Thank you for buying this Pioneer product.
Please read through these operating instructions so you will know how to operate your model properly.
After you have finished reading the instructions, put them away in a safe place for future reference.

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.

CAUTION:
This product satisfies FCC regulations when shielded cables and connectors are used to connect the unit to other equipment. To prevent electromagnetic interference with electric appliances such as radios and televisions, use shielded cables and connectors for connections.

CAUTION:
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION:
THE USE OF OPTICAL INSTRUMENTS WITH THIS PRODUCT WILL INCREASE EYE HAZARD.

WARNING
To prevent a fire hazard, do not place any naked flame sources (such as a lighted candle) on the
equipment.
IMPORTANT SAFETY INSTRUCTIONS

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.
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.

CAUTION
This product is a class 1 laser product, but this product contains a laser diode higher than Class 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel. The following caution label appears on your unit.
Location: inside of the unit

WARNING
This equipment is not waterproof. To prevent a fire or shock hazard, do not place any container filled with liquid near this equipment (such as a vase or flower pot) or expose it to dripping, splashing, rain or moisture.

Operating Environment
Operating environment temperature and humidity:
+5 °C to +35 °C (+41 °F to +95 °F); less than 85 %RH (cooling vents not blocked)
Do not install this unit in a poorly ventilated area, or in locations exposed to high humidity or direct sunlight (or strong artificial light)

WARNING
Before plugging in for the first time, read the following section carefully.
The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit will be used meets the required voltage (e.g., 230 V or 120 V) written on the rear panel.
If the AC plug of this unit does not match the AC outlet you want to use, the plug must be removed and appropriate one fitted. Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel. If connected to an AC outlet, the cut-off plug can cause severe electrical shock. Make sure it is properly disposed of after removal. The equipment should be disconnected by removing the mains plug from the wall socket when left unused for a long period of time (for example, when on vacation).

**CAUTION**

The STANDBY/ON switch on this unit will not completely shut off all power from the AC outlet. Since the power cord serves as the main disconnect device for the unit, you will need to unplug it from the AC outlet to shut down all power. Therefore, make sure the unit has been installed so that the power cord can be easily unplugged from the AC outlet in case of an accident. To avoid fire hazard, the power cord should also be unplugged from the AC outlet when left unused for a long period of time (for example, when on vacation).

**WARNING:** Handling the cord on this product or cords associated with accessories sold with the product will expose you to chemicals listed on proposition 65 known to the State of California and other governmental entities to cause cancer and birth defect or other reproductive harm. Wash hands after handling.

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

**FEDERAL COMMUNICATIONS COMMISSION DECLARATION OF CONFORMITY**

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

**Product Name:** Blu-ray Disc PLAYER  
**Model Number:** BDPV6000  
**Responsible Party Name:** PIONEER ELECTRONICS (USA), INC.  
**SERVICE SUPPORT DIVISION**  
**Address:** 1925 E. DOMINGUEZ ST. LONG BEACH, CA 90810-1003, U.S.A.  
**Phone:** 1-800-421-1404  
**URL:** http://www.pioneerelectronics.com

**POWER-CORD CAUTION**

Handle the power cord by the plug. Do not pull out the plug by tugging the cord and never touch the power cord when your hands are wet as this could cause a short circuit or electric shock. Do not place the unit, a piece of furniture, etc., on the power cord, or pinch the cord. Never make a knot in the cord or tie it with other cords. The power cords should be routed such that they are not likely to be stepped on. A damaged power cord can cause a fire or give you an electrical shock. Check the power cord once a while. If you find it damaged, contact the Pioneer service center on the back cover, or your dealer for a replacement.

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.
Dear Customer:

Selecting fine audio equipment such as the unit you’ve just purchased is only the start of your musical enjoyment. Now it’s time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association’s Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion—and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing “comfort level” adapts to higher volumes of sound. So what sounds “normal” can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

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

Once you have established a comfortable sound level:
• Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

We Want You Listening For A Lifetime

Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association’s Consumer Electronics Group recommend you avoid prolonged exposure to excessive noise. This list of sound levels is included for your protection.

<table>
<thead>
<tr>
<th>Decibel Level</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Quiet library, soft whispers</td>
</tr>
<tr>
<td>40</td>
<td>Living room, refrigerator, bedroom away from traffic</td>
</tr>
<tr>
<td>50</td>
<td>Light traffic, normal conversation, quiet office</td>
</tr>
<tr>
<td>60</td>
<td>Air conditioner at 20 feet, sewing machine</td>
</tr>
<tr>
<td>70</td>
<td>Vacuum cleaner, hair dryer, noisy restaurant</td>
</tr>
<tr>
<td>80</td>
<td>Average city traffic, garbage disposals, alarm clock at two feet</td>
</tr>
</tbody>
</table>

THE FOLLOWING NOISES CAN BE DANGEROUS UNDER CONSTANT EXPOSURE

<table>
<thead>
<tr>
<th>Decibel Level</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>Subway, motorcycle, truck traffic, lawn mower</td>
</tr>
<tr>
<td>100</td>
<td>Garbage truck, chain saw, pneumatic drill</td>
</tr>
<tr>
<td>120</td>
<td>Rock band concert in front of speakers, thunderclap</td>
</tr>
<tr>
<td>140</td>
<td>Gunshot blast, jet plane</td>
</tr>
<tr>
<td>180</td>
<td>Rocket launching pad</td>
</tr>
</tbody>
</table>

Information courtesy of the Deafness Research Foundation.
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Chapter 1
Before you start

What’s in the box

- Remote control x 1
- Video/audio cable (yellow/white/red plugs) x 1
- AA/R6 dry cell batteries x 2
- Power cord x 1
- Rack mount bracket x 2
- Underplate x 1
- Included gray screw x 2
- Warranty card
- Operating instructions (this document)

A large Phillips screwdriver (+ No. 2) is required to mount the rack mount bracket. Please procure one.

Putting the batteries in the remote control

1. Open the rear cover.

2. Insert the batteries (AA/R6 x 2).
   Insert as indicated by the (+/-) marks into the battery compartment.

3. Close the rear cover.
   Close securely (a click should be heard).

Caution

- Do not use any batteries other than the ones specified. Also, do not use a new battery together with an old one.
- When loading the batteries into the remote control, set them in the proper direction, as indicated by the polarity marks (+ and -).
- Do not heat batteries, disassemble them, or throw them into flames or water.
- Batteries may have different voltages, even if they look similar. Do not use different kinds of batteries together.
- To prevent leakage of battery fluid, remove the batteries if you do not plan to use the remote control for a long period of time (1 month or more). If the fluid should leak, wipe it carefully off the inside of the case, then insert new batteries. If a battery should leak and the fluid should get on your skin, flush it off with large quantities of water.
- When disposing of used batteries, please comply with governmental regulations or environmental public institution’s rules that apply in your country/area.

WARNING

Do not use or store batteries in direct sunlight or other excessively hot place, such as inside a car or near a heater. This can cause batteries to leak, overheat, explode or catch fire. It can also reduce the life or performance of batteries.

Software updating

When the software is updated, product information concerning this product may be made public on the Pioneer website. Check the update or service information concerning this product.
# Types of discs/files that can be played

## Playable discs

Discs with the logo marks below indicated on the disc label, package or jacket can be played.

<table>
<thead>
<tr>
<th>Disc type</th>
<th>Logo</th>
<th>Application format</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BDMV¹</td>
</tr>
<tr>
<td>BD-ROM</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>BD³</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>BD-R</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>BD-RE</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>DVD-ROM</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>DVD-R³,⁴,⁵</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>DVD-RW⁴,⁶</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>DVD+R³,⁴</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>DVD+RW⁴</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>CD-DA</td>
<td>(Audio CD)</td>
<td>x</td>
</tr>
<tr>
<td>CD</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>CD-R⁴</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>CD-RW⁴</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>CD-ROM</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

1. Including the AVCHD format.
2. Discs on which image or audio files are recorded.
3. Including dual-layered discs.
4. Include (close) them before playing them on this player.
5. DVD-R for Authoring discs (3.95 and 4.7 GB) cannot be played.
6. Version 1.0 DVD-RW discs cannot be played.

“Blu-ray Disc” and are trademarks.

is a trademark of DVD Format/Logo Licensing Corporation.
Discs that cannot be played
- HD DVDs
- DVD Audio discs
- DVD-RAM discs
- SACDs
- Video CDs
- SVCDs

It is possible that some discs other than the ones listed above may not be playable either.

Note
- Some discs cannot be played, even if one of the logo marks on the previous page is indicated.
- To play 8 cm discs, set the disc in the 8 cm disc depression in the center of the disc tray. No adapter is necessary. 8 cm BD-ROMs cannot be played.

About playback of unauthorized copies
Cinavia Notice
This product uses Cinavia technology to limit the use of unauthorized copies of some commercially-produced film and videos and their soundtracks. When a prohibited use of an unauthorized copy is detected, a message will be displayed and playback or copying will be interrupted. More information about Cinavia technology is provided at the Cinavia Online Consumer Information Center at http://www.cinavia.com. To request additional information about Cinavia by mail, send a postcard with your mailing address to: Cinavia Consumer Information Center, P.O. Box 86851, San Diego, CA, 92138, USA.

Copyright 2004-2009 Verance Corporation. Cinavia™ is a Verance Corporation trademark. Protected by U.S. Patent 7,369,677 and worldwide patents issued and pending under license from Verance Corporation. All rights reserved.

About audio formats
The following audio formats are supported on this player:
- Dolby TrueHD
- Dolby Digital Plus
- Dolby Digital
- DTS-HD Master Audio
- DTS-HD High Resolution Audio
- DTS Digital Surround
- MPEG
- MPEG-2 AAC
- Linear PCM

To enjoy the surround sound of Dolby TrueHD, Dolby Digital Plus, DTS-HD Master Audio and DTS-HD High Resolution Audio, it is recommended to connect the player to an AV receiver or amplifier compatible with these audio formats using an HDMI cable. After loading a BD containing sound in one of these audio formats, select the audio format on the menu screen.

See About the audio output settings on page 52 for the output conditions of the different formats.

Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

Manufactured under license under U.S. Patent #’s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,475,535; 7,392,196; 7,572,567; 7,333,929; 7,212,872 & other U.S. and worldwide patents issued & pending. DTS is a registered trademark and the DTS logos, Symbol, DTS-HD and DTS-HD Master Audio | Essential are trademarks of DTS, Inc. © 1996-2008 DTS, Inc. All Rights Reserved.

Playing BDs
- BDs (BDM) compatible with the formats below can be played.
  - Blu-ray Disc Read-Only (ROM) Format Version 2
  - Blu-ray Disc Recordable (R) Format Version 2
  - Blu-ray Disc Rewritable (RE) Format Version 3

This player supports BD-ROM Profile 2.

BONUSVIEW functions such as playback of secondary video (Picture-in-Picture) and secondary audio can be used. The data used with the BONUSVIEW functions (the secondary video (Picture-in-Picture) and secondary audio data) may be stored in the storage. For details on secondary video and secondary audio playback, refer to the disc’s instructions.

BONUSVIEW™
“BONUSVIEW” is trademark of Blu-ray Disc Association.

BD-LIVE™
“BD-LIVE” logo is trademark of Blu-ray Disc Association.
With BD-ROMs, it is possible to use BD-J (Java) applications to create highly interactive titles, for example including games.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

The player’s internal storage has a maximum capacity of roughly 1 GB. Use an external storage connected to the USB port if you want to store large quantities of data (page 21). If a message saying there is not enough storage space appears, erase any unnecessary data (page 49).

• BDs (BDAV) compatible with the formats below can be played.
  – Blu-ray Disc Recordable (R) Format Version 1
  – Blu-ray Disc Rewritable (RE) Format Version 2

△ Playing DVDs

This label indicates playback compatibility with DVD-RW discs recorded in VR format (Video Recording format). However, for discs recorded with a record-only-once encrypted program, playback can only be achieved using a CPRM compatible device.

The AVCHD is a high definition (HD) digital video camera recorder format recording high-definition onto certain media by using highly efficient codec technologies.

“AVCHD” and the “AVCHD” logo are trademarks of Panasonic Corporation and Sony Corporation.

△ About region numbers

Blu-ray Disc Player and BD-ROM or DVD-Video discs are assigned region numbers according to the region in which they are sold.

This player’s region numbers are:
• BD-ROM: A
• DVD-Video: 1

Discs not including these numbers cannot be played.

Discs playable on this player are as shown below.
• BDs: A (including A) and ALL
• DVDs: 1 (including 1) and ALL

△ Playing CDs

Regarding copy protected CDs: This player is designed to conform to the specifications of the Audio CD format. This player does not support the playback or function of discs that do not conform to these specifications.

△ DualDisc playback

A DualDisc is a new two-sided disc, one side of which contains DVD content — video, audio, etc. — while the other side contains non-DVD content such as digital audio material.

The DVD side of a DualDisc can be played on this player (excluding any DVD-Audio content)

The non-DVD, audio side of the disc is not compatible with this player.

It is possible that when loading or ejecting a DualDisc, the opposite side to that being played will be scratched. Scratched discs may not be playable.

For more detailed information on the DualDisc specification, please refer to the disc manufacturer or disc retailer.

△ Playing discs created on computers or BD/DVD recorders

• It may not be possible to play discs recorded using a computer due to the application settings or computer’s environment settings. Record discs in a format playable on this player. For details, contact the dealer.

• It may not be possible to play discs recorded using a computer or a BD/DVD recorder, if burn quality is not good due to characteristics of the disc, scratches, dirt on the disc, dirt on the recorder’s lens, etc.

Playable files

Image and audio files recorded on DVDs and CDs can be played.

⚠ Caution

• In DVD, only the one recorded by the ISO 9660 file system can be played.

• Some files may not be playable.

• For some files, it may not be possible to use certain functions during playback.

• It may not be possible to play some files, even if they have the extension of a file playable on this player.

• Files protected by DRM (Digital Rights Management) cannot be played.

△ Supported image file formats

• JPEG

File format: JFIF Ver. 1.02/Exif Ver. 2.2
Resolution: Up to 4096 x 4096 pixels
Only baseline JPEG files are supported.
- **Supported audio file formats**
  - **Windows Media™ Audio 9 (WMA9)**
    - Bit rate: Up to 192 kbps
    - Sampling frequencies: 22.05 kHz, 32 kHz, 44.1 kHz and 48 kHz
    - Windows Media is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.
  - **MPEG-1 Audio Layer 3 (MP3)**
    - Bit rate: Up to 320 kbps
    - Sampling frequencies: 8 kHz, 11.025 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz and 48 kHz

- **Playable file extensions**
  - **Image files**
    - .jpg and .jpeg
  - **Audio files**
    - .wma and .mp3

---

### Part Names and Functions

#### Remote Control

![Remote Control Diagram]

1. **STANDBY/ON** – Press to turn the power on and off.
2. **TV CONTROL** – (page 24)
3. **AUDIO** – (page 31)
4. **SUBTITLE** – (page 30)
5. **Number buttons** – Use these to select and play the title/chapter/track you want to view or listen to and to select items from menus.
   - **CLEAR** – Press to clear the numeric number, etc.
   - **ENTER** – Press to execute the selected item or enter a setting that has been changed, etc.
6. **SECONDARY AUDIO** – (page 31)
   - **SECONDARY VIDEO** – (page 31)
7 VIDEO SELECT – (page 26)
8 HOME MEDIA GALLERY – (page 36)
9 TOP MENU – Press to display the top menu of the BD-ROM or DVD-Video.
10 ↑/↓/←/→ – Use to select items, change settings and move the cursor.
   ENTER – Press to execute the selected item or enter a setting that has been changed, etc.
11 HOME MENU – (page 42)
12 ► PLAY – (page 29)
   II PAUSE – (page 29)
   ■ STOP – (page 29)
   ⇑/Prev/⇨/Next – (page 30)
   ◄/◄/◄/◄ – (page 30)
   ▶/▶/▶/▶ – (page 30)
13 RED/GREEN/BLUE/YELLOW – Use these to navigate BD-ROM menus.
14 VIDEO ADJUST – (page 39)
15 ▲ OPEN/CLOSE – Press to open and close the disc tray.
16 FL DIMMER – When pressed, the brightness of the player’s front panel display and the status of the indicators on the player’s front panel changes.

<table>
<thead>
<tr>
<th>Front panel display</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blu-ray</td>
</tr>
<tr>
<td>Bright</td>
<td>Bright</td>
</tr>
<tr>
<td>Medium</td>
<td>Bright</td>
</tr>
<tr>
<td>Dark</td>
<td>Dark</td>
</tr>
<tr>
<td>Off</td>
<td>Off</td>
</tr>
</tbody>
</table>

1. This lights when an HDMI-compatible device is connected to an HDMI OUT terminal (page 18).
17 ANGLE – (page 30)
18 OUTPUT RESOLUTION – (page 27)
19 PLAY MODE – (page 33)
20 POP UP MENU/MENU – Press to display the BD-ROM or DVD-Video menus.
21 DISPLAY – (page 31)
22  TOOLS – (page 26)
23  RETURN – Press to return to the previous screen.

Front Panel

1 ☀ STANDBY/ON – Press to turn the power on and off.
2 FL OFF indicator – Lights when the player’s front panel display is turned off pressing FL DIMMER.
3 ◀/◀/◀/◀ – Press to skip to the beginning of the previous title/chapter/track/file. Press and hold to start reverse scanning (page 30).
   ►/►/►/► – Press to skip to the beginning of the next title/chapter/track/file. Press and hold to start forward scanning (page 30).
   II – Press during playback to pause. Press again to restart playback.
   ■ – Press to stop playback.
4 Remote control sensor – Point the remote control to this, then operate it within approximately 23 feet (7 m). The player may have trouble capturing remote control signals if there is a fluorescent light nearby. If this happens, move the player away from the fluorescent light.
5 Disc tray
6 Blu-ray indicator – Lights when the power is turned on.
7 ▲ OPEN/CLOSE – Press to open and close the disc tray.
8 Front panel display
9 HDMI indicator – (page 18)
10 ► – Press to start playback.
**Front Panel Display**

1. ➤ – (page 29)
2. ▶ – (page 29)
3. HD – This lights when an HDMI cable is connected and video signals are being output with a resolution of 1080/60i, 1080/60p, 720/30i, 1080/50i, 720/50p or 1080/24p. It also lights when a component video cable is connected and video signals are being output with a resolution of 1080/60i or 720/60p.
4. LAN – (page 22)
5. PQLS – (page 19)
6. Character display – Displays the title/chapter/track number, elapsed time, etc.
7. 24HZ/50HZ/60HZ – The frequency of the video frame or field being output lights.
8. EXT – (page 21)
9. CONTROL – (page 19)

**Rear Panel**

1. AUDIO OUT (7.1 ch) terminals – (page 21)
2. VIDEO OUT terminals
   - VIDEO – (page 21)
   - COMPONENT VIDEO – (page 21)
3. AC IN – (page 22)
4. CONTROL IN terminal – Use to control this player from the remote sensor of another Pioneer component with a CONTROL OUT terminal and bearing the mark. Connect the CONTROL OUT terminal of the other component to CONTROL IN on this player using a mini-plug cord (commercially available).
5. DIGITAL OUT (OPTICAL) terminal – (page 21)
6. HDMI OUT terminal – (page 20)
7. USB (BD STORAGE) port – (page 21)
8. LAN (100) terminal – (page 22)
9. RS-232C terminal – Serial control of the player is possible when connected to a computer (page 58).

**Caution**

- Be sure to connect cables for outputting the audio and video signals.
- When connected via System Control, point the remote control toward the connected component (such as an AV receiver or amplifier). The remote will not work correctly when pointed at this player.
- You cannot use System Control with components that do not have a System Control terminal or with components manufactured by companies other than Pioneer.
Chapter 2
Installation

Cautions on use

- Please note that Pioneer will accept no responsibility whatsoever for loss of business opportunities or other damages due to breakdown of the set.
- Please note that Pioneer will accept no responsibility whatsoever for problems resulting from the use of the set, regardless of the method of installation.
- Please note that Pioneer will accept no responsibility whatsoever for loss of data resulting from use or breakdown of the set, or for any direct or indirect damages incurred thereby.

Cautions on Installation

Install and use the set in a level, stable place. Do not use it on shaky, unstable surfaces or places subject to strong vibrations.

The current will surge if the power to several units of the set is turned on or off simultaneously from an external device. For the value per unit, see Specifications on page 75.

**Caution**

- When installing the set in an EIA rack, be sure to use the included rack mount brackets. Using anything else could cause damage to the set or injury. For details on mounting, etc., see Installation Procedure on page 16.
- When the included rack mount brackets are used, the player can be mounted to universal pitch or wide pitch racks conforming to EIA 19" standards.

Place of installation

Select a stable place near the TV and AV system to which the unit is connected.

Do not place the player on top of a TV or color monitor. Keep it away from cassette decks or other components easily affected by magnetism.

Avoid the following types of places:

- Places exposed to direct sunlight or strong artificial light
- Places subject to vibration
- Places exposed to strong electromagnetic or magnetic forces
- Places in which there is much electrical noise
- Places in which electrostatic noise tends to be generated
- Humid or poorly ventilated places
- Closed racks
- Extremely hot or cold places
- Places in which there is much dust or cigarette smoke
- Places exposed to soot, steam or heat (in kitchens, etc.)

