ESOTERIC

UX-3

DVD/DVD-A/SACD/CD Player

Owner's Manual
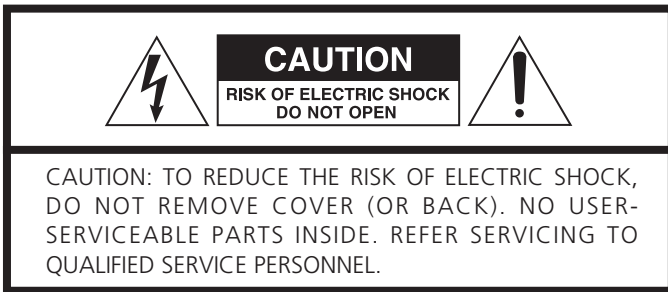
IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- Do not expose this apparatus to drips or splashes.
- Do not place any objects filled with liquids, such as vases, on the apparatus.
- Do not install this apparatus in a confined space such as a book case or similar unit.
- The apparatus draws nominal non-operating power from the AC outlet with its POWER switch in the off position.

CAUTION

● DO NOT REMOVE THE EXTERNAL CASES OR CABINETS TO EXPOSE THE ELECTRONICS. NO USER SERVICEABLE PARTS ARE WITHIN!

● IF YOU ARE EXPERIENCING PROBLEMS WITH THIS PRODUCT, CONTACT TEAC FOR A SERVICE REFERRAL. DO NOT USE THE PRODUCT UNTIL IT HAS BEEN REPAIRED.

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

For U.S.A.

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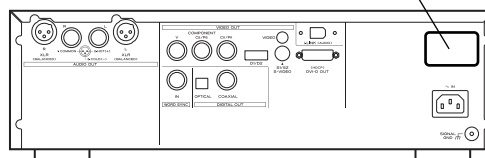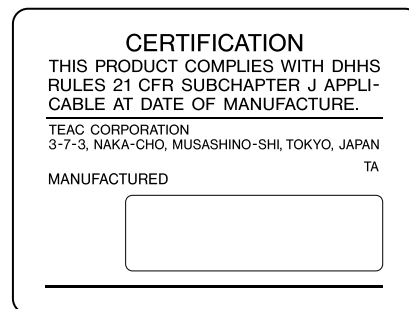
CAUTION

Changes or modifications to this equipments not expressly approved by TEAC CORPORATION for compliance will void the user's warranty.

This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968", and is classified as class 1 laser product. There is not hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings.
The label required in this regulation is shown ①.

① For U.S.A.

CERTIFICATION
THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J APPLICABLE AT DATE OF MANUFACTURE.
TEAC CORPORATION
3-7-3, NAKA-CHO, MUSASHINO-SHI, TOKYO, JAPAN
MANUFACTURED
TA

Optical pickup :
   Type   : SLD6163RL-G
   Manufacturer : SONY CORPORATION
   Laser output : Less than 1mW on the objective lens
   Wavelength : 785±15 nm (CD), 655±10 nm (DVD)

VARING: APPARATEN INNEHÅLLER LASER KOMPONENT MED STRÅLNING ÖVERSTIGANDE KLASS 1.

"ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING"

"VAROITUS! SUOJAKOTELOA EI SAA AVATA. LAITE SISÄLTÄÄ LASERDIODIN. JOKA LÄHETTÄ (NÄKYMÄTÖNTÄ) SILMILLE VAARALLISTA LASERSÄTEILYÄ".

ADVARSEL: USYNLIG LASERBESTRÅLING NÅR DENNE DELEN ER ÅPEN OG SIKKERHETSSPERREN ER UTKOBLET UNNGÅ UTSETTELSE FOR STRÅLING.

Contents

Thank you for choosing Esoteric. Read this manual carefully to get the best performance from this unit.

VRDS mechanism for DVD and SACD players, incorporating a duralumin turntable and a SS400 bridge

The VDRS mechanism completely eliminates any vibration caused by the disc itself, thanks to the full-diameter clamp that clamps the disc securely to the turntable. Additionally, warping and other defects of the disc are eliminated. The constancy of the reading angle between the optical pickup and the disc pits is therefore increased, and read errors, together with the occurrence of timing errors to the clock circuit, are significantly reduced.

Playback of DVD/SACD discs requires high-speed rotation and a high degree of precision, and the UX-3 accordingly uses a duralumin turntable. The bridge employs a pair of precisely engineered ball bearings, and is constructed of 10mm thick SS400 steel.

Coreless motor with neodymium magnets

A newly developed three-phase brushless spindle motor provides the fast and accurate turntable rotation required for DVD and SACD playback. This, coupled with the clamping turntable and the precision ball bearings, eliminate irregular rotation and vibration.

Neodymium stabilizes the motor's driving current, reducing influence on the audio sections of the unit.

Constant-angle optical pickup mounted on a sled with feedback-monitored speed control

By mounting the pickup on a sled whose axis is rigid, the pickup lens is maintained at a constant angle and the laser beam, and hence the optical axis, is maintained in an accurate vertical orientation. An Esoteric original three-phase brushless motor with hall element detection drives the sled, and the speed of the sled is monitored and used to control the sled itself in a servo feedback operation, meaning the sled is highly responsive and smooth in its operation.

Sturdy, rigid chassis with triple-point pinpoint foot support

The unit is constructed with a 5mm thick robust steel base plate, and is divided into three logical sections, thereby reducing interference between components of the unit. Highly rigid mounts are used for the VDRS disc mechanism.

To eliminate vibration, three solid (tool steel) feet support the unit and isolate it mechanically.

Brushed aluminum finish exemplifies the quality of construction

The front panel is constructed of thick brushed aluminum. The high-quality luxurious finish matches the overall attention to the finest possible quality, shown in such details as the illuminated periphery to the control buttons, the top-panel logo, and the milled aluminum disc tray.

Unsurpassed design and features

Separation of power supplies for each major function (digital audio, DAC circuitry, analog audio) ensures total fidelity. The DACs for video and audio have sub-ground impedances with exceptional S/N figures. DTS 96/24 decoder, as well as Dolby Digital and DTS decoders are incorporated. Full 5.1 surround playback, including DVD audio and SACD playback is possible with the UX-3.

A lip sync control allows precise synchronization between picture and audio.

Audio DACs

All audio channels use Burr-Brown 24-bit DA converters (PCM1704). Improved linearity is achieved for the two front channels by the use of dual converters for each channel.

The audio DAC boards employ a high-quality quartz crystal, resulting in the almost complete elimination of jitter and subsequent distortion-free DA conversion.

Super high-precision video output

The UX-3 uses the 14-bit 216MHz video DAC from Analog Devices; the ADV7314. This provides 16x oversampling on interlace playback and 8x oversampling on progressive-scan playback. Noise is therefore shifted to unwanted regions, and an outstandingly clear picture results. In the progressive-scan mode, smoothing is achieved using DCDi chips from Faroudja.

