### 6 **REMAIN indicator**

This indicator appears while the remaining time is being displayed.

#### 7 Repeat 🔿 indicator

This indicator appears when A–B playback or repeat playback is used.

#### 8 Camera angle $\stackrel{\circ}{\rightharpoonup}_{1}$ indicator

This indicator appears if the DVD-Video disc being played features multiple camera angles.

#### 9 DTS indicator

This indicator appears when playing DTS material.

10 Play ► indicator

This indicator is shown during playback.

11 Pause II indicator

This indicator appears when playback is paused.

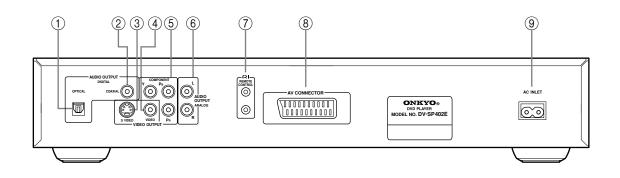
12 PROGRESSIVE indicator

This indicator appears when the Progressive Scanning function is on.

#### 13 Message & time area

Time information, such as total time, remaining time, and so on, is displayed here in hours, minutes, and seconds. Other messages are also displayed.

#### **Rear Panel**



#### 1 OPTICAL DIGITAL AUDIO OUTPUT [20]

This optical digital audio output can be connected to an optical digital audio input on a hi-fi amp, AV receiver, or surround sound decoder (Dolby Digital, DTS).

#### ② COAXIAL DIGITAL AUDIO OUTPUT [20]

This coaxial digital audio output can be connected to a coaxial digital audio input on a hi-fi amp, AV receiver, or surround sound decoder (Dolby Digital, DTS).

#### ③ S VIDEO OUTPUT [19]

This connector can be used to connect a TV or projector with an S-Video input.

#### **④ VIDEO OUTPUT [17]**

This RCA/phono connector can be used to connect a TV or projector with a composite video input.

#### **(5) COMPONENT VIDEO OUTPUT [19]**

These sockets output component video and can be connected to an component video input on a TV or projector.

#### 6 ANALOG AUDIO OUTPUT [17]

These RCA/phono connectors can be connected to analog audio inputs on your TV, hi-fi amp, or AV receiver.

#### 7 RI jack [21]

These **RI** (Remote Interactive) connectors can be connected to the **RI** connectors on your other Onkyo AV components for interactive control. Connecting an **RI** cable only does not make the system operational. You must also connect the audio cables as well.

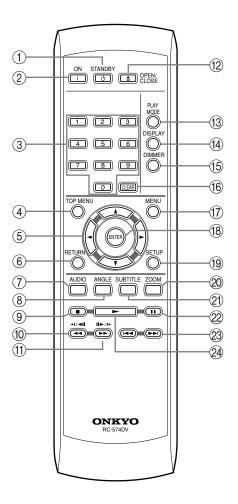
#### 8 AV CONNECTOR [19]

This SCART output can be connected to a TV or projector with a SCART input by using the supplied SCART cable. This SCART connector outputs 2channel stereo audio, composite video, S-Video, and RGB video.

#### 9 AC INLET [22]

The supplied power cord is connected here. The other of the power cord should be connected to a suitable wall outlet.

#### **Remote Controller**



#### 1 STANDBY button [22]

This button is used to set the DV-SP402E to Standby.

#### 2 ON button [22]

This button is used to turn on the DV-SP402E. Don't turn on the DV-SP402E until you've completed, and double checked all connections (pages 16–21).

#### ③ Number buttons [25–27, 35, 43]

These buttons are used to enter title, chapter, and track numbers and to enter times for locating specific points in time.

#### (4) TOP MENU button [26]

This button is used to display the top menu on a DVD-Video disc.

#### **(5)** Cursor **◄/►/▲/▼** buttons [23]

These buttons are used to navigate onscreen menus.

#### 6 RETURN button [23, 26]

This button is used to return to the main menu without saving your changes.

#### 7 AUDIO button [36]

This button is used to select foreign language soundtracks and audio formats (e.g., Dolby Digital or DTS) on DVD-Video discs. For Video CDs you can select left-channel, rightchannel, or stereo.

(8) ANGLE button [37] This button is used to select camera angles on

DVD-Video discs.

#### (9) Stop button [27] This button is used to stop playback.

10 Fast Reverse

This button is used for fast reverse, reverse slow motion, and reverse frame-by-frame playback.

(1) Fast Forward ►► / (II►/I►) button [25, 28, 29]

This button is used for fast forward, slow motion, and frame-by-frame playback.

#### 12 OPEN/CLOSE button [24]

This button is used to open and close the disc tray.

#### (13) PLAY MODE button [32-35]

This button is used to open and close the Play Mode menu.

#### 14 DISPLAY button [37]

This button is used to display information about the current disc, title, chapter, or track, including the elapsed time, remaining time, total time, and so on. Press it repeatedly to display more information.

#### 15 DIMMER button

This button is used to adjust the display brightness.

 $\rightarrow$  normal  $\rightarrow$  dim  $\rightarrow$  dimmer

#### 16 CLEAR [34]

This button is used to cancel various functions.

#### 17 MENU button [26]

This button is used to display the menu on a DVD-Video disc or to open the Disc Navigator when using a Video CD, audio CD, WMA/MP3/JPEG disc, or VR format DVD-RW disc.

#### 18 ENTER button [23]

This button is used to start playback of the selected title, chapter, or track, and to confirm settings.

#### (19 SETUP button [24, 38–40]

This button is used to open and close the onscreen setup menus.

2 ZOOM button [37]

This button is used with the Zoom function.

2) SUBTITLE button [36]

This button is used to select subtitles on DVD-Video discs.

Pause II button [25, 28, 29] This button is used to pause playback.

#### 23 Previous/Next < box buttons [25]</p>

The Previous button is used to select the previous chapter or track. During playback it selects the beginning of the current chapter or track. The Next button is used to select the next chapter or track.

24 Play ► button [25]

This button is used to start playback.

#### **Before Making Any Connections**

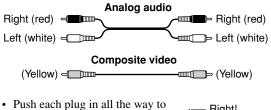
- Read the manuals supplied with your AV components.
- Don't connect the power cord until you've completed all audio and video connections.

#### **Optical Digital Inputs**

The DV-SP402E's optical digital connectors have a shutter-type cover that opens when an optical plug is inserted, and closes when it's removed. Push the plug in all the way.

#### RCA/phono AV Connection Color Coding

RCA/phono AV connections are usually color coded: red, white, and yellow. Use red plugs to connect rightchannel audio inputs and outputs (typically labeled "R"). Use white plugs to connect left-channel audio inputs and outputs (typically labeled "L"). And use yellow plugs to connect composite video inputs and outputs.



 Push each plug in all the way to make a good connection (loose connections can cause noise or malfunctions).



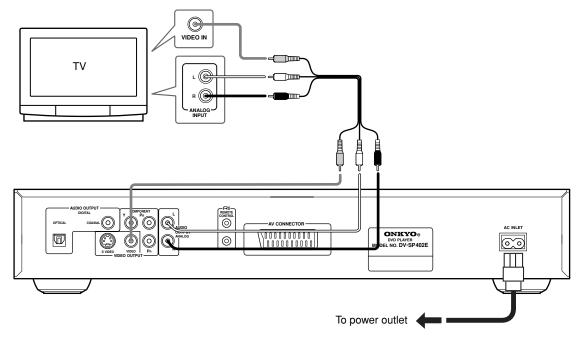
• To prevent interference, keep audio and video cables away from power cords and speaker cables.

		Video	
Component video	Pa/Ca Pa/Ca Pa/Ca Pa/Ca Pa/Ca Pa/Ca Pa/Ca	× P <sup>a</sup> P <sup>a</sup>	Component video separates the luminance (Y) and color difference signals (PR, PB), providing the best picture quality. Some TV manufacturers label their component video inputs differently.
S-Video	2	S VIDEO	S-Video provides better picture quality than composite video.
Composite video		VIDEO	Composite video can be found on virtually all TVs, VCRs, and video equipment.
Scart			SCART connections carry audio and video (composite, S-Video, RGB) all in one cable.
		Audio	
Optical digital		OPTICAL	Optical digital audio connections provide better audio quality than analog connections.
Coaxial digital		COAXIAL	Coaxial digital audio connections provide better audio quality than analog connections.
Analog			RCA/phono analog audio connectors can be found on virtually all AV components.

#### **AV Cables & Connectors**

#### **Basic Setup**

The setup described here is a basic setup that allows you to play discs using just the cables supplied with the player. In this setup, stereo audio is played through the speakers in your TV.



- This player is equipped with copy protection technology. Do not connect this player to your TV via a VCR using AV cables, as the picture from this player will not appear properly on your TV. (This player may also not be compatible with some combination TV/VCRs for the same reason; refer to the manufacturer for more information.)
- When connecting to your TV as shown above, do not set the "Component Out" setting (page 41) to "Progressive."

#### 1. Connect the VIDEO OUTPUT and AUDIO OUT-PUT ANALOG L/R jacks to a set of A/V inputs on your TV.

Use the supplied AV cable (RCA/phono), connecting the red and white plugs to the audio outputs and the yellow plug to the video output. Make sure you match up the left and right audio outputs with their corresponding inputs for correct stereo sound. See the following page if you want to use a component or S-Video cable for the video connection.

