Pioneer

DVD PLAYER

DV-AX10

Operating Instructions

DVD AUDIO

DVD VIDEO

SUPER AUDIO CD

COMPACT disc DIGITAL AUDIO

COMPACT disc DIGITAL VIDEO

CONGRATULATIONS ON YOUR PURCHASE OF THIS
FINE PIONEER PRODUCT.

Pioneer is on the leading edge of DVD research for consumer products and this unit incorporates the latest technological developments.

We are sure you will be fully satisfied with the DVD player.

Thank you for your support.

WARNING: THE APPARATUS IS NOT WATERPROOFS, TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE AND DO NOT PUT ANY WATER SOURCE NEAR THIS APPARATUS, SUCH AS VASE, FLOWER POT, COSMETICS CONTAINER AND MEDICINE BOTTLE ETC.   H001AEn

IMPORTANT NOTICE   H006AEn

The serial number for this equipment is located in the rear panel. Please write this serial number on your enclosed warranty card and keep it in a secure area. This is for your security.

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.   H012 En

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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.   H010 En

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Information to User
Alteration or modifications carried out without appropriate authorization may invalidate the user's right to operate the equipment.   H011 En

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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.   H013 En

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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.

• This player is not suitable for commercial use.

IMPORTANT

⚡

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

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

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

❗

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

IMPORTANT SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the product is operated.

RETAIN INSTRUCTIONS — The safety and operating instructions should be retained for future reference.

HEED WARNINGS — All warnings on the product and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

CLEANING — Unplug this product from the wall outlet before cleaning. The product should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

ATTACHMENTS — Do not use attachments not recommended by the product manufacturer as they may cause hazards.

WATER AND MOISTURE — Do not use this product near water — for example, near a bathtub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.

ACCESSORIES — Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

CART — A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

VENTILATION — Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

POWER SOURCES — This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

LOCATION – The appliance should be installed in a stable location.

NONUSE PERIODS – The power cord of the appliance should be unplugged from the outlet when left un-used for a long period of time.

GROUNDING OR POLARIZATION
• If this product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other), it will fit into the outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
• If this product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin, it will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

POWER-CORD PROTECTION — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

OUTDOOR ANTENNA GROUNDING — If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.

LIGHTNING — For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

POWER LINES — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

OVERLOADING — Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.

OBJECT AND LIQUID ENTRY — Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

SERVICING — Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

DAMAGE REQUIRING SERVICE — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
• When the power-supply cord or plug is damaged.
• If liquid has been spilled, or objects have fallen into the product.
• If the product has been exposed to rain or water.
• If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
• If the product has been dropped or damaged in any way.
• When the product exhibits a distinct change in performance — this indicates a need for service.

REPLACEMENT PARTS — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

SAFETY CHECK — Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

WALL OR CEILING MOUNTING — The product should not be mounted to a wall or ceiling.

HEAT — The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

ANTENNA

LEAD IN WIRE

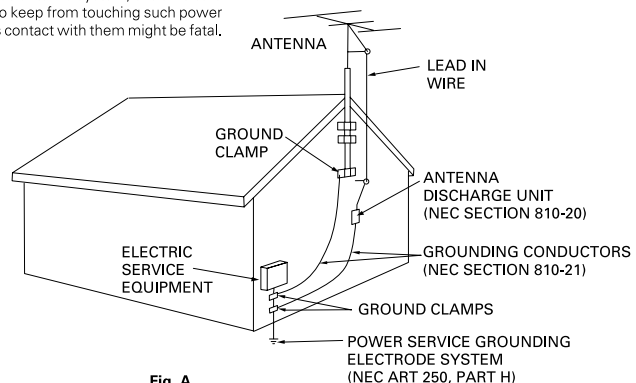GROUND CLAMP

ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)

GROUNDING CONDUCTORS (NEC SECTION 810-21)

ELECTRIC SERVICE EQUIPMENT

GROUND CLAMPS

POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

Fig. A

NEC — NATIONAL ELECTRICAL CODE

Features of This Player

Compatible with DVD, SACD, Video CD and CD formats

DVDs, SACD, Video CDs and CDs that display the logos shown below can be played back on PIONEER DVD players. For more information on discs compatible with this player, refer to the table below.

Types of playable discs and their marks	Diameter/ Playable sides		Playback time
DVD **DVD AUDIO**	DVD-Audio DVD-Video		Digital audio Digital video (MPEG 2)
	12 cm (5 in.)/ single-sided	1 layer 2 layer	133 min. 242 min.
	12 cm (5 in.)/ double-sided	1 layer 2 layer	266 min. 484 min.
DVD VIDEO	DVD-Audio DVD-Video		Digital audio Digital video (MPEG 2)
	8 cm (3 in.)/ single-sided	1 layer 2 layer	41 min. 75 min.
	8 cm (3 in.)/ double-sided	1 layer 2 layer	82 min. 150 min.
SUPER AUDIO CD	SUPER AUDIO CD 12 cm (5 in.) (Single layer, Dual layer, Hyblid layer)		Digital audio (DSD)
	8 cm (3 in.) (Single layer, Dual layer)		Digital audio (DSD)
VIDEO CD **COMPACT disc DIGITAL VIDEO**	VIDEO CD 12 cm (5 in.)/ single-sided		Digital audio Digital video (MPEG 1) Max. 74 minutes
	VIDEO CD single 8 cm (3 in.)/ single-sided		Digital audio Digital video (MPEG 1) Max. 20 minutes
CD **COMPACT disc DIGITAL AUDIO** **COMPACT *1 disc DIGITAL AUDIO Recordable** **COMPACT *1 disc DIGITAL AUDIO ReWritable**	CD 12 cm (5 in.)/ single-sided		Digital audio Max. 74 minutes
	CD single 8 cm (3 in.)/ single-sided		Digital audio Max. 20 minutes

*1 **Playing recordable CDs**
• Note that this unit cannot record onto recordable discs.
• This unit can play music-use CD-R and CD-RW discs. However, depending on the condition of the CD-Recorder and the disc, you may find that not all discs will play successfully. (For example, if the disc is scratched or dirty, or if the player's pickup lens is dirty.)

The disc format logos shown left are found on disc labels or on disc jackets.
• To prevent malfunction, do not use an 8 cm (3 in.) adaptor (for CDs).
• Discs other than the ones indicated left cannot be played on this unit.
• DVDs that have incompatible region numbers, DVD-RAM, DVD-ROM, and CD-ROM cannot be played on this unit. The region number of the player can be found on the rear panel.

Equipped to play back DVD-Audio discs and capable of decoding Dolby Digital*2 and DTS*3 multichannel digital bitstreams for a high quality audio experience.

DOLBY DIGITAL   **dts DIGITAL SURROUND**

Equipped with a 192 kHz/24 bit DAC (Digital-Analog Converter), this player is capable of playing back the high quality audio recorded on DVD-Audio discs. Additionally, discrete 5.1 channel analog audio output jacks are featured for 96 kHz/24 bit audio output of multichannel DVD-Audio discs and Dolby Digital and DTS multichannel sources decoded by the player's internal Dolby Digital and DTS decoders. By making connections to an AV component that features 5.1 channel discrete inputs, you can enjoy a cinema quality sound experience (**page 18**).

Equipped for high standard progressive scan component video output

The component video output jacks on this player feature a 525p (480p) progressive scan output frequency. When connections are made to the component video input of a TV, monitor, or projector compatible with 525p (480p) progressive scan frequencies, twice the information of a standard interlace scan and greatly improved picture quality can be achieved (**page 15**). Also, when taking advantage of the progressive scan system, the Pure Cinema mode can be used to produce an even better picture quality during DVD-Video disc playback (**page 45**).

Equipped with newly developed DNR video encoder technology

This player is equipped with a high quality DNR (Digital Noise Reduction) internal video encoder (VQE: Video Quality Enhancer) that automatically performs fine textured video adjustments. Three preprogrammed quality settings can be selected for TV (CRT), projector, and professional, and you can also make custom adjustments to screen quality settings and store them in the player's memory (**page 44**).
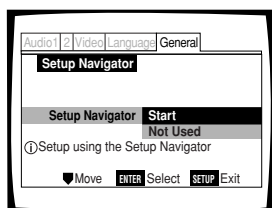This player also features component video output jacks for ideal delivery of the DVD digital video signal, as well as two S-video and two composite output jacks.

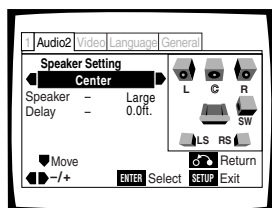## Connection to the optional C-AX10 Control Amplifier using PDIF

Multi-channel digital audio and 2 channel with sampling rate of up to 192kHz can be fed directly to a C-AX10 Control Amplifier. Since the signal does not pass through any D/A – A/D conversion, exceptional playback quality is possible (**page 17**).

Easy setup and adjustment using on-screen menus

Press **SETUP** on the remote control to open the Setup screen and you'll find setting up and adjusting the system easy to do with on-screen menus conveniently organized and arranged. Additionally, on-screen information (ⓘ) appears to clarify the functions and explain the options available. Below are just a few examples.

| Audio1 | 2 | Video | Language | General |

Setup Navigator

| Setup Navigator | **Start** |
| | Not Used |

ⓘSetup using the Setup Navigator

▼Move ENTER Select SETUP Exit

Answer a few questions and have all the necessary audio, video, and on-screen language adjustments set automatically by the player using the Setup Navigator (**page 19**).

| 1 | Audio2 | Video | Language | General |

Speaker Setting
Center
Speaker   –   Large
Delay   –   0.0ft.

L C R
SW
LS RS

▼Move ⤺Return
◀▶–/+ ENTER Select SETUP Exit

Set up the on-screen speaker system to match your home audio system in the **Audio 2** menu for ideal presentation of multichannel audio (**page 32**).

## Smooth variable speed scanning in forward and reverse directions

This player incorporates technology that enables smooth playback of DVDs and Video CDs not only at different speeds but also in both forward and reverse directions. Control the direction and scanning speeds from 1/16 normal play speed to extremely quick scanning using the **MULTI DIAL** on the remote control (**page 47**).

## Wide range of DVD viewing options

Multi-Language Subtitles (page 38)☆

You can select a subtitle language or turn subtitles off when watching movies or other media with subtitles available.

Subtitle :1 English
HELLO!
➡
Subtitle :2 Spanish
HOLA!
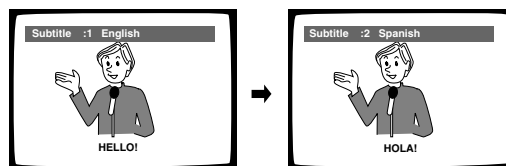
Multiple Languages (page 39)☆

You can select the language on when watching movies or other media that have multiple language and/or audio soundtracks recorded on them.

Dolby Digital 5.1CH
Audio   :1 English
HELLO
➡
Dolby Digital 5.1CH
Audio   :2 Spanish
HOLA
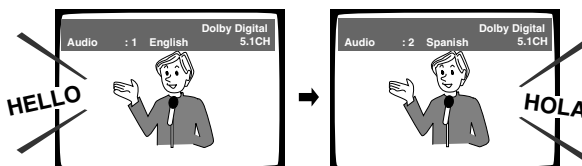
Multi-Angle (page 50)☆

You can view scenes from different camera angles when watching movies or other media with multiple angle playback available.

ANGLE   :2/4
➡
ANGLE   :3/4
ᴘɪoɴᴇᴇʀ
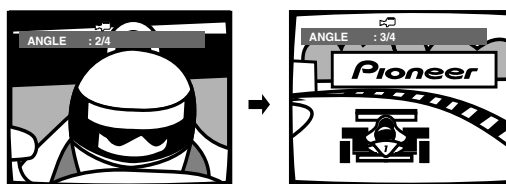
☆ This mark indicates this may not be possible with certain discs.

*2   Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories. Confidential unpublished works. © 1992-1997 Dolby Laboratories. All rights reserved.

*3   "DTS" and "DTS Digital Surround" are trademarks of Digital Theater Systems, Inc. Manufactured under license from Digital Theater Systems, Inc.

Differences in Disc Composition
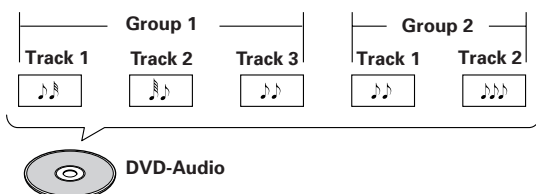
DVD-Video

DVD-Videos are divided into units referred to as titles, and titles are divided into chapters. A DVD which contains a movie may have only one title with many or no chapter divisions. Karaoke DVDs may have many titles, assigning a title to each song on the DVD. Menu screens do not belong to any title.

DVD player functions generally apply to titles on a DVD or chapters within a selected title. The player functions available may also vary from title to title, depending on the DVD. When DVDs have a unique title division, it should be noted that search and program functions may be affected.
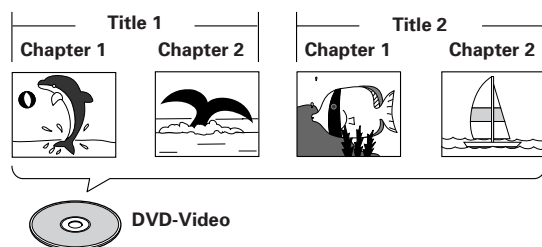

DVD-Audio

DVD-Audio discs are divided up into units known as groups, and each group is further divided into tracks. Generally speaking, a single song corresponds to a single track, however, tracks may also be divided into indexes. Menu screens and video material common to DVD-Video discs may also be included on some discs.

SACD/Video CD/CD

SACDs, Video CDs and CDs are divided into units referred to as tracks (Video CD tracks may also be referred to as scenes). One song generally corresponds to one track. Some tracks are further divided into units referred to as indexes. Video CDs with PBC (Playback Control) also contain menus recorded on the disc which enable easy access to the contents of the disc.

When played back on a DVD player, SACDs, Video CDs and CDs all considered to be a single title, regardless of the number of tracks.
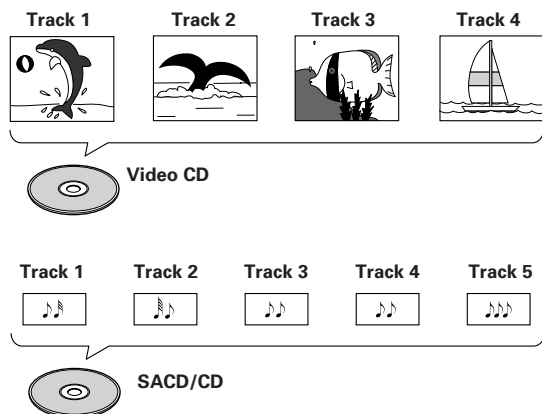
How to Proceed in This Manual

DVD is an incredible format that presents the highest quality digital audio and video available today. Because using the DVD player and DVDs may be confusing at first, following the order below should help you get through the important stages of getting set up so you can start using your player as soon as possible.

Get familiar with the player.

Refer to the section *"Before Using"* on **page 8** to confirm that all the accessories were included with the player. If you are new to DVD, it might be beneficial for you to go through the *"Names and Functions"* section starting on **page 9** to get familiar with the parts and buttons on the main unit and remote control as they will be referred to throughout this manual.

There is also a list of terms that can be found on **page 71** if you are having trouble understanding some of the terminology associated with DVD.

Make the necessary connections.

No entertainment system seems to be set up exactly the same way. The *"Making Connections"* section starting on **page 14** shows how video and audio connections may be made to suit your home entertainment system.

Set up the player.

Before you can begin to enjoy the benefits of the DVD format, it is first necessary to set up the player to output the video and audio information that corresponds to your system. The section *"Setting Up the Player"* starting on **page 19** explains how to use the Setup Navigator, a function that automatically sets up the player corresponding to the answers given in a multiple-choice on-screen procedure. The Setup screen menus, described in the section starting on **page 27**, are also used in a number of other functions. Learning the procedure for operating these menus will make using this player much easier and more enjoyable.

Play a disc.

When all the connections and setups have been made, you are ready to play a DVD, SACD, Video CD, or CD with the player. The section *"Getting Started Using Your DVD Player"* starting on **page 23** outlines the basic player operations.

Enjoy the many features available.

Once you are comfortable using the basic player functions, you are ready to take advantage of the various options DVD and this player have to offer. The section *"Advanced Functions"* starting on **page 43** describes how to use the features available on many DVDs.

Table of Contents

Before Using

Checking Accessories

Please confirm that the following were received with the player.

Audio cord
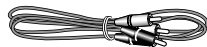
Video cord

BNC to RCA/phono adapter (x3)
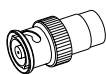
Remote control unit

AA/R6P batteries

When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.
H048 En

Operating instructions (this manual)

Preparing the Remote Control

Inserting batteries into the remote control

1 Push down on the tab on the battery compartment cover, and pull out in the direction indicated by the arrow.
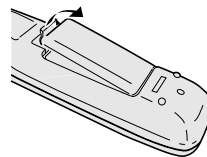
2 Insert batteries.
Make sure to match the plus (+) and minus (–) polarity guides on the batteries with the marks inside the battery compartment.
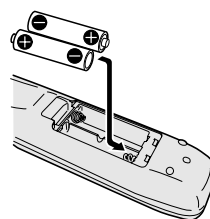
3 Close the cover.
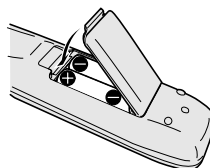
Notes
• Do not mix old and new batteries.
• When replacing batteries, use all new batteries.
• When not using the remote control for a long period of time (over **1** month), remove the batteries to avoid possible damage from battery corrosion. If battery leakage occurs, wipe the battery liquid from the battery component, then insert new batteries.

Remote Control Operation
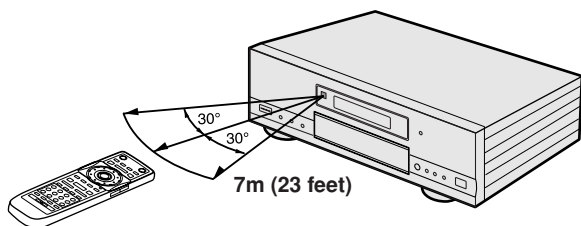
When operating the remote control, point it at the remote sensor (🔲) located on the player's front panel. The remote control can be used up to 7 m (23 feet) from the player and within a 30° angle on each side of the sensor.

30°
30°

7m (23 feet)

Notes
• Exposing the remote sensor to direct sunlight or strong light may cause faulty operation.
• If the **CONTROL IN** jack on the player's rear panel is connected to the **CONTROL OUT** jack of another component, point the remote control at the other component to operate the player. Operation will not be possible when pointed at this player (**page 11**).

Names and Functions

Front Panel
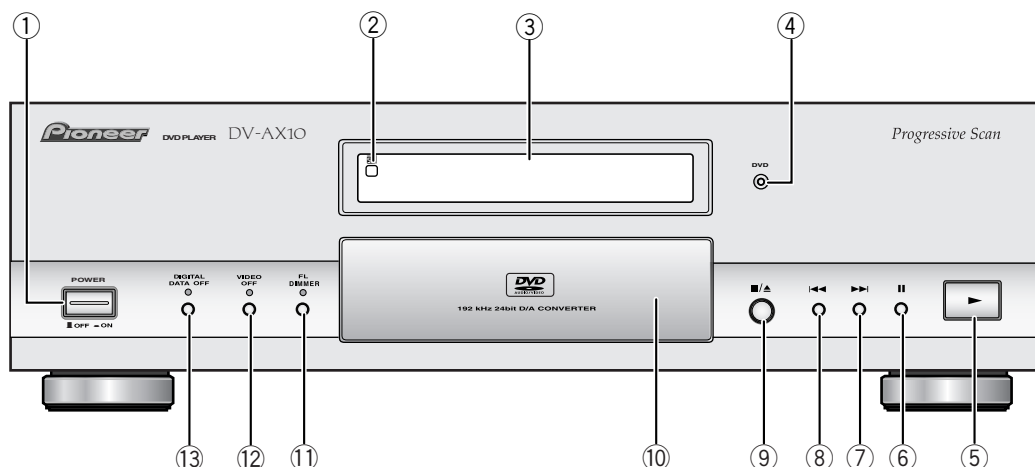
① **POWER switch**

Press to switch the player on or off (**pages 19, 23, and 27**).

② **Remote sensor**

Point the remote control toward the remote sensor to operate the player (**page 8**).

③ **Display window**

Displays system information (**page 10**). Press **FL OFF** on the front panel or **DIMMER (FL)** on the remote control to adjust the brightness of the display window (**page 13**).

④ **DVD indicator**

Lights when a DVD-Audio disc or DVD-Video disc is loaded in the player. Does not light when a disc format other than DVD is loaded in the player.

⑤ ► **(play) button**

Press to start or resume playback (**pages 23 and 26**).

⑥ ❚❚ **(pause) button**

Press during playback to pause (**page 46**).

⑦ ►►❙ **(forward) button**

Press to advance to chapters, tracks, etc. (**page 25**).

⑧ ❙◄◄ **(reverse) button**

Press to go back to previous chapters, tracks, etc. (**page 25**).

⑨ ■ **(stop) button**

Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it stopped. (**page 26**).

▲ **(open/close) button**

Press to open and close the disc tray when stopped (**pages 23 and 26**).

⑩ **Disc door/Disc tray**

When loading a disc, place in the disc tray with the label side facing up (**pages 23 and 26**).

⑪ **FL DIMMER button/indicator**

Press to change the brightness of the Display windows and disc illumination in four steps: maximum brightness, medium brightness, minimum brightness, and off. When the Display window is on maximum brightness, the **FL DIMMER** indicator on the front panel is off.

⑫ **Video Off button/indicator**

Switches the video signal output on/off

AUTO: If there is a video signal from a loaded disc, video is output. If there is no signal from the disc or there is no disc loaded, no video signal is output.

OFF: No video signal is output.

ON: Video signal is output.

When **OFF** is selected, the indicator lights.

⑬ **DIGITAL DATA OFF button/indicator**

Switches the digital output on/off. When switched off, the indicator lights (**page 30**).

Names and Functions

Display Window
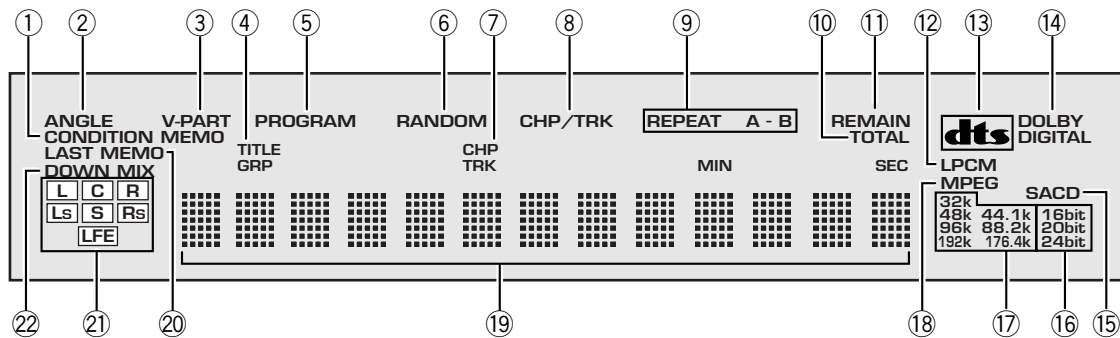
① **CONDITION MEMO indicator**

Indicates that Condition Memory settings are memorized for the currently loaded DVD-Video disc (**page 59**).

② **ANGLE indicator**

Indicates Multi-Angle playback is in progress (**page 50**).

③ **V-PART indicator**

During DVD-Audio disc or DVD-Video disc playback, lights when a video signal is present.

④ **TITLE/GRP indicator**

Indicates a title or group number is being displayed.

⑤ **PROGRAM indicator**

Indicates that the program function is on.

⑥ **RANDOM indicator**

Indicates that the random function is on.

⑦ **CHP/TRK indicator**

Indicates a chapter or track number is being displayed.

⑧ **CHP/TRK indicator**

Indicates during chapter or track program play, repeat playor random playback.

⑨ **REPEAT (A-B) indicator**

Indicates that the Repeat function is on and that the current title, chapter, group, or track is being repeated.

⑩ **TOTAL indicator**

Indicates that the disc in the player is stopped and **DISPLAY** has been pressed (**page 61**).

⑪ **REMAIN indicator**

Indicates that the remaining playback time of a title, chapter, group or track is being displayed.

⑫ **LPCM**

Lights during Linear PCM playback.

⑬ **DTS indicator**

Indicates DTS audio playback.

⑭ **DOLBY DIGITAL indicator**

Indicates Dolby Digital audio playback.

⑮ **SACD**

Lights when a Super Audio CD (SACD) is being played.

⑯ **Bit depth display**

Displays the bit depth of the Linear PCM audio disc playing.

⑰ **Sampling frequency display**

Displays the sampling frequency of the Linear PCM audio disc playing.

⑱ **MPEG**

Lights during playback of MPEG audio.

⑲ **Counter display**

Displays the playback mode, type of disc, title/chapter/group/track numbers, playback time, etc.

⑳ **LAST MEMO indicator**

Indicates the Last Memory location is registered in memory for the currently loaded DVD-Video disc or Video CD (**page 58**).

㉑ **Program Format indicators**

Depending on the audio format recorded on the disc loaded in the player, the following indicators light to show the channels being played back.
L : Left front
C : Center
R : Right front
LS : Left surround
S : Surround (mono)
RS : Right surround
LFE: LFE (Low Frequency Effects) channel

㉒ **DOWNMIX indicator**

During multichannel audio playback, indicates that the out put signal has been "downmixed" from the original audio source. This is an automatic function performed by the player in order to present the most appropriate audio mix to the speakers present in your system.

Rear Panel
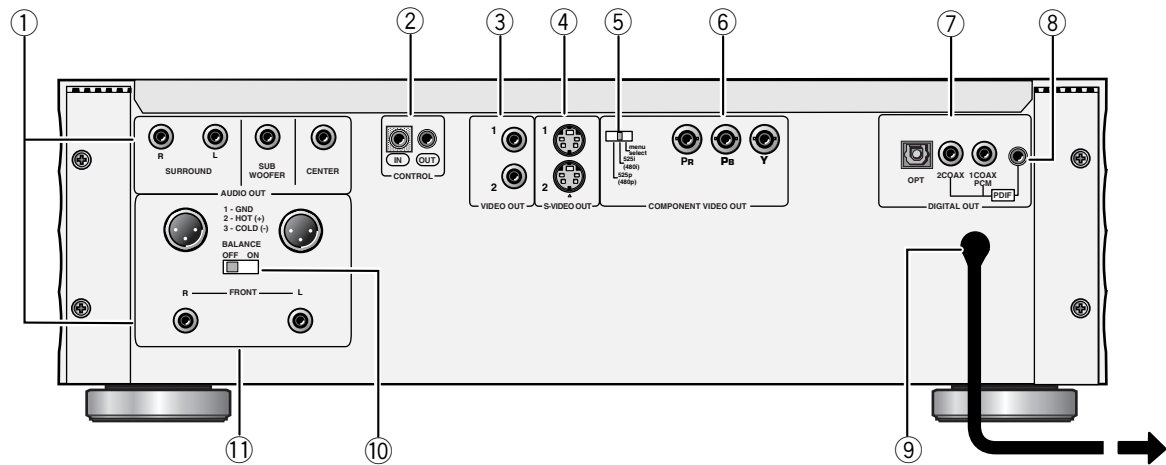
* The rear and under section of this appllance are copper plated to ensure quality sound. It may sometimes happen that marks are left during the plating process, but this does not affect performance.

① **Multichannel AUDIO OUT jacks**

Use to output 6 discrete audio channels of decoded digital audio to a receiver or amplifier with discrete audio inputs (**page 18**).