NTSC and PAL playback and progressive-scan

Both PAL and NTSC discs can be played back and conversion between the standards is possible, allowing the same monitor and player to be used for discs produced to either standard.

Progressive-scan playback (with the appropriate television or monitor) allows the best possible picture quality, even with large screens.

Word synchronization

A master word clock from a high-quality DA converter or master clock generator can be used for clock synchronization, resulting in the almost complete elimination of jitter.

Using a high-quality clock signal provided by an external DA converter such as the Esoteric G-0/G-0s provides optimum video and audio quality, up to 192kHz, optimizing a top ranking universal player like the UX-3.

i.LINK (AUDIO) terminal

In addition to the digital audio from DVD-Video, CD and video CD, the digital surround audio from SACD and DVD-Audio discs can be output from the i.LINK (AUDIO) terminal.

What's in the box

Please confirm that the following accessories are in the box when you open it.

Remote control unit x 1
Batteries (AA, R6, SUM-3) x 2
Screwdriver x 1
Felt sheet x 3
Power cord x 1
Owner's manual x 1
Warranty card x 1

Conventions about This Manual

● Instructions in this manual describe the controls on the remote control. You can also use the buttons on the front panel if they have the same or similar names as those on the remote.
● The types of functions and operations that can be used for a particular disc vary depending on the features of that disc. In some cases, these functions and operations may differ from the descriptions given in this Owner's Manual. In this event, follow the instructions given on the screen. This Owner's Manual only covers basic disc operations.
● For some operations, the PROHIBIT icon "⊘" may appear on the screen. This indicates that the operation described in this Operations Manual is not permitted for the current disc.
● The drawings about the TV screen and front panel display used in this Operations Manual are purely for the purposes of explanation. The actual displays may differ slightly from what are shown here.

Read this before operation

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

DO NOT MOVE THE UNIT DURING PLAYBACK

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

WHEN MOVING THIS UNIT

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

Placement of the unit

High-quality hardened tool steel is used for the pin-point feet, securely attached to the bottom of the player. Although the cover feet may appear loose, the weight of the unit causes them to be firm and secure, and the design effectively damps and reduces vibration.

● Be careful to avoid injury when moving the unit, on account of its weight. Get someone to help you if necessary.

● To protect easily scratched furniture, you may stick the felt supplied with the unit to the bottom of the cover feet.
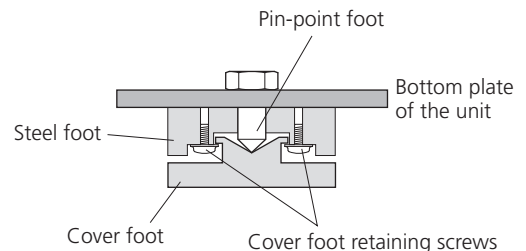
CAUTION
The product shall not be exposed to dripping or splashing and that no object filled with liquids, such as vases, shall be placed on the product.

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

Restoring factory settings

If you have made a lot of changes to the setup, and want to restart from a known set of options, restore the unit to the factory settings as follows:
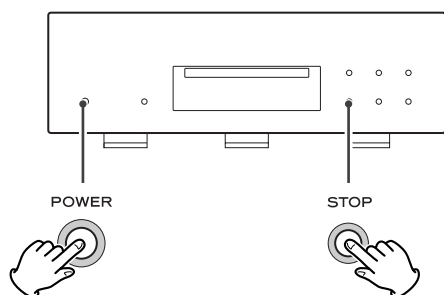
POWER   STOP

1. With the unit turned off, press and hold down the STOP button.
2. While holding down the STOP button, press the POWER switch.

All memories are erased, and the unit returns to the factory settings.

Changing the Color System (NTSC/PAL)

If you experience picture distortion or are unable to view the monitor image, you may need to change the color setting to match your TV.

1. Turn the unit off.
2. While holding down the PAUSE button of the main unit, press the POWER switch.
3. While "V Set NTSC" (or "V Set PAL") is displayed on the front panel display, press the ►►I button.
   The display changes to "V Set PAL" (or "V Set NTSC").
   Select "V Set PAL" when a PAL TV (European standard) is connected. Select "V Set NTSC" when a NTSC TV (American standard) is connected.
4. Press the POWER switch to turn the unit off.

Note that you have to turn the unit off before each change.

About MOD.(Modulation) PAL:

Most models of the newly developed countdown PAL TV system detect 50 Hz (PAL)/60 Hz (NTSC) and automatically switch vertical amplitude, resulting in a display without vertical shrinkage.

If your PAL TV does not have a V-Hold control, you may not be able to view NTSC disc because the picture may roll. If the TV has a V-Hold control, adjust it until the picture stops rolling. On some TVs, the picture may shrink vertically, leaving black bands at the top and bottom of the screen. This is not a malfunction; it is caused by the NTSC-PAL conversion.

"DTS" and "DTS 96/24" are trademarks of Digital Theater Systems, Inc.

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

"Super Audio CD" is a registered trademark.

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

The UX-3 player uses six DACs with high-quality 14-bit 216MHz processing for video output. This type of DAC, the ADV7314, employs new Noise shaping Video (NSV) technology from Analog Devices, Inc. of the USA.
NSV technology uses multi-bit delta-sigma conversion, removing video noise and providing low noise and high linearity, without the loss of information that is often associated with analog filtering systems.
Noise Shaped Video and NSV are registered trademarks of Analog Devices, Inc.

To eliminate "jaggies" and produce clear natural images, the UX-3 uses DCDi (Directional Correlational Deinterlacing) technology. The circuits employed are from the Faroudja business devision of Genesis Microchip, and enable hardware based diagonal line detection and smoothing from a pixel based image. As a result, smoother progressive-scan images can be produced, with "jaggie" noise reduced by interpolation techniques.

Type of Discs That Can be Played on This System

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

DVD Video:
- Single-sided or double-sided discs
- Single layer or dual layer discs
- Dolby Digital, DTS, MPEG or Linear PCM digital audio
- MPEG-2 digital video
- This unit can play DVD-R discs recorded in DVD video format.
- This unit can play DVD-RW discs recorded in DVD video format or DVD video recording format.

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

DVD Audio:
- Single sided discs
- Single layer or dual layer discs
- Linear or packed PCM digital audio
- Some discs may contain MPEG-2 video, and Dolby Digital, DTS or MPEG digital audio.

Discs are generally divided into one or more groups. Groups may be further subdivided into tracks.

Audio CD:
- 12cm or 8cm discs
- Linear PCM digital audio

Audio CDs are divided into tracks.

Video CD:
- 12cm or 8cm discs
- MPEG-1 digital audio
- MPEG-1 digital video

Video CDs are divided into tracks.

SACD:
- Single layer, dual layer or Hybrid layer
- 12cm or 8cm discs
- Digital audio (DSD)

SACDs are divided into tracks.

Region Number of DVD Video discs:

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

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

①	②	③
U.S.A./Canada model	Europe model	Korea model

About DVD-RW
- DVD-RW discs that were recorded with copy-once only permission cannot be played.
- When playing a DVD-RW disc that was edited on a DVD recorder, the screen may momentarily black out at the edited point.
- When playing a DVD-RW disc that was edited on a DVD recorder, you may see scenes from just before the edited point.