2. Connect the supplied AC power cord to the AC INLET, then plug into a power outlet.

#### Notes:

- Before unplugging the player from the power outlet, make sure you first switch it into standby using either the front panel STANDBY/ON button, or the remote controller, and wait of the "GOOD BYE" message to disappear from the player's display.
- For the above reasons, do not plug this player into a switched power supply found on some amplifiers and AV receivers.

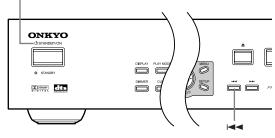
#### Important:

- When Component Out (page 41) is set to Progressive, there is no video output from the VIDEO OUTPUT (composite) and S VIDEO OUTPUT jacks.
- If you want to display video on more than one monitor simultaneously, make sure the player is set to Interlace.
- If you connect a TV that is not compatible with a progressive scan signal and switch the player to progressive, you will not be able to see any picture at all. In this case, switch everything off and reconnect using the supplied video cable, then switch back to Interlace (see page 18).

## Switching the video output to interlace using the front panel controls

Switch the player to standby then, using the front panel controls, press STANDBY/ON while pressing ► to switch the player back to Interlace.

#### STANDBY/ON



## Compatibility of this player with progressive-scan and high-definition TVs

This player is compatible with progressive video Macro Vision System Copy Guard.

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 progressive scan picture problems, it is recommended that the user switch the connection to the "standard definition' output (Interlace). If there are questions regarding our TV set compatibility with this model, please contact our customer service center.

#### **Connecting Your TV**

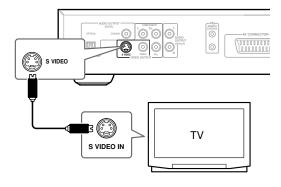
• Connect the DVD Player to the TV directly. If you connect the DVD Player to a VCR, TV/VCR combination, or video selector, the playback picture may be distorted as DVD videos are copy protected.

#### Using S-Video

If your TV (or other equipment) has an S-Video input, you can use this instead of the standard (composite) output for a better quality picture.

 Use an S-Video cable (supplied) to connect the S VIDEO OUTPUT to an S-Video input on your TV (or monitor or AV receiver).

Line up the small triangle above the jack with the same mark on the plug before plugging in.

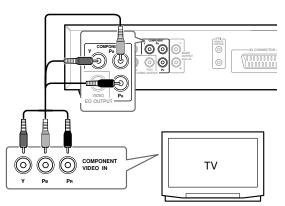


#### Using Component Video

You can use the component video output instead of the standard video out jack to connect this player to your TV (or other equipment).

This should give you the best quality picture from the three types of video output available.

• Use a component video cable (not supplied) to connect the COMPONENT VIDEO OUTPUT jacks to a component video input on your TV, monitor or AV receiver.



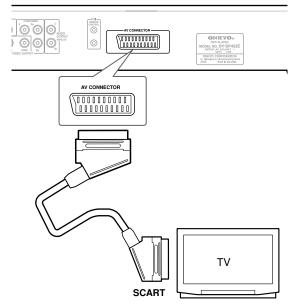
#### Note:

• To set up the player for use with a progressive scan TV, see "Video Output settings – Component Out" on page 41.

#### Using SCART

If your TV has a SCART-type AV input, you can use a SCART cable to connect this player to your TV. This type of connection carries both the sound and the picture, so there's no need to connect up the AUDIO OUTPUT L/R and VIDEO OUTPUT jacks.

• Use a SCART cable (supplied) to connect the AV CONNECTOR to an AV input on your TV.



This connector can output composite video, S-Video, or RGB video. The default setting is composite, which should work with all TVs. Consult the manual that came with your TV to see if you can use one of the higher quality settings. See page 41 for how to change the video output.

#### **Connecting to an AV Receiver**

Although you can reproduce the DVD Player's sound from the TV speakers with the connections on page 17, connecting with an amplifier provides you high quality dynamic sounds.

To reproduce Dolby Digital surround and DTS surround sound, you need to connect to an amplifier with a Dolby Digital and DTS decoder respectively.

#### Before connecting

- When you connect the DVD Player to the amplifier, be sure to turn off the power and unplug both units from the mains before making any connections. Otherwise, the speakers may be damaged.
- Connect the plugs securely.

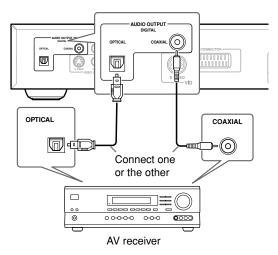
To enjoy surround sound you need to connect this player to an AV receiver using a digital output. This player has both coaxial and optical digital jacks; use whichever is convenient.

In addition to a digital connection, we recommend also connecting using the stereo analog connection.

To record the audio from a CD-R disc etc. to a cassette or CDR recorder that's connected to the AV receiver, and when your AV receiver has Zone2, you must connect the DV-SP402E's analog audio outputs to the AV receiver.

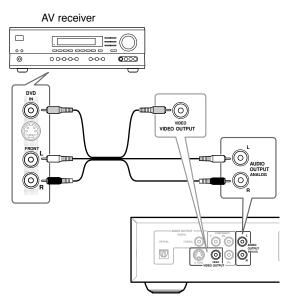
You'll probably also want to connect a video output to your AV receiver. You can use any of the video outputs available on this player (the illustration shows a standard (composite) connection).

#### 1. Connect one of DIGITAL AUDIO OUTPUT jacks on this player to a digital input on your AV receiver.



This enables you to listen to surround sound. For an optical connection, use an optical cable (not supplied) to connect the "OPTICAL DIGITAL AUDIO OUTPUT" jack to an optical input on your AV receiver. For a coaxial connection, use a coaxial cable (similar to the supplied video cable) to connect the "COAXIAL DIGITAL AUDIO OUTPUT" jack to a coaxial input on your AV receiver.

2. Connect the ANALOG AUDIO OUTPUT L/R and VIDEO OUTPUT jacks on this player to a set of analog audio and video inputs on your AV receiver.



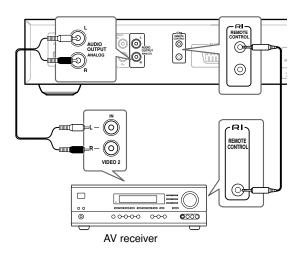
The diagram shows standard video connections, but you can alternatively use the S-Video or component video connections if they're available.

### **3.** Connect the AV receiver's video output to a video input on your TV.

#### Tip:

• You usually have to connect the same kind of video cable between your DVD player and AV receiver, and between your AV receiver and TV.

#### Connecting RI-compatible Components



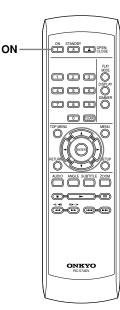
- The remote controller supplied with Onkyo AV receiver or amplifiers can be used to control the DV-SP402E.
- The function of the upper and lower RI connectors are the same. Connect to either one.
- Connecting an **RI** cable only does not make the system operational. You must also connect the audio cables as well.
- For remote control operation, you must make an analog RCA/phono connection between your DV-SP402E and the other AV component, even if they are connected digitally.

1

#### Before connecting

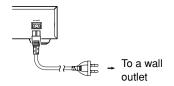
• Make sure that all the connections on pages 16 – 21 are complete (the connection to a TV is required).

# STANDBY/ON STANDBY indicator



#### Plug the supplied power cord into the AC INLET and then into the power outlet on the wall.

- Do not use a power cord other than the one supplied with the DV-SP402E. The power cord supplied is designed for use with the DV-SP402E and should not be used with any other device.
- Never have the power cord disconnected from the DV-SP402E while the other end is plugged into the wall outlet. Doing so may cause an electric shock. Always connect by plugging into the wall outlet last and disconnect by unplugging from the wall outlet first.



#### 2 ()STANDBY/ON

Remote controller

ON

lo

# Press STANDBY/ON on the DV-SP402E or ON on the remote controller.

The DVD Player turns on and the STANDBY indicator turns off.

- To put the DV-SP402E in the standby mode, press STANDBY/ON on the DV-SP402E, or STANDBY on the remote controller. Be sure to set the volume to minimum before putting the DV-SP402E in the standby mode for the next use to avoid sudden loud sound reproduction.
- While the STANDBY indicator lights up, the DVD Player can receive signals from the remote controller.
- Setting the STANDBY/ON button to standby does not shut off the power completely.

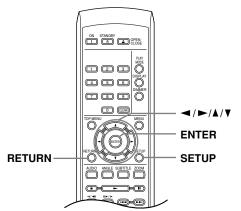
#### Note:

• This player features a screen saver and an auto power off function. If the player is stopped and no button is pressed for five minutes, the screen saver starts. If the disc tray is closed but no disc is playing and no control is pressed for 30 minutes, the player automatically goes into standby.

#### Using the on-screen displays

For ease of use, this player makes extensive use of graphical on-screen displays (OSDs).

All the screens are navigated in basically the same way, using the cursor buttons  $(\blacktriangleleft/\blacktriangleright/\blacktriangle/\lor)$  to change the highlighted item and pressing ENTER to select it.