**Do not place objects on top**

Do not place objects on top of the player.

**Do not obstruct the ventilation holes**

Do not use the player on a shaggy rug, bed, or sofa, and do not cover the player with a cloth, etc. Doing so will prevent heat dissipation and could lead to damage.

**Keep away from heat**

Do not place the player on top of an amplifier or other device generating heat. When installing in a rack, to avoid the heat generated by the amplifier and other devices, place it on a shelf below the amplifier whenever possible.

**Caution**

- When installing the player, leave a space of at least 10 cm between the player and the wall. Also, to facilitate heat radiation, leave some space between the player and other equipment. Failure to do so will cause heat to build up inside the player, leading to fire.

The player should be used within a surrounding environmental temperature of +5 to +35 °C and humidity of 85% or less (without obstructing the ventilation holes).

Do not install in poorly ventilated places, places where the humidity is too high or in places exposed to direct sunlight (or strong artificial light).
Moving the player

If you need to move this unit, first remove the disc if there’s one loaded, and close the disc tray. Next, press STANDBY/ON to switch the power to standby, checking that the POWER OFF indication on the front panel display goes off. Wait at least 10 seconds. Lastly, disconnect the power cord.

Never lift or move the unit during playback — discs rotate at a high speed and may be damaged.

Transporting the set

When transporting the set, always use the box in which it was originally packed, being sure not to drop it or subject it to vibrations or shocks.

Do not let the set be exposed to heat or water during transportation.

Be sure to remove any disc before transporting. Transporting the set with a disc in it could scratch the disk or damage the inside of the set. Also, disconnect cables. Transporting with cables connected could damage the terminals.

Turn the power off when not using the player

Depending on the conditions of the TV broadcast signals, striped patterns may appear on the screen when the TV is turned on while the player’s power is turned on. This is not a malfunction with the player or TV. If this happens, turn the player’s power off. In the same way, noise may be heard in the sound of a radio.

Condensation

If the player is moved suddenly from a cold place into a warm room (in winter, for example) or if the temperature in the room in which the player is installed rises suddenly due to a heater, etc., water droplets (condensation) may form inside (on operating parts and the lens). When condensation is present, the player will not operate properly and playback is not possible. Let the player stand at room temperature for 1 or 2 hours with the power turned on (the time depends on the extent of condensation). The water droplets will dissipate and playback will become possible.

Condensation can also occur in the summer if the player is exposed to the direct wind from an air-conditioner. If this happens, move the player to a different place.

Cleaning the player

Normally, wipe the player with a soft cloth. For tough dirt, apply some neutral detergent diluted in 5 to 6 parts water to a soft cloth, wiping out thoroughly, wipe off the dirt, then wipe again with a dry cloth.

Note that getting alcohol, thinner, benzene or insecticide on the player could cause the print and coating to peel off. Also, avoid leaving rubber or vinyl products in contact with the player for long periods of time, as this could damage the cabinet.

When using chemical-impregnated wipes, etc., read the wipe’s cautions carefully.

Unplug the power cord from the power outlet when cleaning the player.

Caution for when the unit is installed in a rack with a glass door

Do not press the OPEN/CLOSE on the remote control to open the disc tray while the glass door is closed. The door will hamper the movement of the disc tray, and the unit could be damaged.

Cleaning the pickup lens

The player’s lens should not become dirty in normal use, but if for some reason it should malfunction due to dust or dirt, consult your nearest Pioneer authorized service center. Although lens cleaners for players are commercially available, we advise against using them since some may damage the lens.

Handling discs

Do not use damaged (cracked or warped) discs.

Do not scratch the disc’s signal surface or let it get dirty.

Do not load more than one disc into the player at a time.

Do not glue paper or put stickers onto the disc, or use a pencil, ball-point pen or other sharp-tipped writing instrument. These could all damage the disc.

Storing discs

Always store discs in their cases, and place the cases vertically, avoiding places exposed to high temperature or humidity, direct sunlight or extremely low temperatures.

Be sure to read the cautions included with the disc.

Cleaning discs

It may not be possible to play the disc if there are fingerprints or dust on it. In this case, using a cleaning cloth, etc., to wipe the disc gently from the center toward the outer edge. Do not use a dirty cleaning cloth.

Do not use benzene, thinner or other volatile chemicals. Also do not use record spray or antistatic agents.

For tough dirt, apply some water to a soft cloth, wiping out thoroughly, wipe off the dirt, then wipe off the moisture with a dry cloth.
Specially shaped discs
Specially shaped discs (heart-shaped, hexagonal, etc.) cannot be used on this player. Never use such discs, as they will damage the player.

Condensation on discs
If the disc is moved suddenly from a cold place into a warm room (in winter, for example), water droplets (condensation) may form on the disc surface. Discs will not play properly if there is condensation on them. Carefully wipe off the water droplets from the disc surface before using the disc.

Extended use of recording discs
Playing a specific section of a recording disc (BD-R/RE, DVD-R/RW, etc.) continuously for extended periods of time may reduce performance of the recorded surface and make the disc unplayable. To avoid this, take measures so that no single specific section is played for extended periods of time, and replace the disc periodically.

Installation Procedure

1 Disconnect all cords connected to the set (including the power cord).
   Before starting, check that there is no disc in the set.

2 Turn the set upside-down, and remove the screws on the sides of the set.
   Remove the 2 screws from each side.

Caution
• When mounting, be sure to place the set on a stable surface, such as on a flat table, and raise the side of the set on which you are mounting the rack mount bracket by at least 10 mm. Mounting the rack mount bracket without raising the set at least 10 mm could damage the set.
• When mounting the rack mount bracket, be sure to use the screws removed from the player. Using other screws could damage the set or result in the set falling.

3 Mount the rack mount brackets.
Mount the rack mount brackets to the screw holes in the sides of the player using the screws removed from the player in step 2 (two screws on each side).

• The rack mount brackets are different for the left (L) and right (R) sides. Check the L and R marks on the rack mount brackets and be sure to mount them on the correct side.
• When mounting, first tighten the two screws removed from the player to the extent that the rack mount bracket moves when a gentle force is applied, check that the rack mount bracket is properly attached, then tighten the screws securely.
4 Mount the underplate. Insert the underplate between the left and right rack mount brackets, then mount with the included gray screw.

5 Mount the set on the rack. Check that the screws fastened in step 3 are securely tightened.

Caution
- The rack mount brackets included with the set allow the set to be mounted on universal pitch or wide pitch racks conforming to EIA 19" standards.
- Check that the rack has the appropriate strength for the set’s weight and usage environment before mounting.
- The * screws for fixing the rack mount brackets to the rack are not included. Choose screws with the appropriate strength and length for the set’s weight and usage environment to mount the set on the rack. To ensure that the set is fixed securely on the rack, be sure to fasten it with screws in all 4 rack mount screw holes.
- The mounting procedure should be performed by at least two people.
- Be very careful not to get your fingers, etc., caught between the rack mount brackets and the rack.

6 Check that the screws fastened in step 5 are securely tightened. Once this is checked, the procedure is finished.

Caution
- Pay attention to the following when removing the set from the rack and moving it:
  – Be sure to remove any disc from the set.
  – Turn the set’s power off, then disconnect connected cables, etc.
  – Be careful that the set does not fall when loosening the screws fastening it to the rack (the procedure should be performed by at least two people).
  – After removing the set from the rack, be sure to place it on a stable surface, such as on a flat table.
**Chapter 3**

**Connecting up**

Be sure to turn off the power and unplug the power cord from the power outlet whenever making or changing connections.

After connecting, make the settings at the **Setup Navigator** menu according to the type of cable connected (page 23).

Also refer to the operating instructions of the device being connected.

### Connecting using an HDMI cable

The audio and video signals can be transferred to HDMI-compatible devices as digital signals with no loss of sound or video quality.

**Note**

- Make the settings at the **Setup Navigator** menu according to connected HDMI-compatible device (page 23).
- The **HDMI indicator** on the player’s front panel lights when an HDMI-compatible device is connected to an HDMI OUT terminal (page 12).
- 1080p video signals may not be output, depending on the HDMI cable being used.

**About HDMI**

This player incorporates High-Definition Multimedia Interface (HDMI™) technology.

HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing, LLC.

The player supports Deep Color.

The conventional players can transmit a video signal with 8 bit color depth in the YCbCr 4:4:4 or RGB formats, the players supporting Deep Color can transmit a video signal with a color bit depth of greater than 8 bits per color component. Subtle color gradations can be reproduced when connected to a TV that supports Deep Color.

This product is compatible with “x.v.Color” that have the capability to realize a wide-gamut color space based on the xYCC specifications.

Playing video signals conforming to “xYCC” standards on this player when connected to an “x.v.Color”-compatible TV, etc., expands color reproduction capabilities, allowing natural colors to be reproduced more faithfully than ever.

“x.v.Color” is a promotion name given to the products that have the capability to realize a wide-gamut color space based on the international standard specifications defined as xYCC.

**x.v.Color**

“x.v.Color” and **x.v.Color** are trademarks of Sony Corporation.

- Audio signals that can be transferred with the player’s HDMI OUT terminal
  - Dolby TrueHD
  - Dolby Digital Plus
  - Dolby Digital
  - DTS-HD Master Audio
  - DTS-HD High Resolution Audio
  - DTS Digital Surround
  - MPEG-2 AAC
  - Linear PCM

  Linear PCM audio signals meeting the following conditions can be output:
  - Sampling frequency: 32 kHz to 192 kHz
  - Number of channels: Up to 8 (up to 6 for a 192 kHz sampling frequency)

  For details, see “About the audio output settings” on page 52.

- About the HDMI High Speed Transmission
  
  This player outputs 1080/60p, 1080/50p and Deep Color video signals. If your TV supports 1080/60p, 1080/50p or Deep Color signals, use a High Speed HDMI™ cable in order to take advantage of the maximum performance the player and TV can offer. Also set **HDMI High Speed Transmission to On** (page 44).

  High Speed HDMI™ cables are tested to carry signals up to 1080p, 1080/60i, 1080/60p, 720/60p, 1080/24p, 1080/50i, 1080/50p and 720/50p video signals that are capable of Deep Color can also be carried.

  **Note**

  - Set **HDMI High Speed Transmission** to **Off** when using an HDMI cable other than a High Speed HDMI™ cable (a Standard HDMI™ cable).
When the language info panel TV is on, you can have the player's on-screen display language change automatically to that of the Flat Panel TV. This function is available only when playback is stopped and the menu screen is not displayed.

Caution
- Also refer to the operating instructions of the Flat Panel TV and AV system (AV receiver or amplifier, etc.).

Note
- CONTROL on the player's front panel display lights when the KURO LINK function is activated (page 13).

To use the KURO LINK function
- The KURO LINK function only works when outputting video signals from the HDMI OUT terminal.
- The KURO LINK function works when KURO LINK is set to On on the player (page 44).
- The KURO LINK function operates when KURO LINK is set to On for all devices connected with HDMI cables. Once connections and the settings of all the devices are finished, be sure to check that the player's picture is output to the Flat Panel TV. (Also check after changing the connected devices and reconnecting HDMI cables.) The KURO LINK function may not operate properly if the player's picture is not properly output to the Flat Panel TV.
- Use High Speed HDMI™ cables when using the KURO LINK function. The KURO LINK function may not operate properly if other HDMI cables are used.
- For some models, the KURO LINK function may be referred to as "HDMI Control".
- The Simultaneous power function is activated when the player is set as follows (page 44): Display Power On: On Display Power Off: On

About PQLS function
The PQLS (Precision Quartz Lock System) is a transfer control technology using the KURO LINK function. The player's output signals are controlled from the AV receiver or amplifier to achieve high quality sound playback using the quartz oscillator of AV receiver or amplifier. This eliminates the influence of the jitter generated upon transfer which can adversely affect the sound quality.

About KURO LINK function
The functions listed below work when a Pioneer KURO LINK-compatible Flat Panel TV or AV system (AV receiver or amplifier, etc.) is connected to the player using an HDMI cable.

Functions operated from the TV
Such player operations as starting and stopping playback and displaying the menus can be performed from the Flat Panel TV.

Auto-select function
The input switches automatically on the Flat Panel TV and AV system (AV receiver or amplifier, etc.) when playback is started on the player or the Home Menu or Home Media Gallery is displayed. When the input is switched, the playback picture, the Home Menu or Home Media Gallery appears on the Flat Panel TV.

Simultaneous power function
When playback on the player is started or the Home Menu or Home Media Gallery is displayed, if the Flat Panel TV's power was off, its power turns on automatically. When the Flat Panel TV's power is turned off, the player's power automatically turns off.

Unified language function
When the language information from a connected Flat Panel TV is received, you can have the player's on-screen display language change automatically to that of the Flat Panel TV. This function is available only when playback is stopped and the menu screen is not displayed.

- The following restrictions apply when HDMI High Speed Transmission is set to Off.
  - Deep Color signals are not output.
  - If the output video resolution is set to Auto, the signals are output with a resolution of 1080/60i or 1080/50i when TV's preferred resolution is 1080/60p or 1080/50p.
  - When the output video resolution is set to 480i/576i or 480p/576p, Dolby TrueHD and DTS-HD Master Audio audio signals are output as Dolby Digital, DTS Digital Surround or linear PCM signals. 96 kHz or 192 kHz multi-channel audio signals are output as linear PCM 2-channel audio signals (page 52).
- When an HDMI cable with a built-in equalizer is connected, it may not operate properly.

- It is not possible to connect DVI devices (computer displays, for example) that are not compatible with HDCP. HDCP is a specification to protect audiovisual content across the DVI/HDMI interface.
- No audio signals are output. Connect using an audio cable, etc.
- This player is designed for connection with HDMI-compatible devices. When connected to a DVI device, it may not operate properly depending on the DVI device.

- It is not possible to connect DVI devices (computer displays, for example) that are not compatible with HDCP. HDCP is a specification to protect audiovisual content across the DVI/HDMI interface.
- No audio signals are output. Connect using an audio cable, etc.
- This player is designed for connection with HDMI-compatible devices. When connected to a DVI device, it may not operate properly depending on the DVI device.

Caution
- Also refer to the operating instructions of the Flat Panel TV and AV system (AV receiver or amplifier, etc.).

Note
- CONTROL on the player’s front panel display lights when the KURO LINK function is activated (page 13).

About PQLS function
The PQLS (Precision Quartz Lock System) is a transfer control technology using the KURO LINK function. The player’s output signals are controlled from the AV receiver or amplifier to achieve high quality sound playback using the quartz oscillator of AV receiver or amplifier. This eliminates the influence of the jitter generated upon transfer which can adversely affect the sound quality.

- The player supports the “PQLS 2ch Audio” function that is only activated when playing audio CDs (CD-DAAs), and the “PQLS Multi Surround” function that is activated when playing all discs (BDs, DVDs, etc.) with audio output in linear PCM.
- The “PQLS 2ch Audio” function is only activated when a Pioneer AV receiver or amplifier compatible with the “PQLS 2ch Audio” function is connected directly to the player’s HDMI OUT terminal using an HDMI cable, and when the player is set as follows (page 44): KURO LINK: On PQLS: Auto
- The “PQLS Multi Surround” function is only activated when a Pioneer AV receiver or amplifier compatible with the “PQLS Multi Surround” function is connected directly to the player’s HDMI OUT
Connecting a TV

See Connecting an AV receiver or amplifier below to connect an AV receiver or amplifier using an HDMI cable.

Caution
- Hold the plug when connecting and disconnecting the cable.
- Placing a load on the plug could result in faulty contact and no video signals being output.

About connections to components of other makes supporting the KURO LINK function
The functions listed below work when a TV or AV system (AV receiver or amplifier, etc.) supporting the player’s KURO LINK function is connected to the player using an HDMI cable. (Depending on your TV or AV system (AV receiver or amplifier, etc.), it could happen that not all of the functions will work.)
- Functions operated from the TV
- Auto-select function
- Simultaneous power function
- Unified language function

Please see the Pioneer website for the latest information on brands and model numbers of other brands that support the KURO LINK function.

Connecting an AV receiver or amplifier
Connect to an AV receiver or amplifier in order to enjoy the surround sound of Dolby TrueHD, Dolby Digital Plus, Dolby Digital, DTS-HD Master Audio, DTS-HD High Resolution Audio or DTS Digital Surround. For instructions on connecting the TV and speakers to the AV receiver or amplifier, refer to the operating instructions of AV receiver or amplifier.

Caution
- Hold the plug when connecting and disconnecting the cable.
- Placing a load on the plug could result in faulty contact and no video signals being output.

About connections to components

Connecting a TV

Connecting an AV receiver or amplifier

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About connections to components

Connecting a TV

Connecting an AV receiver or amplifier

Caution
- Hold the plug when connecting and disconnecting the cable.
- Placing a load on the plug could result in faulty contact and no video signals being output.

About connections to components
Connecting video and audio cables

**Note**
- Make the settings in the Setup Navigator menu according to the type of cable connected (page 23).
- To output video signals from this player, connect using one of the following (not including when connected using an HDMI cable): a component video cable or a video cable.

Connecting a TV using a video/audio cable

**Caution**
- Connect the player’s video output directly to your TV.
This player supports analog copy protection technology. Therefore the picture may not be displayed properly if connected to a TV via a DVD recorder/video deck or when playing the player’s output material that is recorded by a DVD recorder/video deck. Furthermore, the picture may not be displayed properly due to the copy protection when the player is connected to a TV with a built-in video deck. For details, contact the manufacturer of your TV.

To multi-channel audio input terminals

**Note**
- It is also possible to connect to an AV receiver or amplifier. Connect the audio signals using audio cables (7.1 channels) or an optical digital audio cable (below).
- A component cable or three commercially available video cables can be used instead of the video cable (yellow plug) of the included video/audio cable for connection.

Connecting an AV receiver or amplifier using audio cables

**When connecting to a 7.1-channel compatible AV receiver or amplifier**
- Connect using 4 audio cables (diagram below).

**When connecting to a 5.1-channel compatible AV receiver or amplifier**
- Connect using 3 audio cables (do not connect to the surround back left and right terminals).
  - To switch the video from the AV receiver or amplifier, also connect the video output terminals.
  - After connecting, set Audio Output Mode to Multi-channel (page 43).

**Note**
- To connect to the 2-channel audio input terminals on a TV, etc., connect to FRONT (L/R).

Connecting components to the USB port

The data downloaded with the BD-LIVE function and the data used with the BONUSVIEW function when playing BD-ROMs can be stored on a device connected to the USB port (external storage).

About USB (external storage) devices

The USB (external storage) devices that can be connected to the player are as shown below.

- USB 2.0-compatible memory devices or hard disks
- FAT16 or FAT32 file system, minimum 1 GB capacity (2 GB or more recommended)
Network connection

BD-LIVE functions such as downloading movie trailers or additional audio and subtitle languages and playing on-line games can be enjoyed over the Internet. The player’s software can also be updated over the Internet (page 51). Connect an Ethernet hub (or a router with hub functionality) that is connected to the Internet to the player. Be sure to use a 100BASE-TX compatible Ethernet hub or router.

Connecting via an Ethernet hub

The player can be connected to an Ethernet hub using a LAN cable.

Note

- LAN on the player’s front panel display lights when there is an active local area network (LAN) connection (page 13).
- If there is an available DHCP server in your local area network, the IP address is obtained automatically. Otherwise, set IP address manually (page 48).
- For some Internet service providers, you may have to set the individual network configuration manually. In this case, see page 48.
- Pioneer is not responsible for any malfunction of the player due to communication error/malfunctions associated with your network connection and/or your connected equipment. Please contact your Internet service provider or network device manufacturer.

Connecting the power cord

Connect the power cord after all the connections between devices have been completed.

Note

- The EXT indicator on the player’s front panel display lights when data can be stored on the external storage (page 13).
- Devices may not work if connected to the USB port via a memory card reader or USB hub.
- Use a USB cable with a length of 2 meters or less.
Chapter 4
Getting Started

Making settings using the Setup Navigator menu

Be sure to perform these settings when using the player for the first time.

Caution

- Before turning on the power, check that the connections between the player and other devices are correct. Also, turn on the power of the devices connected to the player before turning on the player’s power.
- The screen in step 11 and test tones are output simultaneously according to the settings in steps 4 to 7. Lower the volume of the devices connected with the player.

Note

- By factory default, the KURO LINK function is not activated. To activate the KURO LINK function using Setup Navigator, KURO LINK is set to On on the player (page 44), and if a Pioneer KURO LINK-compatible Flat Panel TV is connected, turn on the TV’s KURO LINK function.
- When a Pioneer Flat Panel TV or front projector compatible with the KURO LINK function is connected to the player using an HDMI cable, the player is automatically set to the optimum picture quality for the connected device.

1 Turn on the TV’s power and switch the input. See the TV’s operating instructions for instructions on operating the TV.

2 Turn on the player’s power.

Press STANDBY/ON. Check that the Setup Navigator menu is displayed.

If the Setup Navigator menu is not displayed

- Press HOME MENU to display the Home Menu, select Initial Setup → Setup Navigator → Start, then press ENTER.

3 Select the OSD language.

Use ↑ / ↓ to select, then press ENTER.