About CD-R/CD-RW

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

Caution:
- If you record a disc using a personal computer, even if it is recorded in a compatible format, there are cases in which it may not play because of the settings of the application software used to create the disc. (Check with the software publisher for more detailed information.)
- Unfinalized CD-R/CD-RW/DVD-R/RW discs cannot be played.

Following discs cannot be played with this unit:

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

Warning:

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

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

Example of Icons used on DVD discs:

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

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

How to remove the disc   How to hold the disc

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

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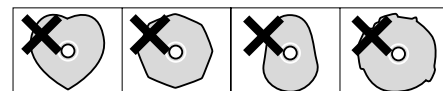
- If you are in any doubt as to the care and handling of a CD-R/CD-RW disc, read the precautions supplied with the disc, or contact the disc manufacturer directly.

9

CAUTION:
- Switch off the power to all equipment before making connections.
- Read the instructions of each component you intend to use with this unit.
- Be sure to insert each plug securely. To prevent hum and noise, avoid bundling the signal interconnection cables together with the AC power cord or speaker cables.
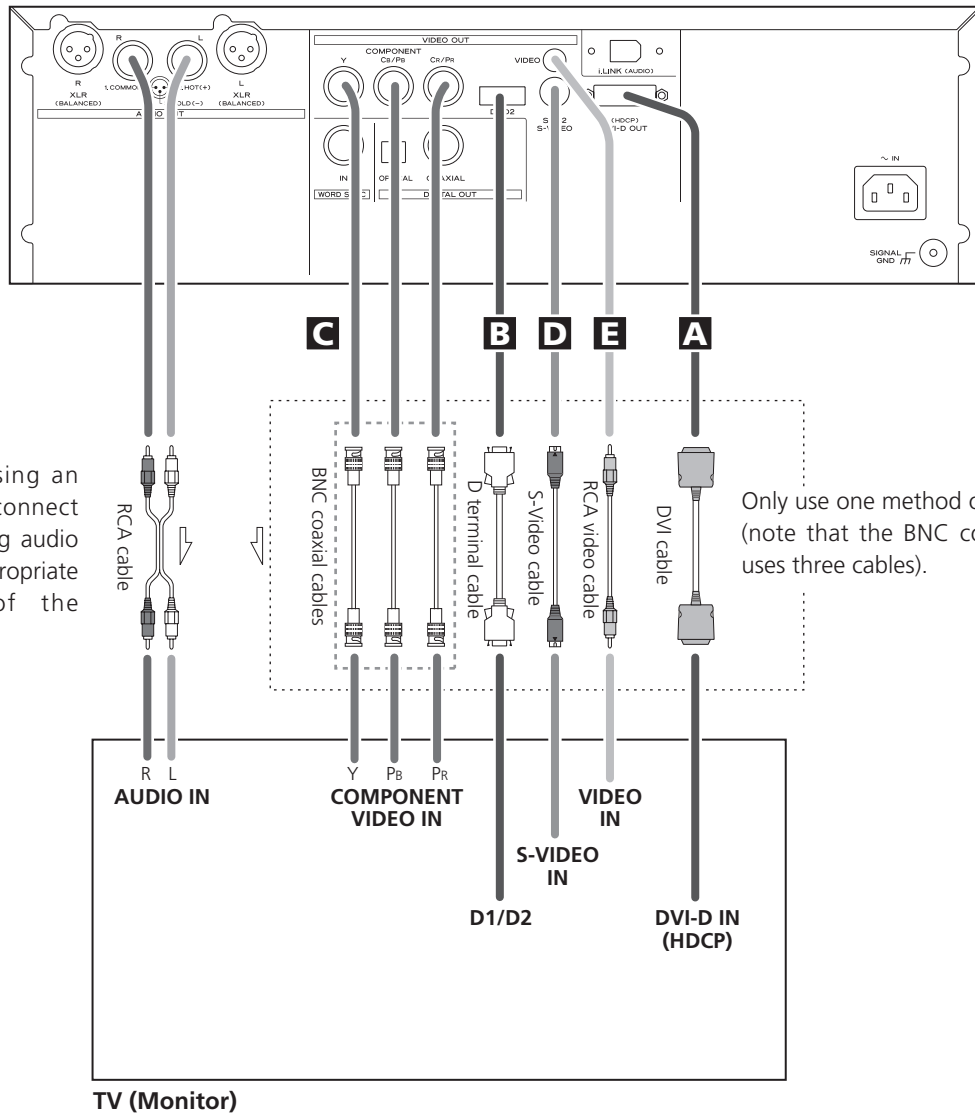
If you are not using an audio amplifier, connect the L and R analog audio outputs to the appropriate audio inputs of the television.

Only use one method of video connection (note that the BNC component method uses three cables).

RCA cable

BNC coaxial cables

D terminal cable

S-Video cable

RCA video cable

DVI cable

C **B** **D** **E** **A**

R L
AUDIO IN

Y P_B P_R
COMPONENT VIDEO IN

S-VIDEO IN

VIDEO IN

D1/D2

DVI-D IN (HDCP)

TV (Monitor)

- Adjust the video aspect ratio to match that of the television (see page 38) .

- If the component video terminals or the D1/D2 terminal are used to connect the unit to a television with progressive scan capabilities, the output can be set to match this (see page 39).

- This unit adopts analog copy protection features. If the unit is connected to a TV through a VCR (video cassette recorder), the resulting playback may be affected. **Connect the unit directly to the television.**

- In all cases, use the highest quality cables for the best possible picture.

A DVI-D video output terminal

Use a commercially available DVI-D output cable to connect the unit to a DVI/HDCP compatible television or monitor.

DVI output formats
480p (NTSC) or 576p (PAL), 720p, 1080i

- The television connected in this way must be DVI/HDCP compatible. Use with incompatible televisions may sometimes result in the playback picture not being visible.

- See page 26 for further details on DVI output formats.

- Make sure that you read and understand the documentation provided with the DVI component, as well as this unit's documentation.

B D1/D2 video output terminals (component)

By using a commercially available D terminal cable to connect the unit to a "D compatible" (D1, D2, D3 or D4) television or monitor, high-quality images, equivalent to those achieved using component video, will be displayed.

- D terminal cable is not available in all countries.

D terminal and signal format (NTSC/PAL)

	480i/576i (525i/625i)	480p/576p (525p/625p)
D1 terminal	○	✕
D2 terminal	○	○
D3 terminal	○	○
D4 terminal	○	○

Numbers in parentheses show the number of scan lines
i = interlace (flyback)
p = progressive scan

C Component video output terminals

Use commercially available BNC coaxial cables to connect the unit to the component video inputs of a suitably equipped television or monitor to enjoy a high-quality picture. Use these terminals in preference to S-Video or composite video connections.

- Note that these terminals cannot be connected to high definition component (Y/P_B/P_R) terminals.