② **CONTROL jacks**

Using a commercially available cord with a mini plug (3.5 mm dia. with no resistance) to connect this player's **CONTROL IN** jack to the **CONTROL OUT** jack of another PIONEER component bearing the 𝕊𝕣 mark, you can control the player as though it were a component in a system (system control).

• If you connect for system control, you cannot operate the player directly. Point the remote control unit at the component (AV amplifier, etc.) connected to the **CONTROL OUT** jack to operate.

• When controlling as a system, be sure to make a connection to the amplifier using an audio or video cord, even when using only digital components.

• For details, refer to the operation manuals of the connected components.

③ **VIDEO OUT jacks**

Connect to the video input on a TV, monitor, AV amplifier or receiver with video input capability (**pages 14 and 16**).

④ **S-VIDEO OUT jacks**

If your TV or monitor has an **S-VIDEO** input, clear picture reproduction is possible by connecting the player to your TV or monitor via the **S-VIDEO** jack. (**pages 16**).

⑤ **Component video output selection switch**

Use to set the scanning system (interlace, progressive, menu setting) being used by the TV, monitor, or projector connected to the **COMPONENT VIDEO OUT** jacks (**pages 15 and 16**).

⑥ **COMPONENT VIDEO OUT jacks**

If your projection monitor, projector or similar component has component video inputs, you can produce a higher quality picture on your projection monitor or projector by connecting to the component video outputs on this unit. When using these jacks, be sure to set the **component video output selection switch** to the correct position (**pages 15 and 16**).

⑦ **DIGITAL OUT jacks (coaxial(COAX)/optical (OPT))**

Use to output the digital audio signal recorded on discs. You can output the digital signal via either coaxial or optical output jack to an AV amplifier or receiver (**pages 15 and 17**).

⑧ **PDIF jack**

When using this player with the optional C-AX10 Digital Control Amplifier, connect to this jack using the PDIF cable supplied with the C-AX10 (**page 17**).

⑨ **Power cord**

Use to connect the power cord to the wall outlet (**pages 14 and 15**).

⑩ **BALANCE ON/OFF switch**

Use to set to **ON** if you are using the balanced audio outputs (**page 18**)

⑪ **AUDIO OUT FRONT jacks**

Use to output two-channel audio (analog) to the audio stereo inputs on a TV or stereo amplifier. If you are connecting to a receiver that has both digital and analog input jacks for DVD player connection, it may be beneficial to make both connections (**pages 15 and 18**).

NAMES AND FUNCTIONS

Remote Control
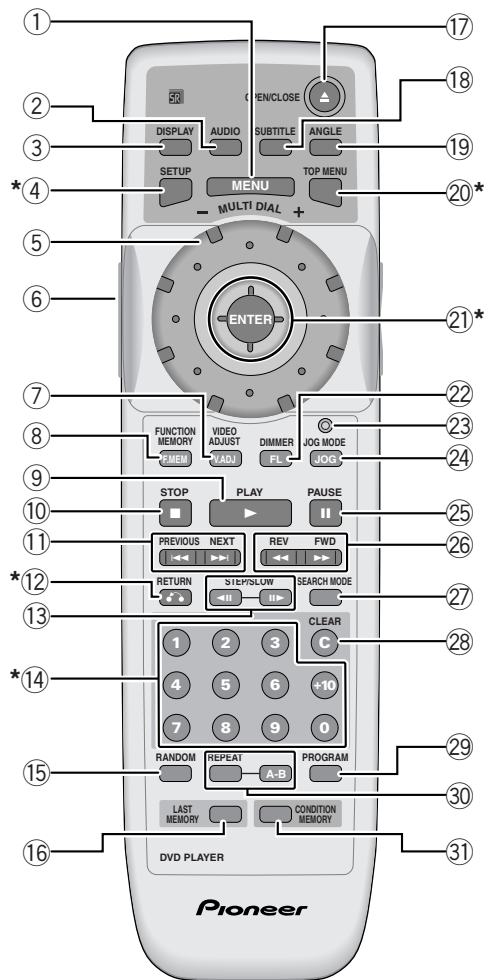
(Buttons indicated with * are used for menu operation.)

① **MENU button***

Use to display or close the DVD menu screen (**page 24**).

② **AUDIO button**

Press repeatedly to select one of the audio languages and/or audio formats programmed on a DVD (**page 39**).

For Video CD and CD, each press changes the audio output as follows.

Stereo, 1/L (Left), 2/R (Right), Stereo, ...

③ **DISPLAY button**

Press during playback to display statistical disc information. Press repeatedly to display different information (**page 61**).

④ **SETUP button***

Press when the player is in either play or stop mode to open and close the Setup screen (**pages 19 and 27**).

⑤ **MULTI DIAL**

Use to control the rate of playback according to the speed at which **MULTI DIAL** is turned. When the Jog Mode is on, frame by frame scanning in both forword and reverse directions is possible (**page 47**).

⑥ **LIGHTING button (side panel)**

Use to illuminate the main operation buttons on the remote control. When pressed, the buttons light for approximately 6 seconds. This function is convenient for locating the command buttons when the room is dark.

⑦ **VIDEO ADJUST (V.ADJ) button**

Various attributes of the video presentation can be adjusted to suit the program type or personal preferences. Press **VIDEO ADJUST (V.ADJ)** to display the on-screen options (**page 43**).

⑧ **FUNCTION MEMORY (F.MEM) button**

Press to incorporate a menu item into a shortcut list that is stored in memory and can be called up at any time (**page 60**).

⑨ **PLAY ► button**

Press to start disc playback (**pages 23 and 26**).

⑩ **STOP ■ button**

Press to stop playback. Pressing once enables playback to resume from a point shortly before the location where it was stopped. Pressing twice causes the disc to return to the beginning of the disc when playback starts again (**page 26**).

⑪ **PREVIOUS ◄◄/NEXT ►►| buttons**
During playback, press **PREVIOUS ◄◄** to go back to a previous chapter/track and **NEXT ►►|** to advance to the next chapter/track (**page 25**).

⑫ **RETURN ↩ button***
Use to go one menu back (current settings are maintained). Use **RETURN ↩** when you do not want to change the option setting in a menu (**pages 19, 24 and 27**).

⑬ **STEP/SLOW ◄II/II► buttons**
Press **STEP/SLOW II►** during playback to view slow playback. In pause mode, press **STEP/SLOW II►** to advance DVDs and Video CDs frame by frame and **STEP/SLOW ◄II** to back up a DVD a few frames at a time (**page 46**).

⑭ **Number buttons (1-9, 0, +10)***
Use to perform direct title/chapter/group/track searches, and to input numerical values.

⑮ **RANDOM button**
Play in random order the groups or tracks on DVD Audio disc, the titles or chapters on DVD Video disc, and the tracks on Video CDs and CDs (**page 52**).

⑯ **LAST MEMORY button**
You can resume DVD-Video or Video CD playback from the point you last watched even if the disc is removed from the player. Press **LAST MEMORY** during playback to set a Last Memory point. When you want to resume playback of that disc, press **LAST MEMORY** in the stop mode and playback starts from the memorized point. Last Memory locations can be stored for up to 5 DVDs and 1 Video CD (**page 58**).

⑰ **OPEN/CLOSE ⏏ button**
Press to open or close the disc tray (**pages 23 and 26**).

⑱ **SUBTITLE button**
Press repeatedly to select one of the subtitle languages programmed on a DVD or to turn the subtitles off (**page 38**).

⑲ **ANGLE button**
Some DVDs are recorded with various camera angle playback options. Press **ANGLE** repeatedly to display different camera angles (**page 50**).

⑳ **TOP MENU button***
Press to call up the top menu programmed on the DVD. Depending on the DVD, the top menu may be identical to the DVD menu (**page 24**).

㉑ **Cursor control joystick***
Use to move the cursor through the options on menu screens and to change settings.
ENTER button*
Press to implement settings selected with the cursor control joystick or to set items highlighted in a menu.

㉒ **DIMMER (FL) button**
Press to change the brightness of the Display windows and disc illumination in four steps: maximum brightness, medium brightness, minimum brightness, and off. When the Display windows is turned off, the **FL OFF** indicator on the front panel lights.

㉓ **JOG MODE indicator**
Lights when the function of **MULTI DIAL** is to perform frame by frame playback in both directions (**page 48**).

㉔ **JOG MODE (JOG) button**
Press to change the function of **MULTI DIAL** from slow playback and scan to frame by frame playback. When this mode is on, frame by frame playback in both forward and reverse directions is possible (**page 48**).

㉕ **PAUSE II button**
Press to pause playback of a disc. Press again to resume playback (**page 46**).

㉖ **REV ◄◄/FWD ►► (fast reverse/ fast forward) buttons**
During playback of DVD and Video CD, press **FWD ►►** to perform fast forward scanning. Press **REV ◄◄** to perform fast reverse scanning of DVD and Video CD. When a SACD or CD is loaded, audio scanning is performed (**page 25**).

㉗ **SEARCH MODE button**
Press to perform a title/chapter/group/track or elapsed time search (**page 49**).

㉘ **CLEAR button**
Works in conjunction with a number of player functions. Use to cancel repeat and random playback, and to edit programs.

㉙ **PROGRAM button**
You can program groups and tracks on a DVD Audio disc, titles and chapters on a DVD Video disc, and tracks on Video CDs or CDs to play back in a desired order (**page 53**).

㉚ **REPEAT (A-B) buttons**
You can repeat groups and tracks on a DVD Audio disc, titles and chapters on a DVD Video disc, and tracks or an entire disc of a SACD, Video CD or CD (**page 51**).

㉛ **CONDITION MEMORY button**
You can store in memory the settings for up to 15 DVDs. Press **CONDITION MEMORY** during DVD playback to memorize the settings (**page 59**).

NAMES AND FUNCTIONS

13
En

Making Connections

Connecting Your DVD Player

Unlike any other audiovisual media format, DVD offers a wide array of audio and video output options which allows playback to be enjoyed in any number of system configurations from a standard TV with stereo audio input to a home theater system with a TV or monitor and full surround sound capabilities.

Connection Guide

The illustration on this page shows the basic setup using the audio and video cords included with this player. Use this illustration as a guide to setting up your home system.
An explanation of each type of audio and video connection available can be found on **pages 16 to 18**. To determine the best audio and video connection setup for your system, refer to the manuals supplied with the components you are making connections to.
In addition to making physical connections to your TV or monitor, it is also necessary to assign the TV screen size. You can use the **[Setup Navigator]** in the Setup screen General menu to set whether you are using a wide screen or standard size TV or monitor (**page 20**). Additionally, you can use the **[TV Screen]** setting in the Setup screen Video menu (**page 36**).

① **Video connection to a TV or monitor with video inputs (page 16).**
② **Audio connections to a TV or monitor with audio inputs (page 18).**
③ **After all connections have been made, connect to a power outlet.**
④ **Set up the player using the "Setup Navigator" (page 19).**
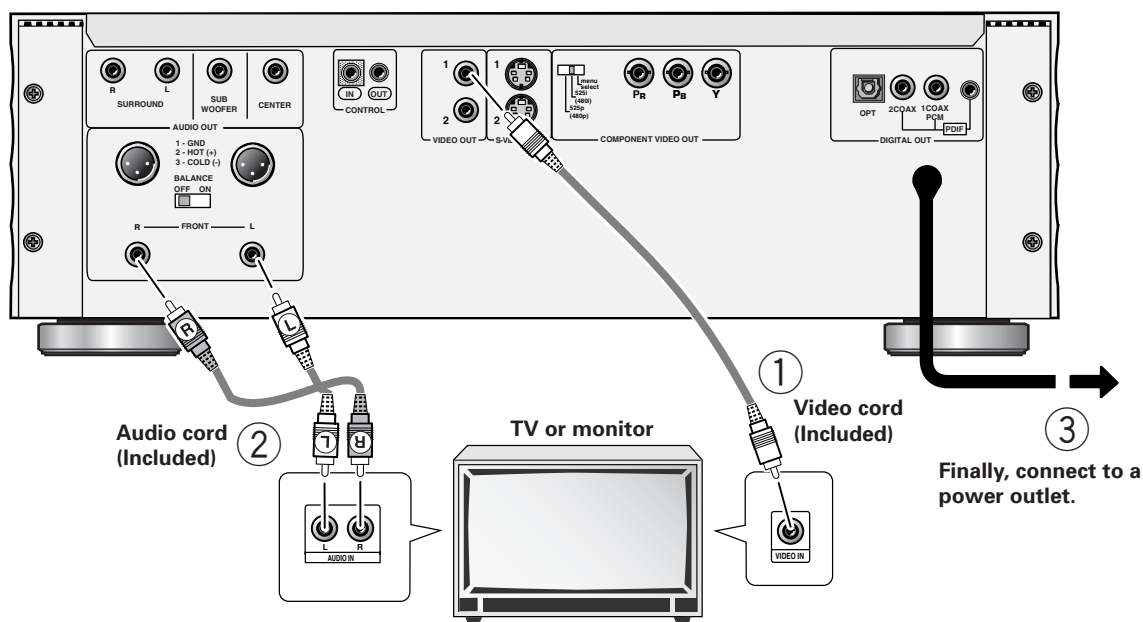
Make audio connections from one of the **AUDIO OUT** jacks on the player to the **AUDIO IN** jacks on the TV or monitor using the stereo audio cord included with the player. Be sure to match the color of the plugs with the color of the jacks (red and white).

Make video connections from the one of the **VIDEO OUT** jacks on the player to the **VIDEO IN** jack on the TV or monitor using the video cord included with the player.

Notes
- When making connections to this unit or when changing connections, check that the unit is off by pressing **POWER** and unplug the power cord from the power outlet.
- The analog video output on this player uses copy protect circuitry to prevent the video playback on DVDs from being copied. If you connect the player to a TV via a VCR, or record and play back the contents of a disc with a VCR, the playback picture may not be normal.

Home Theater Component Connections (Example)

The connections on this page demonstrate the versatility of this player to conform to any number of home entertainment systems. Please note that the illustration shown on this page is meant as an example. Please refer to the manuals supplied with the components to which you are making connections to determine the best possible setup for your home system.
An explanation of each type of audio and video connection available can be found on **pages 16 to 18**.

① **Video connection to a TV or monitor with component video inputs (page 16).**
② **Switch the component video output selection switch to the correct position (page 16).**
③ **Digital audio connections to an AV amplifier or receiver with a built-in decoder (page 17).**
④ **After all connections have been made, connect to a power outlet.**
⑤ **Set up the player using the "Setup Navigator" (page 19).**

Component video cord (Not included)

① TV or monitor with component video inputs

③ 75Ω coaxial digital cable (Not included)

④ Finally, connect to a power outlet.

AV amplifier or receiver

5.1 Channel Surround Speaker System
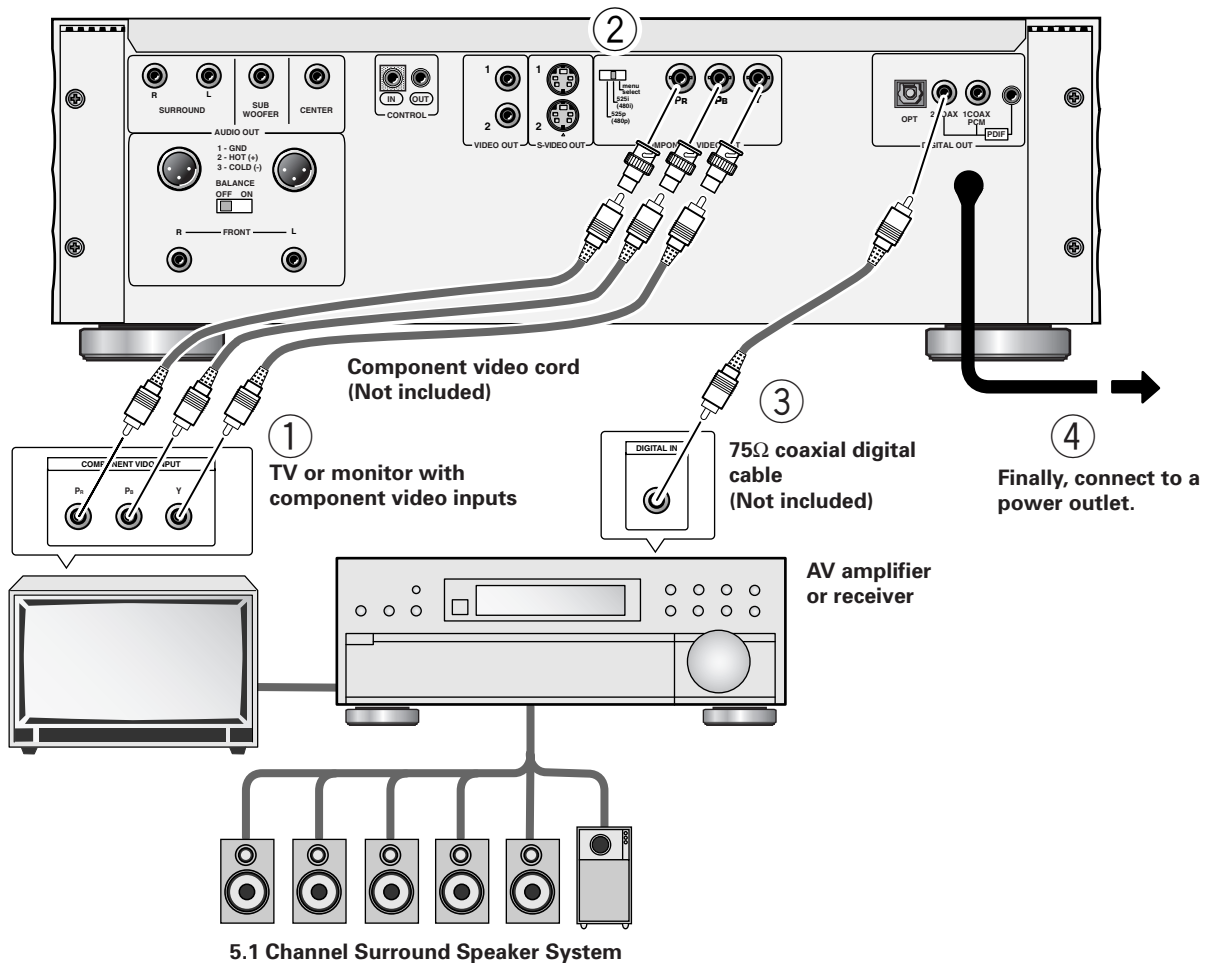
Video Connections

This player features S-video, composite, and component video output possibilities.
Check the manual supplied with your TV or monitor to determine the best possible connection for your system.
In addition to making physical connections to your TV or monitor, it is also necessary to assign the TV screen size. You can use the **"Setup Navigator"** in the Setup screen **General** to set whether you are using a wide screen or standard size TV or monitor (**page 21**). Additionally, you can use the **[TV Screen]** setting in the Setup screen **Video** menu (**page 36**).

VIDEO OUT

- Make composite video connections to a standard TV or monitor with a video input jack.
- Use the supplied video cable to connect one of the **VIDEO OUT** jacks on the player to the video input on the TV or monitor.
- Be sure to match the color of the plug with the color of the jack (yellow).
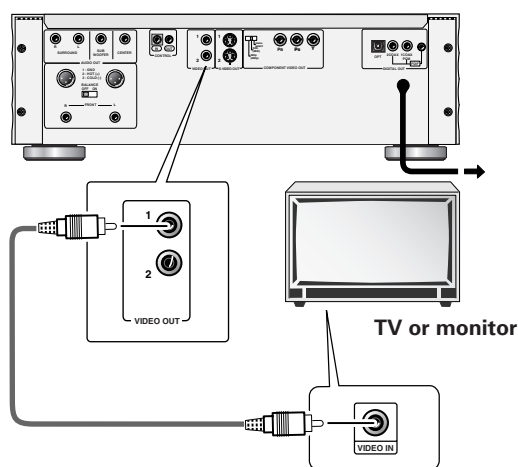
TV or monitor

S-VIDEO OUT

- Make S-video connections to a TV or monitor with S-video input to produce a high quality video image.
- Use an S-video cable (not supplied) to connect one of the **S-VIDEO OUT** jacks on the player to an S-video input on the TV or monitor.
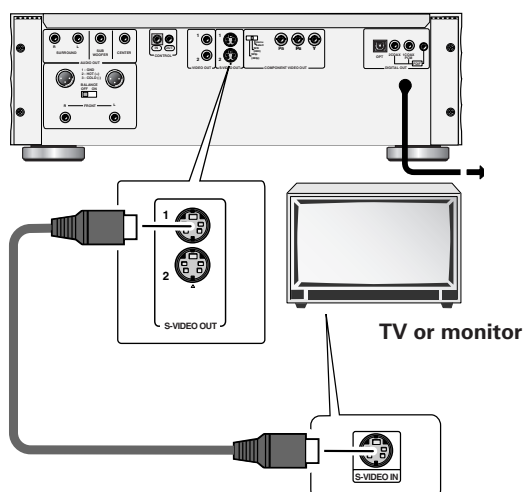
TV or monitor

COMPONENT VIDEO OUT

- Make component video connections to a TV or monitor with component inputs to produce a higher quality video image.
- Use a component video cable or 3 video cords (not supplied) to connect the **COMPONENT VIDEO OUT** jacks on the player to the component jacks on the monitor.
- Make this type of connection if the TV or monitor you are using is compatible with progressive scan.
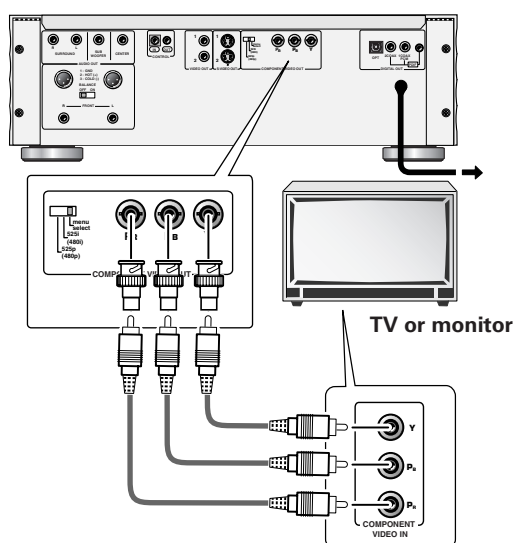
TV or monitor

Component video output selection switch
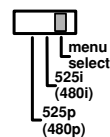
When component video connections have been made as described above, if the TV or monitor is progressive-compatible, set to **[525p(480p)]**. If the TV or monitor is not progressive-compatible, select **[525i(480i)]**. When **[menu select]** is selected, the setting is assigned as it is set in the Setup screen Video menu (**page 35**).

Digital Audio Connections

You can enjoy the digital audio recorded on DVD discs from both optical digital and coaxial digital output jacks.
When making digital audio connections, do not make connections from both the coaxial and optical digital outputs to the same component.

- When a DVD recorded in Dolby Digital, DTS, or MPEG is loaded, noise will be output if you have made connections via the digital audio jacks to a receiver or amplifier that cannot decode a Dolby Digital, DTS, or MPEG digital bitstream. In this case, be sure to set up the Setup Navigator audio settings to best reflect the type of system you are using (**page 22**). Additionally, the digital audio settings can be adjusted manually in the Setup screen **Audio 1** menu (**pages 29 and 30**).
- When recording digitally to an MD, CD recorder, DAT, etc., using a digital connection, we recommend using to the 1 COAX PCM jack.
- To enjoy Dolby Digital or DTS 5.1 channel audio, use the OPT (optical) or the 2 COAX jack. In addition to an AV amplifier with built-in Dolby Digital/DTS decoder, you'll need a surround sound speaker system (main left/right, center, surround left/right and subwoofer).

DIGITAL OUT (Optical)

The digital signal is transmitted as light pulses through a fiber-optic cable.

- Use a fiber-optic cable (not supplied) to connect the digital optical output on the player to the digital optical input on an AV amplifier or receiver.

AV amplifier or receiver with optical digital input
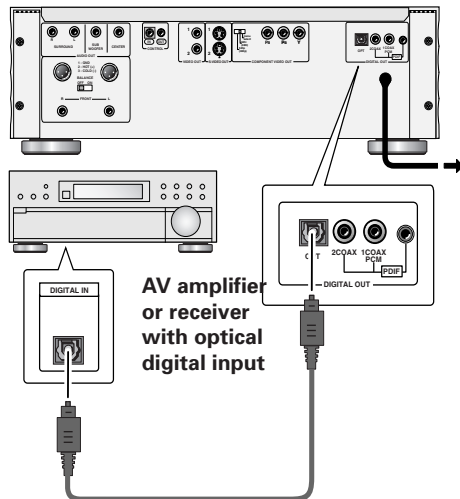
DIGITAL OUT (Coaxial)

The digital signal is transmitted electronically through a coaxial cable.

- Use a coaxial cable (not supplied) to connect the coaxial digital output on the player to the coaxial digital input on an AV amplifier or receiver.

AV amplifier or receiver with coaxial digital input
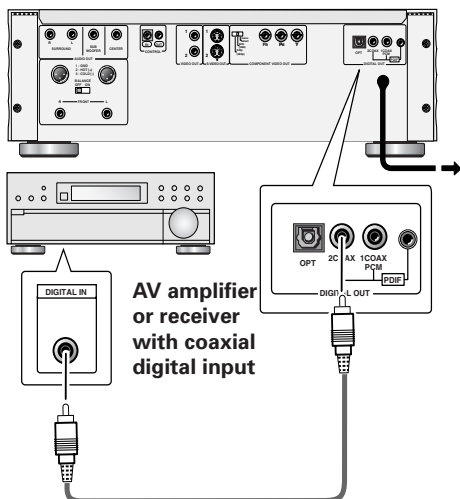
Connecting to the C-AX10 using PDIF

When connecting to the optional C-AX10 Digital Control Amplifier, use the PDIF cable supplied with the C-AX10 together with 2 commercially available coaxial digital cables for a total of 3 connections.

C-AX10
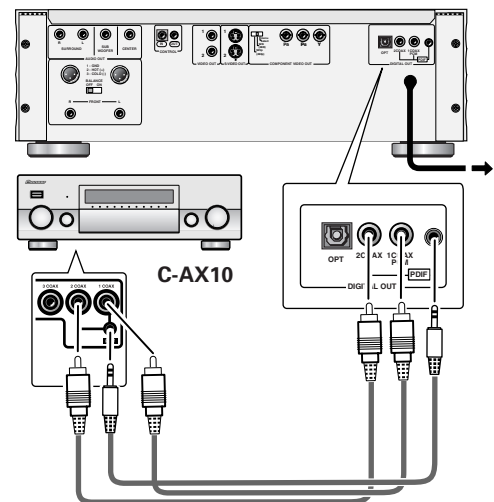
Notes

- The PDIF connection can transmit up to 2 channels of 192kHz/24-bit audio; 4 channels of 96kHz/24-bit audio; 6 channels of 96kHz/16-bit audio; or 6 channels of 48kHz/24-bit audio.
- Some discs may be copy protected: audio output from the **PDIF** jacks will be 48kHz or 44.1kHz/16-bit (2 channel) only. For 96kHz/24-bit and 192kHz/24-bit audio, connect the analog jacks in addition to the **PDIF** jacks (page 18).
- Some DVD-Audio discs are copy protected: no digital audio is output from the **PDIF** jacks when these discs are played. **"PDIF PROHIBIT"** appears in the display when these discs are played. In this case, connect using the analog outputs and switch the **[Audio Out]** setting on this player accordingly (**page 31**).
- When connected using PDIF, the speaker settings of this player are ignored (**page 32**).

Analog Audio Connections

After making physical connections to either the **AUDIO OUT FRONT** or **Multichannel AUDIO OUT** analog jacks, be sure to identify which output you are going to be using in the **[Analog Jacks]** screen of the Setup Navigator (**page 21**). You can also manually set the output in the **[Audio Out]** setting of the Setup screen **Audio 2** menu (**page 31**).