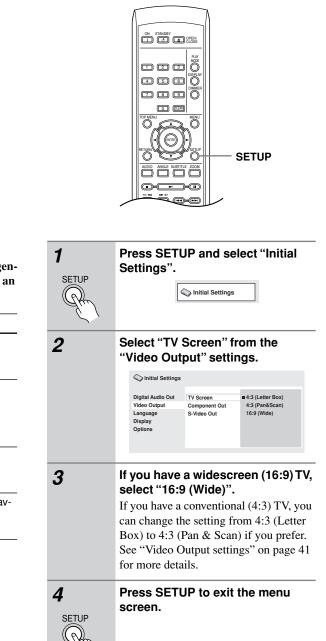
#### Note:

• From here on in this manual, the word "select' generally means use the cursor buttons to highlight an item on-screen, then press ENTER.

Button	What it does
SETUP	Display/exit the on-screen display.
	Changes the highlighted menu item.
ENTER	Selects the highlighted menu item (both ENTER buttons on the remote work in exactly the same way).
RETURN	Returns to the main menu without sav- ing changes.

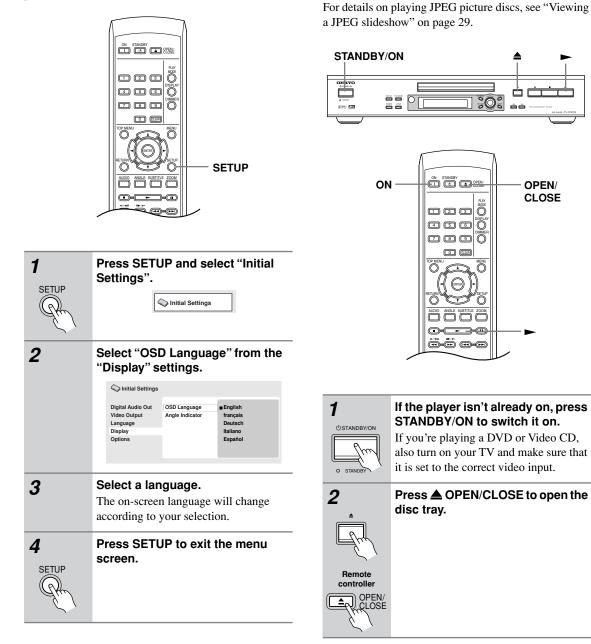
#### Setting up the player for your TV

If you have a widescreen (16:9) TV, you should setup the player so that the picture will be presented correctly. If you have a conventional (4:3) TV, you can leave the player on the default setting and move on to the next section.



# Setting the language of this player's on-screen displays

This sets the language of this system's on-screen displays.



**Playing discs** 

The basic playback controls for playing DVD, CD, Video CD and MP3/WMA discs are covered here. Fur-

ther functions are detailed in the next chapter.

#### **3** Load a disc.

Load a disc with the label side facing up, using the disc tray guide to align the disc (if you're loading a double-sided DVD disc, load it with the side you want to play face down).





#### Press ► (play) to start playback.

If you're playing a DVD or Video CD, an on-screen menu may appear. See "DVD-Video disc menus" on page 26 and "Video CD PBC menus" on page 27 for more on how to navigate these.

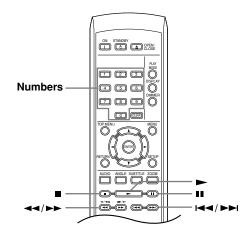
• If you're playing an MP3/WMA disc, it may take a few seconds before playback starts.

#### Note:

• You may find with some DVD discs that some playback controls don't work in certain parts of the disc. This is not a malfunction.

#### **Basic playback controls**

The table below shows the basic controls on the remote for playing discs. The following chapter covers other playback features in more detail.



Button	What it does
	Starts playback. If the display shows RESUME or LAST MEM playback starts from the resume or last memory point (see also "Resume and Last Memory" on page 26.)
11	Pauses a disc that's playing, or restarts a paused disc.
	Stops playback. See also "Resume and Last Memory" on page 26.
(remote only)	Press to start fast reverse scanning. Press ► (play) to resume normal playback.
(remote only)	Press to start fast forward scanning. Press ► (play) to resume normal playback.
<b>H</b>	Skips to the start of the current track or chapter, then to previous tracks/chapters.
	Skips to the next track or chapter.
Numbers (remote only)	Use to enter a title/chapter/track num- ber. Press ENTER to select. • If the disc is stopped, playback starts from the selected title (for DVD) or track (for CD/Video CD). • If the disc is playing, playback jumps to the start of the selected title (VR mode DVD-RW), chapter (DVD- Video) or track (CD/Video CD)

#### **Resume and Last Memory**

When you stop playback of a disc, RESUME is shown in the display indicating that you can resume playback again from that point.

If the disc tray is not opened, the next time you start playback the display shows RESUME and playback resumes from the resume point.

With DVDs and Video CDs, if you take the disc out of the player, the play position is stored in memory. If the next disc you load is the same one, the display shows LAST MEM and playback will resume.

If you want to clear the resume point, press  $\blacksquare$  (stop) while RESUME is displayed.

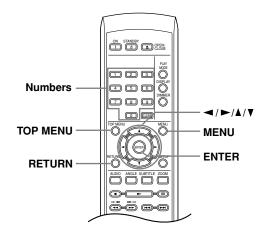
#### Notes:

- The Last Memory function doesn't work with VR format DVD-RW discs.
- If you don't need the Last Memory function when you stop a disc, you can press ▲ OPEN/CLOSE to stop playback and open the disc tray.

#### **DVD-Video disc menus**

Many DVD-Video discs feature menus from which you can select what you want to watch. They may also give access to additional features, such as subtitle and audio language selection, or special features such as slideshows. See the disc packaging for details.

Sometimes DVD-Video menus are displayed automatically when you start playback; others only appear when you press MENU or TOP MENU.

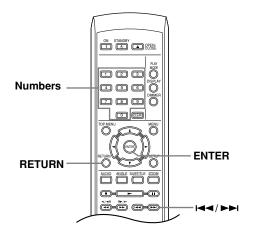


Button	What it does
TOP MENU	Displays the "top menu" of a DVD disc—this varies with the disc.
MENU	Displays a DVD disc menu—this var- ies with the disc and may be the same as the "top menu".
	Moves the cursor around the screen.
ENTER	Selects the current menu option.
RETURN	Returns to the previously displayed menu screen.
Numbers (remote only)	Highlights a numbered menu option (some discs only). Press ENTER to select.

#### Video CD PBC menus

Some Video CD have menus from which you can choose what you want to watch. These are called PBC (Playback control) menus.

You can play a PBC Video CD without having to navigate the PBC menu by starting playback using a number button to select a track, rather than the  $\blacktriangleright$  (play) button.



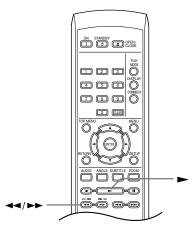
Button	What it does
RETURN	Displays the PBC menu.
Numbers (remote only)	Use to enter a numbered menu option. Press ENTER to select.
	Displays the previous menu page (if there is one).
	Displays the next menu page (if there is one).

#### Notes:

- Many of the functions covered in this chapter apply to DVD discs, Video CDs, CDs and MP3/JPEG discs, although the exact operation of some varies slightly with the kind of disc loaded.
- Some DVDs restrict the use of some functions (random or repeat, for example) in some or all parts of the disc. This is not a malfunction.
- When playing Video CD, some of the functions are not available during PBC playback. If you want to use them, start the disc playing using a number button to select a track.

#### Scanning discs

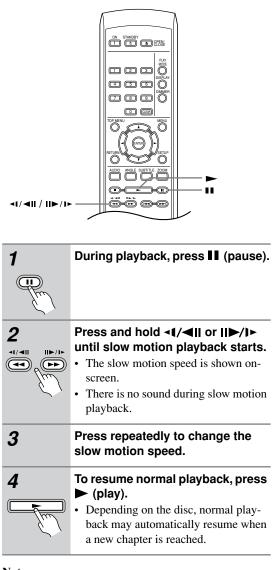
You can fast-scan discs forward or backward at four different speeds.



	<ul> <li>During playback, press ← or ►► to start scanning.</li> <li>There is no sound while scanning DVDs and Video CD, and no subtitles while scanning DVDs.</li> </ul>
2	<ul><li>Press repeatedly to increase the scanning speed.</li><li>The scanning speed is shown on-screen.</li></ul>
3	<ul> <li>To resume normal playback, press</li> <li>▶ (play).</li> <li>When scanning a Video CD playing in PBC mode or a WMA/MP3 track, playback automatically resumes at the end or beginning of the track.</li> <li>Depending on the disc, normal playback may automatically resume when a new chapter is reached on a DVD disc.</li> </ul>

#### Playing in slow motion

You can play DVDs at four different slow motion speeds, forwards and backwards. Video CD can be played at four different forward slow motion speeds.





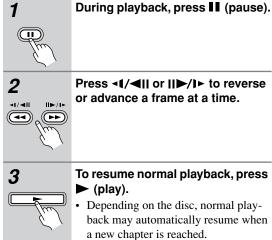
• Backward slow-motion playback does not work with Video CD.

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#### Frame advance/frame reverse

You can advance or back up DVD discs frame-by-frame. With Video CD you can only use frame advance.

### 



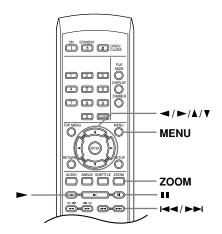
#### Note:

• Backward frame-by-frame playback does not work with Video CD.