- If the television or monitor is equipped only with RCA (pin) jacks for component video, a suitable adaptor cable or adaptors should be used.

D S-Video output terminal

Use a commercially available S-Video cable to connect the unit to the S-Video input of a suitably equipped television or monitor. Use this connection in preference to a composite video connection.

E Composite video output terminal

Use a commercially available RCA (pin) video cable to connect the unit to the composite video connector of a television or monitor. Use this connection only if no other video connection method is available.

CAUTION:
- Switch off the power to all equipment before making connections.
- Read the instructions of each component you intend to use with this unit.
- Be sure to insert each plug securely. To prevent hum and noise, avoid bundling the signal interconnection cables together with the AC power cord or speaker cables.

Stereo amplifier

AUDIO IN

R L R L

XLR cable

RCA cable

Decoder-equipped amplifier

DIGITAL IN
(COAXIAL)

RCA coaxial cable

F

G

Balanced XLR
pin assignment

1.COMMON   2.HOT(+)

3.COLD(−)

R COMPONENT Cb/Pb Cr/Pr VIDEO i.LINK (AUDIO)

R L

XLR 1.COMMON 2.HOT(+) XLR
(BALANCED) 3.COLD(−) (BALANCED)

AUDIO OUT

VIDEO OUT

D1/D2 S1/S2
S-VIDEO (HDCP)
DVI-D OUT

IN OPTICAL COAXIAL

WORD SYNC DIGITAL OUT

~ IN

SIGNAL
GND

I **G** **H** **J** **K**

BNC coaxial cable

optical digital cable

i.LINK cable

Supplied power cord

WORD SYNC OUT

DIGITAL IN
(OPTICAL)

i.LINK(AUDIO)
(IEEE1394)

Wall socket

**Master clock generator
(G-0s, etc.)**

**Digital audio device
(CD recorder, MD deck, etc.)**
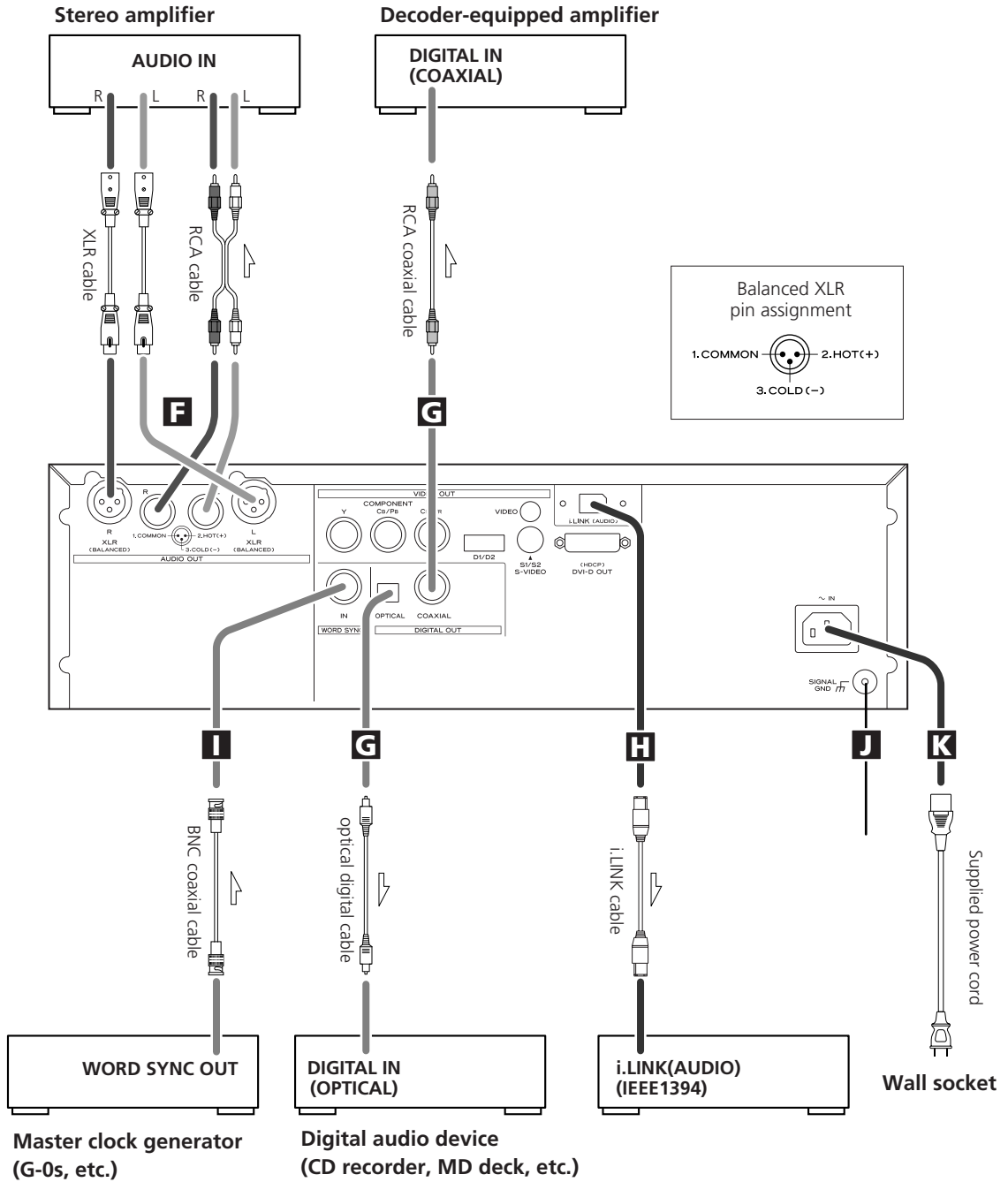
F Analog audio output terminals

Use either the XLR or RCA (pin) terminals for analog stereo output.

> XLR: Use balanced XLR audio cable
> RCA: Use RCA (pin) audio cable

- When using these terminals, set "Analog Output" to "2 ch" (or select "2 ch" using the 2CH/MULTI button of the remote control unit) to downmix the multi-channel material to two channels.
Note that if "Analog Output" is set to "Multi ch", only the front L/R sound of the multi-channel material will be output from these terminals.

G Digital audio output terminals

Digital audio from DVD-Video, CD and video CD is output from these terminals.
The unit may be connected using either coaxial or optical (TOS) commercially available cables to amplifiers including a decoder, or to digital audio devices such as CD recorders, etc.

> COAXIAL: Use RCA (pin) digital audio cable
> OPTICAL: Use optical digital audio cable (TOS)

- The optical terminal is covered by a shutter. Make sure that the cable is firmly inserted, but do not force the cable when connecting it or removing it, in order not to cause damage to the unit.

H i.LINK (AUDIO) terminal

In addition to the digital audio from DVD-Video, CD and video CD, the digital surround audio from SACD and DVD-Audio discs can be output from this terminal.

Use a commercially available S400 compatible i.LINK (IEEE1394) 6pin cable to connect the unit to an amplifier.