2 CHANNEL AUDIO OUT

- Make analog audio connections to a stereo amplifier or receiver.
- Analog audio connections can also be made to a TV or monitor with stereo input jacks.
- Use the supplied audio cable to connect one of the **AUDIO OUT FRONT** jacks on the player to the audio input on the stereo amplifier or receiver.
- When making analog audio connections, be sure to match the color of the plugs with the color of the jacks (red and white).
- When making this kind of connection, be sure to select **"2 Channel"** in the Setup Navigator **[Analog Jacks]** screen (**page 21**).
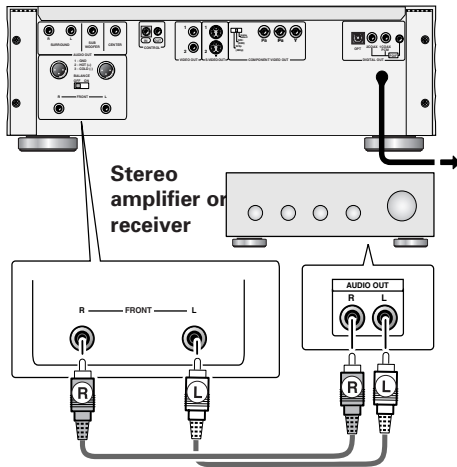
2 Connecting using commercially available 3-pin XLR-type cables

After connecting using this type of cable, set the **BALANCE** switch to **ON**.
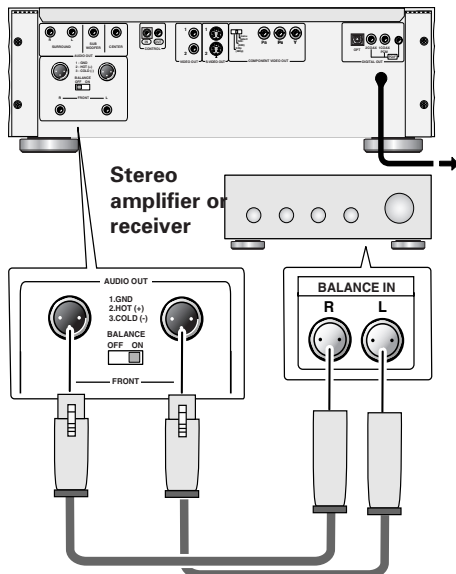
5.1 CHANNEL AUDIO OUT

5.1 channel audio refers to the current industry surround sound standard requiring two front speakers, a center speaker, two surround (rear) speakers and a sub woofer. Although in actuality there are 6 channels, because the sub woofer channel, or LFE channel, makes up a mere fraction of the total audio soundtrack, it has been designated as the 0.1 of the 5.1 system.

By utilizing the player's internal multichannel audio decoder, the audio of Dolby Digital, DTS and MPEG DVDs can be output from the 5.1 channel discrete outputs to an AV amplifier or receiver with 5.1 channel input capability.

- Use audio cables to make connections from the player's **Multichannel AUDIO OUT** jacks to the equivalent input jacks on the AV amplifier or receiver. This type of amplifier or receiver may be referred to as "multichannel ready" or "Dolby Digital ready".
- When making 5.1 channel analog audio connections, be sure to match the left and right channels on both components, and also make sure that the jacks of all the channels are connected correctly on both components.
- Either 2 single audio cords or a stereo cord may be used to connect the **CENTER** and **SUB WOOFER** channels to the AV amplifier or receiver.
- When making this kind of connection, be sure to select **"5.1 Channel"** in the Setup Navigator **[Analog Jacks]** screen (**page 21**).

AV amplifier or receiver
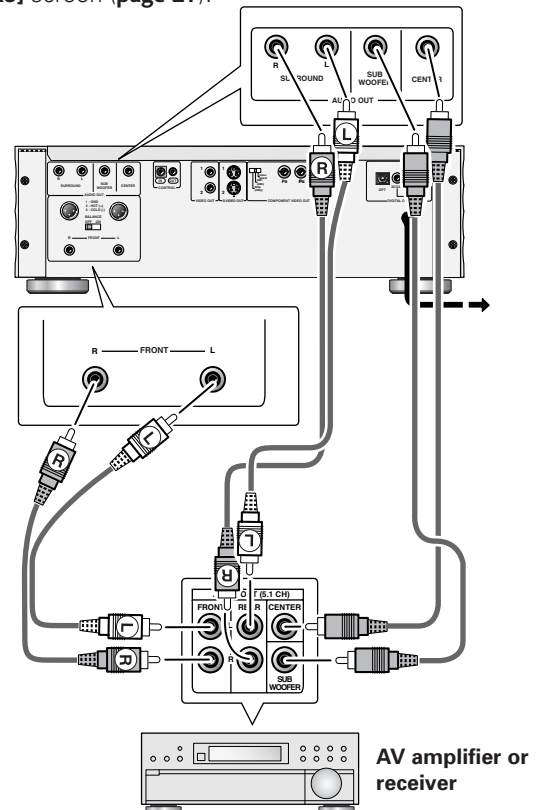
Setting Up the Player

Using the Setup Navigator

The Setup Navigator has been designed to simplify the process of getting the DVD player ready to perform. Designed as a series of on-screen multiple-choice questions, the Setup Navigator automatically sets the audio, video, and language settings according to how the questions are answered. Once this procedure is complete, it will be possible to begin using the DVD player to enjoy DVDs.

The procedure on this page describes the operations necessary to function within the Setup Navigator screens. A detailed description of the contents of each question that appears on the screen can be found on the following pages.

When setting up for the first time

Some DVDs start playing automatically when loaded in the player. Because the Setup Navigator cannot be used if a disc is playing, it is recommended to set up the player using the Setup Navigator before loading a DVD for the first time. If a DVD has been loaded, be sure to press **STOP** ■ before proceeding.
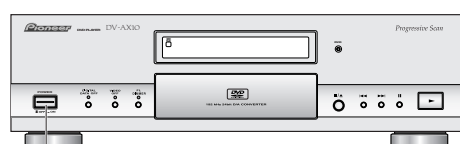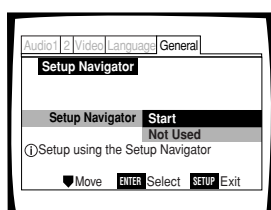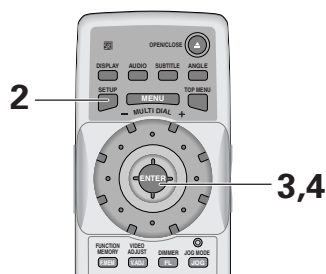
1 Press **POWER** on the front panel.

2 Press **SETUP**.
When **SETUP** is pressed for the first time, the following screen appears. Though the Setup Navigator may be used more than once, this screen only appears the first time **SETUP** is pressed.

3 Move the **cursor control joystick** up or down to make a selection.

- If you are going to use the Setup Navigator, it is not necessary to change the setting on the first screen. Please proceed to the next step.
- If you do not want to set up the player using the Setup Navigator, move the **cursor control joystick** to select **"Not Used"** at this time.
  The Setup Navigator function may still be used at a later time in manual Setup screen menu operation (**page 27**).

4 Press **ENTER**.
The selection is entered and the next Setup Navigator screen appears.

Use steps 3 and 4 as a basis for entering selections on the all of the Setup Navigator screens described on the following pages.

To change the answer to a prior question

Move the **cursor control joystick** left to return to previous screens. Please note, however, that you cannot go forward by moving the **cursor control joystick** right, so it will be necessary to answer all the questions that occur after the screen that was returned to.

To exit the Setup Navigator

Press **SETUP** while on any of the screens to exit the Setup Navigator. Please note that if the Setup Navigator is exited before all the questions are answered, no settings are changed.

To return to the Setup screen

Press **RETURN** ⮌. The Setup Navigator is exited and the Setup screen **General** menu screen appears. Please note that no settings are changed if **RETURN** ⮌ is pressed before the Setup Navigator is finished.

Setting the OSD Language (On-Screen Display Language)

```
┌─────────────────────────────────┐
│ Audio1 2 Video Language General │
│  Setup Navigator                │
│                                 │
│   Language      English         │
│   OSD Language  français        │
│                 Español         │
│ ⓘSetup player's OSD language    │
│                                 │
│  ▼Move  ENTER Select SETUP Exit  │
└─────────────────────────────────┘
```
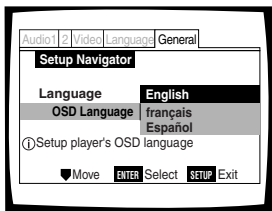
The **[OSD Language]** screen establishes the OSD language, or on-screen display language, which refers to the language that is used by the player in menus and on-screen messages. Additionally, the language that is established at this setting will also be used for the default audio and subtitle language.

Settings: **English (Factory setting)**
           français
           Español

Note
In addition to setting the **[OSD Language]**, the audio and subtitle language are also set at this time. If you wish to change the audio or subtitle language to a different language, make changes in the Setup screen **Language** menu **[Audio Language]** and **[Subtitle Language]** as needed (**page 40**).

Setting the TV screen size

```
┌─────────────────────────────────┐
│ Audio1 2 Video Language General │
│  Setup Navigator                │
│                                 │
│   TV Connection                 │
│      TV Type  Widescreen (16:9) │
│               Standard (4:3)    │
│ ⓘWidescreen TV                  │
│  16:9 aspect ratio              │
│ ◀   ▼Move ENTER Select SETUP Exit│
└─────────────────────────────────┘
```
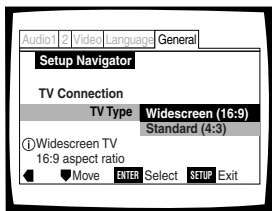
The **[TV Type]** screen establishes the size, or more appropriately the width to height ration of your television or monitor. The width-to-height ratio of conventional TVs is 4:3, while the width-to-height ratio of wide screen and high-definition TVs is 16:9. This width-to-height ratio is called the aspect ratio.

Settings: **Widescreen (16:9) (Factory setting)**
           Standard (4:3)

Note
There are two screen formats that can be used to display wide-screen format DVDs: letter box and pan & scan. When **"Standard (4:3)"** is selected in the Setup Navigator, the letter box screen format is automatically selected. To switch the preference to the pan & scan format, make changes in the Setup screen **Video** menu **[TV Screen]** setting (**page 36**).

Setting analog audio connections to an AV amplifier or receiver

```
Audio1 2 Video Language General
  Setup Navigator

Amp Connection   2 Channel
   Analog Jacks   5.1 Channel
                  Not Connected
ⓘ 2 Channel jacks for L/R

    ▼Move  ENTER Select  SETUP Exit
```
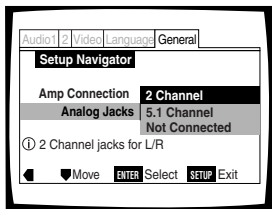
The **[Analog Jacks]** screen establishes whether analog connections have been made to an AV amplifier or receiver, and if connections are made, whether the connections made are for 2 channel stereo or for 5.1 channel surround sound.

Settings: **2 Channel (Factory setting)**
Select if you have made 2 channel connections to an amplifier or receiver.
5.1 Channel
Select if you have made 5.1 channel connections to an AV amplifier or receiver with the appropriate inputs. When this setting is selected, several screens will follow to determine the configuration of your speaker system. These screens are described in the section *'To coordinate your speaker system for 5.1 channel output'* on this page.
Not Connected
Select if you have not made analog audio connections.

To coordinate your speaker system for 5.1 channel output

```
Audio1 2 Video Language General
  Setup Navigator

Amp Connection
  Center Speaker   Present
                   Not Present
ⓘ Center speaker is connected
   to an amplifier
    ▼Move  ENTER Select  SETUP Exit
```

```
Audio1 2 Video Language General
  Setup Navigator

Amp Connection
 Surround Speakers  Present
                    Not Present
ⓘ Surround speakers are connected
   to an amplifier
    ▼Move  ENTER Select  SETUP Exit
```

```
Audio1 2 Video Language General
  Setup Navigator

Amp Connection
   Sub-woofer    Present
                 Not Present
ⓘ Sub-woofer is connected
   to an amplifier
    ▼Move  ENTER Select  SETUP Exit
```

When **"5.1 Channel"** is selected in the **[Analog Jacks]** screen, the following screens appear to determine the configuration of your speaker system. In all of the following screens, select **"Present"** if the speaker in question is present in your system, and **"Not Present"** if it is not.

[Center Speaker]
[Surround Speakers]
[Sub-woofer]

Settings: **Present (Factory setting)**
Not Present

Note
If **"Not Present"** is selected for both **[Center Speaker]** and **[Surround Speakers]**, **[Sub-woofer]** is automatically set to **"Not Present"** and the **[Sub-woofer]** screen is not displayed.
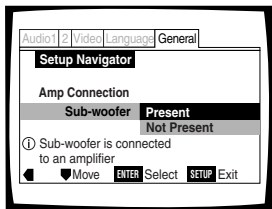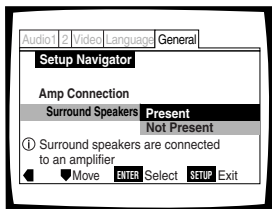
Setting digital audio connections to an AV amplifier or decoder

```
Audio1 2 Video Language General
  Setup Navigator    Dolby Digital
                     Dolby Digital/DTS
  Amp Connection     Dolby Digital/MPEG
     Digital Jack    Dolby D/DTS/MPEG
                     PCM
                     Not Connected
ⓘ Compatible with Dolby Digital
    ◀   ▼Move  ENTER Select  SETUP Exit
```
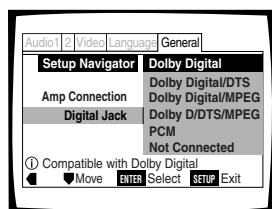
The **[Digital Jack]** screen establishes whether digital connections have been made to an AV amplifier, receiver, or external decoder. As there are numerous options available, please refer to the instructions supplied with the component the player is connected to to determine what digital audio formats can be decoded. If you have made no digital connections, select **"Not Connected"**.

Settings: **Dolby Digital (Factory setting)**
Dolby Digital/DTS
Dolby Digital/MPEG
Dolby D/DTS/MPEG
PCM
Not Connected

Setting compatibility with 96 kHz output

```
Audio1 2 Video Language General
  Setup Navigator
  Amp Connection    No
  96 kHz PCM Audio  Yes
                    Don't Know
ⓘ Digital jack not compatible with 96 kHz
    ◀   ▼Move  ENTER Select  SETUP Exit
```
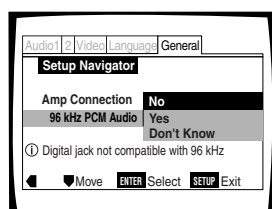
The **[96 kHz PCM Audio]** screen establishes whether or not the AV component the player is connected to is capable of processing an audio signal with a sampling rate of 96 kHz. This screen only appears if connections have been made to an external AV component as determined in previous screens.

Settings: **No (Factory setting)**
Select if the connected AV component cannot process an audio signal with a sampling rate of 96 kHz.
Yes
Select if the connected AV component can process an audio signal with a sampling rate of 96 kHz.
Don't Know
Select if you are uncertain whether the connected AV component can process an audio signal with a sampling rate of 96 kHz.

Confirming the settings

```
Audio1 2 Video Language General
  Setup Navigator
                      Valid
  Exit Setup Navigator Invalid
                      Redo
ⓘ Confirm setup adjustments
    ◀   ▼Move  ENTER Select  SETUP Exit
```
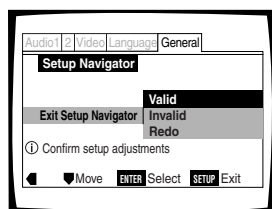
The **[Exit Setup Navigator]** is the final screen in the Setup Navigator.

Settings: **Valid (Factory setting)**
Select to have the player make all of the necessary audio, video and language settings automatically.
Invalid
Select to exit the Setup Navigator without changing any of the system settings.
Redo
Select to return to the **[OSD Language]** screen of the Setup Navigator and do the settings again.

To exit the Setup screen
When you have completed setting up the player using the Setup Navigator or if you exit the Setup Navigator, the Setup screen **General** menu appears. Press **SETUP** to close the Setup screen.

To change other player settings in the Setup screen menus
The procedure for changing the settings in the Setup screen menus is described on **page 27**.

Getting Started Using Your DVD Player

Playing DVDs, SACD, Video CDs and CDs – DVD/SACD/Video CD/CD

Before you can start to enjoy the digital audio and video on DVDs, be sure that you have either performed the Setup Navigator procedure described in the previous section or made the necessary settings in the Setup screen menus as outlined in the next section to set up the player to correspond to your home system. Having made these settings, you are now ready to start using the player to enjoy DVDs, SACD, Video CDs, and CDs.
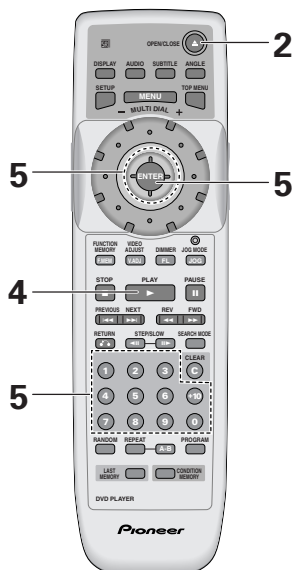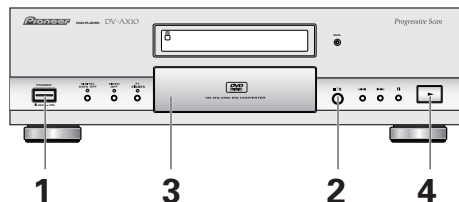
1 Press **POWER** on the front panel.

2 Press **OPEN/CLOSE** ⏏ (■/⏏ on the front panel).
The disc tray comes out.

3 Load a disc.
Load a disc with the label side facing up, using the disc tray guide to align the disc.
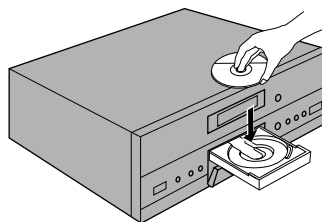
4 Press **PLAY** ► (► on the front panel).
• The disc tray closes, and playback begins.
• Depending on the disc, a menu may be displayed. If a menu is displayed, proceed to step 5.

5 Select the item you want to view.
• **When a DVD is loaded:**
Use the **cursor control joystick** to select the item, then press **ENTER**. You may also be able to use the **number buttons** for direct selection.
• **When a Video CD is loaded:**
Use the **number buttons** to select the item.

Notes
• Noise is output if you make digital audio connections to a receiver or amplifier that does not have a built-in decoder. Check that the digital audio output format selected in the **Audio 1** menu corresponds to the audio components you have made connections to (**page 31**).
• The TV screen size is factory set to present the wide screen format (16:9 aspect ratio). If you have a standard TV screen (4:3 aspect ratio), this setting can be changed to match your TV screen size in the **Video** menu (**page 36**).

When an operation is prohibited
There are times when you are using the player and attempt to perform an operation, but for some reason it cannot be performed. When this occurs, one of the two following icons appears on the screen.

🚫 The operation is prohibited by the player.

🚫 The operation is prohibited by the programming on the disc.

When a menu screen is displayed – DVD/Video CD

TOP MENU

MENU

Curor control joystick

ENTER

STOP ■

PREVIOUS
◄◄

NEXT
►►I

Number buttons
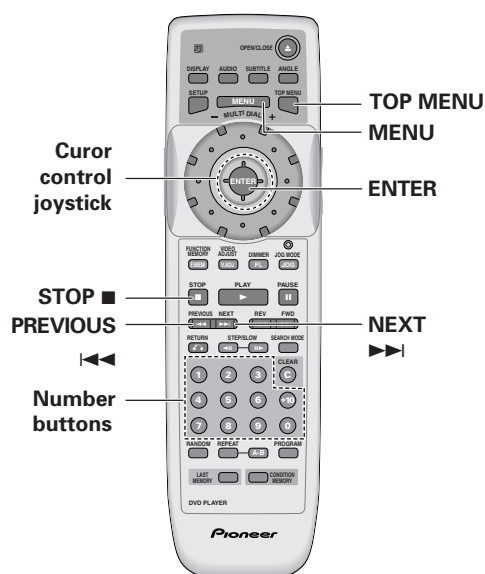
Menu screens are displayed for DVDs that have menu screens or Video CDs that include Playback Control (PBC). DVDs often contain extra information that can be accessed in the DVD menu and sometimes makes navigating DVD menu screens as enjoyable as watching the feature presentation.

Example: When a DVD that has menu screens is loaded

Main Menu
1 Highlight Clips
2 Chapter List
3 Commercial Header
4 Subtitles
5 Soundtrack
6 Start Main Feature

Example: When a Video CD that has Playback Control is loaded

STANDARD VOCAL BEST	
1 Don't Tekno for an Answer	Bertie B. & the Goans
2 Bad Whack Naff Riff	Hood in the Boyz
3 dubmyheadbassman	Sleek Machine
4 Gooey Love Jingle	Philip William
5 Praise the Day	Formerly an Artist
6 G3, Ba-san	Pfeuti
7 Abstract Jazz Phunk	John Torn
8 Rock the Love Jive	Hot Monkey Stick

To open or return to the DVD or Video CD menu screen
Although this differs depending on the disc, pressing **MENU**, **TOP MENU**, or **RETURN** ↻ during DVD playback or **RETURN** ↻ during Video CD playback displays the menu screen. Refer to the DVD or Video CD disc jacket and accompanying documentation for more information.

To navigate a menu screen
- Although individual DVD titles may differ, when a menu screen is displayed, use the **cursor control joystick** and **ENTER** on the remote control. The **cursor control joystick** is used to move around the options on the screen and **ENTER** is used for selection.
- Occasionally, the **number buttons** may also be used to make selections. If this is possible, using **number buttons** serves to directly select an option on a menu screen. Only **number buttons** are used to make selections on Video CD menu screens.
- When the Video CD has more than one menu, pages can be advanced to or returned to with **PREVIOUS** ◄◄ or **NEXT** ►►I.

To play Video CDs without displaying menu screens
Video CDs with Playback Control (PBC) display a menu screen when play is started. It is possible, however, to play back Video CDs without displaying menu screens.
When a Video CD with PBC is loaded, press **STOP ■**, and then the **number button** of the track you want to play.

Chapter (Track) Skip Forward/Skip Back – DVD/SACD/Video CD/CD
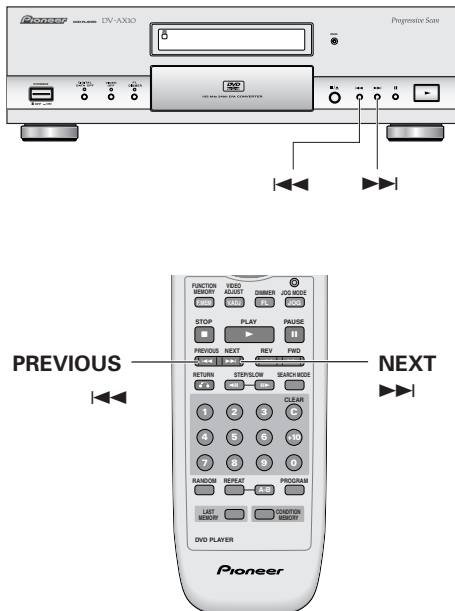
Advancing to the next chapter (track)

Press **NEXT** ▶▶I (▶▶I on the front panel).

- Press to skip forward to the next chapter (track).
- When a SACD or CD is loaded, you can advance more than one track forward by pressing and holding **NEXT** ▶▶I and releasing when the desired track number appears in the display.

Skipping back to the previous chapter (track)

Press **PREVIOUS** I◀◀ (I◀◀ on the front panel).

- Press once to skip back to the start of the chapter (track) currently playing.
- Press twice to skip back to the start of the previous chapter (track).
- When a SACD or CD is loaded, you can skip back to the track you want to hear by pressing and holding **PREVIOUS** I◀◀ and releasing when the desired track number appears in the display.

Forward and Reverse Scanning – DVD/SACD/Video CD/CD
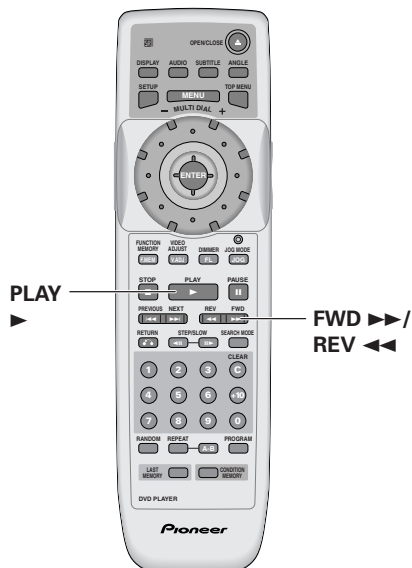
Fast forward scanning

Press and hold **FWD** ▶▶ during playback.

- Release **FWD** ▶▶ when you reach the desired location. Normal playback resumes.
- On DVDs and SACDs, when the flashing "SCAN 2" on the screen changes to a flashing "SCAN 3" , fast forward scanning will continue even if the button is released. On Video CDs and CDs, the scanning speeds are "SCAN 1" and "SCAN 2". When the desired location has been reached, press **PLAY** ▶.
- Variable speed scanning is also possible using the **MULTI DIAL** on the remote control (**page 47**).

Fast reverse scanning

Press and hold **REV** ◀◀ during playback.

- Release **REV** ◀◀ when you reach the desired location. Normal playback resumes.
- On DVDs and SACDs, when the flashing "SCAN 2" on the screen changes to a flashing "SCAN 3", fast reverse scanning will continue even if the button is released. On Video CDs and CDs, the scanning speeds are "SCAN 1" and "SCAN 2". When the desired location has been reached, press **PLAY** ▶.
- Variable speed scanning is also possible using the **MULTI DIAL** on the remote control (**page 47**).

Resuming Playback from Where you Stopped - DVD-Video/Video CD/DVD-RW
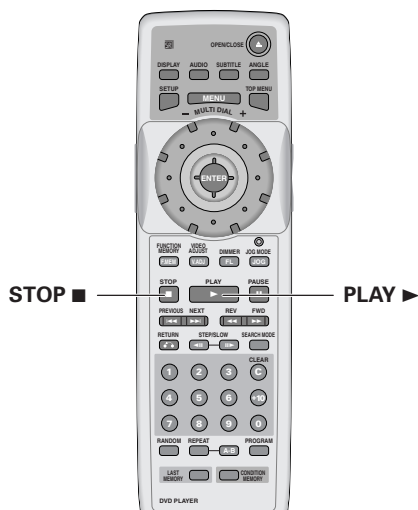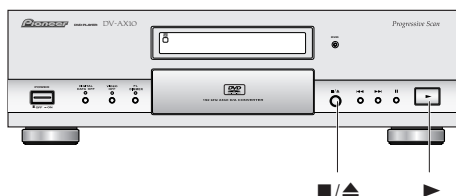
Use the resume feature to restart playback from the point that the disc was stopped last time.

Press **STOP** ■ once.

The display shows **"RESUME"** and the stop position is memorized.

• The resume position remains memorized as long as the disc is in the player — even if you switch the power off.

• Pressing **STOP** ■ twice causes the disc to return to the beginning when **PLAY** ► is pressed again. The display shows the disc type (DVD-Videos or Video CDs).

Press **PLAY** ►.

Playback starts from the resume position.

Notes

• For some discs, playback may not start from the position at which it was stopped.

• Resume play is only possible when the disc is loaded and **STOP** ■ has not be pressed twice in succession (**"RESUME"** appears in the display). If you want to continue viewing a disc at a later time or date, it is recommended to use the Last Memory function described on **page 58**.

• The resume function does not work with DVD-Audio discs, SACDs and CDs.