4 Select and set the video and audio output terminals.

Select the actually connected video and audio output terminals.

Use ↑ / ↓ / ← / → to select, then press ENTER.

<table>
<thead>
<tr>
<th>Setting item</th>
<th>Output terminal name</th>
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<td>VIDEO</td>
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<tr>
<td>DIGITAL AUDIO</td>
<td>DIGITAL OUT</td>
</tr>
<tr>
<td>ANALOG AUDIO</td>
<td>AUDIO OUT</td>
</tr>
</tbody>
</table>

Caution

- When HDMI is selected for Video, no video signals are output from the COMPONENT VIDEO or VIDEO output terminals.
- When COMPONENT VIDEO or VIDEO is selected at Video, no video signals are output from the HDMI OUT terminal.
- The video and audio signals output from the set output terminals are output synchronously (lip synchronization).
- When COMPONENT VIDEO or VIDEO is selected at Video, no sound is output if HDMI is selected at Audio. Follow the procedure below to redo the connections, then select the proper connection at the setup screen.

When a Pioneer Flat Panel TV that is compatible with KURO LINK is connected to this player’s HDMI OUT terminal, language settings are imported from the Pioneer Flat Panel TV’s language settings before Setup Navigator begins.

Audio, subtitle and BDMV/DVD-Video menu language will also be set.

If the Setup Navigator menu is not displayed

- Press HOME MENU to display the Home Menu, select Initial Setup → Setup Navigator → Start, then press ENTER.
– When connecting using component video cables or a video cable to watch the picture, connect to an AV receiver or amplifier, or a TV using either analog audio cables (7.1 channels or 2 channels), an optical digital audio cable (page 21).

– To listen to audio with the player connected to an AV receiver or amplifier with an HDMI cable, connect the TV to the AV receiver or amplifier using an HDMI cable (page 20).

• When HDMI or DIGITAL AUDIO is selected at Audio, linear PCM audio signals (2 channels) are output from all terminals other than the ones selected at Audio.

• When ANALOG AUDIO is selected at Audio, no audio signals are output from the HDMI OUT or DIGITAL OUT terminals.

For steps 5 to 8, the step to which you should proceed depends on the combination of the Video and Audio settings.

5 Select and set the HDMI High Speed Transmission setting for the HDMI OUT terminal.

Use to select, then press ENTER.

When HDMI High Speed Transmission for the HDMI OUT terminal is set to On, use a High Speed HDMI™ cable. The picture and sound may not be output properly if any other HDMI cable (for example a standard HDMI™ cable) or an HDMI cable with built-in equalizer is used.

6 Select the output video resolution from the COMPONENT VIDEO output terminals.

Use to select, then press ENTER.

For details on the resolution settings, see Switching the output video resolution on page 27.

7 Select the aspect ratio of your TV.

Use to select, then press ENTER.

8 Select the PQLS.

Use to select, then press ENTER.

Note

• Only when a Pioneer AV receiver or amplifier is connected, PQLS Screen appears.

• The PQLS function works when linear PCM audio signals are output. Therefore the linear PCM audio signals obtained by decoding all audio signals are output from HDMI OUT terminal. For details, see About the audio output settings on page 52.

• When Use is select, the player is set to the settings below.

  HDMI Audio Out: PCM
  KURO LINK: On
  PQLS: Auto

• For details on the PQLS function, About PQLS function on page 19.

9 Check the settings.

Select Proceed, then press ENTER.

10 Output test tones.

Use to select Yes, then press ENTER.

11 Finish the Setup Navigator menu.

Use to select Finish, then press ENTER.

To redo the settings from the start, select Go Back.

Depending on the output terminal setting of step 4 or the HDMI cable being used, it may happen that no picture and/or sound is output. If this happens, the setup returns to step 4 if there is no operation for over 30 seconds. Once the setup returns to step 4, redo the settings according to the connected devices and the HDMI cable being used.

12 Checking the picture quality settings or setting the picture quality.

If a Pioneer Flat Panel TV or projector is connected to the player and HDMI is selected for Video in step 4, the player sets the picture quality automatically. The automatic picture quality setting screen appears. Press ENTER.

When the automatic picture quality setting screen does not appear, the manual picture quality setting screen appears. Use to select the connected component, then press ENTER.

Operating the TV with the player’s remote control

When the manufacturer code for your brand of TV is set on the player’s remote control, the TV can be operated using the player’s remote control.

Caution

• For some models it may not be possible to operate the TV with the player’s remote control, even for TVs of brands listed on the manufacturer code list.

• The settings may be restored to the factory defaults when batteries are replaced. If this happens, set up the settings again.

1 Input the 2-digit manufacturer code.

Press the number buttons (0 to 9) to input the code while pressing TV CONTROL .
**Note**
- The factory setting is 00 (PIONEER).
- If you make a mistake when inputting the code, release TV CONTROL and then start over from the beginning.
- When there are multiple codes for a manufacturer, try inputting them in the indicated order until the TV can be operated.

2 Check that the TV can be operated.
Operate the TV using TV CONTROL:
- Press to turn the TV’s power on and off.
- INPUT SELECT — Press to switch the TV’s input.
- CH +/- — Press to select the TV channel.
- VOL +/- — Press to adjust the volume.

### TV Preset code list

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<th>Manufacturer</th>
<th>Code(s)</th>
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</table>
Using the TOOLS menu

Various functions can be called out according to the player’s operating status.

1 Display the TOOLS menu.
   Press \TOOLS.

2 Select and set the item.
   Use or \ to select, then press ENTER.

   Note
   • Items that cannot be changed are displayed in gray. The items that can be selected depend on the player’s status.

   To change the setting of the selected item
   Use \ to change.

   To close the TOOLS menu
   Press \TOOLS or \RETURN.

   TOOLS menu item list

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play from Beginning</td>
<td>Play the selected title, track or file from the start.</td>
</tr>
<tr>
<td>Slideshow</td>
<td>Play a slideshow of the image files on the selected disc or folder.</td>
</tr>
<tr>
<td>Play Mode</td>
<td>Display the Play Mode screen (page 33).</td>
</tr>
<tr>
<td>Video Adjust</td>
<td>Display the picture quality adjustment screen (page 39).</td>
</tr>
<tr>
<td>Secondary Video</td>
<td>Switch the BD-ROM’s secondary video (Picture-in-Picture) (page 31).</td>
</tr>
<tr>
<td>Subtitle</td>
<td>Switch the subtitles (page 30).</td>
</tr>
<tr>
<td>Angle</td>
<td>Switch the BD-ROM/DVD-Video disc’s camera angles (page 30).</td>
</tr>
<tr>
<td>Rotate</td>
<td>Rotate the image while playing a slideshow (page 37).</td>
</tr>
<tr>
<td>Audio Adjust</td>
<td>Display the audio adjustment menu (page 40).</td>
</tr>
<tr>
<td>Audio</td>
<td>Switch the audio (page 31).</td>
</tr>
<tr>
<td>Secondary Audio</td>
<td>Switch the BD-ROM’s secondary audio (page 31).</td>
</tr>
</tbody>
</table>

Switching the video output terminal to be viewed

Use the procedure below to switch the video output signal to be viewed between the HDMI OUT terminal and an analog output terminal (COMPONENT VIDEO or VIDEO output terminals).

   Caution
   • The picture may not be displayed for a while when the video output terminal is switched.
   • When the HDMI OUT terminal is selected, no video signals are output from the other video output terminals.
   • When a video output terminal other than the HDMI OUT terminal is selected, no audio and video signals are output from the HDMI OUT terminal.

   Press VIDEO SELECT.
   • The current video output terminal is displayed on the TV screen and on the player’s front panel display. To switch the video output terminals, press VIDEO SELECT again or press \\ again.

Example:

   Output video resolution setting of selected video output terminal

   Video Output Terminal
   HDMI [Source Direct]

   • The video output terminal setting can also be switched by pressing \\ or \ on the player’s front panel.
Switching the output video resolution

Use the procedure below to switch the output video resolution from the various video output terminals.

⚠️ Caution
• On some devices (TV, AV receiver or amplifier, etc.), the video or audio may not be output properly when the resolution is switched. If this happens, use OUTPUT RESOLUTION to set a resolution at which the video and audio are properly output.
• When video signals are being output with a resolution of 1080/60i, 1080/50i, 720/50p, 1080/24p, 1080/50i, 720/60p or 720/50p from the HDMI OUT terminal or COMPONENT VIDEO output terminals, the picture may be output with an aspect ratio of 16:9, even if the TV Aspect Ratio is set to 4:3 (Standard).
• The picture may not be displayed for a while when the resolution is switched.

▶ Press OUTPUT RESOLUTION.
• The current output video resolution setting is displayed on the TV screen and on the player’s front panel display.
To switch the output video resolution, press OUTPUT RESOLUTION again or press ↑/↓.
• The output video resolution depends on the video output terminal (page 28).

Example:

<table>
<thead>
<tr>
<th>Output Video Resolution</th>
<th>Source</th>
<th>Current Output</th>
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<tbody>
<tr>
<td>AUTO</td>
<td>1080/60i</td>
<td></td>
</tr>
<tr>
<td>Down</td>
<td>1080/50i</td>
<td></td>
</tr>
</tbody>
</table>

The output video resolution setting can also be switched by selecting Output Video Resolution from the TOOLS menu.

❖ About the frame/field frequency and NTSC/PAL TV systems

By factory default setting, the frame/field frequency is set for an output of 60 Hz, and the TV system format for the video signal output from the VIDEO output terminals depends on the NTSC on PAL TV setting. When sources with a frame/field frequency of 50 Hz are played, the output frame/field frequency automatically switches to 50 Hz, and the video signal output from the VIDEO output terminals is set to be output in the PAL TV system format.

When playback is stopped, the frame/field frequency and TV system settings remain at the settings last used. The frame/field frequency and TV system settings do not change even when the power is turned off. They only switch when a video material with a different frame/field frequency is played.

If the picture is not displayed on the TV when a source with a different frame/field frequency is played, use the procedure below to switch the frame/field frequency and TV system settings for the signal output from the player.
Eject the disc, then press the OPEN/CLOSE button on the front panel while pressing the button to switch to a different frame/field frequency. The frame/field frequency switches between 50 Hz and 60 Hz each time this operation is performed. The indicator for the frame frequency’s current setting lights on the front panel display (page 13).

❖ About Film material

The film material is a video signal with a frame rate of 24 frames/second. For example, these materials include 1080/24p, 720/24p, etc.

❖ To output film material

To output 1080/24p film material from HDMI OUT terminal, set the output video resolution to either Auto or Source Direct.

⚠️ Caution
• 1080/24p signals can only be output from the HDMI OUT terminal. They cannot be output from other video terminals.
• When Auto is selected, the picture is output at 60 frames/second if your TV is not compatible with 1080/24p signals.
• When Source Direct is selected, the signals are output as such, even if your TV is not compatible with 1080/24p signals. If the picture is not displayed properly, use OUTPUT RESOLUTION to set an output video resolution at which the video and audio signals are properly output.
• Even if Auto or Source Direct is selected, 720/24p video signals are output at 60 frames/second.
About the output video resolution

The output video resolution setting and the resolution of the picture that is actually output differ for the different terminals. See the table below. The table below shows the output video resolution for the different terminals when the frame/field frequency of the playback source is 50 Hz on the upper line, the resolutions when the source’s frame/field frequency is 60 Hz and 24 Hz on the lower line.

<table>
<thead>
<tr>
<th>Output video resolution setting</th>
<th>HDMI OUT terminal</th>
<th>COMPONENT VIDEO/VIDEO output terminals</th>
<th>HDMI OUT terminal</th>
<th>COMPONENT VIDEO output terminals</th>
<th>VIDEO output terminal</th>
<th>(TV system)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto1</td>
<td>Resolution preferred by TV4,5,6</td>
<td>No video signals are output</td>
<td>No video signals are output</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>576i or 480i</td>
<td>576/50i</td>
<td></td>
<td>480/60i</td>
<td>576/50i</td>
<td>576/50i</td>
<td>PAL</td>
</tr>
<tr>
<td>480/60i</td>
<td>576/50i</td>
<td></td>
<td>480/60i</td>
<td>576/50i</td>
<td>480/60i</td>
<td>*7</td>
</tr>
<tr>
<td>576p or 480p</td>
<td>576/50p</td>
<td></td>
<td>480/60p</td>
<td>576/50p</td>
<td>576/50i</td>
<td>PAL</td>
</tr>
<tr>
<td>1080i</td>
<td>1080/50i</td>
<td></td>
<td>1080/60i</td>
<td>576/50i</td>
<td>480/60i</td>
<td>*7</td>
</tr>
<tr>
<td>Source Direct</td>
<td>Resolution recorded on disc5,12,13</td>
<td>Resolution recorded on disc9,12,13,14</td>
<td>1080/50p10,11</td>
<td>1080/50p10,11</td>
<td>576/50i</td>
<td>PAL</td>
</tr>
<tr>
<td></td>
<td>1080/60p10,11</td>
<td></td>
<td></td>
<td>480/60i</td>
<td></td>
<td>*7</td>
</tr>
</tbody>
</table>

1. The video output terminal set at Video in the Setup Navigator (page 23) or the video output terminal selected with VIDEO SELECT (page 26).
2. Depending on the BD, the pictures may not be output.
3. This cannot be selected when the video output terminal is set to COMPONENT VIDEO/VIDEO.
4. The pictures are output with the preferred output resolution of the device (TV, AV receiver or amplifier, etc.) connected to HDMI OUT terminal.
5. For details on the output of film material (1080/24p or 720/24p video signals), see To output film material on page 27.
6. Sources with a resolution of 720/60p, 720/50p and 720/24p are output at 1080/60i or 1080/50i even if the TV’s recommended resolution is 1080/60p or 1080/50p.
7. Depends on the NTSC on PAL TV setting (page 43).
8. DVD-Video or DVD+R/-RW (VR format) may be output at 480/60p.
9. BD-ROM or BD-R/-RE may be output at 480/60p.
10. Depending on the connected HDMI cable, the video signals may not be output.
11. Sources with a resolution of 720/60p, 720/50p and 720/24p are output at 1080/60i or 1080/50i.
12. Depending on the connected TV, the video signals may not be output.
13. 720/24p film material is output at 720/60p.
14. 1080/24p film material is output at 1080/60i.
Chapter 5
Playback

Playing discs or files

This section describes the player’s main operations. For the types of discs that can be played, see Playable discs on page 8. For the types of files that can be played, see Playable files on page 10. Image and audio files recorded on discs are played with the Home Media Gallery (page 36).

1 Press STANDBY/ON to turn on the power. Turn the TV’s power on and switch its input beforehand.

2 Press OPEN/CLOSE to open the disc tray and load the disc.

Note
- Load the disc with the printed side facing up.
- Several dozen seconds are required to read the disc. Once reading is completed, the type of disc is displayed on the player’s front panel display.

3 Press PLAY to play the disc.
- on the player’s front panel display lights during playback.
  - To pause, press PAUSE during playback. on the player’s front panel display lights when playback is paused.
  - To stop, press STOP during playback.

Note
- Some discs start playing automatically when the disc tray is closed.
- DVD-Video discs have parental lock features. Input the password registered in the player’s settings to unlock the parental lock. For details, see page 50.
- For some BD-R/-RE, playback protection is set for the disc or titles. Input the code number set for the disc to unlock the protection.
- Check Troubleshooting on page 67 if video or audio signals are not being output properly.

Note
- Image and audio files played on the Home Media Gallery are not displayed on the TV.

If the disc menu is displayed

For some discs, the disc menu is displayed automatically when playback starts. The contents of the disc menu and the way to operate differ from disc to disc.

Resuming playback from where it was stopped (resume playback function)

- When STOP is pressed during playback, the point at which the disc stopped is stored in the memory. When PLAY is pressed, playback resumes from that point.
- For audio CDs and audio files, playback starts from the beginning of the track/file that was playing.
- If the stop mode was set while playing a slideshow of image files, playback starts from the image file last displayed.
- To cancel the resume playback function, press STOP while playback is stopped.

Note
- The resume playback function is canceled automatically in the following cases:
  - When the disc tray is opened.
  - When the file list window is switched.
  - When the power is turned off. (For BDs and DVDs this does not cancel the resume playback function.)
- The resume playback function cannot be used for some discs.
Forward and reverse scanning

- During playback, press ◄◄ or ►►.
  - The scanning speed switches each time the button is pressed. The speed steps depend on the disc or file (the speed is displayed on the TV screen).
  - Forward or reverse scanning is also possible by holding the button down. Normal playback resumes when the button is released.

- **To resume normal playback**
  - Press ► PLAY.

Playing specific titles, chapters or tracks

- Input the number of the title, chapter or track you want to play.
  - Use the number buttons (0 to 9) to input the number, then press ENTER.
  - Press CLEAR to clear the values you have input.

Skipping content

- Press ◄◄ PREV or ►► NEXT.
  - When ►► NEXT is pressed, the playback skips ahead to the beginning of the next title/chapter/track/file.
  - When ◄◄ PREV is pressed, the playback skips back to the beginning of the currently playing title/chapter/track/file. Press twice to skip back to the beginning of the previous title/chapter/track/file.

Playing in slow motion

- While playback is paused, press ◄◄◄ or ►►►.
  - The speed switches each time the button is pressed (the speed is displayed on the TV screen). The speed steps depend on the disc or file.

- **To resume normal playback**
  - Press ► PLAY.

Step forward and step reverse

- While playback is paused, press ◄◄◄ or ►►►.
  - The picture moves a step forward or reverse each time the button is pressed.

- **To resume normal playback**
  - Press ► PLAY.

Switching the camera angles

For BD-ROM and DVD-Video discs on which multiple angles are recorded, the angles can be switched during playback.

- During playback, press ANGLE.
  - The current angle and total number of recorded angles are displayed on the TV screen and on the player’s front panel display.
  - To switch the angles, press ANGLE again or press ↑/↓.

Example:

<table>
<thead>
<tr>
<th>Angle</th>
<th>1/4</th>
</tr>
</thead>
</table>

- The angles can also be switched by selecting Angle from the TOOLS menu.
- If the angles are not switched when ANGLE is pressed, switch them from the menu screen.

Switching the subtitles

For discs on which multiple subtitles are recorded, the subtitles can be switched during playback.

⚠️ **Caution**

- The subtitles cannot be switched for discs recorded on a DVD or BD recorder. Also refer to the operating instructions of the device used for recording.

- **During playback, press SUBTITLE.**
  - The current subtitle and total number of recorded subtitles are displayed on the TV screen and on the player’s front panel display.
  - To switch the subtitle, press SUBTITLE again or press ↑/↓.

Example:

<table>
<thead>
<tr>
<th>Subtitle</th>
<th>1/2 English</th>
</tr>
</thead>
</table>

- The subtitles can also be switched by selecting Subtitle from the TOOLS menu.
- If the subtitles are not switched when SUBTITLE is pressed, switch them from the menu screen.

- **Turning the subtitles off**
  - Press SUBTITLE, then press CLEAR.
Switching the audio and secondary audio

For discs or files on which multiple audio streams/channels are recorded, audio streams/channels can be switched during playback. Also use this procedure to switch the secondary audio for BD-ROMs on which secondary audio is recorded.

- During playback, press AUDIO.
  - The current audio and total number of recorded audio streams are displayed on the TV screen and on the player’s front panel display.
  - To switch the audio, press AUDIO again or press ↑/↓.
  - To switch the secondary audio, press SECONDARY AUDIO.

Example: Current audio/Total number of recorded audio streams

- The audio/secondary audio can also be switched by selecting Audio or Secondary Audio from the TOOLS menu.
- If the audio/secondary audio is not switched when AUDIO/SECONDARY AUDIO is pressed, switch it from the menu screen.

Turning the Secondary Audio off
- Press SECONDARY AUDIO, then press CLEAR.

Switching the secondary video

Use the procedure below to switch the secondary video (Picture-in-Picture) recorded on the BD-ROM.

- During playback, press SECONDARY VIDEO.
  - The current secondary video and total number of recorded secondary video streams are displayed on the TV screen and on the player’s front panel display.
  - To switch the secondary video, press SECONDARY VIDEO again or press ↑/↓.

Example: Current secondary video/Total number of recorded secondary video streams

- The secondary video can also be switched by selecting Secondary Video from the TOOLS menu.
- If the secondary video is not switched when SECONDARY VIDEO is pressed, switch it from the menu screen.

Displaying the disc information

- Press DISPLAY.
  The disc information appears on the TV screen. The information switches each time the button is pressed. The information display differs during playback and when playback is stopped.

- Turning the Secondary Video off
- Press SECONDARY VIDEO, then press CLEAR.
## Playback functions

The functions that can be used differ according to the type of disc and file. In some cases, some of the functions cannot be used. Check the usable functions on the table below.