- When using this terminal, set the i.LINK output setting to "i.60958" or "i.PCM" (see page 42).
- See page 43 for further details on i.LINK.

- To enjoy surround sound from a DVD Video disc, connect the DIGITAL OUT terminal or the i.LINK (AUDIO) terminal to an amplifier with Dolby Digital/DTS/MPEG decoder.

- To enjoy surround sound from a DVD Audio and SACD disc, connect the i.LINK (AUDIO) terminal to a suitably equipped surround sound amplifier.

- DVD Audio disc signals are converted where necessary from 192kHz or 176.4kHz to 96kHz/88.2kHz or 48kHz/44.1kHz. However, there may be some occasions when digital audio cannot be output by the unit from such a disc.

I Word sync connector

This allows the use of an externally-generated word clock connection, using a commercially available BNC coaxial cable.
Devices producing such a suitable clock signal include external D-A converters or dedicated word clock generators. Connect the SYNC OUT (or WORD OUT) of such a device to the unit.

J SIGNAL GND connection

Use a commercially available PVC-covered cord to connect the signal ground terminal on the unit to the amplifier signal ground.

- Note that this is NOT an electrical safety ground (earth).

K Power cord receptacle

After all other connections have been made, insert the supplied AC power cord into this receptacle, then connect the other end of the power cord into the wall socket. Ensure that your AC voltage corresponds to the voltage marked on the rear panel of the unit. Consult a qualified electrician if you are in doubt.

- In order to avoid the risk of electric shock, fire, and so on, only use the supplied power cord.
- If you are not going to use the unit for some time, disconnect the power cord from the wall socket.

13
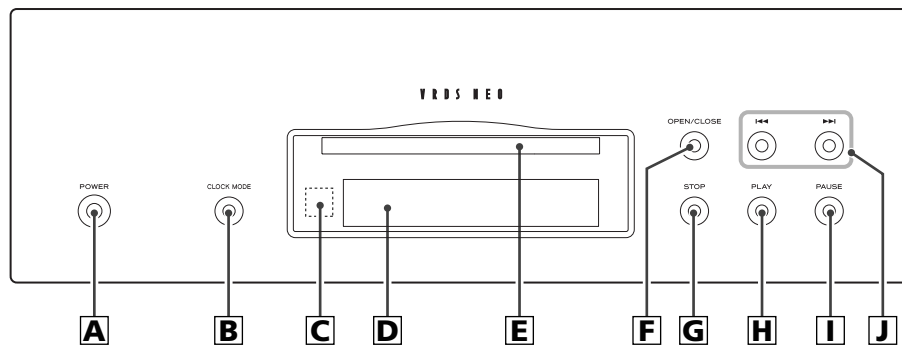
A POWER

Use this to turn the unit on and off. When the unit is on, the ring surrounding the button lights up.

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

B CLOCK MODE

Use this to select an external word sync source connected to the WORD SYNC connector on the rear panel.
Also use this to select the 4% DOWN mode.

C Remote control sensor

Receives signals from the remote control unit. Point the remote control unit at this sensor when operating the remote control unit.

D Display

E Disc tray

F OPEN/CLOSE

Use this to open and close the disc tray.

G STOP

Use this to stop playback. When playback is stopped, the ring surrounding the button lights up.
Also use this to change the i.LINK output setting.

H PLAY

Use this to start playback. When a disc is being played back, the ring surrounding the button lights up.

I PAUSE

Use this to pause playback. When playback is temporarily paused, the ring surrounding this button lights up.

J SKIP (Ⅰ◀◀ / ▶▶Ⅰ)

Use these for skip operations. Pressing and holding these buttons for more than a second changes the scanning speed.
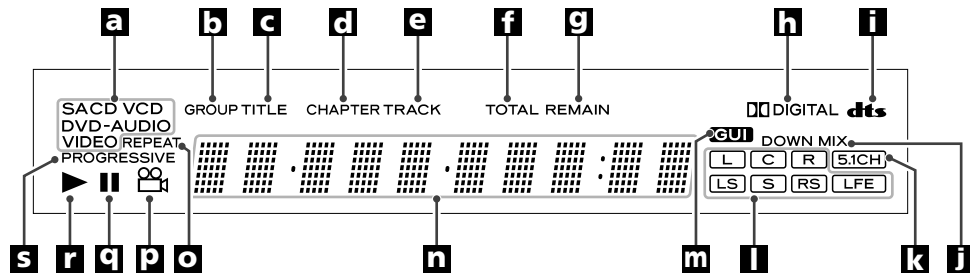
a **Disc type indicator**

Shows the type of disc currently loaded.

b **GROUP indicator**

Indicates that the group number of a DVD audio disc is being shown.

c **TITLE indicator**

Indicates that the title of a DVD disc is being shown.

d **CHAPTER indicator**

Indicates that the chapter of a DVD disc is being shown.

e **TRACK indicator**

Indicates that the track number of a CD, SACD or video CD is being shown.

f **TOTAL indicator**

Indicates that the total time is being shown.

g **REMAIN indicator**

Indicates that the remaining time is being shown.

h **DOLBY DIGITAL indicator**

Lights to show that Dolby Digital audio is being played back.

i **DTS indicator**

Lights to show that DTS audio is being played back.

j **DOWN MIX indicator**

Lights to show that a multi-channel source has been downmixed to 2 channels.

k **5.1CH indicator**

Lights when the Analog Out setting is set to "Multi Channel".

l **Channel indicators**

Light to show which surround channels are currently in use.

m **GUI indicator**

Lights to show that the GUI is being displayed through the video outputs.

n **Message area**

Alphanumeric display to show times, titles, status messages, etc.

o **REPEAT indicator**

Lights when repeat play is selected

p **Angle indicator**

Lights when an alternative angle is available on the section of the disc being played back.

q **Pause indicator**

Lights when playback is paused.

r **Playback indicator**

Lights when playing back.

s **PROGRESSIVE indicator**

Lights when progressive-scan video output is enabled.
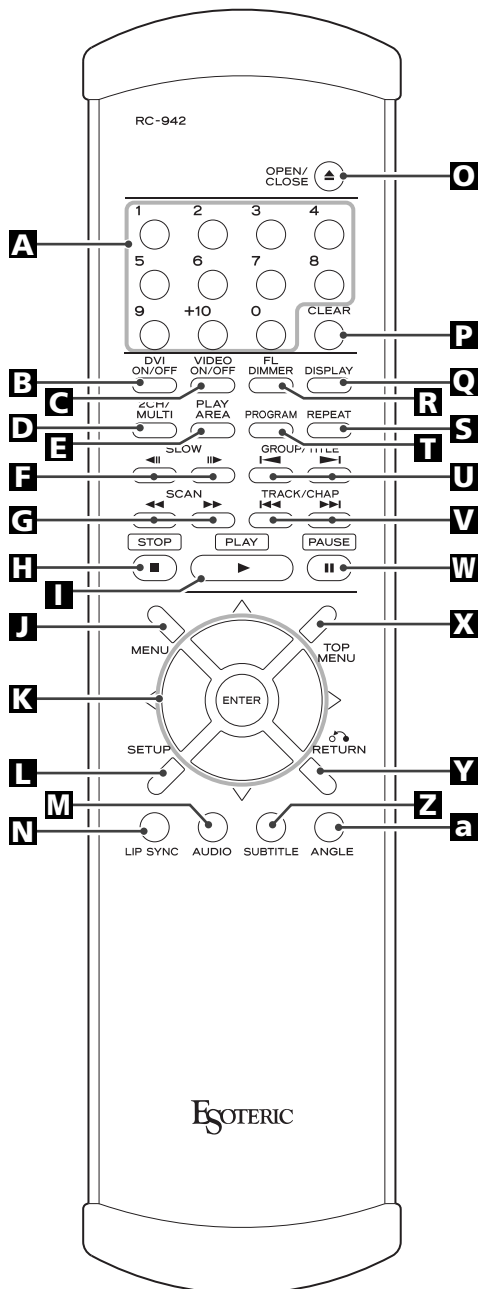
A Number buttons