STOP ■   **PLAY** ►

Stopping Playback and Switching Power Off – DVD/SACD/Video CD/CD

5   **3**   **1,2,4**

2,4

1
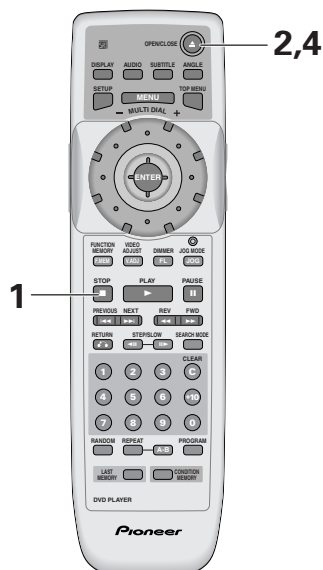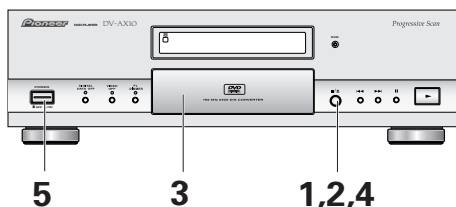
1 Press **STOP** ■ (■/▲ on the front panel).
Playback stops.

2 Press **OPEN/CLOSE** ▲ (■/▲ on the front panel).
The disc tray comes out.

3 Remove the disc.
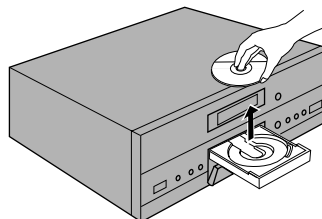
4 Press **OPEN/CLOSE** ▲ (■/▲ on the front panel).
The disc tray closes.

5 Press **POWER** on the front panel.

Adjusting Audio and Video Settings

Using the Setup Screen Menus

The procedure on this page describes how to operate the menus on the Setup screen. These menus are used to set and adjust a number of system settings. The various functions that can be adjusted are covered throughout this manual. The procedure on this page provides a basic outline for using the Setup screen menus.

When setting up for the first time

It is recommended to set up player using the Setup Navigator (**page 19**). If you selected **"Not Used"** when the Setup Navigator appeared, you may still set up the player using the Setup Navigator in the **General** menu screen.
If you choose not to use the Setup Navigator, be sure to make the necessary settings in the Setup screen **Audio 1**, **Audio 2**, **Video**, and **Language** menus as described on the following pages.

Some DVDs start playing automatically when loaded in the player. If a DVD has been loaded, be sure to press **STOP ■** before proceeding.

Note
If the Setup screen is opened during playback of a DVD being viewed in the letter box format, the screen may switch to the wide screen format. This is not a malfunction, and the screen will return to normal when the Setup screen is closed.
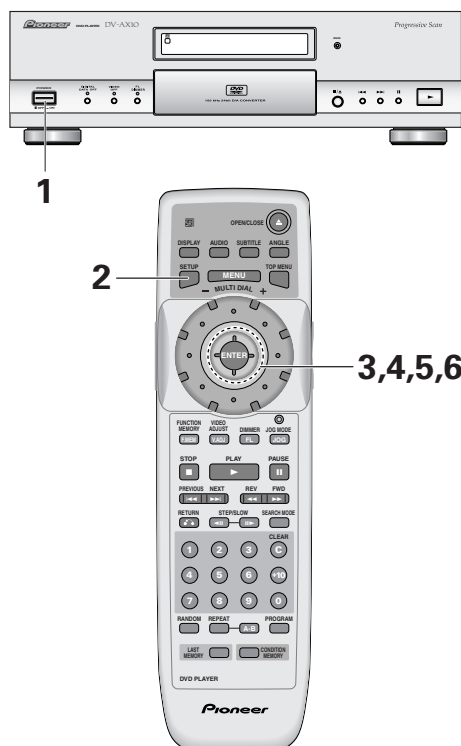
1 Press **POWER** on the front panel.

2 Press **SETUP**.
The Setup screen appears.

Audio1 2 Video Language General
Dolby Digital Out – Dolby Digital
DTS Out – Off
Linear PCM Out – Down Sample On
MPEG Out – MPEG ► PCM
Digital Out – On
▶ ▼Move   SETUP Exit
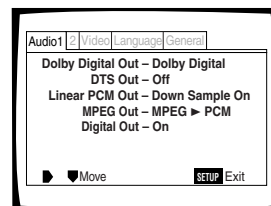
3 Move the **cursor control joystick** right or left to select the menu you want.
As each menu is selected with the cursor, the settings appear below the menu heading.

4 Move the **cursor control joystick** down to enter the menu.
The top item within the menu becomes highlighted.

Audio1 2 Video Language General
Dolby Digital Out ▐ Dolby Digital
DTS Out – ▐ Dolby Digital ► PCM
Linear PCM Out – Down Sample On
MPEG Out – MPEG ► PCM
Digital Out – On
◀▶▲▼Move   SETUP Exit
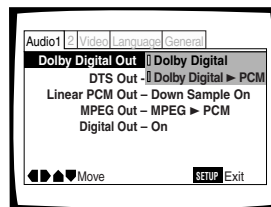
5 Move the **cursor control joystick** up or down to select the setting you want to change.
The options available for each setting appear to the right when the setting is selected. The current setting appears with the setting indicator lit.

6 Move the **cursor control joystick** right to enter the setting options.

Audio1 2 Video Language General
Dolby Digital Out ▐ Dolby Digital
DTS Out – ▐ Dolby Digital ► PCM
Linear PCM Out – Down Sample On
MPEG Out – MPEG ► PCM
Digital Out – On
◀ ▲▼Move   SETUP Exit
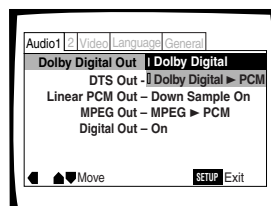
- Not all menu options can be changed while a disc is playing. In these cases, the options appear grayed out on the screen and cannot be adjusted. To change these settings, press **STOP ■** first before pressing **SETUP**.
- Operating the menu after pressing **STOP ■** may cancel the resume function.
- Some menu options are not immediately effective if set while a disc is playing. To make these settings effective, stop playback and then start again, or change the settings while the disc is stopped.

1

2

3,4,5,6
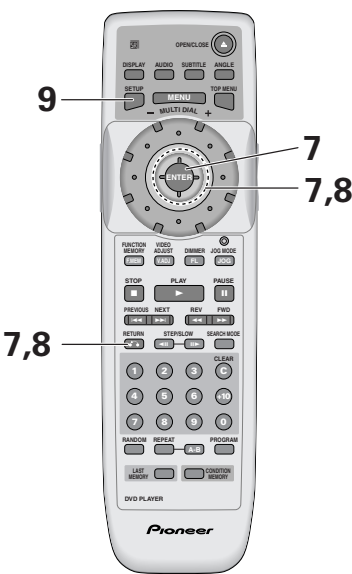
7 Move the **cursor control joystick** up or down to select a new setting and press **ENTER** to set the new setting in memory. Press **RETURN** ↺ or move the **cursor control joystick** left to exit the options without making any changes.

8 Press **RETURN** ↺ or move the **cursor control joystick** left to go back to the main menu bar to select another menu.

9 Press **SETUP** to close the Setup screen.
The Setup screen closes.

How to interpret the setting indicator colors in the Setup screen menus

When setting up the system, or when making adjustments, it is convenient to know what settings are applicable to the different disc formats. When the settings appear for each menu option, the currently selected setting appears with the setting indicator highlighted in one of four colors: blue, yellow, amber or green . These colors correspond to what formats the menu option effects as shown in the table below.

Color of indicator	Disc format(s)
Blue	DVD only
Yellow	DVD/Video CD
Amber	CD/SACD/DVD-Audio
Green	All compatible formats

Note
If a setting applicable only to DVDs is changed while a SACD, Video CD or CD is loaded, a blue DVD icon appears in the upper right hand corner of the screen to indicate that the setting is not applicable to the currently loaded disc. The setting will be effective the next time a DVD is loaded.

Changing the Setup Screen Menu Mode
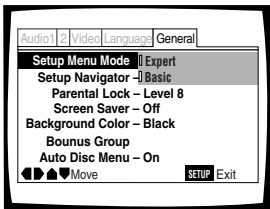
The Setup screen menus are divided into two levels, **"Basic"** and **"Expert"**, to make this unit more convenient to operate for different levels of users. The **"Basic"** menu mode contains functions that may be considered necessary for the basic operations of this player and helpful on-screen information identified by the ⓘ mark. The **"Expert"** menu mode adds to the **"Basic"** menu mode additional functions of the player that can be adjusted to further personalize performance of the player.

In this manual, functions that are contained in the **[Expert]** menu mode are identified by the Expert icon.

Settings: **Expert (Factory setting)**
   Basic

Note
On-screen information only appears in the **"Basic"** menu mode.

Setting the Digital Audio Output To Be Compatible with Your AV Component – DVD

This player is capable of digital audio output for Dolby Digital, DTS, MPEG, and Linear PCM signals with a sampling rate of 96 kHz. Make settings in the Setup screen **Audio 1** menu to reflect the capabilities of the components that you have made digital connections to.

Notes
• If you have already completed the Setup Navigator screen operations, the settings on this page have already been set by the player.
• If you have made only stereo line connections (analog) using the supplied audio cord, it is not necessary to make any changes in this menu.

Dolby Digital Out


```
Audio1 2 Video Language General
Dolby Digital Out   Dolby Digital
        DTS Out -  Dolby Digital ► PCM
 Linear PCM Out – Down Sample On
       MPEG Out – MPEG ► PCM
      Digital Out – On

     Move              SETUP Exit
```
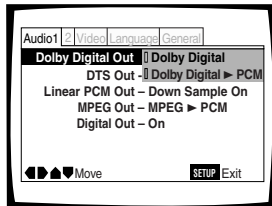
This player is capable of outputting the Dolby Digital surround sound audio signal. When the player is connected to an AV component that has a built-in Dolby Digital decoder, select **"Dolby Digital"**. This player can also convert the Dolby Digital signal to a digital Linear PCM signal, the same digital signal output from a CD. Select **"Dolby Digital ► PCM"** when you have made connections to an amplifier or receiver with a Dolby Pro Logic decoder or a Digital Analog Converter (DAC).

Settings: **Dolby Digital (Factory setting)**
Dolby Digital ► PCM

DTS Out


```
Audio1 2 Video Language General
Dolby Digital Out – Dolby Digital
        DTS Out    Off
 Linear PCM Out -  DTS
       MPEG Out – MPEG ► PCM
      Digital Out – On

     Move              SETUP Exit
```
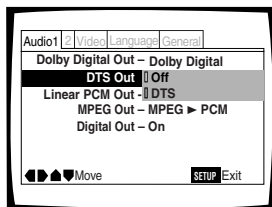
This player is capable of outputting DTS digital audio for DVDs recorded in DTS. When this player is connected to an AV component that has a built-in DTS decoder, select **"DTS"**. If your system is not equipped to decode DTS, select **"Off"**. Refer to the operating instructions supplied with your audio components if you are unsure about compatibility with DTS.

Settings: **Off (Factory setting)**
DTS

Note
If you have made digital audio connections to component(s) not equipped to decode the DTS digital bitstream, be sure to select **"Off"**. If a DTS signal is output without decoding, the output is digital noise that could potentially cause damage to your speakers.

Linear PCM Out


```
Audio1 2 Video Language General
Dolby Digital Out – Dolby Digital
        DTS Out – Off
 Linear PCM Out   Down Sample On
       MPEG Out -  Down Sample Off
      Digital Out – On

     Move              SETUP Exit
```

This player is capable of outputting digital signals with a sampling frequency of 96 kHz. If you have made connections to a component capable of processing this signal rate, select **"Down Sample Off"** for the signal to be output as is. As some components are incapable of processing digital signal input with sampling rates of 96 kHz, selecting **"Down Sample On"** compresses the signal to a standard signal with a sampling rate of 48 kHz/44.1 kHz.

Settings: **Down Sample On (Factory setting)**
Down Sample Off

Notes
• On DVDs that contain copy protection, the 96 kHz signal may only be output from the analog audio jacks. When this type of disc is encountered, even if **"Down Sample Off"** is selected, the player automatically outputs the digital audio signal at a compressed rate of 48 kHz/44.1 kHz.
• Changes to the **[Linear PCM Out]** setting cannot be made when a disc is playing.

ADJUSTING AUDIO AND VIDEO SETTINGS

MPEG Out

```
Audio1 2 Video Language General
    Dolby Digital Out – Dolby Digital
            DTS Out – Off
    Linear PCM Out – Down Sample On
        MPEG Out  MPEG
      Digital Out – MPEG ► PCM

    ◄►▲  Move              SETUP Exit
```
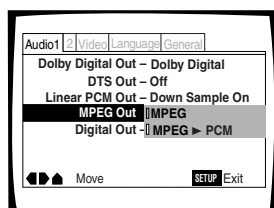
This player is capable of outputting the MPEG digital bitstream. When the player is connected to an AV component that has a built-in MPEG decoder, select the **"MPEG"** setting. Otherwise, select **"MPEG ► PCM"** to convert the digital signal to the PCM signal, the digital signal output from a CD.

Settings: **MPEG**
MPEG ► PCM (Factory Setting)

Turning the Digital Output On and Off Expert

```
Audio1 2 Video Language General
    Dolby Digital Out – Dolby Digital
            DTS Out – Off
    Linear PCM Out – Down Sample On
        MPEG Out – MPEG ► PCM
        Digital Out  On
                     Off
    ◄►▲  Move              SETUP Exit
```
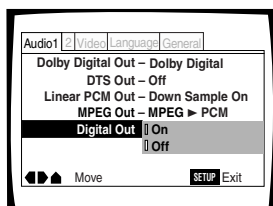
Depending on your preferences and the type of connections made, you may opt not to have the digital audio signal output at all. When this setting is set to **"Off"** there is no signal output from the digital audio output jacks.

Settings: **On (Factory Setting)** (Digital bitstream is output)
Off (Digital bitstream is not output)

Note
Some DVD-Audio discs do not output digital audio signals.

Setting Analog Audio Connections to an AV Amplifier or Receiver

```
┌─────────────────────────────────┐
│ ⬚ Audio2 Video Language General  │
│  Audio DRC – Off                 │
│  Audio Out  ▌2 Channel           │
│  Speaker Setting ▌5.1 Channel    │
│  Gain Setting – Fix              │
│  Hybrid SACD – SACD              │
│  CD Digital Direct – Off         │
│  Pure Audio Clock – Off          │
│ ◀▶▲▼Move            SETUP Exit   │
└─────────────────────────────────┘
```
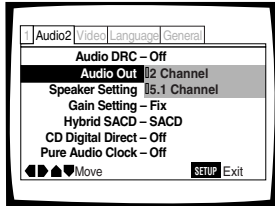
This player is capable of both 2 channel stereo and 5.1 multichannel surround sound audio output. Use this setting to select which analog outputs are connected to an AV component.

Settings: **2 Channel (Factory Setting)**
           5.1 Channel

Notes
- When **"5.1 Channel"** is selected, the front right (R) and left (L) audio channels are output from the **AUDIO OUT FRONT** jacks.
- If the center or surround components are not recorded on the disc, there will be no output from the **CENTER** or **SURROUND** output jacks. This is not a malfunction. Speaker channels can be verified in the Program Format indicators in the display.

About source audio output (5.1 CH)
When the source input mode has been switched to the **"5.1 Channel"** mode settings, audio output for each source will be as shown on the following table.

AUDIO CONTENTS		OUTPUT MODE	AUDIO OUT (5.1CH)			
			FRONT L/R	CENTER	SURROUND L/R	SUB WOOFER
DVD	DOLBY DIGITAL	5.1CH	Front L/R	Center	Surround L/R	LFE *2
		2CH	2CH Downmix *1 L/R	Mute	Mute	Mute
	DOLBY DIGITAL KARAOKE	5.1CH	2CH Downmix *1 L/R	Mute	Mute	Mute
		2CH	2CH Downmix *1 L/R	Mute	Mute	Mute
	LPCM (DVD-Video)	5.1CH	2CH L/R	Mute	Mute	Mute
			2CH L/R	Mute	Mute	Mute
	LPCM (DVD-Audio)	5.1CH	Front L/R	Center	Surround L/R	LFE *2
		2CH	2CH Downmix *1 L/R	Mute	Mute	Mute
	MPEG	5.1CH	L/R	Center	Surround L/R	LFE *2
		2CH	L/R	Mute	Mute	Mute
	DTS	5.1CH	Front L/R	Center	Surround L/R	LFE *2
		2CH	2CH Downmix *1 L/R	Mute	Mute	Mute
SACD, CD		5.1/2CH	L/R	Mute	Mute	Mute
VIDEO CD		5.1/2CH	L/R	Mute	Mute	Mute

*1 Some DVD-Audio discs prohibit downmixing of the audio signal, and the audio will not be downmixed even if the setting is set to **"2 Channel"**.
*2 Low Frequency Effect.

Setting Your Speaker System for Multichannel Audio Playback

This player contains a built-in decoder for Dolby Digital, DTS and MPEG audio sources as well as 5.1 channel discrete audio output. Ideally, a 5.1 channel system contains 6 speakers: 2 front speakers, 2 surround speakers, a center speaker, and a sub woofer. However, as this is not always the case, accurately setting **[Speaker Setting]** to reflect your speaker setup allows the player's built-in decoder to reroute signals to compensate for absent speakers.

Notes
• If you have already completed the Setup Navigator screen operations, the settings on this page have already been set by the player.
• If you have not made connections to the **Multichannel AUDIO OUT** jacks on the rear panel of the player, it is not necessary to make any changes to this setting.

Speaker Setting

Notes
• To help identify the speakers being selected, the initials of the speakers in the speaker system representation on the right side of the screen will appear in blue.
• When **"On"**, **"Large"** or **"Small"** is selected for a speaker or pair of speakers, the icons for those speakers turn yellow in the speaker system representation on the right side of the screen.
• If **"Off"** is selected for both **[Center Speaker]** and **[Surround Speaker]**, **[Sub-woofer]** is automatically set to **"Off"**.
• When the sub woofer is **"On"**, the low range components of the center and surround signals will be mixed in the LFE signal and output from the **SUB WOOFER** jack.
• Regardless of the speaker setting, DVD-Audio disc playback is performed as if the speakers are set to **"Large"**.
• With DVD-Audio discs, if either **[C]**, **[LS]**, or **[RS]** is set to **"Off"**, a forced 2 channel downmix is output (except in the case of DVD-Audio discs that prohibit downmixing of the audio signal).

1 Move the **cursor control joystick** right or left to select the speaker. Every time the **cursor control joystick** is pressed, the selected speaker changes in the following order.

Center, Sub-woofer, Surround, Center, ...
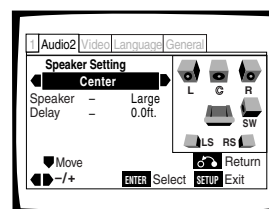
2 Move the **cursor control joystick** down to the speaker bar.

3 Move the **cursor control joystick** right or left to set which speakers are present in your system, and their type (where applicable).
Large : Select when large speakers are connected. (Generally determined by a cone size that is 120 mm (4 3/4") in diameter or bigger.) **(Factory setting)**
Small : Select when small speakers are connected (Generally determined by a cone size that is smaller than 12 cm in diameter.)
Off : Select when no speaker(s) is connected.
On : Select when a sub woofer (SW) is connected.

4 Set the distance of the speakers so that the distance of each speaker from the main listening position is the same.
Use the distance from the main listening position to the front L/R speakers as a reference distance by which to set the other speakers in your system. Set a negative distance when the selected speaker position is closer to the main listening position than the front L/R speakers, and a positive distance when the selected speaker position is further away from the main listening position than the front L/R speakers.
For example, in a speaker system with front L/R speakers located 10 feet away from the main listening position, the center speaker about 10.5 feet away, and the rear speakers about 8 feet away, set the center speaker to "+0.5 feet" and both rear speakers to "-2.0 feet".
The distance value can be adjusted as follows.
L/R : Cannot be adjusted.
C/SW : -6.5ft. to +6.5ft. (0.5ft. increments)
LS/RS : -20.0ft. to +6.5ft. (0.5ft. increments)

5 Repeat steps **2** through **4** for all connected speakers in your system.

6 Press **ENTER** to set the settings.

Adjust the Output Level from the Speakers (Gain Setting) `Expert`

This setting should be made when the **Mulutichannel AUDIO OUT** jacks on the rear panel are connected to an AV amplifier or receiver. The output level of each speaker in your system can be set and confirmed. The factory setting is set to **"Fix"**. However, when you want to adjust the output level, select **"Variable"**.

When "Variable" is selected

1 Move the **cursor control joystick** right or left to select a speaker.
Front Left, Center, Front Right, Surround Left, Surround Right, Subwoofer, Front Left, ...
Speakers set to **"Off"** in the **[Speaker Setting]** setting cannot be selected.
Move the **cursor control joystick** down.

2 Move the **cursor control joystick** right or left to set the output level.
The value can be adjusted in the range of -6.0 dB to 6.0 dB in 0.5 dB increments. The output level of front L/R speakers are fixed and therefore cannot be adjusted.

3 Repeat steps 1 and 2 for each speaker in your system.
Move the **cursor control joystick** down.

4 Move the **cursor control joystick** right or left to output the test tone to confirm the output levels.
Off :Test tone is not output. **(Factory Setting)**
On :Test tone output is manually controlled.
Auto :Test tone is automatically output.

When "On" is selected
Move the **cursor control joystick** up to the speaker selection line, then Move the **cursor control joystick** right or left to select the speaker to output the test tone from. The test tone is output from the selected speaker. To output the test tone from another speaker, change the speaker selection.

When "Auto" is selected
Test tone is output in the following order.
Front Left, Center, Front Right, Surround Left, Surround Right, Front Left, ...

5 Move the **cursor control joystick** up to the **[Gain]** setting, then move the **cursor control joystick** right or left to adjust the output level while listening to the test tone.

To stop the test tone

Move the **cursor control joystick** down to the **[Test Tone]** setting, then move the **cursor control joystick** right or left to select **"Off"** in the **[Test Tone]** setting.

Notes

• When **"Variable"** is selected, the output level of all speakers is uniformly set to –6.0 dB. The output level of each speaker (center, surround, or sub woofer) can then be adjusted in the range of –6.0 dB to 6.0 dB. **"6.0 dB"** is the maximum level of **"Variable"** and also the level set for **"Fix"**. Therefore, when **"Variable"** is selected, the output level will usually be lower than when the setting is set to **"Fix"**.
• The **"Variable"** setting has no effect on CD and Video CD playback.
• The test tone is not output when the setting is set to **"2 Channel"** in the **[Audio Out]** setting (**page 31**), while the disc tray opens, or while a disc is playing.

ADJUSTING AUDIO AND VIDEO SETTINGS

Switching the Playback Layer of Hybrid SACDs `Expert`

```
┌─────────────────────────────┐
│ 1│Audio2│Video│Language│General│
│        Audio DRC – Off       │
│        Audio Out – 2 Channel │
│     Speaker Setting          │
│       Gain Setting – Fix     │
│     Hybrid SACD    ░SACD     │
│  CD Digital Direct –░Compact Disc│
│  Pure Audio Clock – Off      │
│  ◀▶▲▼Move          SETUP Exit│
└─────────────────────────────┘
```
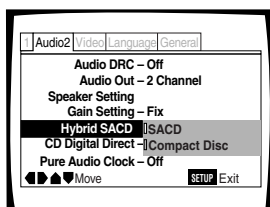
Hybrid SACDs contain both SACD and CD audio on separate layers. This setting determines whether these discs are played as SACDs or as CDs.

Settings: **SACD** (SACD layer is played.) **(Factory setting)**
Compact Disc (CD layer is played.)

Listening to Higher Quality CD Sound (CD Digital Direct) `Expert`

```
┌─────────────────────────────┐
│ 1│Audio2│Video│Language│General│
│        Audio DRC – Off       │
│        Audio Out – 2 Channel │
│     Speaker Setting          │
│       Gain Setting – Fix     │
│      Hybrid SACD – SACD      │
│   CD Digital Direct ░On      │
│   Pure Audio Clock –░Off     │
│   ◀▶▲▼Move          SETUP Exit│
└─────────────────────────────┘
```
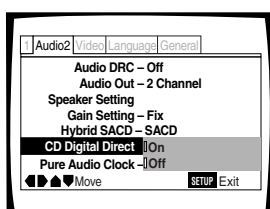
By setting the **[CD Digital Direct]** setting to **"On"**, internal circuitry unrelated to CD playback can be bypassed to produce a higher quality CD sound.

Settings: **On** (Bypass unnecessary circuitry for CD playback.)
Off (Passes through the necessary circuitry for DTS CD playback.) **(Factory setting)**

Note
If this setting is set to **"On"** when a DTS CD is played back, noise is produced.

Improving the Audio Quality of DVD-Audio Discs (Pure Audio Clock) `Expert`

```
┌─────────────────────────────┐
│ 1│Audio2│Video│Language│General│
│        Audio DRC – Off       │
│        Audio Out – 2 Channel │
│     Speaker Setting          │
│       Gain Setting – Fix     │
│      Hybrid SACD – SACD      │
│   CD Digital Direct –░On     │
│   Pure Audio Clock  ░Off     │
│   ◀▶▲   Move        SETUP Exit│
└─────────────────────────────┘
```
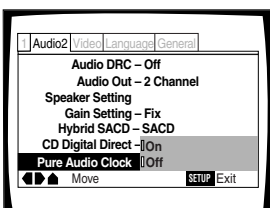
DVD-Audio discs differ from other disc media in that they can be recorded with two different audio frequency systems, and these frequencies will switch in different playback conditions. Higher quality sound is achieved when the player automatically selects the 44.1 kHz (44.1 kHz/88.2 kHz/176.4 kHz) and 48 kHz (48 kHz/96 kHz/192 kHz) quartz-crystal oscillator in accordance with the sampling frequency of the source being played back. However, it is also possible to turn off the oscillator that is not being used. When this is done, there is no interference from the unused oscillator and degradation of sound quality can be prevented.

Settings: **On** (Select to have the unused oscillator turned off.)
Off (Select to keep both oscillators on to be used as necessary. **(Factory Setting)**

Note
When the setting is set to **"On"**, images may be disrupted for a moment due to frequency systems (44.1 kHz and 48 kHz) changes in the source being played back.

Switching the Output Format of Images – DVD

```
┌─────────────────────────────────┐
│ Audio1 2 Video Language General  │
│       TV Screen – 16:9(Wide)     │
│ Component Video ▐Progressive     │
│    Still Picture –▐Interlace      │
│ On Screen Display –▐Auto Progressive │
│    OSD Position – Normal          │
│   Angle Indicator – On            │
│                                   │
│ ◀▷▲  Move          SETUP Exit     │
└─────────────────────────────────┘
```
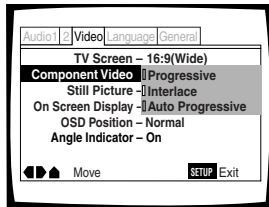
When component connections are made to a TV that is progressive-compatible, the video output format can be switched between interlace and progressive scan as determined by the kind of image that is being played back. This setting can only be changed when the component video output selection switch on the rear panel is set to **"menu select"** (**page 16**).

Settings: **Progressive** (Select for high image quality when the connected TV, monitor, or projector is progressive compatible.

Interlace (Select when the connected TV, monitor, or projector is not progressive-compatible.) **(Factory setting)**

Auto Progressive (Switches to progressive scan when 16:9 DVD discs are played, 4:3 DVD discs uses interlace setting. Your TV/monitor must be compatible with progressive scan to use this setting.

Notes
• When the connected TV, monitor, or projector is not progressive-compatible, but **"Progressive"** is selected in this setting, no images are produced. If a mistake is made in this setting, change the video component output switch on the rear panel to **"525i (480i)"**.
• When the video output is switched from Interlace to Progressive or from Progressive to Interlace, the video image may be disrupted for a moment.