<table>
<thead>
<tr>
<th>Function</th>
<th>Disc/file type</th>
<th>BD-ROM</th>
<th>BD-R/-RE</th>
<th>DVD Video</th>
<th>DVD-R/-RW (VR format)</th>
<th>AVCHD</th>
<th>Image file</th>
<th>Audio file</th>
<th>Audio CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward and reverse scanning</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Playing specific titles, chapters or tracks</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Skipping content</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Playing in slow motion</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Step forward and step reverse</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Switching the camera angles</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Switching the subtitles</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Switching the audio</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Switching the secondary audio</td>
<td>✓</td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Switching the secondary video</td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

1. Some functions may not work for some discs or files, even if indicated (✓) on the table.
2. For some discs, normal playback resumes automatically when the chapter switches.
3. No sound is produced during forward and reverse scanning.
4. Sound is produced during forward and reverse scanning.
5. No sound is output during slow motion playback.
6. It is not possible to switch the speed during reverse slow motion playback.
7. Angle/Secondary Indicator is displayed for scenes at which multiple angles are recorded if Angle/Secondary Indicator is set to On (page 45).
8. The types of recorded subtitle or the total number of subtitles recorded on the disc being displayed.
9. The types of recorded secondary audio streams depend on the disc and file.
10. Some discs do not include secondary audio.
11. Secondary video is displayed for scenes at which secondary video is recorded if Angle/Secondary Indicator is set to On (page 45).
12. Some discs do not include secondary video.
Using the Play Mode functions

Playing from a specific time (Time Search)

1. During playback, press PLAY MODE to display the Play Mode screen.
   The Play Mode screen can also be displayed by selecting Play Mode from the TOOLS menu.
2. Select Time Search.
   Use \(\text{\uparrow}/\text{\downarrow}\) to select, then press ENTER.
3. Input the time.
   Use the number buttons (0 to 9) or \(\text{\uparrow}/\text{\downarrow}\) to input the time.
   Use \(\text{\leftarrow}/\text{\rightarrow}\) to move the cursor.
   - To play from 45 minutes, input 0, 0, 4, 5, 0 and 0, then press ENTER.
   - To play from 1 hour 20 minutes, input 0, 1, 2, 0, 0 and 0, then press ENTER.
   - Press CLEAR to clear the values you have input.

4. Starting playback from the specified time.
   Use \(\text{\leftarrow}/\text{\rightarrow}\) to select Search, then press ENTER.

Closing the Play Mode screen
Press PLAY MODE or \(\text{\rightleftharpoons}\) HOME MENU.

Playing a specific title, chapter or track (Search)

1. Press PLAY MODE to display the Play Mode screen.
   The Play Mode screen can also be displayed by selecting Play Mode from the TOOLS menu.
2. Select the type of search.
   Use \(\text{\uparrow}/\text{\downarrow}\) to select, then press ENTER.
   See the table on page 35 for the search types.
3. Input the number.
   Use the number buttons (0 to 9) or \(\text{\uparrow}/\text{\downarrow}\) to input the number.
   Use \(\text{\leftarrow}/\text{\rightarrow}\) to move the cursor.
   - To search for title 32, input 0, 3 and 2, then press ENTER.
   - Press CLEAR to clear the values you have input.
4. Starting playback from the specified title, chapter or track.
   Use \(\text{\leftarrow}/\text{\rightarrow}\) to select Search, then press ENTER.

Playing a specific section within a title or track repeatedly (A-B Repeat)

Use this procedure to play a specific section within a title or track repeatedly.

1. During playback, press PLAY MODE to display the Play Mode screen.
   The Play Mode screen can also be displayed by selecting Play Mode from the TOOLS menu.
2. Select A-B Repeat.
   Use \(\text{\uparrow}/\text{\downarrow}\) to select, then press ENTER.
3. Select the starting point for A-B Repeat.
   Use \(\text{\leftarrow}/\text{\rightarrow}\) to select A (Start), then press ENTER.
4. Select the end point for A-B Repeat.
   Use \(\text{\leftarrow}/\text{\rightarrow}\) to select B (End), then press ENTER.
   A-B Repeat playback starts.

To cancel A-B Repeat play
- Select Off from the Repeat/Random screen, then press ENTER.
- During playback, press \(\text{STOP} \) or CLEAR.
Note

- A-B Repeat play is canceled in the following cases:
  - When the angle is switched (for BD-ROM and DVD-Video discs only).
  - When you search outside the repeat range.
  - When you start other Repeat Play or Random Play.

Playing repeatedly (Repeat Play)

Use this procedure to play the currently playing disc, title, chapter, track or file repeatedly.

1. During playback, press PLAY MODE to display the Play Mode screen.
   The Play Mode screen can also be displayed by selecting Play Mode from the TOOLS menu.

2. Select Repeat/Random.
   Use \%/\% to select, then press ENTER.

3. Select the type of Repeat Play.
   Use \%/\% to select, then press ENTER.
   See the table on page 35 for the types of Repeat Play.

   ✷ To cancel Repeat Play
   - Select Off from the Repeat/Random screen, then press ENTER.
   - During playback, press STOP or CLEAR.

   Note
   - The type of repeat modes depends on the disc and file being played. See the table on page 35.
   - Repeat Play is canceled in the following cases:
     - When the angle is switched (for BD-ROM and DVD-Video discs only).
     - When you search outside the repeat range.
     - When you start other Repeat Play or Random Play.

Playing in random order (Random Play)

Use this procedure to play the tracks or files in random order.

1. During playback, press PLAY MODE to display the Play Mode screen.
   The Play Mode screen can also be displayed by selecting Play Mode from the TOOLS menu.

2. Select Repeat/Random.
   Use \%/\% to select, then press ENTER.

3. Select the Random Play.
   Use \%/\% to select, then press ENTER.

   ✷ To cancel Random Play
   - Select Off from the Repeat/Random screen, then press ENTER.
# About Play Mode types

The functions that can be used differ according to the type of disc and file. In some cases, some of the functions cannot be used. Check the usable functions on the table below.

<table>
<thead>
<tr>
<th>Play Mode type</th>
<th>Disc/file type</th>
<th>BD-ROM</th>
<th>BD-R /RE</th>
<th>DVD-Video²</th>
<th>DVD-R /RW (VR format)</th>
<th>AVCHD</th>
<th>Image file</th>
<th>Audio file</th>
<th>Audio CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeat Play</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Playing a specific section within a title or track repeatedly (A-B Repeat)</td>
<td>A-B</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>- Playing a title repeatedly (Title Repeat)</td>
<td>[ ]</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>- Playing a chapter repeatedly (Chapter Repeat)</td>
<td>[ ]</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>- Playing a track or file repeatedly (Track Repeat)</td>
<td>[ ]</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>- Playing all the titles, tracks or files on the disc repeatedly (All Repeat)</td>
<td>[ ]</td>
<td>x</td>
<td>✓</td>
<td>✓³</td>
<td></td>
<td>✓</td>
<td>✓³</td>
<td>✓²</td>
<td>✓²</td>
</tr>
<tr>
<td>Random Play</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Playing the tracks or files in random order (Random Track/File)</td>
<td>RDM</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Search</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Playing from a specific time (Time Search)</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>- Playing a specific title (Title Search)</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>- Playing a specific chapter (Chapter Search)</td>
<td>—</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>- Playing a specific track (Track Search)</td>
<td>—</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
</tbody>
</table>

1. The type of Play Mode is indicated by the mark.
2. For BD-ROM and DVD-Video discs, some of the functions cannot be used with some titles.
3. The original titles are played repeatedly. However, the playlist titles cannot be played repeatedly.
4. The files in the folder are played repeatedly.
5. The files in the folder or HMG Playlist are played repeatedly.
6. The tracks in the disc or HMG Playlist are played repeatedly.
Playing from the Home Media Gallery

The Home Media Gallery lets you display a list of the titles, tracks or files recorded on the disc. The discs that can be played from the Home Media Gallery are as shown below (see also page 8).

- BD-R/-RE discs
- DVD-R/-RW (VR format) discs
- Audio CDs (CD-DAs and DTS-CDs)
- DVDs/CDs on which only data files of image or audio files, etc. are recorded

Playing discs

1. Press HOME MEDIA GALLERY to display the Home Media Gallery.
   The Home Media Gallery can also be displayed by selecting Home Media Gallery from the Home Menu then pressing ENTER.
2. Select the disc.
   Use ↑/↓ to select, then press ENTER.
3. Select the title or track to be played.
   Use ↑/↓ to select, then press ENTER.

Playback starts.

Closing the Home Media Gallery

Press HOME MEDIA GALLERY or HOME MENU.

Note

- When playing an audio CD (CD-DA or DTS-CD), the Now Playing screen is displayed.
- Some BD-R/-RE discs have playback protection. To cancel the protection, input the password set for the disc.
- To play DVD-R/-RW (VR format) playlists, switch to the playlist using the Original/Play List command on the TOOLS menu (page 26).

Playing image files

1. Press HOME MEDIA GALLERY to display the Home Media Gallery.
   The Home Media Gallery can also be displayed by selecting Home Media Gallery from the Home Menu then pressing ENTER.
2. Select the disc.
   Use ↑/↓ to select, then press ENTER.
3. Select Photos.
   Use ↑/↓ to select Photos, then press ENTER.
4. Select Folders or All Photos.
   Use ↑/↓ to select, then press ENTER.
   - Folders – The files in the selected folder are displayed.
   - All Photos – All the recorded files are displayed.
   If you have selected All Photos, proceed to step 6.
5. Select the folder containing the file you want to play.
   Use ↑/↓/←/→ to select, then press ENTER.
   A list of the files and folders in the selected folder is displayed.
6. Select and set the file you want to play.
   Use ↑/↓/←/→ to select, then press ENTER.

A slideshow starts from the selected file, and continues until the end of the list is reached.

About Slideshow

A display of the files on the disc or in the folder that switches automatically. Use ←/→ to display the previous or next file.
Rotating images
- Press ANGLE while playing a slideshow.
  - The image rotates each time the button is pressed (90° → 180° → 270° → 0° → ...).
  The image can also be rotated by selecting Rotate from the TOOLS menu.

Playing audio files

1. Press HOME MEDIA GALLERY to display the Home Media Gallery.
   The Home Media Gallery can also be displayed by selecting Home Media Gallery from the Home Menu then pressing ENTER.
2. Select the disc.
   Use ↑/↓ to select, then press ENTER.
   Use ↑/↓ to select Music, then press ENTER.
4. Select Folders or All Songs.
   Use ↑/↓ to select, then press ENTER.
   - Folders – The files in the selected folder are displayed.
   - All Songs – All the recorded files are displayed.
     If you have selected All Songs, proceed to step 6.
5. Select the folder containing the file you want to play.
   Use ↑/↓ to select, then press ENTER.
   A list of the files and folders in the selected folder is displayed.
6. Select and set the file you want to play.
   Use ↑/↓ to select, then press ENTER.
   Playback starts from the selected file, and continues until the end of the list is reached. Use ◁ ▶ ▶ ◁ to play the previous or next file. The Now Playing screen (shown below) is displayed.

Playing in the desired order (HMG Playlist)
The discs that can add tracks and files to the HMG (Home Media Gallery) Playlist are as shown below.
- Audio CDs (CD-DA and DTS-CDs)
- DVDs/CDs on which audio files are recorded

Adding tracks/files
Use this procedure to add tracks and files, and create the HMG Playlist.
1. Press HOME MEDIA GALLERY to display the Home Media Gallery.
   The Home Media Gallery can also be displayed by selecting Home Media Gallery from the Home Menu then pressing ENTER.
2. Select the disc.
   Load the disc beforehand.
   Use ↑/↓ to select, then press ENTER.
3. Select the track/file to be added.
   Use ↑/↓ to select.
4. Press TOOLS to display the TOOLS menu.
5. Select Add to HMG Playlist.
   Use ↑/↓ to select, then press ENTER.
   The track or file selected in step 3 is added to the HMG Playlist.
   To add more tracks or files, repeat steps 3 to 5.

To add the currently playing track/file to the HMG Playlist
1. While the track/file is playing, press TOOLS to display the TOOLS menu.
2. Use ↑/↓ to select Add to HMG Playlist, then press ENTER.

Note
- A maximum of 24 tracks/files can be added to the HMG Playlist.
- The HMG Playlist is cleared in the following cases:
  - When the power is turned off.
  - When the disc tray is opened.
Playing the HMG Playlist

1. Press HOME MEDIA GALLERY to display the Home Media Gallery.
   The Home Media Gallery can also be displayed by selecting Home Media Gallery from the Home Menu pressing ENTER.

2. Select HMG Playlist.
   Use ▲/▼ to select, then press ENTER.

3. Select the track/file to be played.
   Use ▲/▼ to select, then press ENTER.
   Playback starts from the selected track/file, and continues until the end of the list is reached. Use ◀/▶ to play the previous or next track/file. The Now Playing screen (shown below) is displayed.

Deleting tracks/files from the HMG Playlist

1. Select the track/file to be deleted, then press TOOL to display the TOOLS menu.

2. Use ▲/▼ to select Delete from HMG Playlist, then press ENTER.
Chapter 6
Adjusting audio and video

Adjusting the video

The quality of the playback picture can be adjusted according to the TV you are using.

1 During playback, press VIDEO ADJUST to display the Video Adjust screen.
The Video Adjust screen can also be displayed by selecting Video Adjust from the TOOLS menu.

2 Select a preset.
Select using ←/→ according to the TV being used.

3 Adjust the picture quality.
When ←/→ are pressed, the adjustments can be made viewing the picture. The detailed settings screen reappears when ENTER is pressed.

<table>
<thead>
<tr>
<th>Video Adjust</th>
<th>PDP</th>
<th>Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Pioneer PDP – Select this when connected to a Pioneer plasma TV.
- Pioneer LCD – Select this when connected to a Pioneer liquid crystal display TV.
- Pioneer Projector – Select this when connected to a Pioneer front projector.
- PDP – Select this when connected to a plasma TV of another brand.
- LCD – Select this when connected to a liquid crystal display of another brand.
- Projector – Select this when connected to a front projector of another brand.
- Professional – With this setting, video signal processing is restrained. Select this when connected to a professional monitor.
- Memory1 to 3 – Picture quality settings with adjusted parameters can be stored in the memory. For a description of the parameters, see When Memory1, 2 or 3 is selected below.

When Memory1, 2 or 3 is selected

1 Select Adjustments.
Use ↓ to select Adjustments, then press ENTER.
A detailed settings screen appears.

2 Select the item to be adjusted.
Use ↑/↓ to select.

<table>
<thead>
<tr>
<th>Video Adjust [Memory1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prog. Motion</td>
</tr>
<tr>
<td>Pure Cinema</td>
</tr>
<tr>
<td>YNR</td>
</tr>
<tr>
<td>CNR</td>
</tr>
<tr>
<td>BNR</td>
</tr>
<tr>
<td>MNR</td>
</tr>
<tr>
<td>Detail</td>
</tr>
<tr>
<td>White Level</td>
</tr>
</tbody>
</table>

- Prog. Motion – Adjust according to the type of image (moving or still image). This is effective mainly when outputting video materials as progressive images.
- Pure Cinema – This setting optimizes the operation of the progressive scanning circuit for playing film materials. Normally set it to Auto1. If the picture seems unnatural, switch this to Auto2. On or Off (page 40).
- YNR – Reduces noise in the luminance (Y) signal.
- CNR – Reduces noise in the chroma (C) signal.
- BNR – Reduces the block noise (block-shaped distortion generated upon MPEG compression).
- MNR – Reduces the mosquito noise (distortion along the contours of the picture generated upon MPEG compression).
- Detail – Adjusts the picture’s contours.
- White Level – Adjusts the level of the white portions.
- Black Level – Adjusts the level of the black portions.
- Black Setup – Select the black level as the setup level. Normally select 7.5 IRE. If the black level is too bright due to the combination with the connected TV, select 0 IRE.
- Gamma Correction – Adjusts how the dark portions of the picture look.
- Hue – Adjusts the balance between green and red.
- Chroma Level – Adjusts the density of the colors.

Note
- Prog. Motion and Pure Cinema have the effect only for pictures recorded in the interlaced scan format (480i or 1080i signals).
• **Prog. Motion** is disabled when Pure Cinema is set to On.
• **Black Setup** has the effect only for pictures output from the VIDEO output terminals and signals output with a frame/field frequency of 60Hz.
• **YNR, CNR, BNR, and MNR** have no effect on 1080/24p video signals output from the HDMI OUT terminal.

#### Closing the Video Adjust screen
Press 🏛 HOME MENU.

#### About Pure Cinema
There are two types of video signals:
- **Video material** – Video signals recorded at 25 or 30 frames/second
- **Film material** – Video signals recorded at 24 frames/second

“Pure Cinema” uses signal processing suited for “film material” when converting 480i/576i or 1080i interlaced video signals into progressive video signals, resulting in clear picture reproduction without losing the quality of the material.

#### Adjusting the Audio DRC
Audio DRC (Dynamic Range Control) has the effect of playing loud sounds softly and soft sounds loudly. Adjust the setting for example when viewing movies late at night and the dialogues are difficult to hear.

1. **During playback, display the TOOLS menu.**
   Press 🏛 TOOLS.
2. **Select and set Audio Adjust.**
   Use ↑/↓ to select, then press ENTER.
3. **Select and set Audio DRC.**
   Use ↑/↓ to select, then press ENTER.
4. **Adjust the setting.**
   Use ←→ to switch between Off, Low, Medium, High and Auto.

#### Closing the Audio DRC screen
Press ENTER or 🏛 HOME MENU.

#### Adjusting the output level of the different speakers during BD/DVD playback (Channel Level)

**Caution**
- **Channel Level** of the speakers set to None or No at Speaker Setup cannot be adjusted (page 47).

1. **During playback, display the TOOLS menu.**
   Press 🏛 TOOLS.
2. **Select and set Audio Adjust.**
   Use ↑/↓ to select, then press ENTER.
3. **Select and set Channel Level.**
   Use ↑/↓ to select, then press ENTER.
4. **Adjust the output level.**
   Use ↑/↓ to select, ←→ to adjust.

The output levels of the L, C, R, SL, SR, SBL, SBR and SW speakers can be adjusted within the range of -6.0 dB to +6.0 dB.

### Note
- **This only affects the Dolby TrueHD, Dolby Digital Plus and Dolby Digital audio signals of BDs and DVDs.**
- When **Auto** is selected, the setting has the same effect as **High** or **Off** for Dolby TrueHD signals, depending on the content. For Dolby Digital Plus and Dolby Digital, the setting has the same effect as **Off**.
- **Audio DRC** affects the audio signals output from the following audio output terminals:
  - Analog audio signals output from the AUDIO OUT terminals.
  - Linear PCM audio signals output from the DIGITAL OUT terminal or HDMI OUT terminal.
- The effect may be weak for some discs.

### Adjusting the output level of the different speakers during BD/DVD playback (Channel Level)

**Note**
- **This cannot be adjusted when in the following cases:**
  - **Output Terminal** is set to HDMI or DIGITAL AUDIO (page 51).
  - **Audio Output Mode** is set to 2 Channel (page 43).
– Channel Level is set to Fix (page 43).

❖ Closing the Channel Level screen

Press HOME MENU.

Adjusting the audio delay (Lip Sync)

Adjust the audio delay for the selected video output terminal if the video and audio are not synchronized.

1 During playback, display the TOOLS menu. Press TOOLS.

2 Select and set Audio Adjust. Use \(\uparrow/\downarrow\) to select, then press ENTER.

3 Select and set Lip Sync. Use \(\uparrow/\downarrow\) to select, then press ENTER.

4 Select Auto or Manual. Use \(\leftrightarrow\) to select.

• Auto – The player automatically adjusts the timing of the video and audio when connected to a device equipped with the HDMI Auto Lipsync Correction feature using an HDMI cable.

• Manual – Adjust manually while viewing the video. If you have selected Manual, proceed to step 5.

5 Adjusting the amount of audio delay. Press \(\downarrow\), then use \(\leftrightarrow/\uparrow\downarrow\) to adjust.

<table>
<thead>
<tr>
<th>Lip Sync</th>
<th>Manual</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 ms</td>
<td>0 50 100 150 200 250</td>
</tr>
</tbody>
</table>

The audio delay can be adjusted from 0 to 250 ms in steps of 5 ms.

❖ Note

• The Lip Sync adjustment is only applicable to the output terminal set at Output Terminal (page 51).

• The sound may be interrupted while setting the delay.

❖ Closing the Lip Sync screen

Press ENTER or HOME MENU.
Chapter 7
Detailed settings

Changing the settings

Operating the Initial Setup screen

1 When playback is stopped, display the Home Menu screen.
Press HOME MENU.

2 Select and set Initial Setup.
Use †/‹ to select, then press ENTER.

3 Select the item and change the setting.
Use †/‹/═/═ to select, then press ENTER.

Closing the Initial Setup screen
Press HOME MENU.