#### Viewing a JPEG slideshow

After loading a CD/CD-R/RW containing JPEG picture files, press  $\blacktriangleright$  (play) to start a slideshow from the first folder/picture on the disc. The player displays the pictures in each folder in alphabetical order.

Pictures are automatically adjusted so that they fill as much of the screen as possible (if the aspect ratio of the picture is different to your TV screen you may notice black bars at the sides, or at the top and bottom of the screen).



While the slideshow is running:

Button	What it does
11	Pauses the slideshow; press again to restart.
	Displays the previous picture.
	Displays the next picture.
▶</th <th>Pauses the slideshow and rotates the displayed picture 90° (counter)clock-wise. (Press ► (play) to restart slide-show).</th>	Pauses the slideshow and rotates the displayed picture 90° (counter)clock-wise. (Press ► (play) to restart slide-show).
▲/▼	Pauses the slideshow and flips the dis- played picture horizontally or vertically. (Press ► (play) to restart slideshow).
ZOOM	Pauses the slideshow and zooms the picture. Press again to toggle between 1x, 2x and 4x zoom. (Press ► (play) to restart slideshow).
MENU	Displays the Disc Navigator screen (see below).

#### Notes:

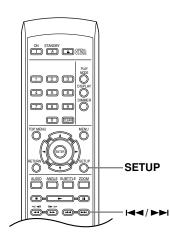
- The time it takes for the player to load a file increases with large file sizes.
- Discs can contain up to 299 folders and up to 648 folders and files combined.

## Browsing video content with the Disc Navigator

Use the Disc Navigator to browse through the contents of a DVD or Video CD disc to find the part you want to play.

#### Important:

• You can't use the Disc Navigator with Video CD in PBC mode.





2

During playback, press SETUP and select "Disc Navigator" from the on-screen menu.

#### Select a view option.



(Disc Navigator

The options available depend on the kind of disc loaded and whether the disc is playing or not, but include:

- **Title** Titles from a DVD-Video disc.
- Chapter Chapters from the current title of a DVD-Video disc.
- **Track** Tracks from a Video CD disc.
- **Time** Thumbnails from a Video CD disc at 10 minute intervals.
- **Original: Title** Original titles from a VR mode DVD-RW disc.

- **Playlist: Title** Playlist titles from a VR mode DVD-RW disc.
- Original: Time Thumbnails from the Original content at 10 minute intervals.
- **Playlist: Time** Thumbnails from the Playlist at 10 minute intervals.

The screen shows up to six moving thumbnail images displayed one after another. To display the previous/next six thumbnails, press ►
I (you don't have to wait for all the thumbnails to finish playing to display the previous/next page).

## Select the thumbnail image for what you want to play.



You can use either the cursor buttons  $(\blacktriangleleft/\blacktriangleright/\blacktriangle/\bigtriangledown)$  and ENTER to select a thumbnail, or the number buttons. To select using the number buttons, enter a two-digit number then press ENTER.

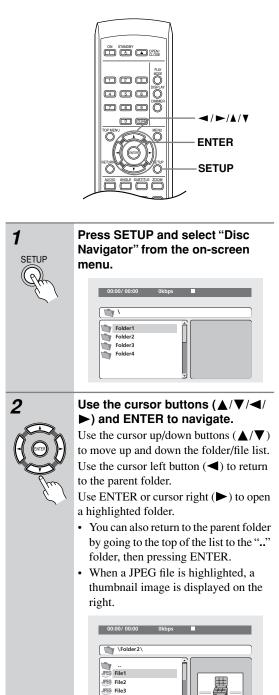
#### Tip:

3

• Another way to find a particular place on a disc is to use one of the search modes. See "Searching a disc" on page 35.

# Browsing WMA, MP3 and JPEG files with the Disc Navigator

Use the Disc Navigator to find a particular file or folder by filename.



JPEG File4 JPEG File5

# 3



# To play the highlighted track or display the highlighted JPEG file, press ENTER.

- When a WMA/MP3 file is selected, playback begins, starting with the selected track, and continues until the end of the folder.
- When a JPEG file is selected, a slideshow begins, starting with that file, and continues to the end of the folder.

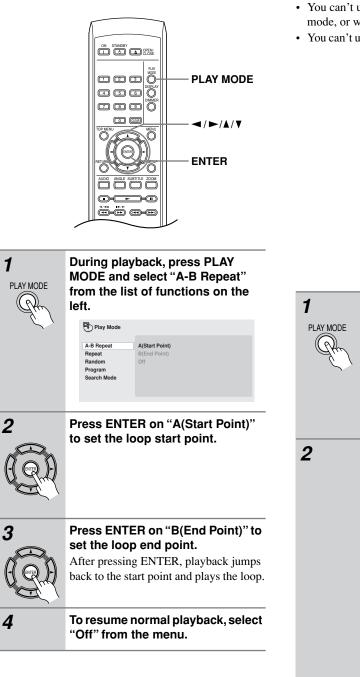
#### Tip:

 To play the contents of the whole disc rather than just the current folder, exit the Disc Navigator and start playback using the ► (play) button.

#### Looping a section of a disc

The A-B Repeat function allows you to specify two points (A and B) within a track (CD, Video CD) or title (DVD) that form a loop which is played over and over.

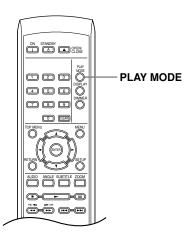
 You can't use A-B Repeat with Video CD in PBC mode, or WMA /MP3 files.



#### Using repeat play

There are various repeat play options, depending on the kind of disc loaded. It's also possible to use repeat play together with program play to repeat the tracks/chapters in the program list (see "Creating a program list" on page 34). **Important:** 

- You can't use Repeat play with Video CD in PBC mode, or with WMA/MP3 discs.
- You can't use repeat and random play at the same time.



#### During playback, press PLAY MODE and select "Repeat" from the list of functions on the left.

Play Mode	
A-B Repeat	Title Repeat
Repeat	Chapter Repeat
Random	Repeat Off
Program	
Search Mode	

#### Select a repeat play option.

If program play is active, select Program Repeat to repeat the program list, or Repeat Off to cancel.

The repeat options available depend on the kind of disc loaded. For example, for DVD discs, you can select Title Repeat or Chapter Repeat (or Repeat Off).

Play Mode	
A-B Repeat	Title Repeat
Repeat	Chapter Repeat
Random	Repeat Off
Program	
Search Mode	

• For CDs and Video CD, select Disc Repeat or Track Repeat (or Repeat Off).

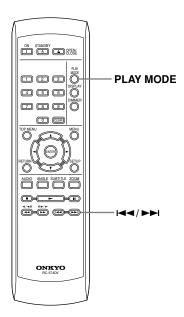
#### Using random play

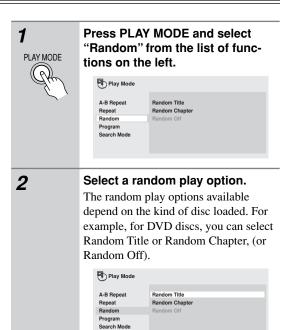
Use the random play function to play titles or chapters (DVD-Video) or tracks (CD, Video CD) at random. (Note that the same track/title/chapter may play more than once.)

You can set the random play option when a disc is playing or stopped.

#### Important:

- Random play remains in effect until you select Random Off from the random play menu options.
- You can't use random play with VR format DVD-RW discs, Video CD playing in PBC mode, WMA/MP3 discs, or while a DVD disc menu is being displayed.
- You can't use random play together with program or repeat play.





• For CDs and Video CD, select On or Off to switch random play on or off.

#### Tip:

#### • Use the following controls during random play:

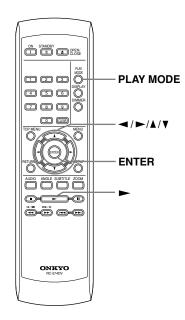
Button	What it does	
	Selects a new track/title/chapter at random.	
<b>4</b> 4	Returns to the beginning of the current track/title/chapter; further presses select another random track/title/chap- ter.	

#### Creating a program list

This feature lets you program the play order of titles/ chapters/tracks on a disc.

#### Important:

 You can't use Program play with VR format DVD-RW discs, Video CD playing in PBC mode, WMA/MP3 discs, or while a DVD disc menu is being displayed.



1 PLAY MODE	Press PLAY MODE and select "Program" from the list of func- tions on the left.	
(J.M.)	Play Mode A-B Repeat Repeat Random Program Search Mode	<b>Create/Edit</b> Playback Slart Playback Stop Program Delete
2	Select "Cre program op	ate/Edit" from the list of otions.

3

4

#### Use the cursor buttons and ENTER to select a title, chapter or track for the current step in the program list.

For a DVD disc, you can add a title or a chapter to the program list.

Program		
Program Step	Title 1~38	Chapter 1~4
01.01	Title 01	Chapter 001
02.	Title 02	Chapter 002
03.	Title 03	Chapter 003
04.	Title 04	Chapter 004
05.	Title 05	
06.	Title 06	
07.	Title 07	
08.	Title 08	
		+

• For a CD or Video CD, select a track to add to the program list.

After pressing ENTER to select the title/ chapter/track, the step number automatically moves down one.

#### Repeat step 3 to build up a program list.

A program list can contain up to 24 titles/ chapters/tracks.

- You can insert steps into the middle of a program list by just highlighting the position where you want the new step to appear and entering a title/chapter/ track number.
- To delete a step, highlight it and press CLEAR.