Use these for selecting tracks by number, etc.

B DVI ON/OFF

Use this to turn DVI video output on and off.

C VIDEO ON/OFF

Use this to turn all video on and off.

D 2CH/MULTI

Use this to switch between two-channel (stereo) and multi-channel surround audio output.

E PLAY AREA

Use this with DVD audio and SACD discs to select the playback area.

F SLOW (◄▌▌/ ▌▌►)

Use these for slow motion video playback.

G SCAN (◄◄ / ►►)

Use these for fast scanning during playback.

H STOP

Equivalent to pushing the STOP button on the front panel.

I PLAY

Equivalent to pushing the PLAY button on the front panel.

J MENU

Use this button with menu-enabled DVD discs to bring up the DVD menu.

K Cursor buttons and ENTER

Use these cursor buttons for navigation of on-screen menus and the ENTER button to confirm selections.

L SETUP

Use this button to enter the main menu where you can set up the parameters of the unit.

M AUDIO

Use this to select the audio for playback.

N LIP SYNC

Use this to synchronize video and audio when playing back DVDs.

O OPEN/CLOSE button

Duplicates the functions of the OPEN/CLOSE button on the front panel.

P Clear button

Use this button to clear entry errors, etc.

Q DISPLAY

Use this button to change the display mode.

R FL DIMMER button

Use this button to change the brightness of the front panel display.

S REPEAT

Use this button to set the repeat playback mode.

T PROGRAM

Use this button when programming playback order.

U GROUP/TITLE

Use these buttons to skip back or forward by one group or title.

V SKIP (I◄◄ / ►►I)

These buttons are equivalent to the skip buttons on the front panel.

W PAUSE

This button is equivalent to the PAUSE button on the front panel.

X TOP MENU

Use this button to return control to the top menu of a DVD.

Y RETURN

Use this button to go up a level in menu systems. When playing back video CDs, use it to return to the top menu.

Z SUBTITLE

Use this button to select the displayed subtitles during DVD playback.

a ANGLE

Use this button to select camera angles during DVD playback.

How to insert the batteries

Remove the cover of the remote control unit with a screwdriver. After checking the polarity (⊕/⊖) of two AA batteries, insert the batteries, replace the cover and replace the screws.
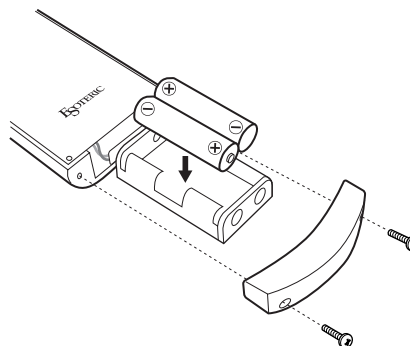
Battery Replacement

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

Precautions concerning batteries

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

Notes on use

● Point the remote control unit at the player's remote sensor within seven meters (23 feet) of the player. There should not be any obstacles between the player and the remote control unit.

● Do not allow direct sun or other light to shine on the remote sensor part of the player. This may cause the remote control unit to work incorrectly.

● Note that other units with remote controls may operate incorrectly because of infrared light "overspill" when you operate this remote control unit.

17

Playback
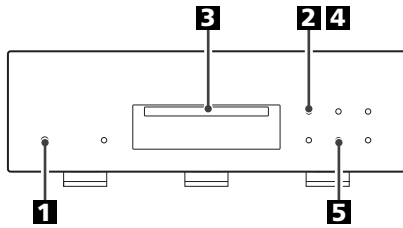
1 Turn on the power using the POWER button on the main unit.

POWER

The button and the display light.

2 Press the OPEN/CLOSE button.

OPEN/CLOSE

The tray opens after a second or two (this delay is due to the movement of the internal mechanism of the unit before opening).

3 Insert the disc label side up.
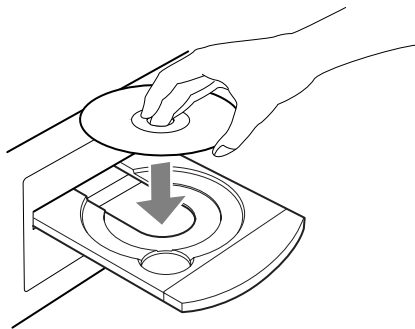
● In the case of double-sided discs, the side to be played should be face down.
● Make sure the disc is centered in the tray in order to avoid any malfunction or jamming of the tray or damage to the disc.

4 Press the OPEN/CLOSE button again.

OPEN/CLOSE

The tray will close. Take care not to trap your fingers in the tray.
The unit reads the disc (this may take a little time) and the display shows "LOADING". Some discs may automatically start playback.

5 Press the PLAY button to start playback if playback has not started automatically.

PLAY

If a menu is shown on screen (some DVD or video discs may show such a menu), see the next section.

On-screen menu

An on-screen menu is shown when a DVD or video CD with playback control (PBC) content is loaded.
The way in which the menu works may differ from disc to disc.

DVD menus

Use the cursor buttons to select the menu item from a DVD, and confirm the selection using the ENTER button.
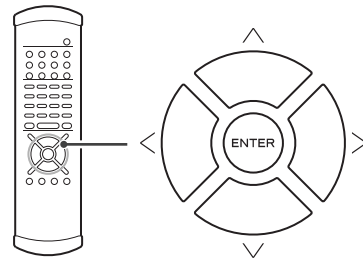
Returning to the menu screen

Press either the MENU button or (to return to the top menu) the TOP MENU button.
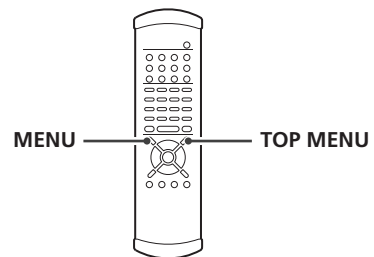
MENU ——————— TOP MENU

● Depending on the disc, pressing MENU or TOP MENU during playback may restart playback from the first chapter.
● This function is not available with a DVD-RW disc with VR content.