Compatibility of this unit with progressive-scan TVs.

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

"525P DVD PLAYER is compatible with the following Pioneer displays and monitors."

PLASMA DISPLAY
•PDP-505HD •PDP-502MX

PROJECTION MONITOR RECEIVER
•Pro-700HD   •Pro-710HD   •Pro-610HD

•Pro-510HD   •SD-641HD5   •SD-582HD5

•SD-532HD5

ADJUSTING AUDIO AND VIDEO SETTINGS

Setting the TV Screen Size – DVD
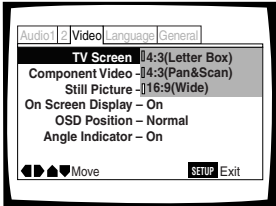
Notes

• If **"Standard (4:3)"** is selected in the Setup Navigator screen, **"4:3 (Letter Box)"** is selected on this screen. If you prefer the pan&scan format, change the settings on this screen.

• Whether the aspect can be switched or not depends on the disc. Please refer to the information written on the disc jacket, etc.

• Some discs may not include the screen format selected in the **[TV Screen]** setting. When this occurs, the standard TV screen format available on the disc is automatically selected.

The width-to-height ratio of conventional TVs is 4:3, while the width-to-height ratio of wide screen and high-definition TVs is 16:9. This width-to-height ratio is called the aspect ratio.

When viewing software recorded in different aspect ratios, the image's height to width ratio can be switched to match the TV or monitor being used.

Please note that changes to the **[TV Screen]** setting cannot be made when a disc is playing. Stop playback of the disc before attempting to make any changes.

Settings: **4:3 (Letter Box)**
4:3 (Pan & Scan)
16:9 (Wide) (Factory Setting)

```
Audio1 2 Video Language General

          TV Screen   4:3(Letter Box)
   Component Video –   4:3(Pan&Scan)
       Still Picture –   16:9(Wide)
 On Screen Display – On
      OSD Position – Normal
     Angle Indicator – On

◀▶▲▼Move                    SETUP Exit
```

Differences in screen sizes and DVD formats

The number of screen size formats currently available can be somewhat confusing. If set incorrectly, the video presentation may not appear as it should. The following diagrams and descriptions are intended to help you set your TV screen size in a way that will allow you to fully enjoy the digital video of DVD.

The settings in the **[TV Screen]** setting are perhaps most applicable when the DVD you are watching is programmed in the wide screen format. If you have a standard TV, select either **"4:3 (Letter Box)"** or **"4:3 (Pan & Scan)"** based on your personal preference. If you have a wide screen TV, select **"16:9 (Wide)"**.

When viewing a wide screen TV or monitor	
DVD screen size format	**Setting and Appearance**
Wide screen format DVD Please note that there are some wide screen letter box formats that place black bars at the top and bottom of the screen. This is not a malfunction.	**"Wide" setting**
Standard screen format DVD When viewing a standard screen format DVD on a wide screen TV, black bars may be automatically placed at the side of the screen to adjust to the DVD format.	**"Wide" setting**
Standard screen format DVD (unnatural stretched effect) If you are viewing a standard screen format DVD on a wide screen TV, the picture may appear 'stretched' on the screen. To remedy this condition, change your wide screen TV to display a standard (4:3) screen. Refer to the instructions supplied with your wide screen TV or monitor for more information.	**"Wide" setting**

When viewing a standard size TV or monitor	
DVD screen size format	**Setting and Appearance**
Wide screen format DVD The Letter box presentation places black bars at the top and bottom portions of the screen to provide the full wide screen presentation of a movie on a standard TV (4:3 aspect ratio).	**"Letter Box" setting**
Wide screen format DVD The Pan & Scan presentation crops both sides of the wide screen presentation to use the full standard TV screen.	**"Pan & Scan" setting**
Standard screen format DVD If you have a standard TV, the standard screen format will be presented regardless of the setting.	**Any setting**
Wide screen format DVD (unnatural squeezed effect) If you are viewing a wide screen format DVD on a standard TV and the **[TV Screen]** setting is set to **"16:9(Wide)"**, the picture may appear 'squeezed' on the screen. To remedy this condition, select either **"4:3(Letter Box)"** or **"4:3(Pan & Scan)"**.	**"Wide" setting**

Adjusting the OSD (On-Screen Display)

If you have already completed the Setup Navigator screen operations, the settings on this page have already been set by the player.

Setting the on-screen display (OSD) language

```
Audio1 2 Video Language General
 OSD Language    English
 Audio Language - français
 Subtitle Language - Español
 Auto Language – On
 DVD Language – w/Subtitle Language
 Subtitle Dispaly – On
     Subtitle Off – Selected Subtitle
 Move                    SETUP Exit
```
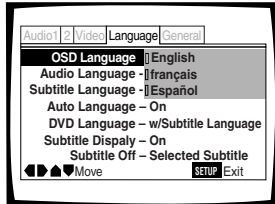
This setting is used to establish the language that operation indicators and on-screen messages and operations display. Change this setting in the Setup screen **Language** menu **[OSD Language]** setting.

Settings: **English (Factory Setting)**
français
Español

Note
The **[OSD Language]** setting is factory set to **"English"**. If you want English to be displayed, it is not necessary to adjust this setting.

Turning the on-screen display on or off

```
Audio1 2 Video Language General
 TV Screen – 16:9(Wide)
 Component Video – Interlace
 Still Picture – Field
 On Screen Display   On
 OSD Position - Off
 Angle Indicator – On

 Move                    SETUP Exit
```
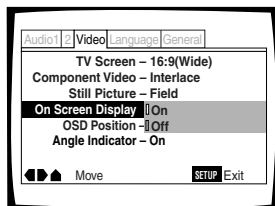
If you would rather not have the operation indicators (Play, Stop, Resume, etc.) and other messages displayed on the screen, it is possible to turn them off in the **[On Screen Display]** setting in the Setup screen **Video** menu.

Settings: **On (Factory Setting)**
Off

Setting the position of the on-screen display

```
Audio1 2 Video Language General
 TV Screen – 16:9(Wide)
 Component Video – Interlace
 Still Picture – Field
 On Screen Display – On
 OSD Position   Wide
 Angle Indicator - Normal

 Move                    SETUP Exit
```
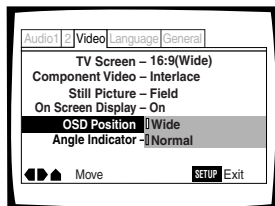
When a wide screen TV is connected, a part of the operation display may be cut off depending on the TV setting. Changing the position of the display allows you to see the operation display clearly on a wide screen TV. This setting is unnecessary on a conventional TV.

Settings: **Wide**
Normal (Factory Setting)

Note
This setting is only effective with DVDs that contain a 4:3 aspect ratio video presentation.

ADJUSTING AUDIO AND VIDEO SETTINGS

Setting the Language Options

DVDs have the capacity to contain a great deal of audio information, which includes the ability to hold up to 8 different language tracks and subtitle information in as many as 32 different languages. This section outlines the variety of audio language and subtitle options available with this player.

Please note that if you have completed the Setup Navigator, the audio and subtitle language options have automatically been set in accordance with the **[OSD Language]** (the language that appears on the screen).

In this section, you'll be able to:
- Select one of the subtitle languages programmed on a DVD or turn the subtitles off using the remote control (this page).
- Select one of the languages programmed on a DVD using the remote control (**page 39**).
- Change the audio output type when using Video CDs and CDs (**page 39**).
- Set preferences for audio and subtitle language (**page 40**).
- Set preferences for the language to be displayed by the DVD menu (**page 40**).
- Set **[Auto Language]** to display subtitles only for foreign films (**page 42**).
- Select whether to have the subtitles turned on or off, and even opt to select assist subtitles for viewers who are hard of hearing (**page 42**).
- Select the language of subtitles that appear even when the subtitles are turned off (**page 42**).

Note
DVDs differ in content and do not all contain multiple language or subtitle information. Therefore making settings in this section may have no effect on some DVDs.

Selecting a Subtitle Language (Multi-Language Subtitles) – DVD
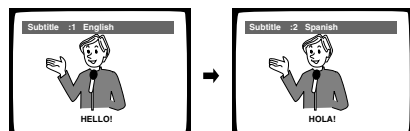
You can select a desired subtitle language with DVDs that have subtitle data in multiple languages recorded on them.

Press **SUBTITLE** repeatedly during playback.
Pressing **SUBTITLE** once displays the currently selected subtitle language. Subsequent presses rotates through the subtitle languages available on the DVD.
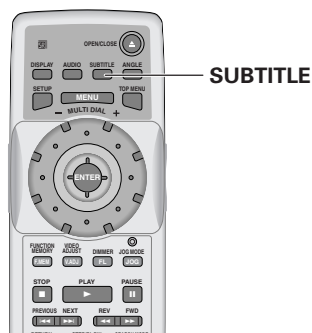
Notes
- The subtitle language cannot be switched if the subtitle language is not recorded, or if only one language is recorded.
- Switching the subtitle language may not be possible with some discs. In this case, the 🚫 mark will be displayed.
- To clear subtitles during playback, press **SUBTITLE** and then press **CLEAR**, or press **SUBTITLE** until **"Off"** appears.
- For some discs, subtitle language selection can be made using the menu on the DVD. In this case, press **MENU** to display the DVD menu screen and then make your selection.
- Changing the subtitle language by pressing **SUBTITLE** on the remote control applies only to the disc currently playing. With DVD video discs, if the resume function is canceled (**page 26**) or the disc is removed from the player, the subtitle language returns to the language set in the Setup screen Language menu **[Subtitle Language]** setting (**page 40**) or the default subtitle language of the disc.

Changing the Audio Language (Multi-Language Function) – DVD
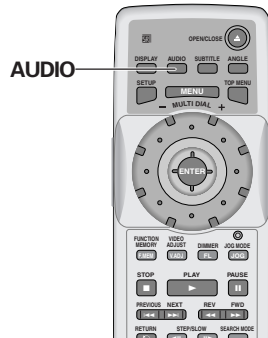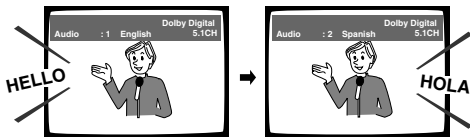
Dolby Digital, PCM, and other audio data can be recorded on DVDs in a number of languages or audio tracks, letting you choose the desired language or audio.

Press **AUDIO** repeatedly to select the desired language.
Pressing **AUDIO** once displays the currently selected language. Subsequent presses rotates through the audio languages available on the DVD.

Notes
- When more than one audio soundtrack is recorded on a DVD-Video disc or DVD-Audio disc, the audio soundtracks can be changed during playback.
- You cannot switch languages if there is only one language recorded on the disc.
- Switching the audio language may not be possible with some titles. In this case, the ⊘ mark is displayed.
- For some titles, selection can be made using the DVD menu.
  In these cases, press **MENU** to display the DVD menu screen and then make your selection.
- Depending on the disc, when the audio track is changed by pressing **AUDIO**, the screen may briefly pause or shake. This is not a malfunction.
- When **"On"** is selected in the Setup screen **Audio 1** menu **[Digital Output]** setting and **[Linear PCM Out]** is set to **"Down Sample On"**, **"Down Sample Digital Out"** may be displayed.
- Changing the audio language by pressing **AUDIO** on the remote control applies only to the disc currently playing. With DVD-Video discs, if the resume function is canceled (**page 26**) or the disc is removed from the player, the audio language returns to the language set in the Setup screen Language menu **[Audio Language]** setting (**page 40**) or the default audio language of the disc.
- When changing the audio language during playback of a DVD Slide show (**page 72**), the sound is not output for approximately 30 seconds.

Changing Audio Type – Video CD/CD
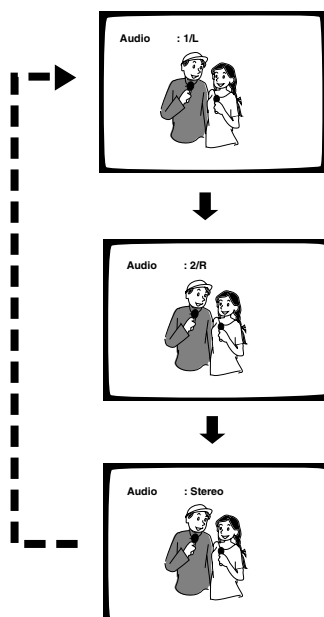
For enjoyment of karaoke or similar format Video CDs and CDs, it is possible to select stereo audio, or either right or left channel mono depending on the requirements of the source.

Press **AUDIO** repeatedly during playback to switch the audio type.
Audio output changes from **"1/L"** (Left channel) to **"2/R"** (Right channel) to **"Stereo"**.

Note
With karaoke and other discs, set the appropriate audio type for singing and accompaniment after referring to information on the disc jacket or accompanying material.

Setting Language and Subtitle Preferences in the Setup Screen Menus

The Setup screen Language menu contains a number of settings related to the audio and subtitle language preferences. Please note that changes to the settings in the **Language** menu in this section cannot be made when a disc is playing. Stop playback of the disc before attempting to make any changes.

Selecting an audio language preference

```
Audio1 2 Video Language General
  OSD Language – English
  Audio Language – English
  Subtitle Language -   French
  Auto Language -   Spanish
  DVD Language -   Other
  Subtitle Display – On
      Subtitle Off – Selected Subtitle
  Move                    SETUP Exit
```
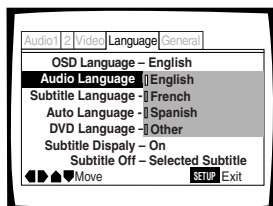
The audio language that you normally listen to can be selected from the various audio languages on a DVD. Even when the audio language is changed during playback by pressing **AUDIO**, the language selected at this setting will be selected as the default when the DVD is changed.

Settings: **English (Factory setting)**
French
Spanish
Other (For details on how to select other languages, see 'When **"Other"** is selected' on the following page.)

Selecting a subtitle language preference

```
Audio1 2 Video Language General
  OSD Language – English
  Audio Language – English
  Subtitle Language   English
  Auto Language -   French
  DVD Language -   Spanish
  Subtitle Dispaly -   Other
      Subtitle Off – Selected Subtitle
  Move                    SETUP Exit
```
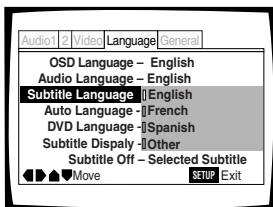
The subtitle language that you will normally display can be selected from the subtitles programmed on a disc. Even when the subtitle language is changed during playback by pressing **SUBTITLE**, the language selected at this setting will be selected when the disc is changed.

Settings: **English (Factory setting)**
French
Spanish
Other (For details on how to select other languages, see 'When **"Other"** is selected' on the following page.)

Selecting a DVD menu language preference

```
Audio1 2 Video Language General
  OSD Language – English
  Audio Language – English
  Subtitle Language   w/ Subtitle Language
  Auto Language -   English
  DVD Language   French
  Subtitle Display -   Spanish
      Subtitle Off -   Other
  Move                    SETUP Exit
```

In addition to containing different audio languages, DVD may also contain menu screens in different languages as well. Setting a DVD language preference, sets the selected language as a default when DVDs with menu information in that language are encountered. Selecting **"w/ Subtitle Language"** automatically assigns the language selected in the **[Subtitle Language]** setting.

Settings: **w/ Subtitle Language (Factory setting)**
English
French
Spanish
Other (For details on how to select other languages, see 'When **"Other"** is selected' on the following page.)

Note
 If this function is not effective, the languages that can be selected may also be selected in the DVD menu. Press **MENU** to open the DVD menu and make your selection accordingly.
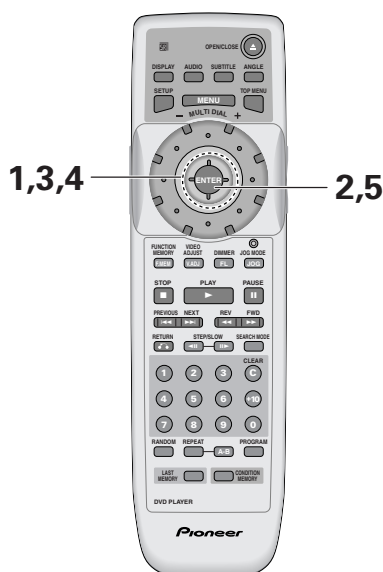
When "Other" is selected
When you want to select one of the 136 languages as the main audio language, follow the steps below when the following screen appears. A language code list can be found on **page 68**.

1 Move the **cursor control joystick** to select **"Other"**.
The language selection screen appears.

1,3,4 — ENTER — **2,5**

Audio1 2 Video Language General
OSD Language – English
 Audio Language English
Subtitle Language - French
 Auto Language - Spanish
 DVD Language - **Other**
Subtitle Dispaly – On
 Subtitle Off – Selected Subtitle
 Move ENTER Select SETUP Exit

Audio1 2 Video Language General
Audio Language
 List of Languages   Code (0~2)
 ja: Japanese   1 0 0 1
 Move   Return
 +/–   ENTER Select SETUP Exit
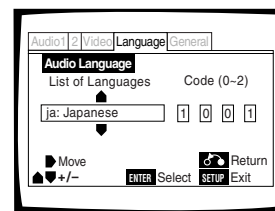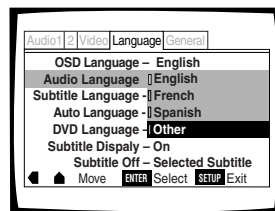
2 Press **ENTER**.

3 Move the **cursor control joystick** to select either **"List of Languages"** or **"Code"**.

4 If you select **"List of Languages"**, move the **cursor control joystick** up or down to select the language.

List of Languages
ja: Japanese
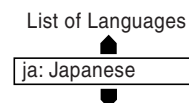
If you select **"Code"**, move the **cursor control joystick** up or down to input the numbers of the input code. Move the **cursor control joystick** right or left to change the position of the cursor. You can also use the **number buttons** to enter the code.

Code (0~2)
1 0 0 1
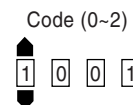
5 Press **ENTER** to set the new language.
To exit the screen without making any changes, press **RETURN**.

SETTING THE LANGUAGE OPTIONS

Setting Auto Language to control subtitle and audio language based on program content

```
Audio1 2 Video Language General
   OSD Language – English
   Audio Language – English
   Subtitle Language – Spanish
   Auto Language    On
   DVD Language –   Off
   Subtitle Dispaly – On
      Subtitle Off – Selected Subtitle
   Move                    SETUP Exit
```
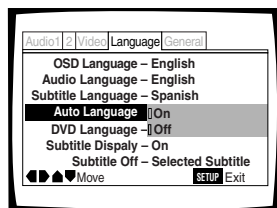
When the Auto Language function is used, foreign movies are shown with the original audio soundtrack and subtitles in the language selected in the **[Subtitle Language]** menu option. Domestic films are shown with the original audio soundtrack and no subtitles.

Settings: **On (Factory setting)**
Off

Note

The Auto Language function operates only when this function is set to **"On"**, and the language set for the **[Audio Language]** and **[Subtitle Language]** settings is the same.

Selecting subtitles, assist subtitles or no subtitles Expert

```
Audio1 2 Video Language General
   OSD Language – English
   Audio Language – English
   Subtitle Language – Spanish
   Auto Language – On
   DVD Language –   On
   Subtitle Display  Off
      Subtitle Off -  Assist Subtitle
   Move                    SETUP Exit
```
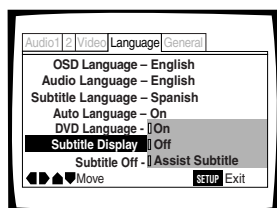
Use this function to turn the subtitles on or off. Also, some DVDs provide assist subtitles that give additional explanations of scenes in addition to the standard subtitles for viewers who are hard of hearing. Select **"Assist Subtitle"** to display these subtitles on DVDs where this function is offered.

Settings: **On (Factory setting)**
Off
Assist Subtitle

Notes
• If there is no subtitle information recorded on the DVD, no subtitles are displayed even if this function is set to **"On"**.
• This setting serves as a default as whether or not to display subtitles. Even if this option is set to **"Off"**, subtitles can be displayed by pressing **SUBTITLE**. Similarly, if this option is set to **"On"**, the subtitles can be turned off by pressing **SUBTITLE** and then **CLEAR**.

Selecting the language of forced subtitles Expert

```
Audio1 2 Video Language General
   OSD Language – English
   Audio Language – English
   Subtitle Language – Spanish
   Auto Language – On
   DVD Language – English
   Subtitle Display -  With Audio
   Subtitle Off     Selected Subtitle
   Move                    SETUP Exit
```
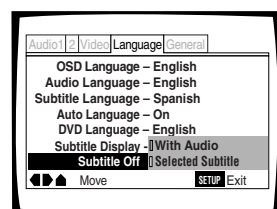
Even when the subtitles are turned off, some DVDs will nevertheless display them on the screen. This setting allows you to select the language of the subtitles to be displayed with this type of DVD. Select **"With Audio"** to display the subtitles in the same language as the currently selected audio language. Select **"Selected Subtitle"** to display the subtitles in the language set in the **[Subtitle Language]** setting.

Settings: **With Audio**
Selected Subtitle (Factory setting)

Advanced Functions

This player is compatible with DVD, SACD, Video CD, and CD disc formats. Users already familiar with Video CD or CD will already be familiar with some of the functions the player is capable of performing. With DVD, an even greater number of possibilities and functions are available.

Note
DVDs differ in content and do not all contain the same information. Therefore some functions in this section may not work or have no effect on some DVDs.

Adjusting the Dynamic Range of the Audio Soundtrack – DVD
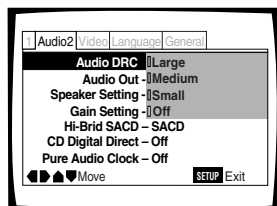
Audio DRC stands for Audio Dynamic Range Compression. When **Audio DRC** is on, soft sounds such as dialog can be heard more clearly without making loud sounds even louder. Select from three levels of compression depending on how much effect you want. When **[Audio DRC]** is set to **"Off"**, there is no effect on the audio source.

Settings: **Large** (maximum compression of audio source)
Medium (moderate compression of audio source)
Small (very little compression of audio source)
Off (Factory setting)

Note
Audio DRC is only effective with Dolby Digital audio sources.

Adjusting the Video Quality (Digital Noise Reduction) – DVD/Video CD

You can either select a preprogrammed setting designed to match certain program types or make adjustments to match your own preferences and save them in the player's memory.

Selecting a preprogrammed setting
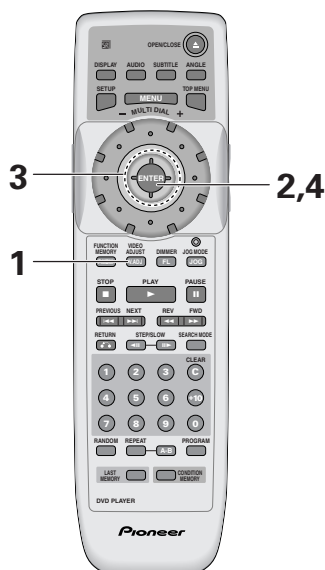
1 Press **VIDEO ADJUST (V.ADJ)**.

2 Press **ENTER**.

3 Move the **cursor control joystick** to select one of the preprogrammed picture quality settings.

TV (CRT) : Video quality setting adjusted for TV (CRT) or monitor presentation.

Projector : Video quality setting adjusted for projector presentation.

Professional : Video quality setting adjusted for professional monitors. The original picture quality of the source is not adjusted.

- If there is a DVD or Video CD playing, the effects of each setting can be viewed while it is highlighted on the screen. This may be useful in selecting an appropriate setting.
- **"Memory1"**, **"Memory2"**, and **"Memory3"** are user programmable settings. Refer to *'Adjusting the picture quality settings'* on the following page for more information on customizing your own picture quality settings.

4 Press **ENTER**.
The new selection is set.

Note
Each picture quality setting is defined by a number of individual settings, described in *'Adjusting the picture quality settings'* on the following page.

Adjusting the picture quality settings

DISPLAY

2,4,5,6

3,7

1
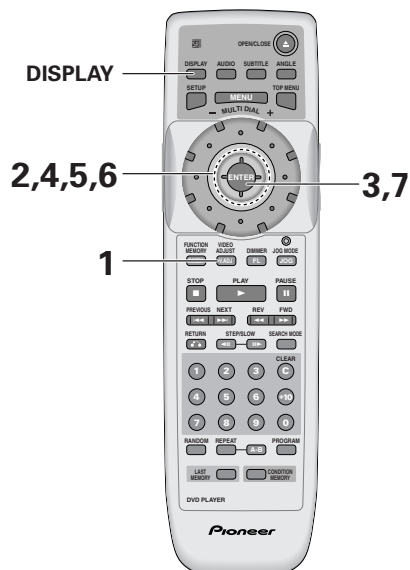
1 Press **VIDEO ADJUST (V.ADJ)**.

2 Move the **cursor control joystick** down to select **"Video Setup"**.

3 Press **ENTER**.

4 Move the **cursor control joystick** up or down to select the setting to adjust.
The settings rotate in the left order.

Prog Motion   fast |—|—|—|+|+|+| slow
▲▼ Move   ENTER Select   DISPLAY Check
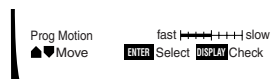
5 Move the **cursor control joystick** right or left to adjust the settings.
If a DVD or Video CD is playing, the changes will be visible on the screen as they are adjusted.

6 Repeat steps **4** and **5** to make adjustments to other settings.
If you would like to save the settings in the player's memory, be sure to select either **"1"**, **"2"**, or **"3"** in the **[Memory]** setting to establish which memory location to save the new settings in.
Please note that if you select a location where settings have already been saved, the old settings will be replaced by the new ones.

Memory   Off   1   2   3
▲▼ Move   ENTER Select   DISPLAY Check

7 When you are finished making adjustments, press **ENTER** to establish the new settings.

```
                              Page 1/2
Prog Motion        fast ├┼┼┼┼┼┼┤ slow
Pure Cinema        Auto    On    Off
YNR                off ├┼┼┼┼┼┼┤ max
CNR                off ├┼┼┼┼┼┼┤ max
NR                 off ├┼┼┼┼┼┼┤ max
Sharpness High     soft ├┼┼┼┼┼┼┤ fine
Sharpness Mid      soft ├┼┼┼┼┼┼┤ fine
Detail             off ├┼┼┼┼┼┼┤ max
Memory                  Off  1  2  3
   ▼
```

```
   ▲                          Page 2/2
White Level        min ├┼┼┼┼┼┼┤ max
Black Level        min ├┼┼┼┼┼┼┤ max
Black Setup        0 IRE    7.5 IRE
Hue                green ├┼┼┼┼┼┼┤ red
Chroma Level       min ├┼┼┼┼┼┼┤ max
Chroma Delay       − ├┼┼┼┼┼┼┤ +
Memory                  Off  1  2  3
```

Note
If the Picture quality setting adjustment screen is opened during playback of a DVD being viewed in the letter box format, the screen may switch to the wide screen format. This is not a malfunction, and the screen will return to normal when the Picture quality setting adjustment screen is closed.

To display all of the settings at once
Pressing **DISPLAY** while the picture quality setting adjustment screen is displayed enables all of the current settings to be viewed on one screen. Adjustments may also be made when this screen is displayed, by moving the **cursor control joystick** up and down to select a setting, and right and left to adjust the selected setting.

[Prog Motion]
This setting is effective for progressive scan output. Adjust for the level of motion occurring in the overall picture.

[Pure Cinema]
Sets the progressive scan circuitry and DNR operation appropriately for playback of DVD-Video discs recorded from a film master. Normally this function should be set to **"Auto"**. Set **[Pure Cinema]** setting to **"On"** or **"Off"** if images on the screen are not clear (refer to below column).