### To play the program list, press ► (play).

Program play remains active until you turn off program play (see below), erase the program list (see below), eject the disc or switch off the player.

#### Tip:

#### Use the following controls during program play:

Button	What it does
PLAY MODE	Save the program list and exit the pro- gram edit screen without starting play- back (SETUP does the same).
	Skip to the next step in the program list.

# Other functions available from the program menu

There are a number of other options in the program menu in addition to Create/Edit.

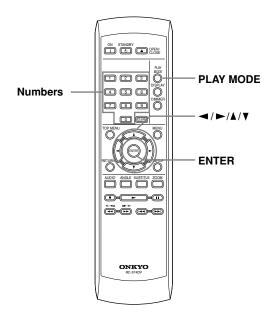
- Playback Start Starts playback of a saved program list
- **Playback Stop** Turns off program play, but does not erase the program list
- **Program Delete** Erases the program list and turns off program play

#### Searching a disc

You can search DVD discs by title or chapter number, or by time; CDs and Video CD by track number or time.

#### Important:

• Search functions are not available with Video CD in PBC mode, or with WMA/MP3 discs.



#### 2 Select a search mode. • The disc must be playing in order to use time search. 3 Use the number buttons to enter a title, chapter or track number, or a 123 time. 4 5 6 Play Mode 789 Title Search A-B Repeat Input Chapte Chapter Search Time Search Repeat Random 001 Program arch Mo • For a time search, enter the number of minutes and seconds into the currently playing title (DVD) or track (CD/ Video CD) you want playback to resume from. For example, press 4, 5, 0, 0 to have playback start from 45 minutes into the disc. For 1 hour, 20



0.

#### Press ENTER to start playback.

minutes and 30 seconds, press 8, 0, 3,

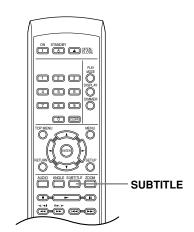


Press PLAY MODE and select "Search Mode" from the list of functions on the left.

The search options available depend on the kind of disc loaded.

#### Switching subtitles

Some DVD discs have subtitles in one or more languages; the disc box will usually tell you which subtitle languages are available. You can switch subtitle language during playback.





### Press SUBTITLE repeatedly to select a subtitle option.

Current / Total Subtitle 1/2 English

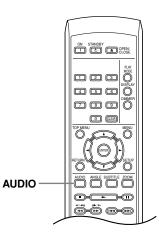
#### Notes:

- Some discs only allow you to change subtitle language from the disc menu. Press TOP MENU or MENU to access.
- To set subtitle preferences, see "Language settings" on page 42.

Switching audio language/channel

When playing a DVD disc recorded with dialog in two or more languages, you can switch audio language during playback.

When playing a VR format DVD-RW disc recorded with dual-mono audio, you can switch between the main, sub, and mixed channels during playback.



When playing a Video CD, you can switch between stereo, just the left channel or just the right channel.



### Press AUDIO repeatedly to select an audio language/channel option.

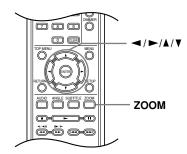
The language/channel information is shown on-screen.

Notes:

- Some DVD discs only allow you to change audio language from the disc menu. Press TOP MENU or MENU to access.
- To set DVD audio language preferences, see "Language settings" on page 42.

## Zooming the screen

Using the zoom feature you can magnify a part of the screen by a factor of 2 or 4, while watching a DVD or Video CD or playing a JPEG disc.



T ZOOM	<ul> <li>During playback, use the ZOOM button to select the zoom factor (Normal, 2x or 4x).</li> <li>Since DVD, Video CD and JPEG pictures have a fixed resolution, picture quality will deteriorate, especially at 4x zoom. This is not a malfunction.</li> </ul>
2	Use the cursor buttons to change the zoomed area.
	You can change the zoom factor and the zoomed area freely during playback.
	• If the navigation square at the top of the screen disappears, press ZOOM

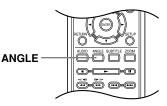
### Notes:

If you are displaying subtitles, these will disappear when the screen is zoomed. They will reappear when you return the screen to normal.

## Switching camera angles

Some DVD discs feature scenes shot from two or more angles—check the disc box for details.

When a multi-angle scene is playing, a  $\bigcirc_{\square}$  icon appears on screen to let you know that other angles are available (this can be switched off if you prefer—see "Display settings" on page 42).

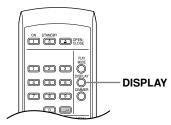




During playback (or when paused), press ANGLE to switch angle.

## **Displaying disc information**

Various track, chapter and title information, such as the elapsed and remaining playing time can be displayed onscreen while a disc is playing.



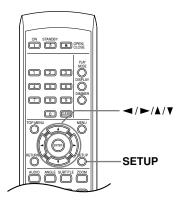


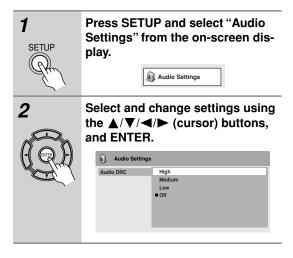
## To show/switch/hide the information displayed, press DISPLAY repeatedly.

• When a disc is playing, the information appears at the top of the screen.

## Audio Settings menu

The Audio Settings menu offers features for adjusting the way discs sound.





## Audio DRC

• Settings: High, Medium, Low, Off (default) When watching Dolby Digital DVDs at low volume, it's easy to lose the quieter sounds completely—including some of the dialog. Switching Audio DRC (Dynamic Range Control) to on can help by bringing up the quieter sounds, while controlling loud peaks.

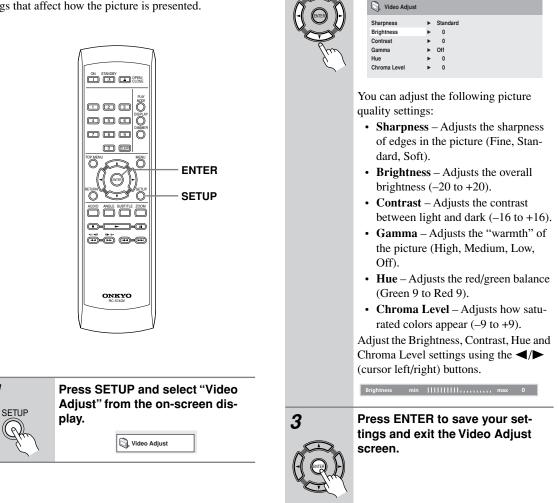
How much of a difference you hear depends on the material you're listening to. If the material doesn't have wide variations in volume, you may not notice much change. **Notes:** 

- Audio DRC is only effective with Dolby Digital audio sources.
- Audio DRC is only effective through the digital output when Digital Out is set to On, and Dolby Digital Out is set to Dolby Digital > PCM (see "Digital Audio Out settings" on page 41).
- The effect of Audio DRC depends on your speakers and AV receiver settings.

### Video Adjust menu

1

From the Video Adjust screen you can adjust various settings that affect how the picture is presented.



2

Note:

• Depending on your TV, the picture may appear distorted if the brightness is set too high. If this happens, lower the brightness.

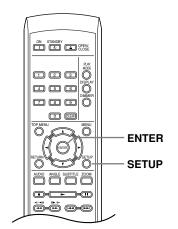
Make settings using the  $\blacktriangle / \bigtriangledown / \checkmark /$ 

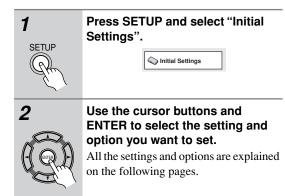
► (cursor) buttons, and ENTER.

## Using the Initial Settings menu

The Initial Settings menu provides audio and video output settings, parental lock settings, and display settings, among others.

If an option is grayed out it means that it cannot be changed at the current time. This is usually because a disc is playing. Stop the disc, then change the setting.





### Notes:

- In the table on next pages, the default setting is shown in bold: other settings are shown in italics.
- The Digital Audio Out settings only need to be set if you have connected the digital output of this player to an AV receiver, or other equipment.
- Check the operating instructions supplied with your other equipment to see which digital audio formats it's compatible with.
- Some settings, such as TV Screen, Audio Language and Subtitle Language may be overridden by the DVD disc. Often these settings can also be made from the DVD disc menu.

## **Digital Audio Out settings**

Setting	Option	What it means
	On	Digital audio is output from the digital outputs.
Digital Out	Off	No digital audio output.
Dolby Digital Out	Dolby Digital	Dolby Digital encoded digital audio is output when playing a Dolby Digital DVD disc.
	Dolby Digital > PCM	Dolby Digital audio is converted to PCM audio before being output.
DTS Out	DTS	DTS encoded digital audio is output when playing a DTS disc. (Noise will be output if your amplifier/receiver is not compati- ble with DTS audio.)
	Off	No digital audio is output when playing a DTS disc.
96 kHz PCM Out		96kHz digital audio is converted to 48kHz for digital output.
	96kHz	96kHz digital audio is output as is at 96kHz.
MPEG Out	MPEG > PCM	MPEG encoded digital audio is converted to PCM audio for digital output.
	MPEG	MPEG encoded digital audio is output as is.