Playback control (with PBC enabled) video CDs

With these discs, the number buttons can sometimes be used to select menu items.
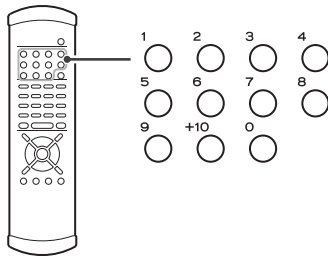
Jump between pages of multi-page menus (on some video CDs) with the SKIP buttons (|◄◄ / ►►|).
- Pressing RETURN during playback returns to the menu of a PBC video CD.
- Note that the DISPLAY, REPEAT and PROGRAM buttons do not work during PBC playback.

Playback without PBC

In the stop mode press the number buttons or SKIP buttons (|◄◄ / ►►|) and PLAY button to playback video CDs without using the PBC facility.

DVD audio discs with picture stills

Use the SLOW buttons (◄II/II►) to change between still images that are shown when some DVD audio discs are played back.
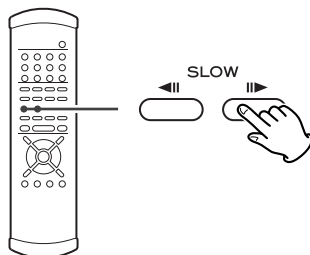
Pausing playback (freezing the picture)
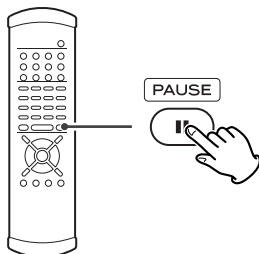
Press the PAUSE button to pause audio playback (the ring surrounding the PAUSE button on the main unit lights). Any DVD or video CD image is frozen.
Press PLAY or PAUSE to restart playback.

- If the still picture appears blurred or noisy, reconfigure the still mode to "field" (see page 39).
- Caution - do not leave player in the "pause" mode for extended periods of time. Damage to your television or the player may occur.

Stopping playback
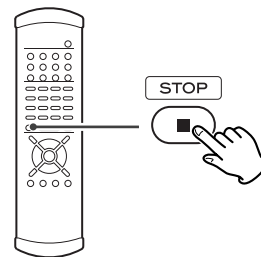
Press the STOP button (the ring surrounding the STOP button on the main unit lights).

With a video DVD or video CD, the unit enters resume mode (see the next section). Pressing STOP once again stops playback completely.

Resume mode
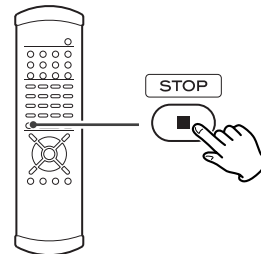
When the STOP button is pressed with a video DVD or video CD, playback is stopped, and the display shows "RESUME". Pressing PLAY continues playback.

Pressing any of the following buttons cancels resume mode:
STOP, OPEN/CLOSE, POWER.

Opening and closing the tray
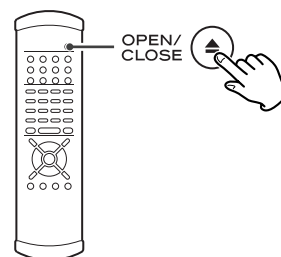
Pressing OPEN/CLOSE opens the tray if it is closed, and closes it if it is open. When the tray is opened during playback, it may take a few seconds before the disc is "unloaded" and the tray opens.

19

Selecting groups and titles
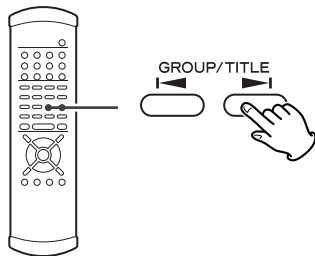
GROUP/TITLE

Use the remote control unit's GROUP/TITLE buttons (|◄/►|) to change titles and groups on DVD media.

If pressed during playback, these buttons start playback at the selected group/title. If pressed during pause or stop mode, playback is paused at the start of the selected group/title.

Note that some discs may start playback when a group or title is selected, regardless of the pause or stop status.

DVD   VCD   CD   SACD   DVD-A

Skipping playback

TRACK/CHAP
|◄◄   ►►|
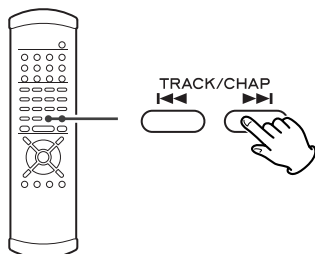
Press the SKIP button (|◄◄ or ►►|) repeatedly until the desired chapter or track is found. The selected chapter or track will be played from the beginning.

● If the |◄◄ button is pressed once during playback, playback returns to the start of the current track or chapter. If it is pressed within one second from the start of the track, playback returns to the start of the previous track or chapter (so pressing the button twice in quick succession will skip back two tracks, etc.).

● If tracks or chapters are skipped while playback is paused or stopped, playback is paused or stopped at the start of the selected track or chapter.

● In programmed playback mode, these buttons will move between tracks in the programmed order.

● When playing back video CDs with PBC, note the following: the |◄◄ button is disabled. The ►►| button is disabled in resume mode, but is enabled in play mode. In pause mode, the ►►| restarts playback at the start of the selected track.

Selecting a chapter or track
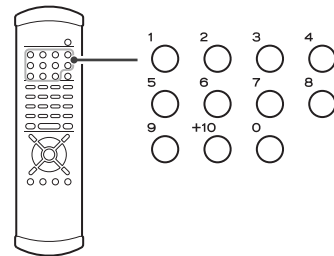
Use the number button to select tracks or chapters for playback. Use the +10 button to enter the first digit of numbers greater than 9 (repeated presses show 1-, 2-, 3- etc.) and the single digit buttons (0 through 9) for the second digit, or single-digit track numbers.

CD (including video CD and SACD) playback starts from the selected track, regardless of whether the number is selected during playback or playback is stopped or paused.

DVD playback starts from the selected chapter or track if selection is made during playback or stop. It pauses at the start of the selected track if the selection was made from pause mode. In stop mode, only chapters from the first title can be selected.

Use the CLEAR button to clear mistaken entries.

SACD   DVD-A

Selecting the playback area
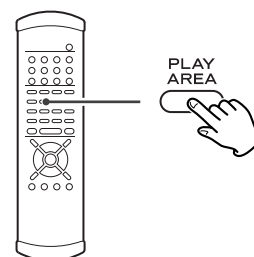
PLAY AREA

When playback is stopped, use the PLAY AREA button to select the playback area. Some DVD audio discs have DVD video areas which can be accessed through this function. Additionally, SACD discs may contain two or more separate audio areas, selectable in this way.

The contents accessible as DVD audio and DVD video from the same DVD disc may differ.