Note
- Items that cannot be changed are indicated in gray. The items that can be selected depend on the player’s status.
- In Options, the factory default settings are indicated in bold.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV Aspect Ratio</td>
<td>16:9 (Widescreen)</td>
<td>Select this when connected to a wide (16:9) TV.</td>
</tr>
<tr>
<td></td>
<td>4:3 (Standard)</td>
<td>Select this when connected to a conventional TV.</td>
</tr>
<tr>
<td>4:3 Video Out</td>
<td>Full</td>
<td>4:3 pictures are displayed over the entire screen.</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>4:3 pictures are displayed with vertical black bars along the sides. Select this when you cannot switch the aspect ratio to 4:3 on the TV.</td>
</tr>
</tbody>
</table>

4:3 Video Out is only valid when TV Aspect Ratio is set to 16:9 (Widescreen).

| DVD 16:9 Video Out | Letter Box              | 16:9 pictures are displayed with black bars at the top and bottom when viewing on a 4:3 screen. |
|                   | Pan & Scan              | The picture is displayed over the entire screen, with the left and right sides of the 16:9 picture cropped. Select this to view 4:3 pictures over the entire screen. For some discs, the picture will be displayed in the Letter Box mode even if Pan & Scan is set. |

• DVD 16:9 Video Out is only valid when TV Aspect Ratio is set to 4:3 (Standard).
• DVD 16:9 Video Out is only valid when playing 16:9 pictures of DVD-Video or DVD-R/RW (VR format) discs. When other 16:9 pictures are played, they are output in the Letter Box mode.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Video Out</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTSC on PAL TV</td>
<td>On</td>
<td>Select this when a TV that only supports PAL is connected. The picture is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>displayed correctly when playing a disc recorded with a frame/field rate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>other than 50 Hz.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Select this when connected to an NTSC-compatible TV.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Many recent PAL TVs support the input of NTSC signals, in which case this</td>
</tr>
<tr>
<td></td>
<td></td>
<td>can be set to <strong>Off</strong>. Also check your TV’s operating instructions.</td>
</tr>
<tr>
<td><strong>Audio Out</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dolby Digital Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Only valid for the <strong>DIGITAL</strong> OUT terminal.</td>
<td>Dolby Digital 1</td>
<td>Dolby Digital audio signals are output. With BD-ROMs, the secondary audio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and interactive audio are mixed for output.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dolby Digital 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>without mixing the secondary audio and interactive audio signals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dolby Digital → PCM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>compatible with Dolby Digital audio signals. The Dolby Digital audio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>signals are converted into linear PCM audio signals for output.</td>
</tr>
<tr>
<td>DTS Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Only valid for the <strong>DIGITAL</strong> OUT terminal.</td>
<td>DTS 1</td>
<td>DTS Digital Surround audio signals are output. With BD-ROMs, the secondary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>audio and interactive audio are mixed for output.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DTS 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>without mixing the secondary audio and interactive audio signals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DTS → PCM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>compatible with DTS Digital Surround audio signals. The DTS Digital</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Surround audio signals are converted into linear PCM audio signals for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>output.</td>
</tr>
<tr>
<td>AAC Out</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Only valid for the <strong>DIGITAL</strong> OUT terminal.</td>
<td>AAC</td>
<td>Select this when the connected AV receiver or amplifier, etc., is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>compatible with AAC audio signals. The AAC audio signals are output.</td>
</tr>
<tr>
<td></td>
<td>AAC → PCM</td>
<td>Select this when the connected AV receiver or amplifier, etc., is</td>
</tr>
<tr>
<td></td>
<td></td>
<td>compatible with AAC audio signals. The AAC audio signals are converted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>into linear PCM audio signals for output.</td>
</tr>
<tr>
<td>DTS Downmix</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stereo</td>
<td></td>
<td>DTS-HD Master Audio signals, DTS-HD High Resolution Audio signals or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DTS Digital Surround audio signals converted to linear PCM audio signals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>are converted into 2-channel (stereo) signals for output.</td>
</tr>
<tr>
<td>Lt/Rt</td>
<td></td>
<td>DTS-HD Master Audio signals, DTS-HD High Resolution Audio signals or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DTS Digital Surround audio signals converted to linear PCM audio signals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>are converted into 2-channel signals compatible with Dolby Surround for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>output (when the connected AV receiver or amplifier, etc., is compatible</td>
</tr>
<tr>
<td></td>
<td></td>
<td>with Dolby Pro Logic, the AV receiver or amplifier outputs the linear PCM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>audio signals as surround audio signals).</td>
</tr>
<tr>
<td>Audio Output Mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Only valid for the <strong>AUDIO</strong> OUT terminals.</td>
<td>2 Channel</td>
<td>Select this when the TV’s analog 2-channel (stereo) audio input terminals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>are connected to the player’s <strong>AUDIO OUT</strong> terminals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Multi-channel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>or amplifier, etc., are connected to the player’s <strong>AUDIO OUT</strong> terminals.</td>
</tr>
<tr>
<td>Speaker Setup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Only valid for the <strong>AUDIO</strong> OUT terminals.</td>
<td></td>
<td>When an AV receiver or amplifier, etc., is connected to the player’s **</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>AUDIO OUT</strong> terminals, set whether or not speakers are connected to an</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AV receiver or amplifier, etc., their size and their crossover frequency.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For details, see Changing the speaker setup on page 47.</td>
</tr>
<tr>
<td>Speaker Distance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Only valid for the <strong>AUDIO</strong> OUT terminals.</td>
<td></td>
<td>Specify the distance of your speakers from your listening position (page 47).</td>
</tr>
<tr>
<td>Channel Level</td>
<td>Fix</td>
<td>The output for the various speakers is set to the maximum.</td>
</tr>
<tr>
<td>* Only valid for the <strong>AUDIO</strong> OUT terminals.</td>
<td>Variable</td>
<td>The output level of the various speakers is set within the range of –6.0 dB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>to +6.0 dB (in 0.5 dB steps) (page 47).</td>
</tr>
<tr>
<td>Setting</td>
<td>Options</td>
<td>Explanation</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>HDMI High Speed Transmission</td>
<td>On</td>
<td>Select this when connected with a High Speed HDMI™ cable (page 18).</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Select this when connected with a Standard HDMI™ cable (page 18).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The player’s setting screen is closed if the output video resolution is switched by changing the HDMI High Speed Transmission setting.</td>
</tr>
<tr>
<td>HDMI Color Space</td>
<td>Auto</td>
<td>Select this to automatically switch the video output between YCbCr and RGB signals according to the connected equipment.</td>
</tr>
<tr>
<td></td>
<td>YCbCr 4:4:4</td>
<td>Select this to output the video signals as YCbCr 4:4:4 signals.</td>
</tr>
<tr>
<td></td>
<td>YCbCr 4:2:2</td>
<td>Select this to output the video signals as YCbCr 4:2:2 signals.</td>
</tr>
<tr>
<td></td>
<td>RGB (16 to 235)</td>
<td>Select this to output the video signals as RGB signals. Choose this if the colors seem too dense and all the dark colors are displayed in a uniform black when RGB (0 to 255) is selected.</td>
</tr>
<tr>
<td></td>
<td>RGB (0 to 255)</td>
<td>Select this to output the video signals as RGB signals. Choose this if the colors seem too faint and the black seems too bright when RGB (16 to 235) is selected.</td>
</tr>
</tbody>
</table>

Normally it is recommended to set this to Auto. When set to Auto, the optimum video signals for your TV are output.

| HDMI Audio Out                | Auto              | The signals are output with as many audio channels as possible. In cases when the number of channels does not decrease when the signals are output as such without converting them to linear PCM, they are output as such (page 52). |
|                               | PCM               | Select this when you want the secondary audio and interactive audio signals to be mixed for output or when you want to output prioritizing sampling frequency over the number of channels (page 50). |
|                               | Off               | Select this when you do not want to output the audio from the HDMI output terminal. |

| KURO LINK                     | On                | Select this to control the player with the remote control of the AV device connected using an HDMI cable. Also refer to About KURO LINK function on page 19. |
|                               | Off               | Select this when you do not want to control the player with the remote control of the AV device connected using an HDMI cable. |

| Display Power On              | On                | Select this when you want the TV to turn on each time playback is started or the Home Menu or Home Media Gallery is displayed on the player. |
| Display Power Off             | Off               | Select this when you do not want the TV to turn on each time playback is started or the Home Menu or Home Media Gallery is displayed on the player. |

| Display Power Off             | On                | Select this when you want the player’s power to turn off together with the TV’s power. |
| Display Power Off             | Off               | Select this when you do not want the player’s power to turn off together with the TV’s power. |

| PQLS                          | Auto              | Enables PQLS function (page 19).                                           |
|                               | Off               | Disables PQLS function (page 19).                                           |

| * Only valid when KURO LINK is set to On. | On | Select this to set the IP address of the player and DNS server (page 48). |
|                                            | Off| Only set the proxy server if so instructed by your Internet service provider (page 48). |
|                                            |    | Select this to display a list of the network settings (page 49). |
|                                            |    | Select this to test the network connection (page 49). |
|                                            |    | Select this to set the language of the on-screen displays to English. |
|                                            | French          | Choose a language for the on-screen displays from the listed languages. |
|                                            | English         | Select this to set both the BD-ROM and DVD-Video default audio language to English. |
|                                            | available languages | Choose a language from the listed languages to set the default audio language for BD-ROM and DVD-Video playback. |
|                                            | Other            | Continue to the next screen to set the default audio language for BD-ROM and DVD-Video playback. You can select the language name or enter the code number (see on page 54 for the code table). |

* For some discs, it may not be possible to change to the selected language.

If a language not recorded on the BD/DVD is set, one of the recorded languages is automatically selected and played.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtitle Language</td>
<td>English</td>
<td>Select this to set the default subtitle language for BD-ROM and DVD-Video playback to English.</td>
</tr>
<tr>
<td></td>
<td>available languages</td>
<td>Choose a language from the listed languages to set the default subtitle language for BD-ROM and DVD-Video playback.</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>Continue to the next screen to set the default subtitle language for BD-ROM and DVD-Video playback. You can select the language name or enter the code number (see on page 54 for the code table).</td>
</tr>
</tbody>
</table>

If a language not recorded on the BD/DVD is set, one of the recorded languages is automatically selected and played.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDMV/DVD-Video Menu</td>
<td>w/Subtitle</td>
<td>Sets the language of BD-ROM and DVD-Video menus to the same as that set for the subtitle language.</td>
</tr>
<tr>
<td>Lang.</td>
<td>available languages</td>
<td>Choose a language from the listed languages to set the default subtitle language for BD-ROM and DVD-Video menus.</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>Continue to the next screen to set the default menu language for BD-ROM and DVD-Video menus. You can select the language name or enter the code number (see on page 54 for the code table).</td>
</tr>
</tbody>
</table>

If a language not recorded on the BD/DVD is set, one of the recorded languages is automatically selected and played.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtitle Display</td>
<td>On</td>
<td>Select this to display the subtitles.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Select this if you do not want to display the subtitles. Note that on some discs the subtitles are displayed by force.</td>
</tr>
</tbody>
</table>

Data Management

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual/Shared Data Erase</td>
<td>Use this to display the list of data used for the BD-LIVE and BONUSVIEW functions and to erase the data (page 49).</td>
<td></td>
</tr>
<tr>
<td>Application Data Erase</td>
<td>Use this to erase bookmarks, high scores of games and other data (page 49).</td>
<td></td>
</tr>
<tr>
<td>Remove the disc from the disc tray when changing the setting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage Format</td>
<td>Select this to format the storage device on which the data used by the BD-LIVE and BONUSVIEW functions is stored (page 49).</td>
<td></td>
</tr>
<tr>
<td>Remove the disc from the disc tray when changing the setting.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Setup Navigator

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start making the settings using the Setup Navigator menu. For details, see Making settings using the Setup Navigator menu on page 23.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Playback

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Still Picture</td>
<td>Field</td>
<td>This eliminates instability of the picture when playback is paused.</td>
</tr>
<tr>
<td></td>
<td>Frame</td>
<td>This makes pictures clear when playback is paused, but instability may be observed.</td>
</tr>
<tr>
<td>Angle/Secondary Indicator</td>
<td>Auto</td>
<td>Field or Frame is switched automatically according to the disc or file being played.</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td>Select this to display the angle mark, secondary video mark and secondary audio mark on the TV screen (pages 30 and 31).</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Select this if you do not want to display the angle mark, secondary video mark and secondary audio mark on the TV screen.</td>
</tr>
</tbody>
</table>

Hybrid Disc Playback

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BD</td>
<td>The BD layer of hybrid discs with two or more layers (BD and DVD or CD) is played.</td>
<td></td>
</tr>
<tr>
<td>DVD</td>
<td>The DVD layer of hybrid discs with two or more layers (BD and DVD) is played. If there is no DVD layer, the BD layer is played.</td>
<td></td>
</tr>
<tr>
<td>CD</td>
<td>The CD layer of hybrid discs with two or more layers (BD and CD) is played. If there is no CD layer, the BD layer is played.</td>
<td></td>
</tr>
</tbody>
</table>

Remove the disc from the disc tray when changing the setting.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDMV/BDAV Playback Priority</td>
<td>BDMV</td>
<td>Select this to play the BDMV format on BD-R/-RE discs containing both BDMV and BDAV formats.</td>
</tr>
<tr>
<td></td>
<td>BDAV</td>
<td>Select this to play the BDAV format on BD-R/-RE discs containing both BDMV and BDAV formats.</td>
</tr>
</tbody>
</table>

Remove the disc from the disc tray when changing the setting.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set Password (Change Password)</td>
<td>Register (change)</td>
<td>the password for parental lock settings or for unlocking to play DVD-Video with parental lock feature (page 50).</td>
</tr>
<tr>
<td>DVD-Video Parental Lock</td>
<td>Change</td>
<td>the player’s parental lock level (page 50).</td>
</tr>
<tr>
<td>BDMV Parental Lock</td>
<td>Change</td>
<td>the restricted age (page 50).</td>
</tr>
<tr>
<td>Country Code</td>
<td>Change</td>
<td>the Country/Area code (page 50).</td>
</tr>
<tr>
<td>Output Terminal</td>
<td>Set</td>
<td>the terminals from which the player’s video and audio signals are to be output (page 51).</td>
</tr>
<tr>
<td>On Screen Display</td>
<td>On/Off</td>
<td>Select this to display the operation indicators (Play, Stop, etc.) on the TV screen.</td>
</tr>
<tr>
<td>Screen Saver</td>
<td>On/Off</td>
<td>The black screen (the screen saver) is displayed, if there is no operation for over 1 minute after playback is stopped or paused.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The screen saver is automatically activated if there is no operation for over 1 minute after the Home Menu or Home Media Gallery is displayed while playing a BD or DVD.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>With audio CDs and audio files, the screen saver is automatically activated if no button is operated for over 1 minute, even while the audio CD or audio file is playing.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The screen saver turns off when an operation is performed on the player or remote control.</td>
</tr>
<tr>
<td>Auto Power Off</td>
<td>On/Off</td>
<td>Select this to turn the power off automatically (the power turns off automatically if no operation is performed for over 30 minutes).</td>
</tr>
<tr>
<td>Software Update</td>
<td>The</td>
<td>The Software Update function can check for and download updated system software from the network server (page 51).</td>
</tr>
<tr>
<td>Advanced Setup</td>
<td>Use</td>
<td>Use this to make advanced settings (page 55).</td>
</tr>
</tbody>
</table>
Changing the speaker setup
Set whether or not speakers are connected to an AV receiver or amplifier, etc., their size and their crossover frequency. This setting is only valid for the AUDIO OUT terminals.

When there are no speakers whose speaker size is set to Small, select Bypass for the crossover frequency.
When there are speakers whose speaker size is set to Small, select the crossover frequency (Bypass cannot be selected).

Caution
• The Speaker Setup cannot be selected when Audio Output Mode is set to 2 Channel. Change the setting to Multi-channel (page 43).

1 Select and set Speakers → Speaker Setup → Next Screen.
Use ↑ / ↓ to select, then press ENTER.
2 Select the speaker and change the setting.
Use ↑ / ↓ to select, then use ← / → to change the setting.

- L/R (front left and right speakers): Large/Small
- C (center speaker): Large/Small/None
- SL/SR (left and right surround speakers): Large/Small/None
- SBL/SBR (left and right surround back speakers): Large/Small/None
- SW (subwoofer): Yes/No
- Crossover: Bypass/50 Hz/80 Hz/100 Hz/150 Hz

Note
• Depending on the combination of settings of the different speakers, the settings of speakers other than the one you have changed may also change automatically.
• When a subwoofer with a filter bypass function is connected and there is no speaker whose speaker size is set to Small, if the subwoofer’s filter is set to be bypassed, the player’s high precision digital filter is used. In this case, set the crossover frequency to something other than Bypass.
• Upon purchase, the crossover frequency is set to Bypass.

Adjusting the distance of the different speakers
Adjust the distance between you and the different speakers. This setting is only valid for the AUDIO OUT terminals.

Caution
• This cannot be selected when Audio Output Mode is set to 2 Channel. Change the setting to Multi-channel (page 43).
• Speaker Distance of the speakers set to None or No at Speaker Setup cannot be adjusted (above).
1 Select and set Speakers → Speaker Setup → Next Screen.
Use ↑ / ↓ to select, then press ENTER.
2 Select the speaker and adjust the distance.
Use ↑ / ↓ to select, then use ← / → to adjust.

- The distance of all the speakers can be set to between 1 inch and 45 feet, in units of 1 inch.

Adjusting the output level of the different speakers (Channel Level)
Adjust each output level of the different speakers by using test tones. This setting is only valid for the AUDIO OUT terminals.

Caution
• This cannot be selected when Audio Output Mode is set to 2 Channel. Change the setting to Multi-channel (page 43).
• Channel Level of the speakers set to None or No at Speaker Setup cannot be adjusted (above).
• Test tones are output. Lower the volume of the device connected to the player.
1 Select and set Speakers → Channel Level, then Fix or Variable.
Use ↑ / ↓ to select, then press ENTER.
• Fix – The output level of all the speakers is set to the maximum.
• Variable – The output level of all the speakers is set 6.0 dB lower when Fix is selected. From this point, the output levels of the L, C, R, SL, SR, SBL, SBR and SW speakers can be adjusted within the range of −6.0 dB to +6.0 dB.
If you have selected Variable, proceed to step 2.
2 Select and set the method for switching the speaker to be adjusted.
Use / to select, then press ENTER.
• Auto – Switch the speaker to be adjusted automatically.
• Manual – Switch the speaker to be adjusted manually.

3 Adjust the output level.
Use / to select, / to adjust.

<table>
<thead>
<tr>
<th>Channel Level</th>
<th>BD PLAYER</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>0.0 dB</td>
</tr>
<tr>
<td>C</td>
<td>0.0 dB</td>
</tr>
<tr>
<td>R</td>
<td>0.0 dB</td>
</tr>
<tr>
<td>SR</td>
<td>0.0 dB</td>
</tr>
<tr>
<td>SBR</td>
<td>0.0 dB</td>
</tr>
<tr>
<td>SBL</td>
<td>0.0 dB</td>
</tr>
<tr>
<td>SL</td>
<td>0.0 dB</td>
</tr>
<tr>
<td>SW</td>
<td>0.0 dB</td>
</tr>
</tbody>
</table>

Note
• You can also adjust while listening to the sound being played (page 40).
• The volume of the test tones output from the subwoofer may seem lower than the tones output from the other channels. Adjust the subwoofer based on the sound during playback (page 40).
• When Auto is selected, the speaker cannot be selected with / . In this case, test tones are not output from the subwoofer.

Setting the proxy server

1 Select and set Network → Proxy Server → Next Screen.
Use / to select, then press ENTER.

2 Set IP address.
Use / / / / to set the IP address of the player or DNS server, then press ENTER.

Network BD PLAYER

<table>
<thead>
<tr>
<th>IP Address</th>
<th>Auto Set IP Address</th>
<th>Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Set IP Address</td>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>IP Address</td>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>Subnet Mask</td>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>Default Gateway</td>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>Auto Set DNS Server Address</td>
<td></td>
<td>Off</td>
</tr>
<tr>
<td>DNS Server (Primary)</td>
<td></td>
<td>Off</td>
</tr>
</tbody>
</table>

• Use – Select this when using a proxy server.
• Not use – Select this when not using a proxy server.
If you have selected Use, proceed to step 3.

3 Select and set Server Select Method.
Use / / to change, then press .
• IP Address – Input the IP address.
• Server Name – Input the server name.

4 Input IP Address or Server Name.
Use the number buttons (0 to 9) to input the number if you select IP address by step 3. Use / / to move the cursor.
Use the number buttons (0 to 9) to input characters if you select Server Name by step 3.
The characters that can be input for the server name are listed on the table below. Pressing a button repeatedly cycles through the characters shown.
4 Change the language.
Use ➡️➡️ to change, then press ENTER.

5 Input Port Number.
Press ↓, use the number buttons (0 to 9) to input the number.

6 Press ENTER to set.

Language

5 Changing to other language at language setting
1 Select and set Language.
Use ↑/↓ to select, then press ENTER.
2 Select and set Audio Language, Subtitle Language or BD/VDM/DVD-Video Menu Lang.
Use ↑/↓ to select, then press ENTER.
3 Select and set Other.
Use ↑/↓ to select, then press ENTER.

5 Select and set Network settings
Select and set Network → Display Network Configuration → Next Screen.
Use ↑/↓ to select, then press ENTER.
The MAC address, IP address, subnet mask, default gateway and DNS server (primary and secondary) settings are displayed.
When Auto Set IP Address is set to On, the values obtained automatically are displayed.

Note
• “0.0.0.0” is displayed when each IP address has not been set.

Testing the network connection
Select and set Network → Connection Test → Start.
Use ↑/↓ to select, then press ENTER.
“Network connection test completed successfully.” is displayed once the test is completed. If any other message is displayed, check the connections and/or settings (pages 22 and 48).