## Video Output settings

Setting	Option	What it means
TV Screen (See also "Screen sizes and disc formats" on page 45.)	4:3 (Letter Box)	Set if you have a conventional 4:3 TV. Widescreen movies are shown with black bars top and bottom.
	4:3 (Pan & Scan)	Set if you have a conventional 4:3 TV. Widescreen movies are shown with the sides cropped so that the image fills the screen.
	16:9 (Wide)	Set if you have a widescreen TV.
	Interlace	Set if your TV is not compatible with progressive scan video.
Component Out	Progressive	Set if your TV is compatible with progressive scan video (see your TV's instruction manual for details). See also "Switching the video output to interlace using the front panel controls" on page 18. Note that progressive scan video is only output from the com- ponent video jacks and that there is no output from the com- posite and S-video jacks when this setting is selected.
	Video	Ordinary (composite) video output, compatible with all TVs.
AV Connector Out	S-Video	Almost the same quality as RGB, but can give better results if you're using a long SCART cable.
	RGB	If your TV is compatible, this setting gives the best picture quality.

### Language settings

Setting	Option	What it means	
	English	If there is an English soundtrack on the disc then it will be played.	
Audio Language <sup>*1</sup>	Languages as displayed	If there is the language selected on the disc, then it will be played.	
	Other Language	Select to choose a language other than the ones displayed (see page 47).	
	English	If there is are English subtitles on the disc then they will be displayed.	
Subtitle Language <sup>*2</sup>	Languages as displayed	If there is the subtitle language selected on the disc, then it will be displayed.	
	Other Language	Select to choose a language other than the ones displayed (see page 47).	
	w/Subtitle Lang.	DVD disc menus will be displayed in the same language as your selected subtitle language, if possible.	
DVD Menu Language <sup>*3</sup>	Languages as displayed	DVD disc menus will be displayed in the selected language, if possible.	
	Other Language	Select to choose a language other than the ones displayed (see page 47).	
Out dittle Disaster	On	Subtitles are displayed according to your selected subtitle lan- guage (see above).	
Subtitle Display	Off	Subtitles are always off by default when you play a DVD disc (note that some discs override this setting).	

\*1 This setting is your preferred audio language for DVD discs.

You can switch between the languages recorded on a DVD disc during playback using the AUDIO button. Some DVD discs set the audio language automatically when loaded, overriding the "Audio Language" setting. Discs with two or more audio languages usually allow you to select the audio language from the disc menu. Press MENU to access the disc menu.

\*2 This setting is your preferred subtitle language for DVD discs. You can change or switch off the subtitles on a DVD disc during playback using the SUBTITLE button. Some DVD discs set the subtitle language automatically when loaded, overriding the "Subtitle Language" setting. Discs with two or more subtitle languages usually allow you to select the subtitle language from the disc menu. Press MENU to access the disc menu.

\*3 Some multilingual discs have disc menus in several languages. This setting specifies in which language the disc menus should appear. Leave on the default setting for menus to appear in the same language as your "Subtitle Language".

## **Display settings**

Setting	Option What it means	
OSD Language	English	On-screen displays of the player are in English.
	Languages as displayed	On-screen displays are shown in the language selected.
Angle Indicator On		A camera icon is displayed on-screen during multi-angle scenes on a DVD disc.
	Off	No multi-angle indication is shown.

## **Parental Lock**

• Default level: Off; Default password: none; Default Country code: us (2119)

To give you some control over what your children watch on your DVD player, some DVD-Video discs feature a Parental Lock level. If your player is set to a lower level than the disc, the disc won't play.

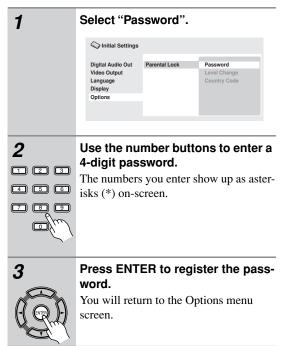
Some discs also support the Country Code feature. The player does not play certain scenes on these discs, depending on the Country Code you set.

### Notes:

- Not all discs use Parental Lock, and will play without requiring the password first.
- If you forget your password, you'll need to reset the player to register a new password. (see page 45)

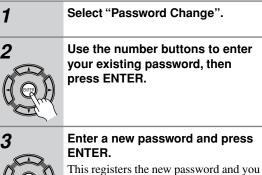
### Registering a new password

You must register a password before you can change the Parental Lock level or enter a Country code.



## Changing your password

To change your password, confirm your existing password then enter a new one.



will return to the Options menu screen.

## Setting/changing the Parental Lock

1	Select "Level Change".
2	Use number buttons to enter your password, then press ENTER.
3	<ul> <li>Select a new level and press ENTER.</li> <li>Press ◄ (cursor left) repeatedly to lock more levels (more discs will require the password); press ► (cursor right) to unlock levels. You can't lock level 1.</li> <li>This sets the new level and you will return to the Options menu screen.</li> </ul>

## Setting/changing the Country code

You can find the Country code list in the adjacent column.

1	Select "Country Code".
<b>2</b> 1 2 3	Use number buttons to enter your password, then press ENTER.

# 3 ())))

## Select a Country code and press ENTER.

There are two ways you can do this:

- Select by code letter: Use ▲/▼ (cursor up/down) to change the Country code.
- Select by code number: Press ► (cursor right) then use the number buttons to enter the 4-digit Country code.

The new Country code is set and you will return to the Options menu screen. Note that the new Country code doesn't take effect until the next disc is loaded (or the current disc is reloaded).

Country	code list	

Country	Country code	Country code letter
Argentina	0118	ar
Australia	0121	au
Austria	0120	at
Belgium	0205	be
Brazil	0218	br
Canada	0301	са
Chile	0312	cl
China	0314	cn
Denmark	0411	dk
Finland	0609	fi
France	0618	fr
Germany	0405	de
Hong Kong	0811	hk
India	0914	in
Indonesia	0904	id
Italy	0920	it
Japan	1016	jp
Korea, Republic of	1118	kr
Malaysia	1325	my
Mexico	1324	mx
Netherlands	1412	nl
New Zealand	1426	nz
Norway	1415	no
Pakistan	1611	pk
Philippines	1608	ph
Portugal	1620	pt
Russian Federation	1821	ru
Singapore	1907	sg
Spain	0519	es
Sweden	1905	se
Switzerland	0308	ch
Taiwan	2023	tw
Thailand	2008	th
United Kingdom	0702	gb
USA	2119	us

## Screen sizes and disc formats

DVD-Video discs come in several different screen aspect ratios, ranging from TV programs, which are generally 4:3, to Cinema- Scope widescreen movies, with an aspect ratio of up to about 7:3.

Televisions, too, come in different aspect ratios; "standard" 4:3 and widescreen 16:9.

### Widescreen TV users

If you have a widescreen TV, the TV Screen setting (page 41) of this player should be set to "16:9 (Wide)". When you watch discs recorded in 4:3 format, you can use the TV controls to select how the picture is presented. Your TV may offer various zoom and stretch options; see the instructions that came with your TV for details.

Please note that some movie aspect ratios are wider than 16:9, so even though you have a widescreen TV, these discs will still play in a "letter box" style with black bars at the top and bottom of the screen.

### Standard TV users

If you have a standard TV, the "TV Screen" setting (page 41) of this player should be set to "4:3 (Letter Box)" or "4:3 (Pan&Scan)", depending on which you prefer.

Set to "4:3 (Letter Box)", widescreen discs are shown with black bars top and bottom.



Set to "4:3 (Pan&Scan)", widescreen discs are shown with the left and right sides cropped.

Although the picture looks larger, you don't actually see the whole picture.



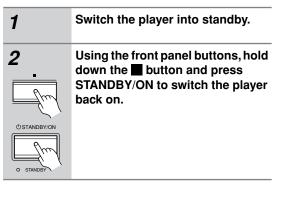
Please note that many widescreen discs override the player's settings so that the disc is shown in letter box format regardless of the setting.

### Note:

• Using the "16:9 (Wide)" setting with a standard 4:3 TV, or either of the "4:3" settings with a widescreen TV, will result in a distorted picture.

## **Resetting the player**

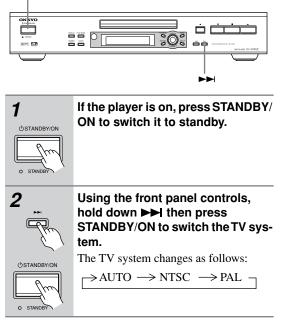
Use this procedure to reset all the player's settings to the factory default.



## Setting the TV system

The default setting of this player is "AUTO", and unless you notice that the picture is distorted when playing some discs, you should leave it set to "AUTO". If you experience picture distortion with some discs, set the TV system to match your country or region's system. Doing this, however, may restrict the kinds of disc you can watch. The table below shows what kinds of disc are compatible with each setting ("AUTO", "PAL" and "NTSC").

### STANDBY/ON



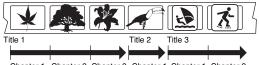
#### Note:

• You have to switch the player into standby (press STANDBY/ON) before each change.

Disc		Player setting		
Туре	Format	NTSC PAL AUTO		
DVD	NTSC	NTSC	PAL	NTSC
Video CD	NTSC	NTSC	PAL	NTSC
	PAL	NTSC	PAL	PAL
CD/no disc	_	NTSC	PAL	NTSC or PAL

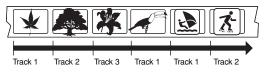
## Titles, chapters and tracks

DVD discs are generally divided into one or more titles. Titles may be further subdivided into chapters.