[YNR]
Cuts the amount of digital noise in the Y (luminance) component of the video signal.

[CNR]
Cuts the amount of digital noise in the C (color) component of the video signal.

[NR]
Cuts the amount of digital noise in the picture. This setting is no effect for progressive scan output.

[Sharpness High]
Adjusts the sharpness of the picture in the upper frequency range.

[Sharpness Mid]
Adjusts the sharpness of the picture in the middle frequency range.

[Detail]
Adjusts the edges in the picture.

[White Level]
Adjusts the brightness of the lighter images in the picture.

[Black Level]
Adjusts the brightness of the darker images in the picture.

[Black Setup]
Adjusts the dynamic range of the darkness and lightness of black images in the picture.

[Hue]
Adjusts the red and green balance in the picture.

[Chroma Level]
Adjusts the depth of the colors in the picture. This setting is effective with animation and other sources with very colorful presentations.

[Chroma Delay]
Adjust the delay of the Y (luminance) and C (color) components of the video signal.

The "Pure Cinema" mode

DVD-Video discs are recorded using one of two types of video signal: **"Video Master"** signals are recorded at a rate of 30 frames per second. **"Film Master"** signals are recorded at a rate of 24 frames per second.

When a movie is shot, the film records the action at a rate of 24 frames per second (24 Hz). When DVD-Video discs are recorded using a film master, the **[Pure Cinema]** mode can convert these 24 recorded frames per second into a 60 frame per second progressive scan presentation resulting in a video image that best reflects the original film as recorded to the disc. Therefore, you can enjoy watching a cinematic presentation clearly and true to the original.

Generally, you will be able to enjoy watching movies and other presentations with **[Pure Cinema]** set to **"Auto"**. However, if the video image is jagged or shakes during playback of certain discs, switch the **[Pure Cinema]** setting to either **"On"** or **"Off"**.

You can confirm whether or not a DVD-Video disc is recorded using a film master (24 frames per second) on the disc information screen.

When a 24 frame per second film master progressive video image is recorded on the DVD Video disc, **"#"** is displayed.

```
Play     #     1−1     1.19
Tr. Rate : ▮▮▮▮▮▮▮▮▮▮    8.9
```
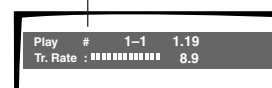
To display the disc information screen, press **DISPLAY** on the remote control. Press **DISPLAY** repeatedly to display the screen shown above (**page 61**).

ADVANCED FUNCTIONS

Still Frame/Slow Play/Frame Advance Playback – DVD/Video CD

The video images on DVD and Video CD can be viewed as a still frame, played back at slow speeds and even advanced frame by frame.

PLAY ►

PAUSE II

STEP/SLOW ◄II/II►
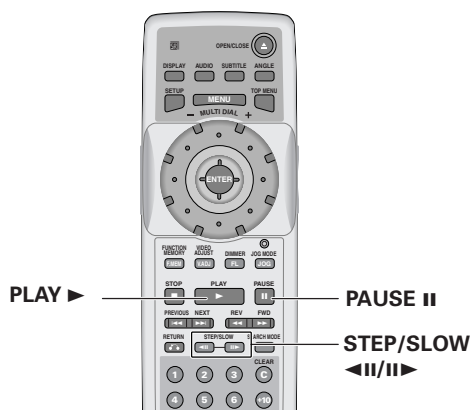
Viewing a still frame

Press **PAUSE II**.
When viewing a DVD, if the paused picture shakes, select the **"Field"** setting in the Setup screen **Video** menu **[Still Picture]** setting as described in the section below.

To return to normal playback
When viewing a still frame playback, pressing **PAUSE II** or **PLAY ►** restores normal playback operation.

Selecting the type of paused image to display Expert

This function lets you view a clear still-image when DVD playback is paused.


```
Audio1 2 Video Language General
        TV Screen – 16:9(Wide)
   Component Video – Interlace
        Still Picture     Field
On Screen Display –    Frame
      OSD Position –    Auto
     Angle Indicator – On
◄▶▲ Move              SETUP Exit
```

Field
Picture shake will be eliminated during a paused picture.
Frame
Select to obtain higher picture quality.
Auto (Factory setting)
Selects **[Field]** or **[Frame]** automatically according to the disc.

Viewing slow playback

With this function, DVDs can be viewed in both forward and reverse directions. Slow playback of Video CDs can only be viewed in the forward direction.

Press and hold **STEP/SLOW II►** for about 2 seconds during playback.
• Slow playback is engaged.
• During slow playback, the speed of playback can be adjusted from 1/16 normal playback speed to 1/2 normal playback speed in four steps (1/16 – 1/8 – 1/4 – 1/2) using **STEP/SLOW ◄II** and **II►**.
To reverse the playback direction, press **PAUSE II** and then press **STEP/SLOW ◄II** or **II►**.

Press and hold **STEP/SLOW ◄II** for about 2 seconds during DVD playback.
• Slow playback in the reverse direction is engaged.
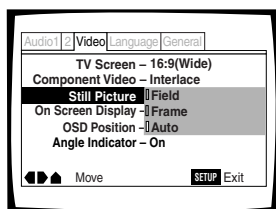• During slow playback, the speed of playback can be adjusted from 1/2 normal playback speed to 1/16 normal playback speed in four steps (1/2 – 1/4 – 1/8 – 1/16) using **STEP/SLOW ◄II** and **II►**.
To reverse the playback direction, press **PAUSE II** and then press **STEP/SLOW ◄II** or **II►**.

To return to normal playback
When viewing still frames or slow playback, pressing **PLAY ►** restores normal playback operation.

Frame by frame advance playback: Viewing one frame at a time

With this function, DVDs can be viewed in both forward and reverse directions. Video CDs can only be moved in the forward direction.

1 Press **PAUSE II**.

2 Press **STEP/SLOW ◄II** or **II►**.
   STEP/SLOW II►: The picture advances one frame each time the button is pressed.
   STEP/SLOW ◄II: The picture backs up a DVD a few frames each time the button is pressed.

To return to normal playback
When viewing frame by frame playback, pressing **PLAY ►** restores normal playback operation.

Notes
• You can enjoy slow and frame by frame playback using **MULTI DIAL** on the remote control (**pages 47 and 48**).
• There is no sound when viewing still frames or slow playback, or when advancing one frame at a time.
• When video information is recorded on a DVD-Audio disc, still frame, slow playback and frame by frame playback is possible.
• When the paused picture shakes, set the **[Still Picture]** setting to **"Field"**.
• Still frame, slow play, or frame advance playback may not be possible with certain titles. In this case, the 🚫 or 🚫 mark is displayed.
• With Video CDs, slow or scan playback is not possible when the menu is displayed (PBC playback).
• For more information about slow and frame by frame playback, refer to the memo information in the section *'Scanning in Forward and Reverse Directions at Different Speeds'* on **pages 47 and 48**.

Scanning in Forward and Reverse Directions at Different Speeds – DVD/SACD/Video CD/CD

This player incorporates technology that enables smooth playback of DVDs and Video CDs not only at different speeds but also in both forward and reverse directions. SACDs and Video CDs cannot be played slowly in the reverse direction.
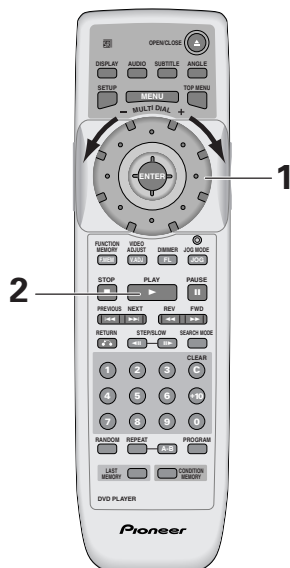
1 Rotate **MULTI DIAL** in the direction you want to scan until the appropriate scan speed is displayed on the screen.
* Rotate **MULTI DIAL** clockwise to scan in the forward direction.
* Rotate **MULTI DIAL** counterclockwise to scan in the reverse direction.
   The incremental rate of scanning is the same in both directions, however, differs depending on the speed at which **MULTI DIAL** is turned as follows.

When MULTI DIAL is turned slowly

Clockwise rotation : **1/16, 1/8, 1/4, 1/2, 1/1, SCAN1, SCAN2, SCAN3**
Counterclockwise rotation: **SCAN3, SCAN2, SCAN1, 1/1, 1/2, 1/4, 1/8, 1/16**

* It is possible to return to slower scan rates by turning **MULTI DIAL** in the opposite direction.
* If the dial is turned rapidly after being first turned slowly, the rates of search will jump to the type of scanning described below.
* To reverse the playback direction, press **PAUSE ❚❚** and then rotate the **MULTI DIAL** counterclockwise.
* Rates preceding **"1/1"** are slowed playback. **"1/1"** refers to the normal playback rate. **"SCAN 1"**, **"SCAN 2"**, and **"SCAN 3"**, refer to progressively faster rates of scanning.

When MULTI DIAL is turned quickly

Clockwise rotation : **SCAN1, SCAN2, SCAN3 (DVD only)**
Counterclockwise rotation: **SCAN3 (DVD only), SCAN2, SCAN1**

* To reverse the playback direction, press **PAUSE ❚❚** and then rotate the **MULTI DIAL** counterclockwise.
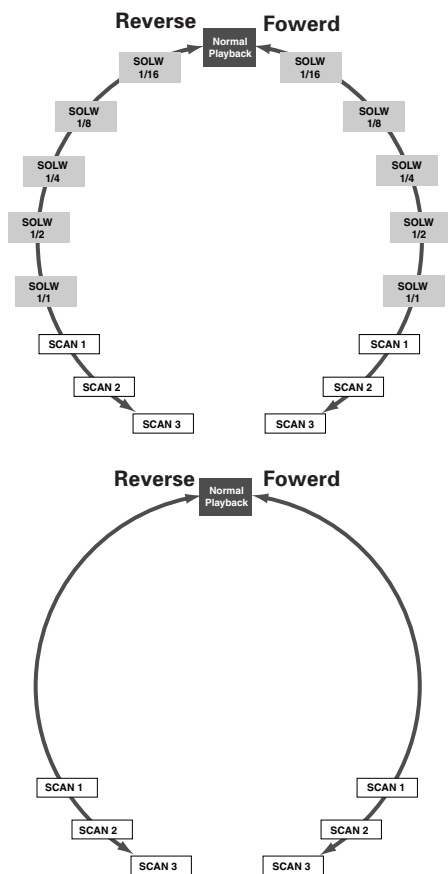
2 During scanning, turn **MULTI DIAL** quickly in the opposite direction of the search to resume normal playback.

To return to normal playback

During slow or scan playback, turn **MULTI DIAL** rapidly in the opposite direction of the current search. Normal playback is resumed. It is also possible to resume normal playback by pressing **PLAY ▶** during slow or scan playback.

Notes
* Pressing **PLAY ▶** also ends slow or scan playback and returns to normal playback of the disc.
* If a Browsable Picture is recorded on a DVD-Audio disc, scan playback is possible.
* Slow or scan playback may not be possible with certain titles. In this case, the 🎞 or 🔊 mark is displayed.
* With Video CDs, slow playback in the reverse direction is not possible.
* Depending on the DVD, slow reverse playback may not be smooth (picture shake or frames jump) and there may be some degradation of the picture quality. This is not a malfunction.
* Only scan playback is possible with SACDs, CDs and DVD-Audio discs that do not contain video images. During scanned playback of SACDs or CDs, the sound of the material being scanned can be heard.
* With Video CDs and CDs, the scan speed can only be adjusted up to SCAN2.
* During slow or scanned reverse playback, subtitles are not shown.
* Depending on the disc, slow or scan playback may be canceled and normal playback resumed when a new chapter is encountered.
* There is no audio when a slow or scan playback function is being performed, even when the speed is **"1/1"** in forward play.

Reverse — Fowerd

Normal Playback

SOLW 1/16 — SOLW 1/16
SOLW 1/8 — SOLW 1/8
SOLW 1/4 — SOLW 1/4
SOLW 1/2 — SOLW 1/2
SOLW 1/1 — SOLW 1/1
SCAN 1 — SCAN 1
SCAN 2 — SCAN 2
SCAN 3 — SCAN 3

Reverse — Fowerd

Normal Playback

SCAN 1 — SCAN 1
SCAN 2 — SCAN 2
SCAN 3 — SCAN 3

ADVANCED FUNCTIONS

Manual scanning using the Jog Mode – DVD/Video CD
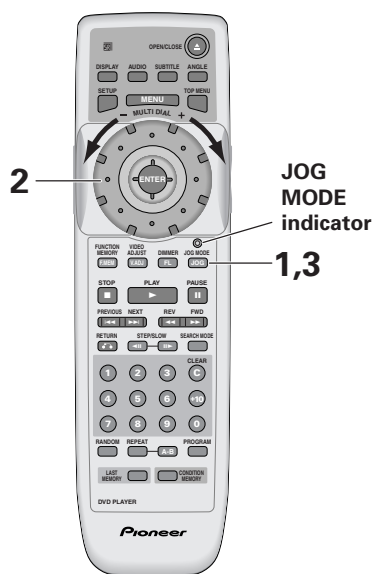
The Jog Mode can additionally be used to locate a frame you want to view, or a scene in a movie you wish to watch at a slow speed.

1 Press **JOG MODE**.
The **JOG MODE** indicator lights red.

2 Rotate **MULTI DIAL** clockwise to scan frame by frame in the forward direction. Rotate **MULTI DIAL** counterclockwise to scan frame by frame in the reverse direction. Video CDs cannot be scanned in the reverse direction. When **MULTI DIAL** is not being turned, the video image is paused.

3 Press **JOG MODE** again to turn the Jog Mode off.
The **JOG MODE** indicator turns off.

Notes
- If a Browsable Picture (**page 71**) is recorded on a DVD-Audio disc, scan playback is possible.
- Step playback may not be possible with certain titles. In this case, the 🎬 or 🎬 mark is displayed.
- With Video CDs, slow or scan playback is not possible when the menu is displayed (PBC playback).
- With Video CDs, step playback in the reverse direction is not possible.

JOG MODE indicator

1,3

2

Setting the SACD Output Level – SACD

Put a SACD disc in the player.
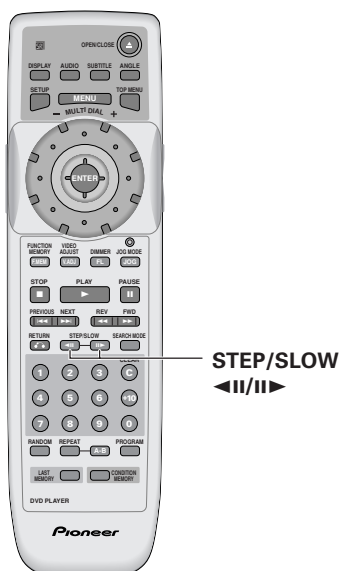
In the stop position press the **STEP/SLOW** ◀II or II▶.
After one press the display on the main unit show the present output level. Each press increases the output level.

◀II
LEVEL 0 dB — LEVEL +3 dB — LEVEL +6 dB
II▶

Notes
- Generally the louder the output level the better the sound quality but if the sound starts to distort please lower the output level.
- The output level stays at the same level until you turn the power off.
- After you turn the power off and turn it back on the output level will reset at "LEVEL +3dB".

STEP/SLOW
◀II/II▶

Searching for a Title, Group, Chapter, Track, or Location on a Disc – DVD/SACD/Video CD/CD

This player offers different ways of accessing the information on a DVD, SACD, Video CD, or CD. Using **SEARCH MODE**, you can search for titles or chapters on a DVD-Video, groups or tracks on a DVD-Audio, tracks on a SACD, Video CD or CD, and even select the point in time to start playback.
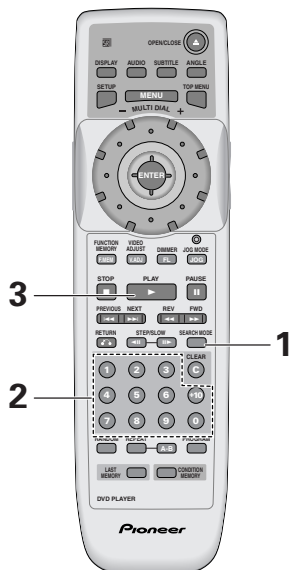
1 Press **SEARCH MODE** repeatedly to select the type of search.
The type of search changes which each press as follows.

Title/Group, Chapter/Track, Time, Page* (DVD-Audio only), Off, Title/ Group, ...

> * Some DVD-Audios feature Browsable Picture (**page 71**). You can search the still image you want to see by specifying the "page" number.

2 Press the **number button(s)** of the desired title, group, chapter or track of the specific time where you would like to begin playback.
• To select number 3, press **3**.
• To select number 10, press **1** and **0**.
• To select number 37, press **3** and **7**.

When performing a time search:
• To select 21 minutes, 43 seconds, press **2**, **1**, **4** and **3**.
• To select 1 hour, 14 minutes, press **7**, **4**, **0** and **0**.

3 Press **PLAY ►**.
Playback of the selected title, group, chapter or track starts. When a time search is performed, playback begins at the appointed time.

To perform a direct title/group or chapter/track search using the number buttons
Press the **number buttons** while the disc is stopped to select a title or group number.
Press the **number buttons** while the disc is playing to select a chapter or track.
• To select number 3, press **3**.
• To select number 10, press **+10** and **0**.
• To select number 37, press **+10**, **+10**, **+10** and **7**.

Notes
• For some discs, selection can be made using the menu on the DVD. In this case, press **MENU** to display the menu screen and then make your selection (**page 24**).
• With some DVDs, the search operation may not be possible and may stop shortly after being performed. In this case, the 🚫 or 🚫 mark is displayed.
• Time search is not possible with DVD-Audio discs, SACDs and CDs.
• When performing DVD-Video time search, playback may start from a slightly different time than that specified.
• With DVD-Video discs, time search is not possible during when the disc is stopped.
• Search using **SEARCH MODE** is not possible during PBC playback of Video CDs.

ADVANCED FUNCTIONS

Viewing from a Desired Camera Angle (Multi-Angle) – DVD

You can select a camera angle when viewing DVDs with the multi-angle option.
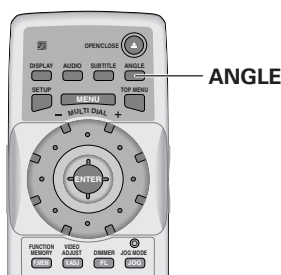
ANGLE

Press **ANGLE** during playback.
The camera angle changes each time you press the button.

Notes
· You can use the Multi-Angle function only with discs featuring recordings of images shot from different camera angles.
· During Multi-Angle playback, the **ANGLE** indicator in the display lights.
· For some discs, selection can be made using the DVD menu. In this case, press **MENU** to display the DVD menu screen and then make your selection.

To check whether or not a disc is recorded with angles:
The jacket of discs that are recorded with angles will be marked with ⌭₁. When locations on discs that are recorded with angles are played back, the ⌭ indicator can be displayed.
To cancel the angle mark, set **[Angle Indicator]** to **"Off"** in the Setup screen **Video** menu described in the section below.

ANGLE : 1/4

ANGLE : 2/4

ANGLE : 3/4

ANGLE : 4/4
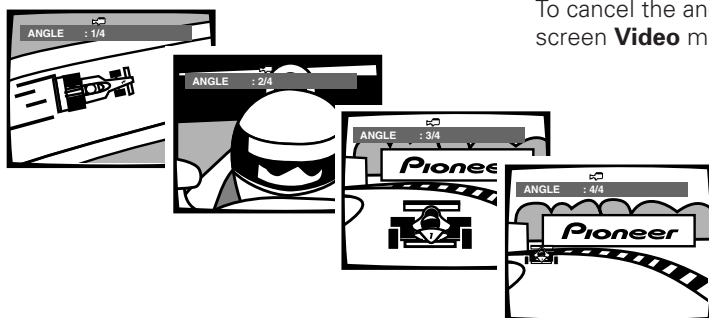
Turning the angle indicator on and off Expert

Audio1 2 Video Language General
TV Screen – 16:9(Wide)
Component Video – Interlace
Still Picture – Field
On Screen Display – On
OSD Position – Normal
Angle Indicator   On
                   Off
◀▶▲ Move   SETUP Exit
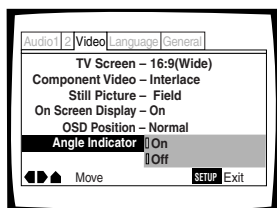
When a picture recorded in different angles is played back, ⌭ is displayed on the screen. This setting lets you see clearly whether the playback picture is recorded in multiple angles or not.

Settings: **On (Factory setting)** (⌭ is displayed)
           Off (Not displayed)

Note
Even when the **[Angle Indicator]** setting is set to **"Off"**, the **ANGLE** indicator in the display panel of the player lights during multi-angle playback. Therefore, it is possible to know when the multi-angle function can be used without having to display the icon on the screen.

Repeat Play – DVD/SACD/Video CD/CD

You can repeat an entire title, group, chapter or track, or just a part.
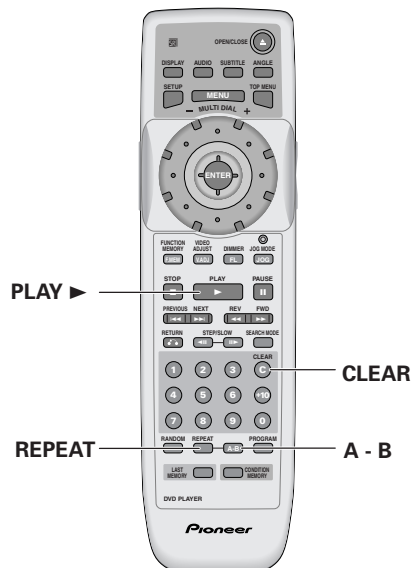
Repeat play of a chapter/track

Press **REPEAT** once during playback of the chapter or track you want to repeat.

Repeat play of a title/group

Press **REPEAT** twice during playback of the title or group you want to repeat.
* With DVDs, the title or group continues playing until the end, and then playback starts once more from the beginning of that title/group.
* With CDs and Video CDs, a disc is considered a single title, so the entire disc is repeated.

To repeat a program

Press **REPEAT** once during program playback to repeat the program.

To cancel repeat play

Press **CLEAR**. Playback continues, but the repeat function is canceled.

PLAY ►

CLEAR

REPEAT   **A - B**

Repeat play of a specified section

Press **A–B** at the beginning and end of the section you want to repeat.
* When **A–B** is pressed a second time, the disc returns to the location where **A–B** was pressed first and plays the selected section repeatedly.
* You can only perform A–B repeat within the same title or group.

To cancel A–B repeat play

Press **CLEAR**. Playback continues, but the repeat function is canceled.

Return to a specified location on a disc

1 Press **A–B** at the desired location.

2 When you want to return to the specified location, press **PLAY ►**.

To clear the specified location

Press **CLEAR** to cancel repeat play or to clear the specified location that was set using A–B.

Notes
* With some DVD discs, there may be times when repeat playback is not possible. In these cases, the 🚫 mark will appear on the screen.
* With Video CDs, repeat play is not possible when the menu is displayed (PBC playback). To perform repeat play, start playback without displaying a menu by pressing the track number to be repeated when the disc is stopped, and then press **REPEAT**.
* You can't use A-B repeat or repeat once when playing SACDs.

ADVANCED FUNCTIONS

Random Play – DVD/Video CD/CD

Play titles, groups, chapters, or tracks on a disc in random order.

ENTER

CLEAR
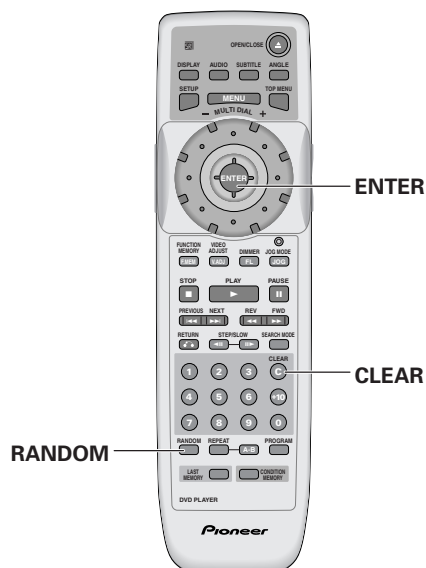
RANDOM

Random playback of chapters/tracks – DVD

Press **RANDOM** once, then press **ENTER**.
"Random Chapter"/"Random Track" appears on the screen, and chapters within the title or tracks within the gourp will be played back in random order.

Random playback of titles/goups – DVD

Press **RANDOM** twice, then press **ENTER**.
"Random Title"/"Random Group" appears on the screen, and titles/groups will be played back in random order.

Random playback of tracks –Video CD/CD

Press **RANDOM**.
"Random" appears on the screen, and random playback begins.

To change titles, chapters, or tracks during random play
• Press **NEXT** ►►I and the next randomly selected track starts playing.
• Press **PREVIOUS** I◄◄ and playback of the current track starts again from the beginning.

To stop random play
Press **CLEAR**. This returns you to normal playback of title/group or chapters/tracks in order from the title/group or chapter/track currently playing.

Notes
• With Video CDs, random play is not possible during playback when the menu is displayed (PBC playback). To perform random play, start playback without displaying a menu by pressing a track number button while in the stop mode, and then press **RANDOM**.
• Random play of programmed titles/groups or chapters/tracks is not possible.
• In the case of DVDs, random playback may not be possible with some discs.
• Repeat playback of random playback is not possible.
• SACD of random playback is not possible.

Playback in a Desired Order (Program Play) – DVD/Video CD/CD

The titles and chapters within a title on a DVD-Video, the groups and tracks within a group on a DVD-Audio, and similarly the tracks on a Video CD or CD can be arranged to play in the order you want.

Programming DVDs

A program with a maximum of 24 steps can be memorized.
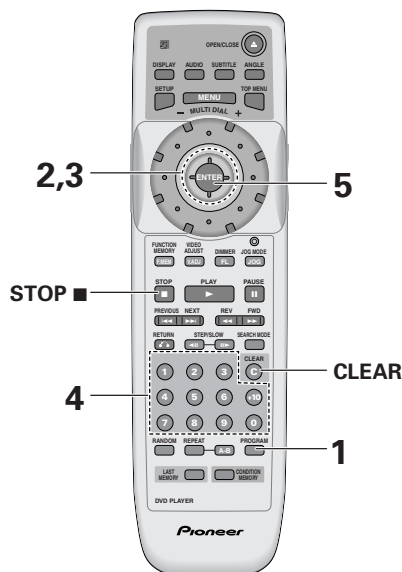
To program a pause in a program
Press **PAUSE II** instead of a **number button**.
"**II**" appears on the screen and the pause can be programmed.
A pause cannot be programmed as the first or last position in a program, and two or more pauses cannot be programmed in succession.

To delete a number:
Move the **cursor control joystick** to highlight the incorrect number and then press **CLEAR**.
The number is deleted. If the number was before another number, the later numbers are reordered automatically.

To insert a number:
Move the **cursor control joystick** to highlight the number to be placed after the new number and then press the **number button(s)** of the number to be inserted.
The new number is inserted before the previously selected number.

To stop program play
Press **STOP ■**.

1 Press **PROGRAM**.
The Program screen appears.
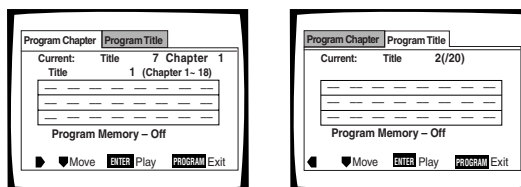
2 Move the **cursor control joystick** right or left to select either Chapter or Title (Track or Group) program.

3 Once the program type is selected. Move the **cursor control joystick** down to enter the program window.
When **"Program Chapter"** (**"Program Track"**) is selected, you must also select what title (group) the chapters (tracks) to be programmed are in. Move the **cursor control joystick** down to highlight "Title" ("Group") and then use the **number buttons** to enter the title (group) number to be used.