Changing to other language at language setting
1 Select and set Language.
Use ↑/↓ to select, then press ENTER.
2 Select and set Audio Language, Subtitle Language or BD/VDM/DVD-Video Menu Lang.
Use ↑/↓ to select, then press ENTER.
3 Select and set Other.
Use ↑/↓ to select, then press ENTER.

4 Change the language.
Use ➡️➡️ to change, then press ENTER.

Initial Setup BD PLAYER

Network

Language

Audio Language

Audio Out

Speakers

HDMI

BD PLAYER

Data Management

Setup Navigator

Video Out

Number

Language

English

Note
• The language can also be changed using the number buttons. Use ↑/↓ to move the cursor to Number, use the number buttons (0 to 9) to input the number, then press ENTER. Refer to Language Code Table and Country/Area Code Table on page 54.

Note
• If a language not recorded on the BD/DVD is set, one of the recorded languages is automatically selected and played.

Erasing data that has been added to BDs and application data
Use this procedure to erase data that has been added to BDs (data downloaded with the BD-LIVE function and data used with the BONUSVIEW function) and application data.

Caution
• Some time is required to erase the data.
• Do not unplug the power cord while data is being erased.
• This operation does not work when a disc is loaded.

1 Select and set Data Management.
Use ↑/↓ to select, then press ENTER.
2 Select and set the erase menu.
Use ↑/↓ to select, then press ENTER.
• Individual/Shared Data Erase
Use this procedure to select and erase data downloaded with the BD-LIVE function and data used with the BONUSVIEW function (page 9).
Select Next Screen, then press ENTER. The list screen appears.
When a disc name is selected, the data downloaded with the BD-LIVE function and data used with the BONUSVIEW is erased.

When Shared Data is selected, all the data downloaded with the BD-LIVE function and not associated to discs is erased.

Use ↑/↓ to select the data to be erased, then press ENTER.

- **Application Data Erase**
  Use this procedure to erase BD-ROM application data (high scores of games, bookmarks data, etc.).
  Select Start, then press ENTER.

- **Storage Format**
  Use this procedure to format the storage in which the data downloaded with the BD-LIVE function and data used with the BONUSVIEW function is stored (page 9).
  When this is done, all the data on the external storage device is erased.
  Select Start, then press ENTER.

3 Select Yes, then press ENTER.
Use ←/→ to select, then press ENTER.

- **Registering or Changing the password**
  Use this procedure to register or change the code number required for the Parental Lock settings.

1 Select and set Parental Lock → Set Password → Next Screen.
Use ↑/↓ to select, then press ENTER.

2 Input the password.
Use the number buttons (0 to 9) or ↑/↓ to input the number, then press ENTER to set.
Use ←/→ to move the cursor.

3 Re-input the password.
Use the number buttons (0 to 9) or ↑/↓ to input the number, then press ENTER to set.
Use ←/→ to move the cursor.
- To change the password, input the previously registered password, then input the new password.

**Note**
- We recommend making a note of the password.
- If you forget the password, reset the player to the factory default setting, then register the password again (page 51).

- **Changing the Parental Lock level for viewing DVDs**
  Some DVD-Video discs containing scenes of violence, for example, have Parental Lock levels (check the indications on the disc’s jacket or elsewhere). To restrict viewing these discs, set the player’s level to the level lower than the discs.

1 Select and set Parental Lock → DVD-Video Parental Lock → Next Screen.
Use ↑/↓ to select, then press ENTER.

2 Input the password.
Use the number buttons (0 to 9) or ↑/↓ to input the number, then press ENTER to set.
Use ←/→ to move the cursor.

3 Change the level.
Use ←/→ to change, then press ENTER to set.

- **Note**
  - The level can be set to Off or between Level1 and Level8. When set to Off, viewing is not restricted.

- **Changing the Age Restriction for viewing BD-ROMs**
  For BD-ROMs containing scenes of violence, for example, viewing can be restricted by setting an age restriction for the BD-ROMs.

1 Select and set Parental Lock → BDMV Parental Lock → Next Screen.
Use ↑/↓ to select, then press ENTER.

2 Input the password.
Use the number buttons (0 to 9) or ↑/↓ to input the number, then press ENTER to set.
Use ←/→ to move the cursor.

3 Change the age.
Use the number buttons (0 to 9) or ↑/↓ to input the number, then press ENTER to set.
Use ←/→ to move the cursor.

- **Note**
  - When Age Restriction is set to 255, viewing is not restricted.

- **Changing the Country/Area code**
  Some DVD-Video discs containing scenes of violence, for example, have Country/Area codes (check the indications on the disc’s jacket or elsewhere). To restrict viewing these discs, set the player’s level to the level lower than the discs.

1 Select and set Parental Lock → Country Code → Next Screen.
Use ↑/↓ to select, then press ENTER.

2 Input the password.
Use the number buttons (0 to 9) or ↑/↓ to input the number, then press ENTER to set.
Use ←/→ to move the cursor.

3 Change the country/area code.
Use ←/→ to change, then press ENTER to set.

- **Note**
  - The the country/area code can also be changed using the number buttons. Use ↑/↓ to move the cursor to Number, use the number buttons (0 to 9) to input the number, then press ENTER. Refer to Language Code Table and Country/Area Code Table on page 54.
Setting the output terminals

Set the terminals from which the player’s video and audio signals are to be output.

1 Select and set Options → Output Terminal → Next Screen.
   Use ↑/↓ to select, then press ENTER.
2 Select and set the video and audio output terminals.
   Select the actually connected video and audio output terminals.
   Use ↑/↓/←/→ to select, then press ENTER.
   For details on the settings, refer to page 24.
When COMPONENT VIDEO or VIDEO is selected for Video, no sound is output from the HDMI OUT terminal (a warning message is displayed).

Software updating

The software of the player can be updated by connecting it to the Internet using a LAN cable.

Before updating the software, make sure that you have connected the player to the network and made the necessary settings (pages 22 and 48).

Caution

• 10 to 20 minutes are required to update the software. The picture turns off during this process, but do not unplug the power cord until the front panel display turns off.
• When the front panel display is off, turn it on with FL DIMMER. When updating the player’s software with the front panel display off, do not unplug the power cord until the FL OFF indicator turns off.
• Depending on the Internet connection conditions, downloading may take a long time.
• Do not unplug the power cord during software updating. Doing so may result in an operation failure.
• There are two processes for software updating. downloading and updating. Both processes may take a certain period of time.
• Other operations are defeated during software updating. Furthermore updating process cannot be canceled.

Note

• Steps 1 to 4 are the operations performed by the user (they are intended to download the software from the Internet).
• Steps 5 to 7 are the operations performed (automatically) by the player (they are intended to update the software).

1 When playback is stopped, display the Home Menu screen.
   Press HOME MENU.
2 Select and set Initial Setup.

Use ↑/↓ to select, then press ENTER.
3 Select and set Options → Software Update → Start.
   Use ↑/↓ to select, then press ENTER.
   • If the player is already running the latest software, the message "The player’s software is up to date and does not need updating," is displayed.
4 Select and set Yes.
   Use ←/→ to select Yes, then press ENTER.
   • The help menu is displayed if the player cannot connect to the Internet. Check the connections and settings (pages 22 and 48).
5 Downloading of the software starts.
   The software download status is displayed on the screen.
   • Depending on the Internet connection conditions, software downloading may take a certain period of time.
6 Updating starts.
   "DOWNLOAD" and a number are displayed on the front panel display, after which the display switches alternately between this and "DATA CHECK", "WRT IPL", "WRT SD", "WRT KRNL", "WRT SYS1", "WRT SYS2", "WRT DRV" and "WRT FLC".
   • Software updating may take a certain period of time.
7 Updating completes.
   The front panel display shows "DOWNLOAD OK" and the player turns off automatically.

Restoring all the settings to the factory default settings

1 Check that the player’s power is turned on.
2 Check that there is no disc in the player.
   If there is a disc in the player, remove it.
3 While pressing ■, press ○STANDBY/ON.
   Operate using the buttons on the player’s front panel.

Note

• After restoring all the settings to the factory default settings, use Setup Navigator to reset the player (page 23).
• When all the settings are restored to the factory defaults, all the data for the secondary video (Picture-in-Picture), secondary audio, bookmarks, etc., is erased.
• If a disc is loaded, the settings cannot be restored to the factory defaults by performing the above operation.
About the audio output settings

The audio signals that are output differ according to the audio format recorded on the disc and the player’s settings. Check on the table below.

**Caution**

- When **ANALOG AUDIO** is selected at **Output Terminal**, no audio signals are output from the HDMI OUT terminal or DIGITAL OUT terminal (pages 23 and 51).
- When **HDMI** or **DIGITAL AUDIO** is selected at **Output Terminal**, linear PCM audio signals (2 channels) are output from all terminals other than the ones selected at **Output Terminal** (pages 23 and 51).
- The output from all terminals other than the ones selected for **Audio** does not sound as intended by the content provider.

<table>
<thead>
<tr>
<th>Audio format</th>
<th>AUDIO OUT terminals</th>
<th>DIGITAL OUT terminal</th>
<th>HDMI OUT terminal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2ch1</td>
<td>Multi-channel1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Converted to linear PCM audio2</td>
<td>Not converted to linear PCM audio3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PCM4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Auto4</td>
</tr>
<tr>
<td>BD-ROM</td>
<td>Dolby Digital</td>
<td>5.1-channel audio</td>
<td>5.1-channel audio</td>
</tr>
<tr>
<td></td>
<td>Dolby Digital Plus</td>
<td>7.1-channel audio</td>
<td>Dolby Digital5</td>
</tr>
<tr>
<td></td>
<td>Dolby TrueHD</td>
<td></td>
<td>Dolby Digital6</td>
</tr>
<tr>
<td></td>
<td>DTS Digital Surround</td>
<td>7.1-channel audio</td>
<td>7.1-channel audio</td>
</tr>
<tr>
<td></td>
<td>DTS-HD High Resolution Audio</td>
<td>Converted to 2-channel audio</td>
<td>DTS Digital Surround8</td>
</tr>
<tr>
<td></td>
<td>DTS-HD Master Audio</td>
<td>7.1-channel audio</td>
<td>DTS-HD Master Audio9</td>
</tr>
<tr>
<td></td>
<td>Linear PCM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BD-R/RE</td>
<td>Dolby Digital</td>
<td>Converted to 2-channel audio</td>
<td>Dolby Digital6</td>
</tr>
<tr>
<td></td>
<td>MPEG-2 AAC</td>
<td></td>
<td>MPEG-2 AAC</td>
</tr>
<tr>
<td></td>
<td>MPEG</td>
<td>2-channel audio</td>
<td></td>
</tr>
<tr>
<td>DVD-Video</td>
<td>Dolby Digital</td>
<td>Converted to 2-channel audio</td>
<td>Dolby Digital6</td>
</tr>
<tr>
<td></td>
<td>MPEG</td>
<td></td>
<td>MPEG</td>
</tr>
<tr>
<td></td>
<td>DTS Digital Surround</td>
<td>Converted to 2-channel audio</td>
<td>DTS Digital Surround8</td>
</tr>
<tr>
<td></td>
<td>MPEG</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DVD-RW/VR (VR format)</td>
<td>Dolby Digital</td>
<td>Converted to 2-channel audio</td>
<td>Dolby Digital6</td>
</tr>
<tr>
<td></td>
<td>MPEG</td>
<td></td>
<td>MPEG</td>
</tr>
</tbody>
</table>

1. When **Audio Output Mode** is set to **2 Channel** or **Multi-channel** (page 43).
2. When **Dolby Digital Out** is set to **Dolby Digital → PCM**, **DTS Out** is set to **DTS → PCM**, or **AAC Out** is set to **AAC → PCM** (page 43).
3. When **Dolby Digital Out** is set to **Dolby Digital 1/Dolby Digital 2**, **DTS Out** is set to **DTS → DTS 2** or **AAC Out** is set to **AAC** (page 43).
4. When **HDMI Audio Out** is set to **PCM or Auto** (page 44).
5. When outputting Dolby Digital or DTS Digital Surround bitstream with **Dolby Digital Out** set to **Dolby Digital 2** and **DTS Out** set to **DTS 2**, the secondary audio and interactive audio signals are not mixed for output.
6. When outputting the bitstream of Dolby TrueHD, Dolby Digital Plus, Dolby Digital, DTS-HD Master Audio, DTS-HD High Resolution Audio or DTS Digital Surround, the secondary audio and interactive audio signals are not mixed for output.
7. If the connected HDMI device is not compatible with Dolby TrueHD or Dolby Digital Plus bitstream, the signals are output in linear PCM (7.1 channels) or Dolby Digital bitstream.
8. When the output video resolution is set to 480i/576i or 480p/576p, the signals may be output in linear PCM (2 channels), depending on **HDMI High Speed Transmission setting** and/or the connected HDMI device (page 18).
9. When the output video resolution is set to 480i/576i or 480p/576p, the signals may be output in linear PCM (2 channels) or Dolby Digital bitstream, depending on HDMI High Speed Transmission setting and/or the connected HDMI device (page 18).

10. If the connected HDMI device is not compatible with DTS-HD Master Audio or DTS-HD High Resolution Audio, the signals are output in linear PCM (7.1 channels) or DTS Digital Surround bitstream.

11. When the output video resolution is set to 480i/576i or 480p/576p, the signals may be output in linear PCM (2 channels) or DTS Digital Surround, depending on HDMI High Speed Transmission setting and/or the connected HDMI device.

**Note**

- Only compatible with 7.1-channel surround back. 6.1-channel surround back is output in 7.1 channels. In other cases, output as audio signals of 5.1-channels or less.
- When outputting linear PCM audio signals, if the number of compatible channels of the connected HDMI device is lower, the signals are output with the number of channels for which the device is compatible.
- The audio signals output from the DIGITAL OUT terminal have a sampling frequency of 48 kHz (44.1 kHz for audio CDs).
<table>
<thead>
<tr>
<th>Language Code Table</th>
<th>Country/Area Code Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic, ar, 0118</td>
<td>Argentina, ar, 0118</td>
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<td>Armenian, am, 0113</td>
<td>Australia, au, 0121</td>
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<tr>
<td>Azerbaijani, az, 0126</td>
<td>Azerbaijan, az, 0126</td>
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<td>Bahasa, bs, 0219</td>
<td>Barbados, bs, 0205</td>
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<tr>
<td>Belarus, by, 0225</td>
<td>Belgium, be, 0205</td>
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<tr>
<td>Bermuda, bm, 0213</td>
<td>Brazil, br, 0218</td>
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<tr>
<td>Bulgarian, bg, 0207</td>
<td>Canada, ca, 0301</td>
</tr>
<tr>
<td>Cymraeg, cy, 0325</td>
<td>Cymraeg, cy, 0325</td>
</tr>
<tr>
<td>Danish, da, 0236</td>
<td>Danish, dk, 0411</td>
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<tr>
<td>Dominican, dm, 0413</td>
<td>Dominican Republic, do, 0415</td>
</tr>
<tr>
<td>English, en, 0101</td>
<td>English, en, 0101</td>
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<tr>
<td>Esperanto, eo, 0515</td>
<td>Estonian, et, 0520</td>
</tr>
<tr>
<td>Fijian, fi/ji, 0610</td>
<td>Faroese, fo/fao, 0615</td>
</tr>
<tr>
<td>French, fr, 0618</td>
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<td>Gdansk, pl, 0712</td>
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<tr>
<td>Georgian, ka/kat, 1101</td>
<td>Georgia, ge, 0705</td>
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<tr>
<td>German, de, 0405</td>
<td>Greece, gr, 0718</td>
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<td>Greek, el, 0512</td>
<td>Greenland, gl, 0712</td>
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<td>Gujarati, gu, 0721</td>
<td>Guinea, gn, 0724</td>
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<td>Hausa, ha/hau, 0801</td>
<td>Hawai‘i, hi/haw, 0801</td>
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<td>Hebrew, iw/heb, 0923</td>
<td>Hungarian, hu/hun, 0923</td>
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<tr>
<td>Indonesian, id, 0901</td>
<td>Indian, in, 0914</td>
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<td>Interlingue, ia/ima, 0901</td>
<td>Italian, it, 0905</td>
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<td>Ibanian, ia/iban, 0905</td>
<td>Irish, ga, 0901</td>
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<td>Italian, it/ita, 0911</td>
<td>Japanese, ja/jm, 1001</td>
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<td>Serbian, sr, 1001</td>
<td>Sinhala, si/sin, 1001</td>
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<td>Lithuanian, liu, 1101</td>
<td>Latvian, lv, 1101</td>
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<td>Macedonian, mk/mkd, 1311</td>
<td>Malagasy, mg/mlg, 1307</td>
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<td>Malay, ms/msa, 1319</td>
<td>Malayalam, ml/mlal, 1312</td>
</tr>
<tr>
<td>Maltese, mt/mlt, 1320</td>
<td>Marathi, mr, 1331</td>
</tr>
<tr>
<td>Maori, mi/mrw, 1309</td>
<td>Marathi, mr, 1331</td>
</tr>
<tr>
<td>Mongolian, mn, 1341</td>
<td>Mauritania, mrt, 1351</td>
</tr>
<tr>
<td>Norwegian, no/nor, 1415</td>
<td>Norwegian, no/nor, 1415</td>
</tr>
<tr>
<td>Ottoman, om/orm, 1513</td>
<td>Panjabi, pa/pa, 1601</td>
</tr>
<tr>
<td>Persian, fa/fas, 1601</td>
<td>Polish, pl/pln, 1612</td>
</tr>
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<td>Portuguese, pt/por, 1620</td>
<td>Portugal, pt/pt, 1620</td>
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<td>Quechua, qu, 1721</td>
<td>Romanian, ro/ron, 1815</td>
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<td>Russian, ru/ru, 1821</td>
<td>Russian, ru/ru, 1821</td>
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<tr>
<td>Russian, ru/ru, 1821</td>
<td>Serbian, sr/sr, 1818</td>
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<tr>
<td>Sango, sg/sag, 1907</td>
<td>Sango, sg/sag, 1907</td>
</tr>
<tr>
<td>Sanskrit, sa/san, 1901</td>
<td>Slovak, sk/sk, 1911</td>
</tr>
<tr>
<td>Scottish Gaelic, gd/gi, 1904</td>
<td>Slovak, sk/sk, 1911</td>
</tr>
</tbody>
</table>
Chapter 8

Advanced setup

Changing the settings

Operating the Advanced Setup screen

1. When playback is stopped, display the Home Menu screen.

   Press HOME MENU.

2. Select and set Initial Setup → Advanced Setup.

   Use ↑/↓ to select, then press ENTER.

3. Select the item and change the setting.

   Use ↑/↓/←/→ to select, then press ENTER.

   ![Remote Control]

   - **Front Key Lock**
     - **ALL**
       - Select this to lock operation of the buttons on the player’s front panel and opening/closing of the disc tray.
       - **Tray**
         - Select this to only lock opening/closing of the disc tray.
       - **Off**
         - Select this if you do not want to lock operation of the buttons on the player’s front panel and opening/closing of the disc tray.

   - **Power on Start**
     - **On**
       - Select this if you want the power to turn on automatically when the power cord is plugged into a power outlet.
     - **Off**
       - Select this if you do not want the power to turn on automatically when the power cord is plugged into a power outlet.

   - **Playlist**
     - Creates a playlist (page 56).

   - **Playlist Auto Start**
     - **On**
       - Select this if you want the player to play the playlist automatically when the power is turned on or ► is pressed.
     - **Off**
       - Select this if you do not want to play the playlist automatically when the power is turned on or ► is pressed.

 Closing the Advanced Setup screen

Press HOME MENU.

Note

- Items that cannot be changed are indicated in gray. The items that can be selected depend on the player’s status.
- In Options, the factory default settings are indicated in bold.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Key Lock</td>
<td>ALL</td>
<td>Select this to lock operation of the buttons on the player’s front panel and opening/closing of the disc tray.</td>
</tr>
<tr>
<td></td>
<td>Tray</td>
<td>Select this to only lock opening/closing of the disc tray.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Select this if you do not want to lock operation of the buttons on the player’s front panel and opening/closing of the disc tray.</td>
</tr>
<tr>
<td>Power on Start</td>
<td>On</td>
<td>Select this if you want the power to turn on automatically when the power cord is plugged into a power outlet.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Select this if you do not want the power to turn on automatically when the power cord is plugged into a power outlet.</td>
</tr>
<tr>
<td>Playlist</td>
<td>On</td>
<td>Creates a playlist (page 56).</td>
</tr>
<tr>
<td>Playlist Auto Start</td>
<td>On</td>
<td>Select this if you want the player to play the playlist automatically when the power is turned on or ► is pressed.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Select this if you do not want to play the playlist automatically when the power is turned on or ► is pressed.</td>
</tr>
</tbody>
</table>
Playing titles/chapters in the registered order (Playlist)

Register titles/chapters on the playlist and play them in the order in which they were registered.

The discs that can be played with a playlist are as follows:
- DVDs recorded in DVD-Video format
- BDs recorded in BDMV format

⚠ Caution
- To create and play the playlist, use discs created specifically for this player, not commercially available discs. When a commercially available disc is used, the player may not play in the order registered on the playlist due to the program on the disc.