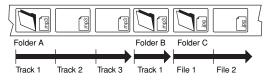


Chapter 1 Chapter 2 Chapter 3 Chapter 1 Chapter 1 Chapter 2

CDs and Video CDs are divided into tracks.



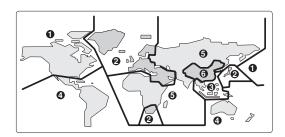
CD-ROMs contain folders and files. MP3 and WMA files are referred to as tracks. Folders may contain further folders.



## **DVD-Video regions**

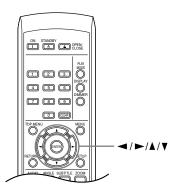
the world.

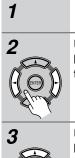
All DVD-Video discs carry a region mark on the case somewhere that indicates which region(s) of the world the disc is compatible with. Your DVD player also has a region mark, which you can find on the rear panel. Discs from incompatible regions will not play in this player. Discs marked "ALL" will play in any player. The diagram below shows the various DVD regions of



# Selecting languages using the language code list

Some of the language options (such as "DVD Language" in the Setup Navigator) allow you to set your prefered language from any of the 136 languages listed in the language code list on page 48.





Use the ◀/► (cursor left/right)

Select "Other Language".

buttons to select either a code letter or a code number.

# Use the $\nabla/\blacktriangle$ (cursor up/down) buttons to select a code letter or a code number.

See "Language code list" on page 48 for a complete list of languages and codes.

## Language code list

Language	Language code letter	Language code
Japanese	ja	1001
English	en	0514
French	fr	0618
German	de	0405
Italian	it	0920
Spanish	es	0519
Chinese	zh	2608
Dutch	nl	1412
Portuguese	pt	1620
Swedish	sv	1922
Russian	ru	1821
Korean	ko	1115
Greek	el	0512
Afar	aa	0101
Abkhazian	ab	0102
Afrikaans	af	0106
Amharic	am	0113
Arabic	ar	0118
Assamese	as	0119
Aymara	ay	0125
Azerbaijani	az	0126
Bashkir	ba	0201
Byelorussian	be	0205
Bulgarian	bg	0207
Bihari	bh	0208
Bislama	bi	0209
Bengali	bn	0214
Tibetan	bo	0215
Breton	br	0218
Catalan	са	0301
Corsican	со	0315
Czech	CS	0319
Welsh	су	0325
Danish	da	0401
Bhutani	dz	0426
Esperanto	ео	0515
Estonian	et	0520
Basque	eu	0521
Persian	fa	0601
Finnish	fi	0609
Fiji	fj	0610
Faroese	fo	0615
Frisian	fy	0625
Irish	ga	0701
Scots-Gaelic	gd	0704
Galician	gl	0712
Guarani	gn.	0714
Gujarati	gu	0721
Hausa	ha	0801
Hindi	hi	0809
Croatian	hr	0818
Jioulan		

Language	Language code letter	Language code
Hungarian	hu	0821
Armenian	hy	0825
Interlingua	ia	0901
Interlingue	ie	0905
Inupiak	ik	0911
Indonesian	in	0914
Icelandic	is	0919
Hebrew	iw	0923
Yiddish	ji	1009
Javanese	jw	1023
Georgian	ka	1101
Kazakh	kk	1111
Greenlandic	kl	1112
Cambodian	km	1113
Kannada	kn	1114
Kashmiri	ks	1119
Kurdish	ku	1121
Kirghiz	ky	1125
Latin	la	1201
Lingala	In	1214
Laothian	lo	1215
Lithuanian	lt	1220
Latvian	lv	1222
Malagasy	mg	1307
Maori	mi	1309
Macedonian	mk	1311
Malayalam	ml	1312
Mongolian	mn	1314
Moldavian	mo	1315
Marathi	mr	1318
Malay	ms	1319
Maltese	mt	1320
Burmese	my	1325
Nauru	na	1401
Nepali	ne	1405
Norwegian	no	1415
Occitan	oc	1503
Oromo	om	1513
Oriya	or	1518
Panjabi	pa	1601
Polish	pu	1612
Pashto,Push to	ps	1619
Quechua	qu	1721
Rhaeto- Romance	rm	1813
Kirundi	rn	1814
Romanian	ro	1815
Kinyarwanda	rw	1823
Sanskrit	sa	1901
Sindhi	sd	1904

Language	Language code	Language code
Que els a	letter	
Sangho	sg	1907
Serbo- Croatian	sh	1908
Sinhalese	si	1909
Slovak	sk	1911
Slovenian	sl	1912
Samoan	sm	1913
Shona	sn	1914
Somali	SO	1915
Albanian	sq	1917
Serbian	sr	1918
Siswati	SS	1919
Sesotho	st	1920
Sundanese	su	1921
Swahili	SW	1923
Tamil	ta	2001
Telugu	te	2005
Tajik	tg	2007
Thai	th	2008
Tigrinya	ti	2009
Turkmen	tk	2011
Tagalog	tl	2012
Setswana	tn	2014
Tonga	to	2015
Turkish	tr	2018
Tsonga	ts	2019
Tatar	tt	2020
Twi	tw	2023
Ukrainian	uk	2111
Urdu	ur	2118
Uzbek	uz	2126
Vietnamese	vi	2209
Volapük	vo	2215
Wolof	wo	2315
Xhosa	xh	2408
Yoruba	уо	2515
Zulu	zu	2621

### Analog audio

An electrical signal that directly represents sound. Compare this to digital audio which can be an electrical signal, but is an indirect representation of sound. See also "Digital audio".

### Aspect ratio

The width of a TV screen relative to its height. Conventional TVs are 4:3 (in other words, the screen is almost square); widescreen models are 16:9 (the screen is almost twice as wide as it is high).

### **Digital audio**

An indirect representation of sound by numbers. During recording, the sound is measured at discrete intervals (44,100 times a second for CD audio) by an analog-todigital converter, generating a stream of numbers.

On playback, a digital-to-analog converter generates an analog signal based on these numbers. See also "Sampling frequency" and "Analog audio".

### **Dolby Digital**



Using a maximum of 5.1 channels of audio, this high quality surround system is used in many of the finer movie theaters around the world.

The on-screen display shows which channels are active, for example showing 3/2.1. The 3 being the two front channels and the center channel; the 2 being the surround channels, and the .1 being the LFE channel.

### DRM

DRM (digital rights management) is a type of server software developed to enable secure distribution of paid content over the web, recently incorporated by WMA (Windows Media Audio).

### DTS



DTS stands for Digital Theater Systems. DTS is a surround system different from Dolby Digital that has become a popular surround sound format for movies.

### **Dynamic range**

The difference between the quietest and loudest sounds possible in an audio signal (without distorting or getting lost in noise).

Dolby Digital and DTS soundtracks are capable of a very wide dynamic range, delivering dramatic cinema-like effects.

### EXIF (Exchangeable Image File)

A file format developed by Fuji Photo Film for digital still cameras. Digital cameras from various manufacturers use this compressed file format which carries date, time and thumbnail information, as well as the picture data.

### **File extension**

A tag added to the end of a filename to indicate the type of file. For example, ".mp3" indicates an MP3 file.

### ISO 9660 format

International standard for the volume and file structure of CD-ROM discs.

### JPEG

A file format used for still images, such as photographs and illustrations. JPEG files are identified by the file extension ".jpg" or ".JPG". Most digital cameras use this format.

### MP3

MP3 (MPEG1 audio layer 3) is a compressed audio file format. Files are recognized by their file extension ".mp3" or ".MP3".

### MPEG audio

An audio format used on Video CDs and some DVD discs. This unit can convert MPEG audio to PCM format for wider compatibility with digital recorders and AV amplifiers. See also "PCM (Pulse Code Modulation)".

### MPEG video

The video format used for Video CDs and DVDs. Video CD uses the older MPEG-1 standard, while DVD uses the newer and much better quality MPEG-2 standard.

### PBC (PlayBack Control) (Video CD only)

A system of navigating a Video CD through on-screen menus recorded onto the disc. Especially good for discs that you would normally not watch from beginning to end all at once-karaoke discs, for example.

### PCM (Pulse Code Modulation)

The most common system of encoding digital audio, found on CDs and DAT. Excellent quality, but requires a lot of data compared to formats such as Dolby Digital and MPEG audio. For compatibility with digital audio recorders (CD, MD and DAT) and AV amplifiers with digital inputs, this unit can convert Dolby Digital, DTS and MPEG audio to PCM. See also "Digital audio".

### Regions (DVD-Video only)

These associate discs and players with particular areas of the world. This unit will only play discs that have compatible region codes. You can find the region code of your unit by looking on the rear panel. Some discs are compatible with more than one region (or all regions).

### Sampling frequency

The rate at which sound is measured to be turned into digital audio data. The higher the rate, the better the sound quality, but the more digital information is generated. Standard CD audio has a sampling frequency of 44.1kHz, which means 44,100 samples (measurements) per second. See also "Digital audio".

#### WMA

WMA is short for Windows Media Audio and refers to an audio compression technology developed by Microsoft Corporation. WMA data can be encoded by using Windows Media Player version 8 or Windows Media Player for Windows XP.

## Troubleshooting

If you have any trouble using your DV-SP402E, check the following table for possible causes and remedies. If you still can't resolve the issue yourself, please contact your Onkyo dealer.