4 In the program window, use the **number buttons** to enter the numbers of the titles or chapters in the order you want to program them in.
• To program DVD titles/chapters 9, 7, and 18 in order, press **9**, **7**, **+10** and **8**.
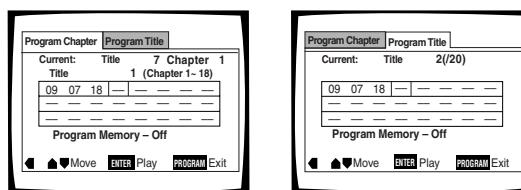
5 Press **ENTER**.
• Playback starts in the set order.
• Press **PROGRAM** to return to the previous display. The program will not begin until **PLAY ►** is pressed.

Notes
• Programming may not be possible with certain DVD discs. On these types of discs, the mark will appear on the screen when programming is attempted.
• Only chapters (tracks) within the same title (group) can be programmed during chapter (track) programming.
• SACD of program playback is not possible.

Programming Video CDs, CDs

A program with a maximum of 24 steps can be memorized.
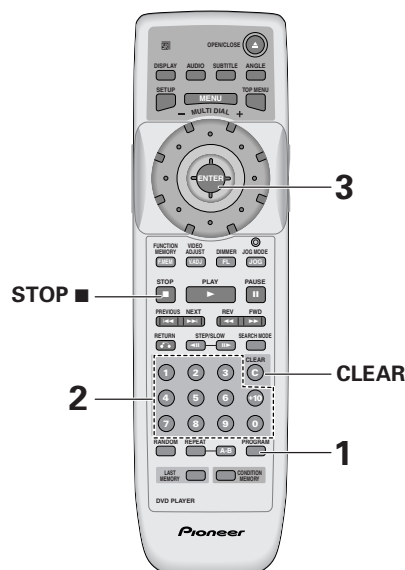
1 Press **PROGRAM**.

The program screen appears. When a Video CD or CD is loaded, the cursor appears in the program window.

```
Program Track

Current: Track    1(/10)
Total Time        0.00

___  _____     ___  _____
___  _____     ___  _____
___  _____     ___  _____
___  _____     ___  _____

           Move   ENTER Play   PROGRAM Exit
```

STOP ■

3

2

CLEAR

1
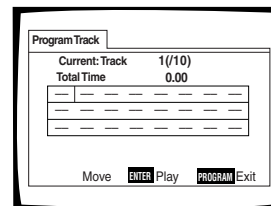
2 Use the **number buttons** to enter the numbers of the tracks in the order you want to program them in.

• To program tracks 9, 7, and 18 in order, press **9**, **7**, **+10** and **8**.
• To edit the program, refer to the procedures on the previous page.

3 Press **ENTER**.

• Playback starts in the specified track order.
• To stop the program play, press **STOP ■**.

Note

You cannot program when playing a Video CD using menu selections (during PBC).

Additional programming options – DVD/Video CD/CD

After you have made a program, it is then possible to confirm, add, or clear the contents of the program.

To confirm the contents of a program:

On a Video CD or CD track program, press **PROGRAM** to confirm. The program screen displays the current program.

On a DVD-Video, select the program type (title or chapter) by moving the **cursor control joystick** right or left. The current title or chapter program can then be confirmed on the appropriate program screen.

On a DVD-Audio, select the program type (group or track) by moving the **cursor control joystick** right or left. The current group or track program can then be confirmed on the appropriate program screen.

To add to a program:

1 Press **PROGRAM**.
2 Press a **number button** to add a new title, group, chapter, or track at the end of the program.
3 Press **PROGRAM** to exit the program screen.

To delete a program:

1 Press **PROGRAM**.
2 Select the program by moving the **cursor control joystick** right or left, then press **CLEAR**.
3 Press **PROGRAM** to exit the program screen.

To delete all programs:

Press **CLEAR** when the program screen is not being displayed and the disc is stopped. All the memorized programs are erased. (The memory of other discs are not erased.)

Note

The complete program will be deleted even if the disc tray is open.

DVD

Chapter 07 ► Program 03

Video CD/CD

Track 07 ► Program 03

Program Chapter | Program Title
Current: Title   7   Chapter 1
Title   1   (Chapter 1 ~ 49)
09   07   18   —   —   —   —   —
—   —   —   —   —   —   —   —
—   —   —   —   —   —   —   —
Program Memory ❙On
 ❙Off
▶▲ Move   **PROGRAM** Exit
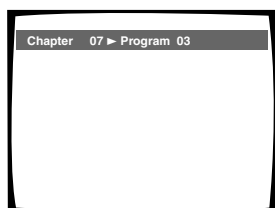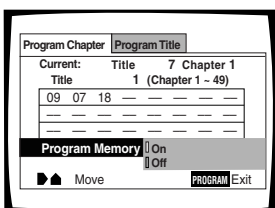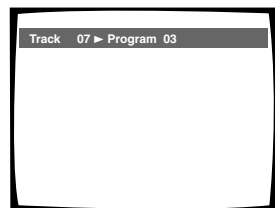
**To make a program of your favorite parts of a disc as it plays
– DVD/Video CD/CD**

With this player, it is possible to make a program as you watch a DVD or Video CD or while listening to a CD.

Press and hold **PROGRAM** for at least 2 seconds at any point during playback of a title, group, chapter, or track you want to program, and it will be made into or added to a program without displaying a Program screen. When a title, group, chapter, or track is successfully added to the program, it is shown momentarily in the display as well as its position in the program.

To confirm the contents of a program
Press **PROGRAM**.

Notes
• When using this function to program DVDs, the program being created corresponds to the Program screen (chapter/track or title/group) that appears when **PROGRAM** is pressed. Be sure to check that the appropriate program type is selected.
• You cannot make a program containing chapters in different titles.

To save a program in memory – DVD-Video

This player can memorize the programs on up to 24 DVD-Videos. By turning the Program Memory to **"On"**, the player will save your program and recall it the next time you use the same DVD-Video. When the program memory exceeds 24, programs will be erased in chronological order from the oldest program in memory.

1 Move the **cursor control joystick** down to highlight **[Program Memory]** and then right to select **"On"**.

2 Press **ENTER**.
The program is saved in memory.

Note
When a DVD-Video with a program stored in memory is loaded, program playback may start automatically.

To erase a program saved in memory – DVD

The player erases programs in chronological order when the maximum number of programs that can be held in memory is exceeded. To prevent the player from erasing older programs that you may still use regularly, or when you don't want to use a program anymore, it is possible to manually erase programs stored in memory.

1 Load a DVD that has a program stored in memory.

2 Press **PROGRAM**.
The program screen appears.

3 Move the **cursor control joystick** down to highlight **[Program Memory]** and then right and down to select **"Off"**.

4 Press **ENTER**.
The program is cleared from memory.

ADVANCED FUNCTIONS

Setting the Parental Lock Level – DVD-Video

This player lets you set the Parental Lock if the DVD-Video disc has a parental lock level recorded on it. With Parental Lock capable discs, you can block access to material you feel is inappropriate for your children. Refer to the DVD disc jacket and the accompanying documentation to see if a particular disc contains a parental lock level.
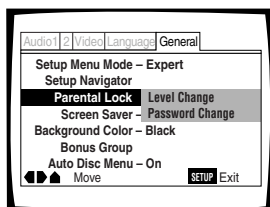
Make changes to the **[Parental Lock]** setting in the Setup screen **General** menu. Please note that changes to the Parental Lock level cannot be made when a disc is playing. Stop playback of the disc before attempting to make any changes.

Settings: **Level Change** (For information, refer to *'Setting the Parental Lock level'* on the following page.)
Password Change (For information, refer to *'Changing the password'* on the following page.)

When a DVD with a set Parental Lock level is loaded

Playback cannot be started until the password has been correctly input by moving the **cursor control joystick** or the **number buttons**, and **ENTER** has been pressed.

Entering the password

When you select either **"Level Change"** or **"Password Change"**, it is necessary to enter the password (4-digit code number). Use the following steps at any time you are asked to enter or confirm your password.

1 Move the **cursor control joystick** up or down or the **number buttons** to select a number between 0 and 9.
You can also use the number buttons to enter the numbers directly. When entering your password for the first time, or changing it, you will be asked to reenter your password. When using the number buttons to confirm the password, the numbers appear as asterisks, and the cursor advances automatically to the next position.
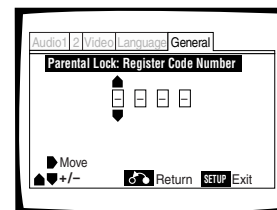
2 Move the **cursor control joystick** right or left to move the cursor to a different position in the password.
When all four numbers of the password have been entered, **ENTER** appears on the screen.
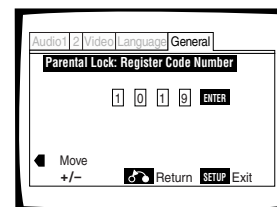
3 Press **ENTER** to set the new password.
The password is entered.

Note
Be sure not to forget your password. If you forget it, reset the system, and enter a new password. To reset the system, see *'Resetting the Player to System Settings'* (**page 65**). Please note that this procedure resets the system, and clears all saved settings, not just the password.

Setting the Parental Lock level

```
Audio1 2 Video Language General
Parental Lock: Level Change

     🔓🔓🔓🔓🔓 🔒 🔒 🔒
Level 1 2 3 4 5 6 7 8

                        ↩Return
◀▶ Move    ENTER Select  SETUP Exit
```
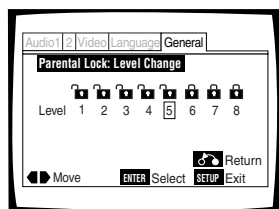
Change the Parental Lock level to a higher or lower level according to the settings printed on the DVD-Video disc jacket or accompanying documentation. If you use the Condition Memory function to save the settings for a particular disc, the Parental Lock level is saved as well. Because it is saved in memory, Parental Lock levels can be set for individual discs according to their content rather than a set level for all DVD-Videos.

1 Select **"Level Change"** in the **[Parental Lock]** setting and press **ENTER**.
The screen changes to the password input screen. If you have not yet set a password, you will be asked to do so at this time. To enter the password, refer to *'Entering the password'* on the previous page.

2 Move the **cursor control joystick** right or left to adjust the Parental Lock level.
The lock icons appear **"unlocked"** up to the selected level to indicate that access is available.

3 Press **ENTER** to set the new level.
The new Parental Lock level is set and the screen returns to the **General** menu screen. To go back to the **General** menu screen without making any changes, press **RETURN** ↩.

Changing the password Expert

```
Audio1 2 Video Language General
  Setup Menu Mode – Expert
  Setup Navigator
  Parental Lock │ Level Change
  Screen Saver ─│ Password Change
Background Color – Black
  Bonus Group
Audio Disc Menu – On
◀ ▲ Move  ENTER Select  SETUP Exit
```
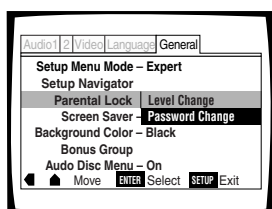
Change your password whenever you feel it is necessary. However, if you forget your existing password, you cannot enter this screen to change it.

1 Select **"Password Change"** in the **[Parental Lock]** setting and press **ENTER**.
The screen changes to the password input screen as shown in the section *'Entering the password'* on the previous page.

2 Enter your current password.
To enter the password, refer to *'Entering the password'* on the previous page.
If you have not yet set a password, you cannot select this setting. Establish a password by selecting **"Level Change"** first.

3 Move the **cursor control joystick** or the **number buttons** to enter the new password.

4 When the new password has been entered, press **ENTER**.
The new password is set and the screen returns to the **General** menu screen. To go back to the **General** menu screen without making any changes, press **RETURN** ↩.

ADVANCED FUNCTIONS

Continuing Playback from a Specified Location (Last Memory) – DVD-Video/Video CD

The Last Memory function is convenient when you want to continue viewing a disc from the point where you were watching before. Unlike the resume function, the Last Memory function is effective even if the DVD-Video is removed from the player (Last Memory locations saved for Video CDs are effective only if the disc remains loaded in the player).

Memorizing a Last Memory location to return to later
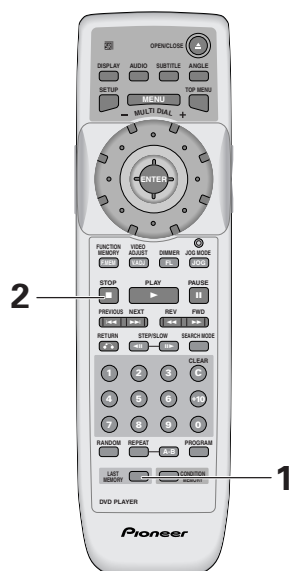
1 Press **LAST MEMORY** during play.
The **LAST MEMO** indicator lights on the player.

2 Press **STOP** ■ to stop playback.
Once memorized, the memorized point will be recalled even if the power is off, or if the disc is ejected. Points on up to 5 discs can be memorized, and those points are recalled the next time any of the discs are played back.
• A Last Memory point can be memorized for only one Video CD at a time as the function is only effective until the Video CD is removed from the player.

Resuming playback from where LAST MEMORY was pressed

1 Load a disc that has a Last Memory point memorized.
Some DVD-Videos will start playback automatically when loaded. In this case, press **STOP** ■ to stop playback.

2 Press **LAST MEMORY** while the disc is stopped.
The disc begins playback at the memorized point.
• Last Memory mode may not function for some DVD-Videos.
• If you register more than five DVD-Videos, details of the latest disc are memorized, while details of the least recent disc (the disc you registered first) is erased.
• Even with a disc you have memorized with Last Memory, playback begins at the start of the disc if you press **PLAY** ►.
• Last Memory may not function correctly during PBC playback of a Video CD. When Last Memory does not operate correctly in this situation, start playback of the Video CD with PBC turned off (**page 28**).

To clear the Last Memory location
Call up the Last Memory location by pressing **LAST MEMORY** during playback. Then press **CLEAR** while **"Last Memory"** is still being displayed on the screen.
The **LAST MEMO** indicator disappears from the display.

Memorizing Settings for Often Viewed DVDs (Condition Memory) – DVD-Video

You can store in memory settings for DVD-Video discs you often watch. Settings remain in memory even if you remove the disc from the player, or switch power to the player to off. If you load a disc that has its settings memorized, **"CONDITION MEMO"** appears in the display. When you start playing the disc, the memorized settings are automatically recalled.

CONDITION MEMORY

Press **CONDITION MEMORY** during playback.
Settings are memorized for the disc currently playing.

The following 6 settings are memorized:
OSD Position (**page 37**)
Multi-Language subtitles (**page 38**)
Multi-language (**page 39**)
Video Adjust (**page 43**)
Multi-Angle (**page 50**)
Parental Lock Level (**page 56**)

When a disc that has memorized settings is loaded
"Condition Memory" will appear on the screen, and the previously memorized settings will be selected.

Clearing the memorized settings
Load a disc that has memorized settings, and press **CLEAR** while **"Condition Memory"** is being displayed. Settings memorized for that disc will be cleared.

Notes
• Settings are stored in memory for use any time.
• You can store settings for up to 15 DVD-Videos in memory. If you memorize settings for more than 15 DVD-Videos, previously memorized settings are erased in chronological order from the least recently memorized. Subsequently, if you load a disc with erased settings, the settings of the most recently played disc are used.
• If you make changes to any of the settings memorized in Condition Memory, press **CONDITION MEMORY** during playback to memorize new settings.
• Switching of the multi-language mode etc., is automatic on some discs.

ADVANCED FUNCTIONS

Memorizing Regularly Used Menu Settings (Function Memory) – DVD/SACD/Video CD/CD

You can create a shortcut menu that contains settings that you frequently change and call up this menu whenever you need to change one of the stored settings. Settings remain in memory regardless of the disc loaded in the player.

Creating the Function Memory item list
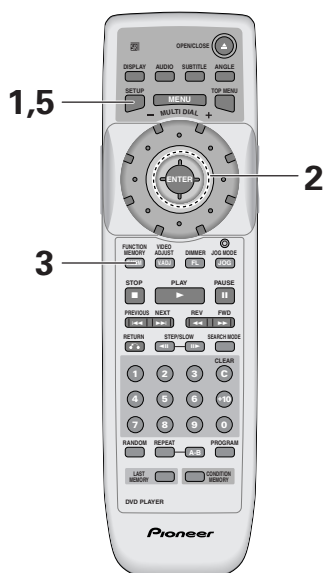
1 Press **SETUP** to display the Setup screen.

2 Move the **cursor control joystick** to select the menu and then the menu item you want to add to the Function Memory.

3 Press **FUNCTION MEMORY**.
If **"FM"** appears next to the menu item, the item has been successfully added to the Function Memory.

4 Repeat steps **2** and **3** to add as many as 5 items to the Function Memory.
When 5 items have already been stored, **"FM"** does not appear next to the item when **FUNCTION MEMORY** is pressed.

5 Press **SETUP** to close the Setup screen.

Note
Items that cannot be changed when the disc is playing cannot be added to Function Memory if the disc is currently playing. When these items are selected, on-screen information or 🚫 will be displayed.

Calling up the Function Memory item list
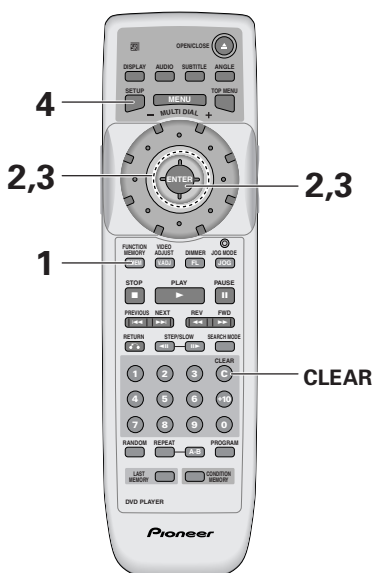
1 Press **FUNCTION MEMORY**.
The Function Memory item list appears on the screen.

2 Move the **cursor control joystick** to select the item you want to adjust and press **ENTER**.
The Setup screen opens, and the cursor is moved to the appropriate menu and menu item as selected in the Function Memory item list.

3 Move the **cursor control joystick** to make setting adjustments, then press **ENTER**.
The setting is changed. For more information on making adjustments in the Setup screen menus, refer to the section *'Using the Setup Screen Menus'* on **page 27**.

4 Press **SETUP** to close the Setup screen.

To clear an item from the FUNCTION MEMORY
1 Press **SETUP** to open the Setup screen.
2 Move the **cursor control joystick** to the menu and menu item marked with **"FM"**.
3 Press **FUNCTION MEMORY** to clear the item from the Function Memory. If **"FM"** disappears, the item has been cleared.
4 Press **SETUP** to close the Setup screen.

Viewing Disc Information – DVD/SACD/Video CD/CD

Use **DISPLAY** to get current information about the disc currently loaded. You can get information about the titles and chapters on a DVD or tracks on a Video CD or CD. When viewing DVDs, you can also check the digital bitstream transmission rate.

DISPLAY

Press **DISPLAY** during while a disc is playing. Press **DISPLAY** repeatedly to change the information being displayed.
The disc information is displayed superimposed over the video image on the screen.

Note
Depending on the format and type of disc being used, not all screens may be displayed.

The display changes for each type of disc as follows each time the button is pressed.

DVD-Video

| Play | | 1–1 | 1.19 |
| Title | | –0.59/ | 2.18 |

TITLE information
(Top Row)
Title and chapter number, elapsed time of current title
(Bottom Row)
Remaining time in title, total time of title

| Play | | 1–1 | 1.19 |
| Chapter | | 1.19/ | 2.18 |

CHAPTER information 1
(Top Row)
Ttitle and chapter number, elapsed time of current title
(Bottom Row)
Time in current chapter, total time of chapter

| Play | | 1–1 | 1.19 |
| Chapter | | –0.59/ | 2.18 |

CHAPTER information 2
(Top Row)
Title and chapter number, elapsed time of current title
(Bottom Row)
Remaining time in current chapter, total time of chapter

| Play | # | 1–1 | 1.19 |
| Tr. Rate : ▮▮▮▮▮▮▮▮▮ | | | 8.9 |

Data transmission rate information
(Top Row)
#[1], Title and chapter number, total elapsed time of DVD
(Bottom Row)
Bitstream transmission rate level[2]

*1 Displayed when 24-frame-per-second progressive video signals are recorded on the disc.
*2 This is the value of the amount of information recorded on a DVD-Video disc. Though the transfer rate level of a particular DVD-Video disc may be high, this is only an indication of the amount of information and is not a direct indication of a better quality picture.

Note
Depending on the title, chapter or time displays may not be shown.

ADVANCED FUNCTIONS

Advanced Functions

DVD-Audio

| Play | 1–1 | 1.19 |
| Track | −0.59/ | 2.18 |

Track information

(Top Row)
Current group and track number, elapsed time of current track
(Bottom Row)
Remaining time in current track, total time of track

| Play | 1–1 | 1.19 |
| Group | −1.19/ | 2.18 |

Group information

(Top Row)
Current group and track number, elapsed time of current track
(Bottom Row)
Remaining time in current group, total time of group

| Play | # | 1–1 | 1.19 |
| Tr. Rate : ▮▮▮▮▮▮▮▮▮ | | | 8.9 |

Bitstream transmission information

(Top Row)
#[*1], Current group and track number, elapsed time of current track
(Bottom Row)
Bitstream transmission rate level[*2]

*1 Displayed when 24-frame-per-second progressive video signals are recorded on the disc.
*2 This is the value of the amount of information recorded on a DVD-Audio disc. Though the transfer rate level of a particular DVD-Audio disc may be high, this is only an indication of the amount of information and is not a direct indication of a better quality picture.

SACD/CD

| Play | 1 | 0.03 |
| Track | −3.29/ | 3.32 |

Track Information

(Top Row)
Current track number, track time
(Bottom Row)
Remaining time of current track, and total time of track

| Play | 1/2 | 0.03 |
| All | −6.29/ | 6.32 |

Disc information

(Top Row)
Current track number, total number of tracks on SACD or CD, total elapsed time of SACD or CD
(Bottom Row)
Remaining time of SACD or CD, total time of SACD or CD

Video CD (with PBC disabled)

| Play | 5/10 | 20.19 |
| All | −2.38/ | 22.57 |

Disc information

(Top Row)
Current track number, total number of tracks, total elapsed time of Video CD
(Bottom Row)
Remaining time of Video CD, total time of Video CD

| Play | 5 | 20.19 |
| Track | 2.38/ | 4.40 |

Track information 1

(Top Row)
Current track number, total elapsed time of Video CD
(Bottom Row)
Track time, total time of track

| Play | 5 | 20.19 |
| Track | −2.02/ | 4.40 |

Track information 2

(Top Row)
Current track number, total elapsed time of Video CD
(Bottom Row)
Remaining time of track, total time of track

Note
When playing Video CDs in PBC mode or unfinalized CD-Rs not all the above information is displayed.

DISPLAY

Press DISPLAY while a disc is stopped to display DVD-Video title and chapter information, DVD-Audio group and track information, or Video CD and CD track information. Press DISPLAY again to turn the display off.

Information about the titles and chapters, the groups and tracks, or tracks on a disc is displayed. When the information exceeds the space on the screen, move the **cursor control joystick** right or left (as indicated on screen) to move to other screens.

DVD-Video

Information: DVD			
Title	Chapter	Title	Chapter
01	1~ 1	06	1~ 1
02	1~ 1	07	1~ 1
03	1~ 1	08	1~ 1
04	1~ 1	09	1~ 4
05	1~ 1		
1/1		DISPLAY Exit	

When a DVD is loaded, each title and the number of chapters within each title is displayed.

DVD-Audio

Information: DVD			
Group	Track	Group	Track
01	1~ 1	06	1~ 1
02	1~ 1	07	1~ 1
03	1~ 1	08	1~ 1
04	1~ 1	09	1~ 4
05	1~ 1		
1/1		DISPLAY Exit	

When a Bonus Group has not yet been played, that part of the display is grayed out.

CD/Video CD

Information: Compact Disc	
Total Time	6.30
Track	Time
01	3.32
02	2.58
1/1	DISPLAY Exit

When a SACD, CD or Video CD is loaded, the total time of the disc and the time of each track on the disc is displayed.

ADVANCED FUNCTIONS

Changing the Background Color of the Screen `Expert`

You can select a blue or black background to appear when the player is in the stop mode.

```
Audio1  2  Video Language General
   Setup Menu Mode – Expert
   Setup Navigator
      Parental Lock – Level 8
      Screen Saver – Off
   Background Color  Black
      Bonus Group     Blue
      Auto Disc Menu – Other
        Move            SETUP Exit
```
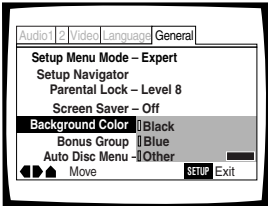
Settings: **Black (Factory setting)**
          Blue
          Other

When "Other" is selected

This player gives you the option of creating your own background color by adjusting the red, green and blue levels.

```
Audio1  2  Video Language General
   Background Color

        Move                    Return
        –/+          ENTER Select SETUP Exit
```
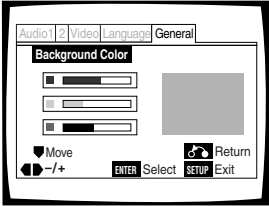
1 Move the **cursor control joystick** up or down to select a color bar.
The selected color bar becomes highlighted.

2 Move the **cursor control joystick** right or left to adjust the level of the color.
As the color bar is adjusted, the square on the right side of the screen indicates how the current mix of the three colors appears.

3 Repeat steps **1** and **2** until you have achieved a color that you like.

4 Press **ENTER** to set the color as the background color.

Turning the Screen Saver On and Off `Expert`

As a protective function against residual images on the TV screen or monitor, a phenomenon referred to as "screen burn", the screen saver appears when the same screen has been displayed for a length of time. By default, the screen saver is turned off. However, the screen saver function can be turned on and off at your discretion.

```
Audio1  2  Video Language General
   Setup Menu Mode – Expert
   Setup Navigator
      Parental Lock – Level 8
   Screen Saver  On
   Background Color –  Off
      Bonus Group
      Auto Disc Menu – On
        Move            SETUP Exit
```
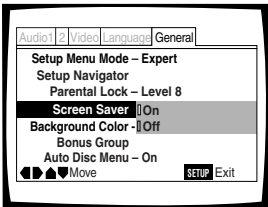
Settings: **On**
          Off (Factory setting)

Setting the Bonus Group `Expert` – DVD-Audio

Some DVD-Audio discs are recorded with a group that is referred to as a **"Bonus Group"**. When attempting to play the Bonus Group, an input screen appears that requires the input of a 4-digit key number. However, the key number can be input in the Setup screen General menu beforehand.

```
Audio1 2 Video Language General
  Setup Menu Mode – Expert
  Setup Navigator
    Parental Lock – Level 8
    Screen Saver – Off
  Background Color – Black
  Bonus Group
  Auto Disc Menu – On
◄►▲▼ Move
```

```
Audio1 2 Video Language General
 Bonus Group: Key Number Input



► Move
▲▼ +/−              Return  SETUP Exit
```
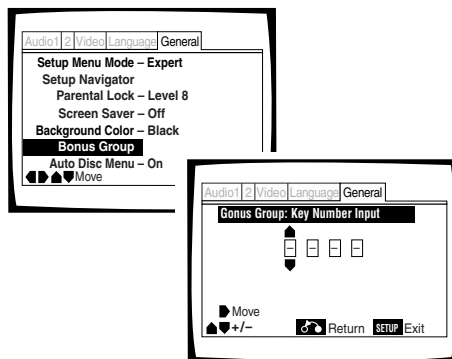
Note
If the disc is removed, or if the power is turned off, the key number that was input into the memory is erased. You should input a key number again when playing the Bonus Group.