Creating playlist

Register titles/chapters and create the playlist.

1 When playback is stopped, display the Home Menu screen.
   Press HOME MENU.
2 Select and set Initial Setup.
   Use ▲/▼ to select, then press ENTER.
3 Select and set Advanced Setup → Playlist → Next Screen.
   Use ▲/▼ to select, then press ENTER.
4 Select “--- - ---”.
   Use ▲/▼ to select, then press ENTER.
5 Input the title/chapter you want to register.
   Use the number buttons (0 to 9) or ▲/▼ to input the number.
   Use ◄/↷ to move the cursor.

---

<table>
<thead>
<tr>
<th>Setting</th>
<th>Options</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playlist Auto Repeat</td>
<td>On</td>
<td>Select this if you want to play the playlist repeatedly.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Select this if you do not want to play the playlist repeatedly.</td>
</tr>
<tr>
<td>Baud Rate</td>
<td>2400 bps</td>
<td>Set the RS-232C terminal’s signal transfer speed to 2400 bps.</td>
</tr>
<tr>
<td></td>
<td>4800 bps</td>
<td>Set the RS-232C terminal’s signal transfer speed to 4800 bps.</td>
</tr>
<tr>
<td></td>
<td>9600 bps</td>
<td>Set the RS-232C terminal’s signal transfer speed to 9600 bps.</td>
</tr>
<tr>
<td></td>
<td>19200 bps</td>
<td>Set the RS-232C terminal’s signal transfer speed to 19200 bps.</td>
</tr>
<tr>
<td></td>
<td>115200 bps</td>
<td>Set the RS-232C terminal’s signal transfer speed to 115200 bps.</td>
</tr>
</tbody>
</table>

6 Register the title/chapter.
   Press ENTER. The specified title/chapter is registered on the playlist. To register more titles/chapters, repeat steps 4 to 6.

7 Close the Playlist screen.
   Press HOME MENU.

Note
- Title numbers and chapter numbers can be changed by selecting already registered titles/chapters.
- 000 cannot be registered for the title number.
- When 000 is entered for the chapter number, all the chapters of the registered title are registered.
- A maximum of 24 titles/chapters can be registered on the playlist.
- All titles/chapters registered on the playlist are deleted when all the player’s settings are restored to the factory defaults (page 51).
- Depending on the disc and contents, titles/chapters may not be playable, even when registered on the playlist.

- Deleting titles/chapters from the playlist
  Use ▲/▼ to select the title/chapter to be deleted, then press CLEAR.

- Deleting all titles/chapters from the playlist
  First press TOOL. next use ▲/▼ to select Delete all playlists, then press ENTER. Use ◄/↷ to select Yes, then press ENTER.
Playing the playlist

Caution

- Depending on the disc or operation, the titles/chapters may not be played as they were registered on the playlist.
- The playlist cannot be played from the playlist screen. Perform the operation below to play the playlist.

1 When playback is stopped, display the Home Menu screen.
Press HOME MENU.

2 Select and set Initial Setup.
Use \(\uparrow/\downarrow\) to select, then press ENTER.

3 Select and set Advanced Setup → Playlist Auto Start → On.
Use \(\uparrow/\downarrow\) to select, then press ENTER.

4 Close the Initial Setup screen.
Press HOME MENU.

5 Play the playlist.
Press PLAY.
Playback continues through to the end of the last title/chapter registered on the playlist. When the \(\leftarrow/\rightarrow/\uparrow/\downarrow\) is pressed during playback, playback skips from the currently playing title/chapter to the previous/next title/chapter registered in the playlist.

Note

- The Resume playback and Play Mode functions do not work when Playlist Auto Start is set to On.
- If you do not want to play the playlist, set Playlist Auto Start to Off.
Chapter 9
Additional information

Serial interface specifications

In addition to the basic operations on the player's front panel and remote control, the player is equipped with a serial interface conforming to RS-232C standards allowing connection to a computer. The interface is a 9-pin D-Sub connector.

Caution
- The 9-pin connector uses inch screw threads.

The D-Sub connector's pin layout is as shown below.

<table>
<thead>
<tr>
<th>Pin no.</th>
<th>Terminal</th>
<th>Input/Output</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DCD</td>
<td>Input</td>
<td>NC (not connected on the player)</td>
</tr>
<tr>
<td>2</td>
<td>RxD</td>
<td>Input</td>
<td>receive data</td>
</tr>
<tr>
<td>3</td>
<td>TxD</td>
<td>Output</td>
<td>send data</td>
</tr>
<tr>
<td>4</td>
<td>DTR</td>
<td>Output</td>
<td>NC (not connected on the player)</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td>--</td>
<td>ground</td>
</tr>
<tr>
<td>6</td>
<td>DSR</td>
<td>Input</td>
<td>NC (not connected on the player)</td>
</tr>
<tr>
<td>7</td>
<td>CTS</td>
<td>Output</td>
<td>Connected to CTS pin internally.</td>
</tr>
<tr>
<td>8</td>
<td>RI</td>
<td>Input</td>
<td>Connected to RTS pin internally.</td>
</tr>
<tr>
<td>9</td>
<td>RI</td>
<td>Input</td>
<td>NC (not connected on the player)</td>
</tr>
</tbody>
</table>

Connection to a computer

The player communicates with the computer using the 9-pin D-Sub connector's pins 2 and 3 for signal transfer and pin 5 as the ground.

The computer and player are connected as shown on the diagram below.

The player can accept commands whenever the power is on. In addition, the player can accept the commands below even when the power is off.
- Power ON command
- Play command
- Commands with the power (A181AFBC), play (A181AF39) and power on (A181AFBA) Remote Control Button commands as arguments.

There is no need to connect control lines other than TxD and RxD.

Serial control specifications

(1) Signal level
RS-232C level

(2) Data format
Data length: 8 bits
Stop bit: 1 bit
Parity: None

(3) Communication speed (Baud rate)
The communication speed (Baud rate) is selectable among the following: 2400 bps, 4800 bps, 9600 bps, 19200 bps and 115200 bps. Set to 9600 bps by factory default (page 56).
# Commands and statuses

Serial interface control is performed by the computer sending commands, etc., and the player returning the status. When command execution is fully completed, the player returns a completion message (R<CR>). If an error is generated, the player returns the error code (for example, E04<CR>.)

## List of usable commands

<table>
<thead>
<tr>
<th>No</th>
<th>Arguments</th>
<th>mnemonics</th>
<th>Command name</th>
<th>BD</th>
<th>DVD</th>
<th>CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>PN</td>
<td>Power ON</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>PF</td>
<td>Power OFF</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>OP</td>
<td>Open</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>CO</td>
<td>Close</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5</td>
<td>99</td>
<td>RJ</td>
<td>Stop</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6</td>
<td>Adress</td>
<td>PL</td>
<td>Play</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>PA</td>
<td>Pause</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>ST</td>
<td>Still</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>SF</td>
<td>Step Forward</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>SR</td>
<td>Step Reverse</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>NS</td>
<td>Scan Stop</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>12</td>
<td>Adress</td>
<td>SE</td>
<td>Search</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>13</td>
<td>Adress</td>
<td>SL</td>
<td>Search &amp; Play</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>14</td>
<td>Adress</td>
<td>SM</td>
<td>Stop Marker</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>CL</td>
<td>Clear</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>TM</td>
<td>Time</td>
<td>✓</td>
<td>✓</td>
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</tr>
<tr>
<td>17</td>
<td></td>
<td>CH</td>
<td>Chapter</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>TI</td>
<td>Title</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>19</td>
<td></td>
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<td>Track</td>
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<td>✓</td>
</tr>
<tr>
<td>20</td>
<td>Argument</td>
<td>KL</td>
<td>Key Lock</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>21</td>
<td>Argument</td>
<td>BS</td>
<td>Advanced</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Playlist Playback</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>?A</td>
<td>Current Address Request</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>23</td>
<td></td>
<td>?R</td>
<td>Title/Track Number Request</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>24</td>
<td></td>
<td>?C</td>
<td>Chapter Number Request</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td>?T</td>
<td>Time Code Request</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td>?I</td>
<td>Index Number Request</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>27</td>
<td></td>
<td>?V</td>
<td>DVD Disc Status Request</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
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<td>✓</td>
<td>✓</td>
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<td>29</td>
<td></td>
<td>?D</td>
<td>Get Information</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>30</td>
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<td>?K</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>31</td>
<td></td>
<td>?P</td>
<td>Player Active Mode Request</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>32</td>
<td></td>
<td>?L</td>
<td>Player Model Name Request</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*1 The PL commands include both the PL command without address and the PL command with address. The PL command without address is set to ✓ for the respective discs, but how the PL command with address is handled differs according to the address mode.

*2 For the SE and SP commands, handling differs according to the address mode. See Table 2 for details.

*3 For the SM command, handling differs according to the address mode. See Table 1 for details.

*4 Used to specify the address mode specification when using the PL, SE, SP and SM commands. Handling differs according to the command being used. See Tables 1 and 2 for details.
Table 1 Address modes in which the PL and SM commands are valid

<table>
<thead>
<tr>
<th></th>
<th>BD</th>
<th>DVD</th>
<th>CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM(Time)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CH(Chapter)</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>TI(Title)</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>TR(Track)</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
</tbody>
</table>

Table 2 Address modes in which the SE and SL commands are valid

<table>
<thead>
<tr>
<th></th>
<th>BD</th>
<th>DVD</th>
<th>CD</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM(Time)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CH(Chapter)</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>TI(Title)</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>TR(Track)</td>
<td>x</td>
<td>x</td>
<td>✓</td>
</tr>
</tbody>
</table>

Command mnemonics

Command mnemonics consist of two-digit ASCII alphabetic coded characters. Upper-case and lower-case characters can be used without distinction.

Arguments

(1) Arguments are placed in front of the command.
   If a command requiring an argument has no argument, an error is generated.

(2) Arguments are of the following types:

1. Address:
   The address consists of ASCII digit characters for the title number, chapter number, track number and time code, according to the address mode.
   The address mode is determined by the TI, CH, TR and TM commands.
   If a value greater than the maximum value is attributed, the command will not work normally.

2. Argument:
   The argument expresses a parameter for commands with arguments other than the address (KL, BS, SW, etc.).
   The argument consists of ASCII alphabetic coded characters and digit characters.

Communications interface manual

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(libxml2)

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OVERVIEW
This package contains C software to implement JPEG image compression and decompression. JPEG (pronounced “jaypeg”) is a standardised compression method for full color and grey-scale images. JPEG is intended for compression of still images, by reducing the amount of data, while retaining as much of the original image as possible. However, you must use JPEG if you have to identify output bitstream. In practice, all implementations of these standards are designed to run on any computer, whether or not your software is capable of running on a real image, but with a reasonable amount of data.
The JPEG standard is unique in that it enforces a number of file format restrictions, often not adhered to blindly or even understood fully. This can make it difficult to troubleshoot problems that arise with software compatibility. In this chapter, we will try to understand the intricacies of the JPEG software.

The best short technical introduction to the JPEG compression algorithm is Wallace, Gregory K. *The JPEG Still Picture Compression Standard*. Communications of the ACM. April 1991 (vol. 34 no. 4).

ADC best practices can be found in the Digital Colorworkshop standards for color Measurement and Recording (ISO/IEC IS 10918-1, ITU. T.81). Palsgaard, T. JPEG 1998:

We highly recommend reading one or more of these references while you are trying to understand the intricacies of the JPEG software.

The full specification can be found on the Web at http://www.w3.org/1998/08/12-local.html. A complete list of the many related standards can be found at http://www.w3.org/1998/11/21-url.html.

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# Troubleshooting

Incorrect operation is often mistaken for trouble or malfunction. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Inspect the other components and electrical appliances being used. If the trouble cannot be rectified after checking the items below, please contact customer services. In the US, call Toll Free (800) 421-1404. (Telephone lines are open Monday through Friday 6:00 AM to 4:30 PM (Pacific Time).) In Canada, call Local (905) 479-4411, or Long distance +1(877) 283-5901. (Telephone lines are open Monday through Friday 9:00 AM to 5:30 PM (EST).)

## Playback

<table>
<thead>
<tr>
<th>Problem</th>
<th>Check</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Disc does not play. • Disc tray opens automatically.</td>
<td>Is the disc one that is playable on this player? Is the file one that is playable on this player? Is the disc scratched? Is the disc dirty? Is there a piece of paper or sticker attached to the disc? Is the disc properly set in the disc tray? Is the region number correct?</td>
<td>Check whether the disc is one that can be played on this player (page 8). Check whether the file is one that can be played on this player (page 10). Check whether or not the file is damaged. It may not be possible to play scratched discs. Clean the disc (page 15). The disc may be warped and unplayable. Set the disc with the printed side facing up. Set the disc properly in the depression in the disc tray. See About region numbers on page 10 for the region numbers of discs that can be played on this player.</td>
</tr>
</tbody>
</table>

### No picture is displayed or the picture is not displayed properly.

<table>
<thead>
<tr>
<th>Check</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the video cable properly connected?</td>
<td>• Connect the cable properly according to the connected devices (page 18). • Insert the cable firmly and all the way in.</td>
</tr>
<tr>
<td>Is the video cable damaged? Is the input setting on the connected TV or AV receiver or amplifier right?</td>
<td>If the cable is damaged, replace it with a new one. Read the operating instructions of the connected components and switch to the proper input.</td>
</tr>
<tr>
<td>Are you viewing the picture from the video output terminal selected with VIDEO SELECT?</td>
<td>Press VIDEO SELECT to switch the video output terminal to be viewed (page 26).</td>
</tr>
<tr>
<td>Is the output video resolution properly set?</td>
<td>Use OUTPUT RESOLUTION to switch to a resolution at which the video and audio signals are output (page 27).</td>
</tr>
</tbody>
</table>

| • Is the player connected with an HDMI cable other than a High Speed HDMI™ cable (with a Standard HDMI™ cable)? • Are you using an HDMI cable with built-in equalizer? | 1080p or Deep Color video signals may not be output properly, depending on the HDMI cable being used or the player’s settings. Press ▶ on the player’s front panel to restore the video outputs to the factory default settings. After this, if you wish to output the video signals with 1080p or Deep Color, connect the TV using a High Speed HDMI™ cable without built-in equalizer, then reset the player using the Setup Navigator (page 29). |

### Does the connected TV support the frame rate of the video signal being output by the player?

<table>
<thead>
<tr>
<th>Check</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the picture is not displayed when playing a disc with a frame rate that is not supported, the picture will not be displayed even when playback is stopped. In this case, use the procedure below to switch the frame rate of the video signals output from the player. Eject the disc and close the disc tray. Then, press OPEN/CLOSE while pressing ➤ on the player’s front panel to switch to a frame rate supported by the connected TV.</td>
<td>The picture may not be displayed properly if a DVI device is connected.</td>
</tr>
<tr>
<td>Is NTSC on PAL TV properly set?</td>
<td>When viewing the video signals output from the player’s Video terminal, set NTSC on PAL TV properly (page 43).</td>
</tr>
<tr>
<td>Is HDMI Color Space properly set?</td>
<td>Change the HDMI Color Space setting (page 44).</td>
</tr>
<tr>
<td>Problem</td>
<td>Check</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>No picture is displayed or the picture is not displayed properly.</td>
<td>Are you using an extremely long cable?</td>
</tr>
<tr>
<td>Picture freezes and the front panel and remote control buttons stop working.</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
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<tr>
<td>Motion is unnatural or picture is not clear.</td>
<td></td>
</tr>
<tr>
<td>No picture is displayed or picture is not output in high definition when playing BDs.</td>
<td></td>
</tr>
<tr>
<td>• Picture is disturbed during playback.</td>
<td></td>
</tr>
<tr>
<td>• Picture is dark.</td>
<td></td>
</tr>
<tr>
<td>• Picture is stretched.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Picture is cropped.</td>
</tr>
<tr>
<td></td>
<td>• Aspect ratio cannot be switched.</td>
</tr>
<tr>
<td></td>
<td>Is the TV’s aspect ratio properly set?</td>
</tr>
<tr>
<td></td>
<td>Is TV Aspect Ratio properly set?</td>
</tr>
<tr>
<td></td>
<td>Is 4:3 Video Out properly set?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture is interrupted.</td>
<td></td>
</tr>
<tr>
<td>The subtitles cannot be switched.</td>
<td></td>
</tr>
<tr>
<td>Sound and picture are not synchronized.</td>
<td>Is Output Terminal properly set?</td>
</tr>
<tr>
<td></td>
<td>Is Lip Sync properly set?</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Problem</th>
<th>Check</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sound is output.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Sound is not output properly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is the disc played back in slow motion?</td>
<td>No sound is output during slow motion play and forward and reverse scanning.</td>
</tr>
<tr>
<td></td>
<td>Is the disc played back in fast forward or fast reverse?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Are the audio cables properly connected?</td>
<td>• Connect the cable properly according to the connected devices (page 18).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Insert the cable firmly and all the way in.</td>
</tr>
<tr>
<td></td>
<td>Is the audio cable damaged?</td>
<td>If the cable is damaged, replace it with a new one.</td>
</tr>
<tr>
<td></td>
<td>Are the connected components (AV receiver or amplifier, etc.) properly set?</td>
<td>Read the operating instructions of the connected components and check the volume, input, speaker settings, etc.</td>
</tr>
<tr>
<td>Problem</td>
<td>Check</td>
<td>Remedy</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>• No sound is output.</td>
<td>Are you trying to listen to the sound of the AUDI OUT terminal while watching the picture from the COMPONENT VIDEO or VIDEO output terminals?</td>
<td>Audio signals are not output from the HDMI OUT terminal when video signals are being output from the COMPONENT VIDEO or VIDEO output terminals. When watching the picture of the COMPONENT VIDEO or VIDEO output terminals, connect an optical digital audio cable or regular audio cables to listen to the sound (page 21). Once connections are completed, use Setup Navigator to make the player’s settings (page 23).</td>
</tr>
<tr>
<td>• Sound is not output properly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is HDMI Audio Out properly set?</td>
<td>Set HDMI Audio Out to Auto or PCM. (page 44).</td>
<td></td>
</tr>
<tr>
<td>Is Output Terminal properly set?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the output video resolution properly set?</td>
<td>Use OUTPUT RESOLUTION to switch to the resolution at which the video and audio signals are output (page 27).</td>
<td></td>
</tr>
<tr>
<td>Is the AV receiver or amplifier, etc., connected to the AUDIO OUT terminals?</td>
<td>To listen to 2-channel analog audio, connect to FRONT (L/R) of the AUDIO OUT terminals (page 13) and set Audio Output Mode to 2 Channel (page 43).</td>
<td></td>
</tr>
<tr>
<td>Are the speakers properly set?</td>
<td>When the AV receiver or amplifier, etc., is connected to the AUDIO OUT terminals and Audio Output Mode is set to Multi-channel, set Speaker Setup property (page 47).</td>
<td></td>
</tr>
<tr>
<td>Is a DVI device connected?</td>
<td>The sound will not be output from the HDMI OUT terminal if a DVI device is connected. Connect the device to a DIGITAL OUT terminal or the AUDIO OUT terminals (page 21).</td>
<td></td>
</tr>
<tr>
<td>Multi-channel sound is not output.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is Output Terminal properly set?</td>
<td>Linear PCM (2-channel) audio signals are output from output terminals other than the one set at Output Terminal under Audio Out. Set Output Terminal properly (page 51).</td>
<td></td>
</tr>
<tr>
<td>Is the audio output of the connected AV receiver or amplifier, etc., properly set?</td>
<td>Read the operating instructions of the connected AV receiver or amplifier and check the audio output settings of AV receiver or amplifier.</td>
<td></td>
</tr>
<tr>
<td>Is multi-channel sound selected?</td>
<td>Use the menu screen or AUDIO to switch the disc’s sound to multi-channel.</td>
<td></td>
</tr>
<tr>
<td>Is the AV receiver or amplifier, etc., connected to the AUDIO OUT terminals?</td>
<td>When the AV receiver or amplifier, etc., is connected to the AUDIO OUT terminals, set Audio Output Mode to Multi-channel (page 43). Also, set Speaker Setup property (page 47).</td>
<td></td>
</tr>
<tr>
<td>Noise can be heard when outputting DTS Digital Surround signals from the DIGITAL OUT terminal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the connected AV receiver or amplifier compatible with DTS Digital Surround?</td>
<td>If an AV receiver or amplifier that is not compatible with DTS Digital Surround is connected to the DIGITAL OUT terminal, set DTS OUT to DTS → PCM (page 43).</td>
<td></td>
</tr>
<tr>
<td>192 kHz or 96 kHz digital audio signals cannot be output from the DIGITAL OUT terminal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is HDMI Audio Out properly set?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are Dolby Digital Out and DTS Out properly set?</td>
<td>When listening to the sound from an HDMI OUT terminal, set HDMI Audio Out to PCM (page 44).</td>
<td></td>
</tr>
<tr>
<td>Sound is fast or slow.</td>
<td>When a Pioneer AV receiver or amplifier compatible with the PQLS function is connected directly to the player’s HDMI OUT terminal using an HDMI cable, the PQLS function is activated when playing discs. Because of this, the sound output from components other than the ones connected by HDMI cable may be fast or slow. If this happens, set PQLS to OFF (page 44).</td>
<td></td>
</tr>
<tr>
<td>After a disc is inserted, Loading stays displayed and playback does not start.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are there too many files recorded on the disc?</td>
<td>When a disc on which files are recorded is inserted, depending on the number of files recorded on the disc, loading may take several dozen minutes.</td>
<td></td>
</tr>
<tr>
<td>✗ is displayed in file names, etc.</td>
<td>The characters that cannot be displayed on this player are displayed in</td>
<td></td>
</tr>
</tbody>
</table>
### Problem

A message indicating low memory appears while playing a BD-ROM disc.