	Symptoms	Causes	Remedies
-	Can't turn on the DV-SP402E?	The power cord is not connected.	Connect the power cord to a suitable wall outlet (page 22).
		External interference is affecting the DV-SP402E's digital circuitry.	Turn off the DV-SP402E, wait five seconds, then try turning it on again. If that fails, disconnect the power cord from the wall outlet, wait five seconds, reconnect it, then try turning it on again.
	The disc tray won't close properly?	The disc is not centered in the disc tray.	Place the disc in the center of the disc tray (page 25).
		The disc is dirty.	Remove the disc and clean it (page 9).
		No disc is loaded.	Load a disc (page 25).
		The disc cannot be played because it's incompatible.	Use only compatible discs (page 8).
		The disc is upside down.	Load the disc the correct way up (page 25).
	Can't start playback?	The disc is not centered in the disc tray.	Place the disc in the center of the disc tray (page 25).
		The disc is dirty.	Remove the disc and clean it (page 9).
		The disc uses parental lock and the Paren- tal Lock function is on.	Turn off the Parental Lock function (page 43).
		The DVD-Video disc is intended for use in another region.	If the region number on the disc does not match the region number on the DV-SP402E, the disc can't be played (page 46).
	The picture distorts	The disc is dirty.	Remove the disc and clean it (page 9).
DVD Player	The picture distorts occasionally?	You're using the Fast Forward or Fast Reverse function.	A little picture distortion may occur when using these functions. This is normal.
	Picture instability or noise?	The DV-SP402E is connected to your TV via a VCR or other video equipment and a copy-protection system is affecting the picture.	Connect the DV-SP402E directly to your TV (page 17).
	No picture?	The wrong input source is selected on your TV.	On your TV, select the input to which the DV-SP402E is connected.
		The video cable is not connected properly.	Check the video cable and correct as necessary (page 17).
	Settings are not saved?	If there's a power failure, or the power cord is disconnected inadvertently, any settings are lost.	Before you disconnect the power cord, set the DV-SP402E to Standby by pressing the [STANDBY/ON] button, and wait until "GOOD BYE" has disappeared from the display.
	Brightness is unstable or the picture is noisy?	The DV-SP402E is connected to your TV via a VCR or other video equipment and a copy-protection system is affecting the picture.	Connect the DV-SP402E directly to your TV (page 17).
		Your TV doesn't support progressive scanning.	Reset the DV-SP402E to its initial settings (page 40).
	Chapters or tracks don't play in the correct order?	You are using repeat playback, program playback, or random playback.	Select normal playback (pages 32–34).
	Buttons on the DV-SP402E and remote controller don't work?	Power supply voltage fluctuations and other anomalies, such as static electricity, can interfere with normal operation.	Turn off the DV-SP402E, wait five seconds, then turn it on again. If that doesn't resolve the issue, disconnect the power cord from the wall outlet, wait five seconds, reconnect it, then try again.

	The 96 kHz PCM Out setting is set to "96 kHz."	Change the 96 kHz PCM Out setting to "96 kHz > 48 kHz," or use analog connections (page 41).
	The Digital Out setting is set to "Off."	Change the Digital Out setting to "On" (page 41).
	The wrong input source is selected on your TV, hi-fi amp, or AV receiver.	On your TV, hi-fi amp, or AV receiver, select the input to which the DV-SP402E is connected.
	The audio cable is not connected properly.	Check the audio cable and correct as necessary (page 20).
No sound?	The TV, hi-fi amp, or AV receiver con- nected to the DV-SP402E's audio outputs is either not on or its volume is turned down.	Turn on the TV, hi-fi amp, or AV receiver and set its volume as appropriate.
	A DV-SP402E Digital Audio Out setting is set incorrectly.	Check the Digital Audio Out settings and correct as necessary (page 41).
	Playback is paused.	Resume playback (page 26).
	The DVD-Video disc or CD uses the DTS audio format and you are using the analog outputs.	DTS audio is only output by the digital outputs. To play DTS material you need to connect one of the DV-SP402E's digital outputs to a digital input on a hi-fi amp or AV receiver that has a DTS decoder built-in (page 20).
The side of a second	The TV Screen setting is wrong.	Set the TV Screen setting to match the aspect ratio of your TV (page 41).
The picture appears stretched or the wrong shape?	Your TV is connected with an S-Video cable.	If you've used an S-Video cable to connect your TV, in some cases the picture may appear stretched. In this case, try changing the S-Video Out setting to "S1" (page 41).
Audio CD playback skips or jumps or is noisy? An audio CD is loaded		Copy-controlled CDs are special discs that don't conform to the audio CD standard and, therefore, may not work properly with the DV-SP402E.
An audio CD is loaded but the DV-SP402E dis- plays "NO DISC"?		
The first track doesn't play?		
Locating a specific point takes longer than usual?	The loaded audio CD uses copy control.	
Playback starts in the middle of a track?		
Some sections of a track are skipped?		
Playback stops in the middle of a track?		
The DV-SP402E dis- plays the wrong mes- sages?		
	MP3 files without a ".mp3" or ".MP3" filename extension are not recognized.	Use the correct filename extension (page 8).
Some MP3 files don't play?	The MP3 disc contains over 299 folders and 648 folders and files combined.	The DV-SP402E recognizes only the first 299 folders and 648 folders and files combined. Folders in excess of this aren't recognized and cannot be played (page 9).
	The MP3 disc is a multisession disc.	The DV-SP402E doesn't fully support multises- sion discs. Only files in the first session can be played (page 8).

**DVD Player** 

OVD Player	Can't play MP3/WMA/ JPEG discs?	The disc is not ISO 9660 Level 1 or 2 for- mat.	Correct format should be used when recording is ISO 9660 and closed session (page 8).
		The disc has not been finalized.	Finalize the disc (page 8).
	Can't select MP3 files?	MP3 files without a ".mp3" or ".MP3" filename extension are not recognized.	Use the correct filename extension (page 8).
	Can't play WMA files?	WMA files without a ".wma" or ".WMA" filename extension are not recognized.	Use the correct filename extension (page 8).
Z		The WMA file's copyright option is on.	Don't use the copyright option (page 9).
	Can't view JPEG files?	JPEG files without a ".jpg" or ".JPG" file- name extension are not recognized.	Use the correct filename extension (page 8).
		Only Baseline JPEG files are supported. Progressive JPEG files are not.	Use Baseline JPEG files (page 9).
Remote Controller	Buttons on the DV-SP402E work OK but those on the remote controller don't?	There are no batteries in the remote controller.	Install new batteries (page 10).
		The batteries are flat.	Replace with new batteries (page 10).
		The batteries are installed incorrectly.	Check the batteries and correct as necessary (page 10).
		You're not pointing the remote controller at the DV-SP402E's remote sensor.	Point the remote controller at the DV-SP402E's remote sensor (page 10).
		You're too far away from the DV-SP402E.	Use the remote controller closer to the DV-SP402E (page 10). The remote controller has a range of approximately 5 meters.
		A strong light source is interfering with the DV-SP402E's remote sensor.	Make sure that the DV-SP402E is not subjected to direct sunshine or inverter-type fluorescent lights. Relocate if necessary.
		If the DV-SP402E is installed in a cabinet with colored glass doors, the remote con- troller may not work reliably when the doors are closed.	Open the doors, or use a cabinet without colored glass.

The DV-SP402E contains a microcomputer for signal processing and control functions. In very rare situations, severe interference, noise from an external source, or static electricity may cause it to lockup. In the unlikely even that this should happen, unplug the power cord from the wall outlet, wait at least five seconds, and then plug it back in again.

## **Specifications**

Signal System		PAL/AUTO	
Composite Video Output/Impedance		1.0 V (p-p)/75 Ω negative sync, RCA/phono	
S-Video Output/Impedance		Y: 0.7 V (p-p)/75 Ω negative sync, 4-pin mini DIN C: 0.286 V (p-p)/75 Ω	
Component Video Output/Impedance		Y: 1.0 V (p-p)/75 Ω PB/PR: 0.7 V (p-p)/75 Ω RCA/ phono	
AV Connector		1.0 V (p-p)/75 Ω, Scart	
Frequency response	DVD Linear Sound	4 Hz–44 kHz (96kHz) 4 Hz–22 kHz (48kHz)	
	Audio CD	4 Hz–20 kHz (44.1kHz)	
S/N Ratio		106 dB	
Audio Dynamic Range		96 dB	
THD (Total Harmonic Distortion)		0.003 % (1kHz)	
Wow and Flutter		Below threshold of measurability	
Audio Output (Digital/Optical)		-22.5 dBm	
Audio Output/Impedance (Digital/Coaxial)		0.5 p-p/75 Ω	
Audio Output/Impedance (Analog)		2.0 V (rms)/440 Ω	

### General

Power Supply	AC 230–240V, 50 Hz
Power Consumption	12 W
Stand-by Power Consumption	0.17 W
Dimensions (W x H x D)	435 W x 81 H x 307 D mm
Weight	3.4 kg
Operation Condition Temperature	5° C–35° C
Disc Compatibility	DVD-video, DVD-R/RW, Audio CD, CD-R/RW, Video CD, MP3, WMA, JPEG Disc that have not been property finalized may only be partially playable or not playable at all

Specifications and features subject to change without notice.

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