Setting the Auto Disc Menu `Expert`

This specifies whether the menu (Top menu) is automatically displayed after loading a disc. Set to on if you want the menu displayed automatically, or off if you don't want it displayed.

```
Audio1 2 Video Language General
  Setup Menu Mode – Expert
  Setup Navigator
    Parental Lock – Level 8
    Screen Saver – Off
  Background Color – Black
    Bonus Group    On
  Auto Disc Menu   Off
◄►▲▼ Move              SETUP Exit
```
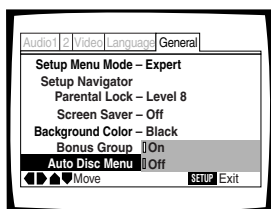
Settings: **On (Factory setting)**
          Off
Note
Some DVD discs display a menu automatically regardless of this setting. If you press **PLAY ►** while a disc is loading, this setting is ignored.

Resetting the Player to System Settings

To reset the player, press and hold ■/▲ on the front panel when pressing **POWER** on the front panel to turn the unit from power off to on.
All program memory, saved settings from functions such as Last Memory and Condition Memory are cleared, and all Setup screen menus are returned to factory settings.

ADVANCED FUNCTIONS

Additional Information

Disc Care

HOW TO HOLD DISCS
When loading or removing discs, try not to touch their playing surfaces.

CLEANING
Fingerprints or other dirt on the disc may affect sound and picture quality.
To clean your discs, use a soft clean cloth to wipe them. If necessary, moisten a soft cloth with diluted neutral detergent to remove heavy dirt or fingerprints.

Do not wipe in a circular direction (Concentric scratches in the disc groove tend to cause noise.)
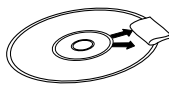
Gently wipe from the inside toward the outer edge.

Discs must not be cleaned with record cleaning sprays, or static prevention sprays, etc. Also do not use volatile liquids such as benzine, or thinner, etc.

NEVER PLAY CRACKED OR WARPED DISCS
The disc revolves in the player at high speed when it is played. Never play a cracked, scratched or warped disc. This may damage the player or cause it to malfunction.
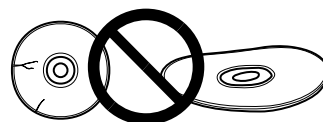
NEVER USE DISCS WITH SPECIAL SHAPES
CD's with special shapes (heart-shaped CDs, octagonal CDs, etc.) cannot be played on this set.
Attempting to do so may damage the set. Do not use such CDs.

AFTER USING DISCS, STORE THEM UPRIGHT
After playing a disc, always remove it from the player and return it to its jacket. Then store it standing upright away from heat and humidity.
• Store discs carefully. If you store discs at an angle, or stacked on top of each other, discs may become warped even when in their jackets.
• Do not leave discs in locations such as the seat of a car, which may become excessively hot.

CAUTION WHEN USING THE DISC
All rights reserved.
Unauthorized public performance, broadcasting or copying is a violation of applicable laws.

For Proper and Long Use of This Unit

DO NOT MOVE THE UNIT DURING PLAYBACK

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

WHEN MOVING THE UNIT

When changing places of installation or packing the unit for moving, be sure to remove the disc and return the disc table to its original position in the player.
Press **POWER** on the front panel to turn the player off, and then disconnect the power cord.
Moving this unit with the disc loaded may result in damage to this unit.

INSTALLATION

*   Select a stable place to the side of a TV set or stereo system to be connected to the unit.
*   When using the unit with a stereo system, install the speakers a little bit away from the TV.
*   Do NOT install the unit on top of a TV or color monitor. Install the unit away from equipment that may be affected by magnetism, such as a cassette deck.
*   Do NOT place objects on top of the unit.

AVOID INSTALLING IN A PLACE THAT IS:

*   Exposed to direct sunlight
*   Exposed to humidity or where ventilation is poor
*   Extremely hot or cold
*   Exposed to vibration
*   Exposed to dust
*   Exposed to oily smoke, steam or heat (for example, a kitchen)

DO NOT BLOCK VENTS

Do NOT use the player on top of a long-fibered carpet, bed or sofa, and do not cover it with a cloth, etc. This will prevent heat radiation and could result in damage.

AVOID HEAT

Do NOT place the unit on equipment which generates heat, such as an amplifier.
When installing the unit in a rack, place it on the lowest shelf possible (however, not where it is exposed to dust) and separated from the amplifier to avoid the heat generated by the amplifier or other audio equipment.

LENS CLEANER

The player's pickup lens should not become dirty in normal use, but if for some reason it should malfunction due to soiling, contact your nearest PIONEER authorized service center. Lens cleaners are commercially available, but special care should be exercised in their use since some may cause damage to the lens.

CAUTION: WHEN PLACING THE UNIT IN A STEREO RACK WITH GLASS DOORS

Be sure there is ample space between the unit and the glass doors when opening the disc table using the remote control. If the disc table opens against strong resistance, such as a closed glass door, damage to the unit may result.

CONDENSATION

Moisture may form in the operating section of the player if the player is brought from cool surroundings into a warm room or if the temperature of the room rises suddenly. When this happens, the player's performance will be impaired.
To prevent this, let the player stand in its new surroundings for about an hour before switching it on, or make sure that the room temperature rises gradually. Condensation may also form during the summer if the player is exposed to the breeze from an air conditioner. In such cases, change the location of the player.
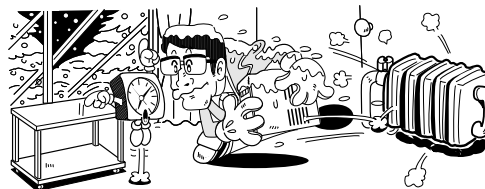
SWITCH POWER TO STANDBY (OR OFF) WHEN NOT USING THE UNIT

Depending on the strength of the TV or radio broadcast signal, having the TV or radio on while power to the unit is on may result in stripes on the TV screen or noise. However, this is not a malfunction of this unit or the TV or radio. In such a case, switch the power of the unit to standby (off).
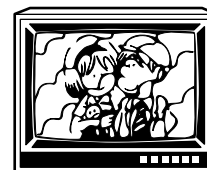
POWER-CORD CAUTION

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 in such a way 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 in a while. When you find it damaged, ask your nearest PIONEER authorized service center or your dealer for a replacement.

NOTES ON USING OPTICAL CABLES

*   Do not route cords around sharp angles. When storing, wind the cords so that they have a diameter of at least 15 cm (6 in.).
*   When connecting, push all the way into the terminal.
*   Do not use cords with a length of over 3 m (11 ft.).
*   If moisture or dust has collected on the plug, wipe it with a soft cloth before connecting.

15 cm (6 in.) dia. or more

ADDITIONAL INFORMATION
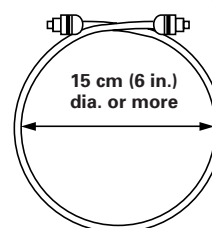
Language Code List

Language codes are used when setting the audio and subtitle language preferences (**page 41**).

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

Language	Input-code
Hindi (hi)	0809
Croatian (hr)	0818
Hungarian (hu)	0821
Armenian (hy)	0825
Interlingua (ia)	0901
Interlingue (ie)	0905
Inupiak (ik)	0911
Indonesian (in)	0914
Icelandic (is)	0919
Hebrew (iw)	0923
Yiddish (ji)	1009
Javanese (jw)	1023
Georgian (ka)	1101
Kazakh (kk)	1111
Greenlandic (kl)	1112
Cambodian (km)	1113
Kannada (kn)	1114
Kashmiri (ks)	1119
Kurdish (ku)	1121
Kirghiz (ky)	1125
Latin (la)	1201
Lingala (ln)	1214
Laothian (lo)	1215
Lithuanian (lt)	1220
Latvian (lv)	1222
Malagasy (mg)	1307
Maori (mi)	1309
Macedonian (mk)	1311
Malayalam (ml)	1312
Mongolian (mn)	1314
Moldavian (mo)	1315
Marathi (mr)	1318
Malay (ms)	1319
Maltese (mt)	1320
Burmese (my)	1325
Nauru (na)	1401
Nepali (ne)	1405
Norwegian (no)	1415
Occitan (oc)	1503
Oromo (om)	1513
Oriya (or)	1518
Panjabi (pa)	1601
Polish (pl)	1612
Pashto, Pushto (ps)	1619
Portuguese (pt)	1620
Quechua (qu)	1721
Rhaeto-Romance (rm)	1813

Language	Input-code
Kirundi (rn)	1814
Romanian (ro)	1815
Kinyarwanda (rw)	1823
Sanskrit (sa)	1901
Sindhi (sd)	1904
Sangho (sg)	1907
Serbo-Croatian (sh)	1908
Singhalese (si)	1909
Slovak (sk)	1911
Slovenian (sl)	1912
Samoan (sm)	1913
Shona (sn)	1914
Somali (so)	1915
Albanian (sq)	1917
Serbian (sr)	1918
Siswati (ss)	1919
Sesotho (st)	1920
Sundanese (su)	1921
Swedish (sv)	1922
Swahili (sw)	1923
Tamil (ta)	2001
Telugu (te)	2005
Tajik (tg)	2007
Thai (th)	2008
Tigrinya (ti)	2009
Turkmen (tk)	2011
Tagalog (tl)	2012
Setswana (tn)	2014
Tonga (to)	2015
Turkish (tr)	2018
Tsonga (ts)	2019
Tatar (tt)	2020
Twi (tw)	2023
Ukrainian (uk)	2111
Urdu (ur)	2118
Uzbek (uz)	2126
Vietnamese (vi)	2209
Volapük (vo)	2215
Wolof (wo)	2315
Xhosa (xh)	2408
Yoruba (yo)	2515
Zulu (zu)	2621

Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. 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 even after exercising the checks listed below, ask your nearest PIONEER authorized service center or your dealer to carry out repair work.

The disc table comes back out automatically, shortly after the disc table is closed.
The disc is dirty or warped.
➡ Refer to *"Disc Care"* (**page 66**).

The disc is not placed properly on the disc table.
➡ Use the disc table guide to align the disc (**page 23**).

Region number does not conform with this unit.
➡ If the region number on the disc does not match the number on the player, the disc cannot be used (**page 72**).

There is condensation on the operating section of the player.
➡ Allow time for condensation to evaporate. If player is near an air conditioning unit, you should move the player (**page 67**).

Playback is not possible.
The disc has been loaded upside down.
➡ Check that the disc has been loaded with the label side facing up.

⊘ mark appears on screen.
The selected function does not operate for that disc.

⊘ mark appears on screen.
The operation is prohibited by the player.

Picture playback stops and the operation buttons cannot be used.
➡ Stop disc playback (press **STOP ■**), then start playback again.
➡ Press **POWER** on the front panel to turn the player off, and then turn the power back on again.

New settings made in the Setup screen menus while a disc is playing are ineffective.
Some settings can be changed while a disc is playing, but are not effective. This is not a malfunction.
➡ Make the same setting when the player is stopped.
➡ Stop disc playback (press **STOP ■**), then start playback again. When playback is resumed, the new settings should be in effect. Please note that making settings in the Setup screen menus may cancel the resume function.

When making changes in the Setup screen menus, 🄳🅅🄳 is displayed.
There is a Video CD or CD loaded in the player and the setting that was changed only applies to DVD performance.
➡ The settings will be effective the next time a DVD is loaded.

The settings are not saved in the memory/The settings are erased.
Turning the power off during playback will not save any changes made in the settings from the Setup screen menus, or register the last memory function or the condition memory function settings.
➡ To register the settings, press **STOP ■** to stop playback and then turn off the power.

No picture.
Connection is incorrect.
➡ Check that cord connections are correct and that plugs are firmly connected.

Player settings are incorrect.
➡ Check that the **Component video output selection switch** is set firmly in the correct position.

Operation (settings) of TV or AV amplifier is not appropriate.
➡ Be sure that your TV, receiver, or amplifier is set up to view DVD playback.

The screen is stretched or aspect does not change.
The multi aspect setting is not appropriate.
➡ Change the aspect setting in the **[TV Screen]** setting in the Setup screen **Video** menu to the screen type most appropriate to the TV or monitor you are using (**page 36**).

The screen is suddenly squeezed when the Setup screen is opened.
If the Setup screen is opened during playback of a DVD being viewed in the letter box format, the screen may switch to the wide screen format.
➡ This is not a malfunction. The screen will return to normal when the Setup screen is closed.

Picture disturbance during playback or dark.
This is not a malfunction.
➡ This player is compatible with Macro-Vision System copy guard. Some discs include a copy prevention signal, and when this type of disc is played back, stripes etc., may appear on some sections of the picture depending on the TV.

Discs respond differently to particular player functions which may result in the screen becoming black for a brief instant or shaking slightly when the function is executed.
➡ These problems are largely due to differences between discs and disc content and are not malfunctions of this player.

ADDITIONAL INFORMATION

Additional Information

When recorded on a VCR or passed through an AV selector, there is disturbance in the playback picture.
This is not a malfunction.
➡ Due to the player's copy protection circuits, connection of this device through a VCR or an AV selector may prevent recording or cause picture problems.

....

Remote control operation is not possible.
The **CONTROL IN** jack on the player is being used.
➡ Point the remote control at the component that the player is connected to (**page 11**).

The remote control is too far from the player, or the angle with the remote sensor is too wide.
➡ Be sure to operate the remote from a location within its operating range (**page 8**).

The batteries are exhausted.
➡ Replace the exhausted batteries with all new batteries (**page 8**).

....

Audio is not output or is distorted.
The Setup screen **Audio 1** menu **[Linear PCM Out]** setting is set to **"Down Sample Off"**.
➡ On DVDs that contain copy protection, it may not be possible to play back the audio at 96 kHz. When this type of disc is encountered, even if **"Down Sample Off"** is selected, the player automatically outputs the digital audio output at a compressed rate of 48 kHz. This is not a malfunction.
➡ Be sure to make analog audio connections as well as digital connections (**pages 14 and 18**).

The disc is dirty.
➡ Refer to *"Disc Care"* (**page 66**).

The connection plugs are not inserted fully into the terminals or are not connected.
➡ Check that all connection plugs are firmly inserted.

The connection plug or terminal is dirty.
➡ Check that the plugs and terminals are wiped clean of dirt, etc.

Audio cable connection is wrong.
➡ Check to make sure that the audio cables are connected correctly (**pages 14 and 18**).

Connection is made to the stereo amplifier's PHONO input terminal.
➡ Change connection to any input terminal except PHONO.

The pause mode is engaged.
➡ Press **PLAY ►** or **PAUSE II** to exit the pause mode.

Stereo amplifier operation is incorrect.
➡ Check input (CD, AUX, etc.) selector to determine if it is selected for DVD playback.

Noticeable difference in DVD, SACD and CD volume.
DVDs, CDs and SACDs seem to play at different volumes.
➡ This is a result of the different recording methods used.
➡ The volume of SACD is about half that of CD.

....

Audio mix does not sound right or sounds incomplete (for example, the dialog of the actors cannot be heard).
Audio output selection is incorrect.
➡ When **"5.1 Channel"** is selected, Dialog is not output from the front left and right speakers. When **"2 Channel"** is selected, sound is only output through the front left and right speakers (**page 21**).

....

> **Caution**
> Static electricity or other external influence may cause malfunctioning of this unit. In this case, unplugging the power cord and then re-plugging it in will usually reset the unit for proper operation. If this does not correct the problem, please consult your nearest PIONEER service center.

Terms

Aspect ratio

Aspect ratio refers to the length to height ratio of TV screens. The ratio of a standard TV is 4:3, while the ratio of a high-definition or wide TV is 16:9. The latter allows you to enjoy a picture with a wider perspective.

Bonus Group (DVD-Audio only)

Some DVD Audio discs have a group which is known as the "Bonus Group" that can be accessed by inputting a 4-digit key number. When attempting to play a Bonus Group, the key number input screen is automatically displayed. Playback begins once the key number has been input. Additionally, you can set the key number using the Setup screen General menu beforehand.

Browsable pictures (DVD-Audio only)

A feature of some DVD-Audio discs in which the user can browse still pictures recorded on the disc as the audio is played. See also Slideshow.

Chapter number

Chapter numbers are the numbers assigned to sections of a title on the disc, similar to chapters in a book. If the disc includes chapter numbers, you can locate the section you want very quickly using search and other functions.

Component (color difference) video output

The color signal of the TV is divided into the luminance (Y) signal and the color (P_B and P_R) signals and then output. In this way mutual interference of each signal is avoided. On a TV with component input jacks, these signals are synthesized to produce the picture.

Condition memory

"Condition" refers to the various mode settings, etc. On this player, various conditions, such as those set during playback, can be memorized. This function allows you to play back the same disc at any time without having to redo your preferred settings.

Digital bitstream

The bitstream does not refer to the audio signal, but rather to the digital data that, once converted, becomes the audio signal. The player outputs digital bitstreams via the digital optical or digital coaxial output. If the bitstream cannot be decoded by the connected AV amplifier etc., digital noise is produced. Digital bitstream formats compatible with different entertainment systems can be selected in the Setup screen Audio 1 menu.

Digital output (Coaxial)

Output of the digital audio signal is transmitted electronically using a coaxial cable. Because the signal being transmitted is digital, connection must be made to the coaxial digital input of another component. Noise will be output if connected to the analog audio inputs as the digital signal cannot be decoded.

Digital output (Optical)

Normally, audio is converted to an electric signal and transmitted through an electric wire from the player to the amplifier, etc. Changing this signal to a digital signal and transmitting it through an fiber-optic cable is called optical digital output. Similarly, optical digital input receives digital signals from external units such as an AV amplifier or receiver.

DNR (Digital Noise Reduction)

Digital noise reduction, in reference to video picture quality, refers to the detection and removal of digital artifacts, or errant video data, which appear as specks on the screen. When the digital noise reduction function of this player is on, some of this data can be detected and kept from appearing on the screen.

Dolby Digital

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

DOLBY DIGITAL

DTS

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

DIGITAL dts SURROUND

Dynamic range

Dynamic range refers to the difference between the maximum and minimum levels of the audio soundtrack as measured in decibels (dB).
Compressing the dynamic range raises the minimum signal level and lowers the maximum signal level. This allows you to hear voices and other low level audio signals clearly while lowering strong audio signals like the sound of explosions.

Group (DVD-Audio only)

A collection of tracks on a DVD-Audio disc. Equivalent to a DVD-Video title. See also Title and Track.

Interlace scan

With interlace scan, the screen presentation is divided into odd and even scan lines. The first presentation (field) presents half of the screen . Before this image has faded from the screen, the other half of the presentation (frame) is displayed. The majority of TVs and monitors manufactured until recently have relied on the interlace scan system. In these operating instructions, the amount of interlace scan resolution is referred to followed by the letter "i" (for example, 525i).

Additional Information

Linear PCM

Linear PCM (Linear Pulse Code Modulation) is one of the digital audio recording formats used for DVD. Though essentially the same format used for the audio recorded on CD, higher sampling rates of 48 kHz, 96 kHz, or the maximum 192 kHz used on DVD-Audio discs, produce a higher quality sound to enjoy listening to.

MPEG

Short for Moving Picture Experts Group. This is an international standard for compression of moving images. On some DVDs, digital audio has been compressed and recorded in this format.

Multi-angle

When you watch a TV program, you are watching the image filmed through the TV camera. Because of this, the picture is displayed on your TV from the viewpoint of the TV camera's position. In a TV studio, the image is filmed by many cameras at the same time, and one of those images is selected by the program director and transmitted to your TV. If all the filmed images were transmitted to your TV you would be able to select the camera image you want. Some DVD discs are recorded with the angles of more than one camera used for filming, and these can be selected using this player. These types of discs are called multi-angle discs.

Parental lock level

This function was suggested by parents concerned about what type of media their children were able to watch. Parental lock restrictions are restrictions incorporated into titles which include scenes that parents may not wish their children to view.

PDIF

PDIF (Pioneer Digital Interface) allows transmission of high-quality DVD-Audio signals. When this player is connected to the optional C-AX10 Digital Control Amplifier using a PDIF cable, multi-channel audio, high sampling rate (192kHz, 176.4kHz, etc.) audio, as well as regular 2 channel audio can be kept entirely digital through to the amplifier.

Playback Control (PBC)

This refers to signals recorded on a Video CD (Version 2.0) enabling playback control.
You can use menus recorded on discs with PBC for easy, interactive search for desired scenes, and playback.
You can also enjoy viewing high-resolution/standard resolution still images.

Progressive scan

Unlike interlace scan that divides and converts the video into odd and even scan lines before presentation, progressive scan presents the entire picture one at a time as it is recorded on the DVD. When using a TV, monitor, or projector that has a large number of horizontal scan lines, exceptional picture quality can be achieved. In these operating instructions, the amount of progressive scan resolution is referred to followed by the letter "p" (for example, 525p).

PureCinema

Video on a DVD discs may be either video material (originally shot on video) or film material (originally shot on film). Video material has a frame rate of 30 frames/sec., compared with 24 frames/sec. for film. This player converts film material to 60 frames/sec. (in progressive scan mode). PureCinema adjusts the picture so that it matches more closely the picture quality of a cinema screen.
You can see whether video on a DVD disc is film or video material by displaying the video transmission rate. If a hash mark (#) appears above the transmission rate display, it is film material.

Regional restriction codes (region number)

Regional restriction codes are built in to DVD players and DVD video discs for each sales region. If the regional code of the DVD player does not match one of the regional codes of the DVD video disc, playback is not possible.
The region number can be found on the rear panel of the DVD player. The illustration below shows the regions and corresponding region numbers.
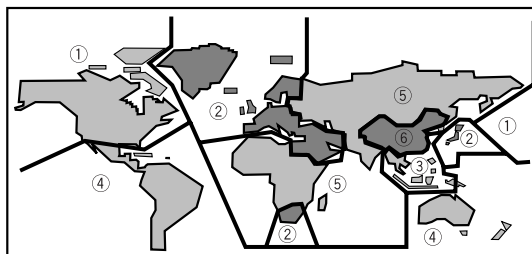
SACD

Based on the CD format, SACD discs contain extra data resulting in high-quality, pure audio. There are three types of SACD: single-layer, double-layer and hybrid discs. Hybrid discs contain both CD and SACD format audio.

Sampling Frequency

When a sound wave is converted to a digital signal, the sound is sampled and converted to data at a specific frequency rate. For example, a signal with a 96 kHz sampling rate indicates that in one second, the analog signal was sampled 96000 times to produce the digital signal.

Slideshow (DVD only)

A feature of some DVD discs in which still pictures recorded on the disc cycle automatically as the audio is played. See also Browsable pictures.

Subtitle

Subtitles are language titles superimposed on movies, or other media. Up to 32 different subtitle languages can be recorded on a DVD disc. The subtitle function can be used to select the language of your choice.

S-video

Connecting the S-video output on the player to a TV or monitor with S-video input via an S-video cable produces clearer picture reproduction by sending separate signals for the luminance and the color. These signals are then combined by the television to produce a better quality picture.

Specifications

General

System ...... DVD system and Compact Disc digital audio system
Power requirements .... AC 120 V, 60 Hz
Power consumption .... 58 W
Weight .... 24 kg (52 lb. 15 oz.)
Dimensions .... 440 (W) x 394 (D) x 150 (H) mm
(17 $^6/_{16}$(W) x 15 $^9/_{16}$ (D) x 5 $^{15}/_{16}$ (H) in.)
(Not including protruding cables, etc.)
Operating temperature . +5°C to +35°C (+36°F to +96°F)
Operating humidity .... 5% to 85% (no condensation)

S-Video output (2 individual outputs)

Y (luminance) - Output level .... 1 Vp-p (75 Ω)
C (color) - Output level .... 286 mVp-p (75 Ω)
Jacks .... S-VIDEO jack

Video output (2 individual outputs)

Output level .... 1 Vp-p (75 Ω)
Jacks .... RCA jack

Component video output (Y, P$_B$, P$_R$)

Output level .... Y: 1.0 Vp-p (75 Ω)
P$_B$, P$_R$: 0.7 Vp-p (75 Ω)
Jacks .... BNC jack

Audio output (2 individual outputs)

Output level
During audio output .... 200 mVrms (1 kHz, –20 dB)
Jacks .... RCA jack/BALANCE jack

Multi-channel Audio output (Rear L/R, Center, Subwoofer)

Output level
During audio output .... 200 mVrms (1 kHz, –20 dB)
Jacks .... RCA jack

Digital audio characteristics

Frequency response
.... 4 Hz to 88 kHz (DVD-Audio fs: 192 kHz)
S/N ratio .... more than 115 dB
Dynamic range .... more than 108 dB
Total harmonic distortion 0.001%
Wow and flutter .... Limit of measurement
(±0.001% W. PEAK) or lower

Digital output

Optical digital output (2 individual outputs)
.... Optical digital jack
Coaxial digital output .... RCA jack

Other terminals

CONTROL IN .... Minijack (3.5 ø)
CONTROL OUT .... Minijack (3.5 ø)
PDIF CONTROL OUT .... Minijack (3.5 ø)

Accessories

Audio cord 1
Video cord 1
BNC to RCA/phono adapter 3
Remote control unit 1
AA (R6P) dry cell batteries 2
Operating Instructions (this manual) 1

Note

The specifications and design of this product are subject to change without notice, due to improvement.

We Want You Listening For A Lifetime

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. 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.

Decibel
Level **Example**

30	Quiet library, soft whispers
40	Living room, refrigerator, bedroom away from traffic
50	Light traffic, normal conversation, quiet office
60	Air conditioner at 20 feet, sewing machine
70	Vacuum cleaner, hair dryer, noisy restaurant
80	Average city traffic, garbage disposals, alarm clock at two feet.

THE FOLLOWING NOISES CAN BE DANGEROUS UNDER CONSTANT EXPOSURE

90	Subway, motorcycle, truck traffic, lawn mower
100	Garbage truck, chain saw, pneumatic drill
120	Rock band concert in front of speakers, thunderclap
140	Gunshot blast, jet plane
180	Rocket launching pad

Information courtesy of the Deafness Research Foundation.

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.

S001 En

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.

8 0 0 – 4 2 1 – 1 4 0 4

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

Pioneer Electronics Service, Inc.
Customer Service Department
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 Service Department at the following address:

Pioneer Electronics of Canada, Inc.
Customer Service Department
300 Allstate Parkway, Markham, Ontario L3R OP2
(905)479-4411
1(877)283-5901

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

Si ce produit doit être réparé au Canada, veuillez vous adresser à un distributeur autorisé Pioneer du Canada pour obtenir le nom du Centre de Service Autorisé Pioneer le plus près de chez-vous. Vous pouvez aussi contacter le Service à la clientèle de Pioneer:

Pioneer Électroniques du Canada, Inc.
Service à la clientèle
300, Allstate Parkway, Markham, Ontario L3R OP2
(905)479-4411
1(877)283-5901

Pour obtenir des renseignements sur la garantie, veuillez vous reporter au feuillet sur la garantie restreinte qui accompagne le produit.   S018A2L

PIONEER CORPORATION   4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan   **K002AEn**
PIONEER ELECTRONICS [USA] INC.   P.O. BOX 1540, Long Beach, California 90801-1540, U.S.A.
PIONEER ELECTRONICS OF CANADA, INC.   300 Allstate Parkway, Markham, Ontario L3R OP2, Canada
PIONEER EUROPE NV   Haven 1087, Keetberglaan 1, B-9120 Melsele, Belgium   TEL: 03/570.05.11
PIONEER ELECTRONICS AUSTRALIA PTY. LTD.   178-184 Boundary Road, Braeside, Victoria 3195, Australia, TEL: [03] 9586-6300
PIONEER ELECTRONICS DE MEXICO S.A. DE C.V.   San Lorenzo 1009 3er Piso Desp. 302 Col. Del Valle Mexico D.F. C.P. 03100   TEL: 5-688-52-90

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