### Check

- Is Hybrid Disc Playback properly set?

### Remedy

- Set Hybrid Disc Playback to DVD (page 45).
- Set Hybrid Disc Playback to CD (page 45).

The DVD layer of BD and DVD hybrid discs cannot be played.

The CD layer of BD and CD hybrid discs cannot be played.

The BDMV format on BD-R/-RE discs cannot be played.

The player does not play in the order registered on the playlist.

**KURO LINK**

### Problem

KURO LINK function does not work.

### Check

- Is the HDMI cable properly connected?
- Is the HDMI cable you are using a High Speed HDMI™ cable?
- Are you connected to the TV using an HDMI cable to watch the picture?
- Is KURO LINK set to On on the player?
- Does the connected device support the KURO LINK function?

### Remedy

- To use the KURO LINK function, connect the Flat Panel TV and AV system (AV receiver or amplifier, etc.) to the HDMI OUT terminal (page 20).
- Use a High Speed HDMI™ cable. The KURO LINK function may not work properly if HDMI cable other than a High Speed HDMI™ cable is used.
- If video signals are being output from a terminal other than the HDMI OUT terminal, the KURO LINK function does not work. Connect to the TV using an HDMI cable and press VIDEO SELECT to switch to the HDMI OUT terminal (pages 20 and 26).
- Set KURO LINK to On on the player (page 44).
- The KURO LINK function will not work with devices of other brands that do not support the KURO LINK function, even when connected using an HDMI cable.
- The KURO LINK function will not work if devices that do not support the KURO LINK function are connected between the KURO LINK-compatible device and the player.
- See About connections to components of other makes supporting the KURO LINK function on page 20.
- Even when connected to a Pioneer product compatible with the KURO LINK function, some of the functions may not work. Also refer to the operating instructions of the connected device.

- Set KURO LINK to On on the connected device. The KURO LINK function operates when KURO LINK is set to On for all devices connected to the HDMI OUT terminal. Once connections and settings of all the devices are finished, be sure to check that the player’s picture is output to the Flat Panel TV. (Also check after changing the connected devices and connecting and/or disconnecting HDMI cables.) If the player’s picture is not being output to the Flat Panel TV, the KURO LINK function may not work properly. For details, refer to the operating instructions of the connected device.

- The KURO LINK function may not work if three or more players, including this player, are connected by HDMI cable.
### Network

<table>
<thead>
<tr>
<th>Problem</th>
<th>Check</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The input does not switch automatically on the Flat Panel TV and AV system (AV receiver or amplifier, etc.) when playback is started on the player or the Home Menu or Home Media Gallery is displayed.</td>
<td>Is Display Power On set to Off on the player?</td>
<td>Set Display Power On to On (page 44).</td>
</tr>
<tr>
<td><strong>OK to grant network access to BD applications?</strong> is displayed when a BD-LIVE compatible disc is read.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“Connection to the software updating server failed” is displayed when you try to update the software.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software updating is slow.</td>
<td>Depending on the Internet connection and other conditions, some time may be required to update the software.</td>
<td></td>
</tr>
<tr>
<td>The player stops operating while software is being updated.</td>
<td>Software updating takes 10 to 20 minutes. Wait until updating is completed. DO NOT turn the power off while the software is being updated. Doing so may result in an operation failure.</td>
<td></td>
</tr>
<tr>
<td>“WRT NG **<strong>” is displayed on the front panel display during software updating. (</strong> meaning any characters)</td>
<td>The message is displayed when software updating has failed. Check again whether it can be updated properly.</td>
<td></td>
</tr>
<tr>
<td>A message other than “Network connection test completed successfully” is displayed when Connection Test is performed.</td>
<td>Check that this player and Ethernet hub (or router with hub functionality) are properly connected.</td>
<td></td>
</tr>
<tr>
<td>Is “LAN cable not connected” displayed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Is “IP address cannot be obtained.” displayed?</td>
<td>• If the IP address is obtained using the DHCP server function, check the setting is correct at the Display Network Configuration (page 49). For details on the DHCP server function, see the operating instructions of the Ethernet hub (or router with hub functionality).</td>
<td></td>
</tr>
<tr>
<td>• Is “No response from the gateway.” displayed?</td>
<td>• Set the IP address manually.</td>
<td></td>
</tr>
<tr>
<td>Is “IP address is overlapped.” displayed?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the Ethernet hub (or router with hub functionality) operating properly?</td>
<td>Check the settings and operation the Ethernet hub (or router with hub functionality). For details, see the operating instructions of the Ethernet hub.</td>
<td></td>
</tr>
<tr>
<td>• Check the operation and settings of the DHCP server function of the Ethernet hub (or router with hub functionality). For details on the DHCP server function, see the operating instructions of the Ethernet hub (or router with hub functionality).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• If this player’s has been set manually, reset the IP address of this player or other components.</td>
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</tbody>
</table>
## Others

<table>
<thead>
<tr>
<th>Problem</th>
<th>Check</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player cannot be restored to the factory defaults.</td>
<td>Is a disc loaded in the player?</td>
<td>Remove the disc from the player before restoring the player to the factory defaults (page 51).</td>
</tr>
<tr>
<td>Player cannot be controlled by RS-232C.</td>
<td></td>
<td>Check the Advanced Setup → Baud Rate setting and the serial interface specifications (page 56 and 58).</td>
</tr>
<tr>
<td>The player’s power turns off automatically.</td>
<td><strong>Auto Power Off</strong> set to <strong>On</strong>?</td>
<td>If Auto Power Off is set to On, the player’s power turns off automatically if no operation is performed for over 30 minutes (page 46).</td>
</tr>
<tr>
<td>The player’s power turns on automatically.</td>
<td><strong>Display Power Off</strong> set to <strong>On</strong>?</td>
<td>The player’s power may turn on together with the power of the TV connected to the HDMI OUT terminal. If you do not want the player’s power to turn on when the TV’s power is turned off, set Display Power Off to Off (page 44).</td>
</tr>
<tr>
<td>Player cannot be operated with remote control.</td>
<td><strong>KURO LINK</strong> set to <strong>On</strong>?</td>
<td>The player’s power may turn on together with the power of the TV connected to the HDMI OUT terminal. If you do not want the player’s power to turn on when the TV’s power is turned on, set KURO LINK to Off (page 44).</td>
</tr>
</tbody>
</table>
| Black screen is displayed though no operations are being performed.   | **Screen Saver** set to **On**?            | • The screensaver turns off when the player’s front panel or remote control is operated.  
   • If you do not want the screensaver to be activated, set Screen Saver to Off (page 48). |
| Front panel display does not turn on.                                 | Has the front panel display been turned off? | Press FL DIMMER on the remote control to switch the front panel display’s brightness (page 12).   |
| Input of connected TV and AV system switches automatically.            | **KURO LINK** set to **On**?               | The input of the TV and AV system (AV receiver or amplifier, etc.) connected to the HDMI OUT terminal may automatically switch to the player when playback starts on the player or the menu screen (Home Media Gallery, etc.) is displayed. If you do not want the inputs of the connected TV and AV system (AV receiver or amplifier, etc.) to switch automatically, set KURO LINK to Off (page 44). |
| “Processing failed.” is displayed.                                    |                                            | If the message appears repeatedly, please ask your nearest Pioneer authorized service center or your dealer to carry out repair work. |
| Settings you have made have been cleared.                             |                                            | Always press STANDBY/ON on the player’s front panel or STANDBY/ON on the remote control and check that POWER OFF has turned off from the player’s front panel display before disconnecting the power cord. Be particularly careful when the power cord is connected to the AC outlet on another device because the player turns off in conjunction with the device. |

### Problem: Player cannot be restored to the factory defaults.

1. Is a disc loaded in the player?
2. Remove the disc from the player before restoring the player to the factory defaults (page 51).

### Problem: Player cannot be controlled by RS-232C.

1. Check the Advanced Setup → Baud Rate setting and the serial interface specifications (page 56 and 58).

### Problem: The player’s power turns off automatically.

1. **Auto Power Off** set to **On**?
   - If Auto Power Off is set to On, the player’s power turns off automatically if no operation is performed for over 30 minutes (page 46).
2. **Display Power Off** set to **On**?
   - The player’s power may turn off together with the power of the TV connected to the HDMI OUT terminal. If you do not want the player’s power to turn off when the TV’s power is turned off, set Display Power Off to Off (page 44).

### Problem: The player’s power turns on automatically.

1. **KURO LINK** set to **On**?
   - The player’s power may turn on together with the power of the TV connected to the HDMI OUT terminal. If you do not want the player’s power to turn on when the TV’s power is turned on, set KURO LINK to Off (page 44).

### Problem: Player cannot be operated with remote control.

1. Is an AV receiver or amplifier connected to the CONTROL IN terminal on the player’s rear panel?
   - Operate with the remote control of the device connected to the CONTROL IN terminal.
2. Are you operating the remote control from a point too far away from the player?
   - Operate from within 23 feet (7 m) of the remote control sensor.
3. Are the batteries dead?
   - Replace the batteries (page 7).
4. Is the RC-232C Key Lock command set?
   - Cancel the Key Lock command. For details, see the communications interface user’s manual.

### Problem: Black screen is displayed though no operations are being performed.

1. **Screen Saver** set to **On**?
   - • The screensaver turns off when the player’s front panel or remote control is operated.  
     • If you do not want the screensaver to be activated, set Screen Saver to Off (page 48).

### Problem: Front panel display does not turn on.

1. Has the front panel display been turned off?
   - Press FL DIMMER on the remote control to switch the front panel display’s brightness (page 12).

### Problem: Buttons on the player’s front panel cannot be operated or the disc tray does not open.

1. **Front Key Lock** set to **All** or **Tray**?
   - Set Front Key Lock to Off (page 55).

### Problem: Input of connected TV and AV system switches automatically.

1. **KURO LINK** set to **On**?
   - The input of the TV and AV system (AV receiver or amplifier, etc.) connected to the HDMI OUT terminal may automatically switch to the player when playback starts on the player or the menu screen (Home Media Gallery, etc.) is displayed. If you do not want the inputs of the connected TV and AV system (AV receiver or amplifier, etc.) to switch automatically, set KURO LINK to Off (page 44).

### Problem: “Processing failed.” is displayed.

1. Have you disconnected the power cord while the player’s power was on?
2. Has there been a power failure?
   - If the message appears repeatedly, please ask your nearest Pioneer authorized service center or your dealer to carry out repair work.
Problem | Check | Remedy
--- | --- | ---
**EXT** does not light on the player’s front panel display when a USB (external storage) device is connected. | Is the external storage device properly connected? | • Turn the player’s power off, then turn the power back on.
• Turn the player’s power off, then reconnect the external storage device (page 21).
Are you using a USB cable that is longer than 2 meters? | Use a USB cable with a length of 2 meters or less.
Is the power of the external hard disk turned on? | Turn the player’s power off, then turn the external hard disk’s power on.
Is the external storage device connected to the USB port via a memory card reader or USB hub? | External storage device may not work if connected to the USB port via a memory card reader or USB hub.
Does the external storage device contain multiple partitions? | External storage devices may not be recognized if they contain multiple partitions.
Some external storage devices may not operate.
**EXT** flashes on the player’s front panel display when a USB (external storage) device is connected. | Is the external storage device write-protected? | Turn the player’s power off, then disable the write-protection.
Is the external storage device’s file system FAT16 or FAT32? | Only external storage devices with a FAT16 or FAT32 file system can be used. They may be usable if they are formatted from the player (page 49).
Turn the player’s power off, then turn the power back on.

---

**Glossary**

**Angle** *(Multi angle)*
Up to 9 camera angles can be recorded simultaneously on BD-ROM or DVD-Video discs, letting you view the same scene from different angles.

**AVCHD** *(Advanced Video Codec High Definition)*
See *Playing DVDs* on page 10.

**BDAV**
Of the BD format, the Audio Visual Format Specifications for HD digital broadcast recording are referred to as BDAV on this player and in this operating instructions.

**BD-J**
See *Playing BDs* on page 9.

**BD-LIVE**
See *Playing BDs* on page 9.

**BDMV**
Of the BD format, the Audio Visual Format Specifications designed for pre-packaged high definition (HD) movie contents is referred to as BDMV on this player and in this operating instructions.

**BONUSVIEW**
See *Playing BDs* on page 9.

**Component video output**
This video output terminal provides clearer pictures when connected to a TV equipped with component inputs. Component video signals consist of three signals, Y, Pb and Pr.

**Deep Color**
See *About HDMI* on page 18.

**Default Gateway**
A default gateway is a communication device such as a router which passes data between networks. It is used to direct data to networks on which the destination gateway is not explicitly specified.

**DHCP** *(Dynamic Host Configuration Protocol)*
This protocol provides configuration parameters (IP address, etc.) for computers and other devices connected to the network.

**DNS** *(Domain Name System)*
This is a system for associating Internet host names with IP addresses.

**Dolby Digital**
Dolby Digital is an audio format to record the sound in up to 5.1 channels with a fraction of the amount of data as compared to linear PCM audio signals.

**Dolby Digital Plus**
Dolby Digital Plus is an audio format for high-definition media. Built on Dolby Digital, it combines the efficiency and flexibility to provide high quality multi-channel audio. With BD-ROMs, up to 7.1 channels of digital sound can be recorded.

**Dolby TrueHD**
Dolby TrueHD is an audio format using lossless coding. With BD-ROMs, up to 8 channels can be recorded at 96 kHz/24 bits, or up to 6 channels at 192 kHz/24 bits.

**DRM**
A technology for protecting copyrighted digital data. Digitized videos, images and audio retain the same quality even when they are copied or transferred repeatedly. DRM is a technology for restricting the distribution or playback of such digital data without the authorization of the copyright holder.
**DTS Digital Surround**
DTS Digital Surround is an audio format to record 48 kHz/24 bits audio signals in 5.1 channels.

**DTS-HD High Resolution Audio**
DTS-HD High Resolution Audio is an audio format using lossy coding. It can record 7.1 channels at 96 kHz/24 bits.

**DTS-HD Master Audio**
DTS-HD Master Audio is an audio format using lossless coding. With BD-ROMs, 7.1 channels can be recorded at 96 kHz/24 bits, or 5.1 channels at 192 kHz/24 bits.

**Ethernet**
A standard for local area networks (LANs) used to connect multiple computers, etc. in the same location. This player supports 100BASE-TX.

**Frames and fields**
A frame is the unit for one of the still pictures which compose motion pictures. One frame consists of a picture of odd lines and a picture of even lines called fields in video signal with interlaced scan method (480i, 1080i, etc.).

**HDMI (High-Definition Multimedia Interface)**
See About HDMI on page 18.

**Interactive audio**
The audio signals recorded in the titles of BD-ROMs. They include for example the clicking sound made when the menu screen is operated.

**Interlaced scan**
With this method, one picture is displayed by scanning it twice. The odd lines are displayed in the first pass, the even lines are displayed in the second, to form a single picture (frame). Interlaced scan is indicated in this player and operating instructions by an “i” after the resolution value (for example, 480i).

**IP address**
An address that identifies a computer or other device connected to the Internet or local area network. It is represented a number in four sections.

**Linear PCM**
This is referred to as the audio signals that are not compressed.

**MAC (Media Access Control) address**
A hardware identification number assigned specifically to the network device (LAN card, etc.).

**MPEG (Moving Picture Experts Group)**
The name of a family of standards used to encode video and audio signals in a digital compressed format. The video encoding standards include MPEG-1 Video, MPEG-2 Video, MPEG-4 Visual, MPEG-4 AVC, etc. The audio encoding standards include MPEG-1 Audio, MPEG-2 Audio, MPEG-2 AAC, etc.

**Parental Lock**
See Changing the Parental Lock level for viewing DVDs and Changing the Age Restriction for viewing BD-ROMs on page 50.

**Picture-in-Picture (P-in-P)**
This is a function for superimposing a sub video on the main video. Some BD-ROMs include secondary video, which can be superimposed on the primary video.

**Port number**
This is a sub-address provided below the IP address for simultaneously connecting to multiple parties during Internet communications.

**Progressive scan**
With this method, one picture is consisted of a single picture, without dividing it in two pictures. Progressive scan provides clear pictures with no flicker, in particular for still pictures that contain much text, graphics, or horizontal lines. Progressive scan is indicated in this player and operating instructions by a “p” after the resolution value (for example, 480p).

**Proxy server**
This is a relay server for ensuring fast access and safe communications when connecting to the Internet from an internal network.

**Region number**
See About region numbers on page 10.

**Secondary audio**
Some BD-ROMs include sub audio streams mixed with the main audio stream. These sub audio streams are called “secondary audio”. On some discs this secondary audio is recorded as the audio for the secondary video.

**Secondary video**
Some BD-ROMs include sub videos superimposed on the main videos using the Picture-in-Picture function. These sub videos are called “secondary video”.

**Subnet mask**
This is used to identify which part of the IP address corresponds to the subnet (a separately managed network). The subnet mask is expressed as “255.255.255.0”.

**USB (Universal Serial Bus)**
USB is the industry standard for connecting peripherals to PCs.

**VC-1**
A video codec developed by Microsoft and standardized by the Society of Motion Picture and Television Engineers (SMPTE). Some BDs include videos encoded in this codec.

**x.v.Color**
See About HDMI on page 18.
# Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>BDP-V6000</td>
</tr>
<tr>
<td>Type</td>
<td>Blu-ray Disc PLAYER</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>AC 120 V</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>60 Hz</td>
</tr>
<tr>
<td>Power consumption</td>
<td>32 W</td>
</tr>
<tr>
<td>Power consumption (standby)</td>
<td>0.3 W</td>
</tr>
<tr>
<td>Inrush current</td>
<td>25 A or less</td>
</tr>
<tr>
<td>Weight</td>
<td>7 lb 12 oz (3.5 kg)</td>
</tr>
<tr>
<td>External dimensions (including projecting parts)</td>
<td>16 9/16 in. (W) x 3 in. (H) x 11 5/16 in. (D)</td>
</tr>
<tr>
<td></td>
<td>(420 mm (W) x 75 mm (H) x 287 mm (D))</td>
</tr>
<tr>
<td>Tolerable operating temperature</td>
<td>+41°F to +95°F (+5°C to +35°C)</td>
</tr>
<tr>
<td>Tolerable operating humidity</td>
<td>5% to 85% (no condensation)</td>
</tr>
<tr>
<td>HDMI Video outputs</td>
<td>1 set, 19-pin: 5 V, 250 mA</td>
</tr>
<tr>
<td>Component video</td>
<td>1 set, RCA jack: 1.0 Vp-p (75 Ω)</td>
</tr>
<tr>
<td>Audio outputs</td>
<td>7.1-channel (multi-channel: front left/right, surround left/right, center, surround back left/right, subwoofer)</td>
</tr>
<tr>
<td>Audio output level</td>
<td>200 mVrms (1 kHz, –20 dB)</td>
</tr>
<tr>
<td>Frequency response</td>
<td>4 Hz to 88 kHz (192 kHz sampling)</td>
</tr>
<tr>
<td>Optical Digital audio outputs</td>
<td>1 set, Optical digital jack</td>
</tr>
<tr>
<td>LAN Input</td>
<td>1 set, Ethernet jack (100BASE-TX)</td>
</tr>
<tr>
<td>USB Control Input</td>
<td>1 set, Minijack (3.5 ø)</td>
</tr>
<tr>
<td>RS-232C Control</td>
<td>1 set, Type A</td>
</tr>
</tbody>
</table>

**Note**

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- This product includes FontAvenue® fonts licenced by NEC Corporation. FontAvenue is a registered trademark of NEC Corporation.
Should this product require service in the U.S.A. and you wish to locate the nearest Pioneer Authorized Independent Service Company, or if you wish to purchase replacement parts, operating instructions, service manuals, or accessories, please call the number shown below.

1 - 8 0 0 - 8 7 2 - 4 1 5 9

Please do not ship your product to Pioneer without first calling the Customer Support at the above listed number for assistance.

Pioneer Electronics (USA) INC.
Service Support Division
P.O. BOX 1760, Long Beach, CA 90801-1760, U.S.A.

For warranty information please see the Limited Warranty sheet included with your product.

Should this product require service in Canada, please contact a Pioneer Canadian Authorized Dealer to locate the nearest Pioneer Authorized Service Company in Canada. Alternatively, please contact the Customer Satisfaction Department at the following address:

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Customer Satisfaction Department
300 Allstate Parkway, Markham, Ontario L3R 0P2
1-877-283-5901
905-479-4411

For warranty information please see the Limited Warranty sheet included with your product.

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300, Allstate Parkway, Markham, Ontario L3R 0P2
1-877-283-5901
905-479-4411

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