Fast scanning
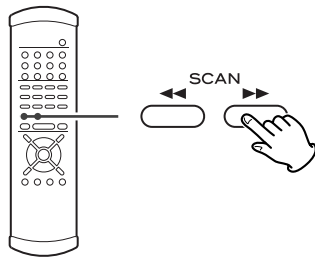
When playing back, use the SCAN button (◄◄ or ►►) to move backwards and forwards (sound is muted for DVD video and video CD discs). Press PLAY to restart playback at normal speed at the desired location.

Repeated presses of the SCAN buttons changes the scanning speeds. There are three speeds:

Fast (1) → Fast (2) → Fast (3) → Play (normal speed)

The scanning speed is briefly shown on the display.

● You can also use the SKIP buttons of the main unit. To start scanning (or to change the scanning speed), press and hold the SKIP button for more than one second.

Notes on DVD video

Scanning does not work within menus.

If forward scanning reaches the end of the last chapter of a title, playback starts from the start of the next title.

If there is no following title, playback stops.

If backward scanning reaches the start of the first chapter, normal playback starts from there.

Notes on DVD audio and video CD (PBC playback)

Scanning does not work within menus.

If forward scanning reaches the end of a track, the scan stops and playback starts from the beginning of the next track.

If it reaches the last track on the disc, playback stops.

If backward scanning reaches the start of a track, normal playback starts from the start of that track.

Notes on video CD (non-PBC playback), audio CDs and SACD

Scanning can be carried out across track boundaries.

If backward scanning reaches the start of the disc, playback starts from the beginning. If forward scanning reaches the end of the disc, scanning and playback stop.

Repeat mode
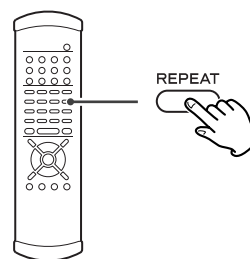
Use the REPEAT button to select the repeat mode for playback. Repeated presses of the REPEAT button cycle between the following options:

DVD video

→ REPEAT CHP → REPEAT TTL
(chapter repeat) (title repeat)
REPEAT OFF ←
(no repeat)

DVD audio

→ REPEAT TRK → REPEAT GRP
(track repeat) (group repeat)
REPEAT OFF ←
(no repeat)

CD/VCD with PBC off/SACD

→ REPEAT TRK → REPEAT DSC
(track repeat) (whole disc repeat)
REPEAT OFF ←
(no repeat)
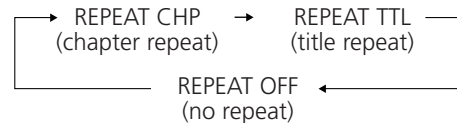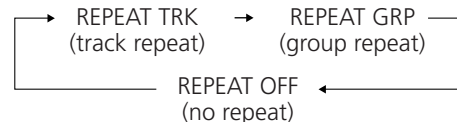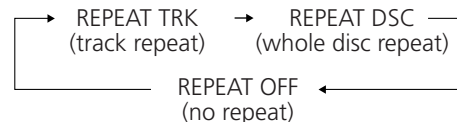
● Halting playback stops the repeat mode.
● This feature is not available for all discs. The "prohibit" mark is shown on screen in such cases when an attempt is made to repeat playback.
● Repeat playback is not possible for video CDs with PBC enabled.
● The following buttons cancel repeat mode:
STOP, OPEN/CLOSE, POWER.

Chapter and track repeat

When this is selected, the currently selected track repeats. If another track is selected during repeat playback, the newly-selected track repeats.

Title, group, disc repeat

The current title/group or disc repeats. In the case of a DVD, the current title/group repeats, and for other discs, the whole contents of the disc are repeated.

Programmed repeat

If programmed playback has been set up, the whole program is repeated.

Pushing the REPEAT button cycles between REPEAT PGM (program repeat) and REPEAT OFF (programmed playback takes place).

21

Programmed playback

Programmed playback allows up to 30 tracks to be played back in the order you decide.

Note that programmed playback is not possible for DVD video and video CD discs.

1 Press the PROGRAM button (either when playing back or stopped).

The program screen appears. If a track is currently playing back (or paused in the middle of the track), this track is added as the first item in the programmed playback list.

```
PROGRAM          Total 00:00
No. Track    No. Track    No. Track
 01   __




INPUT:0~9, +10Key      CLEAR:CLEAR Key
```
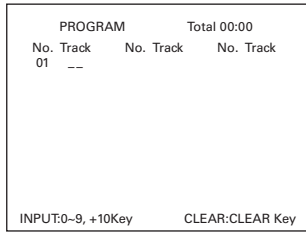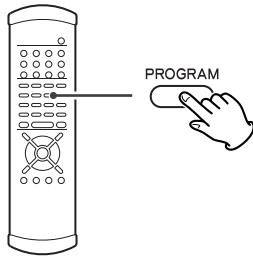
2 Use the number buttons to add tracks to the programmed playback list.
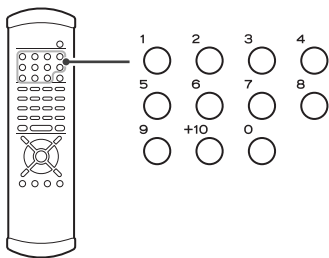
Use the +10 button and 0 through 9 buttons in exactly the same way as when selecting tracks.

When selecting tracks from a CD or SACD, the screen looks like this:

Program running time

```
PROGRAM          Total 16:50
No. Track    No. Track    No. Track
 01   02
 02   04
 03   12
 04   __



INPUT:0~9, +10Key      CLEAR:CLEAR Key
```
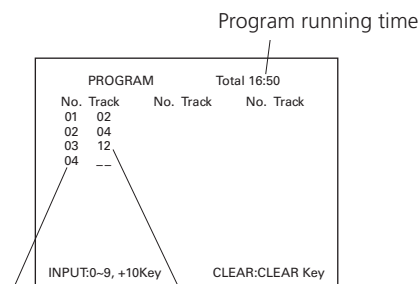
Number in programmed list   Track number

When selecting tracks from a DVD audio disc:

Program running time

```
PROGRAM              Total 16:50
No. Grp Trk   No. Grp Trk   No. Grp Trk
 01  01  02
 02  01  04
 03  02  12
 04  02  __




INPUT:0~9, +10Key      CLEAR:CLEAR Key
```
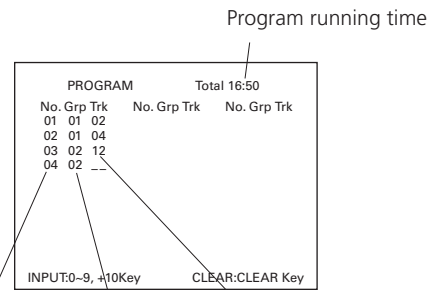
Number in programmed   Group number   Track number
list

Continue pressing the number buttons to add tracks.

● With DVD audio discs, use the GROUP/TITLE buttons to select the group from which tracks are added.

● Clear mistakes with the CLEAR button (the last entry is cleared)

● You can only select tracks on the disc (in other words, if the disc has six tracks, you cannot program track 7!).

● Although a DVD audio disc may allow a track to be programmed (for example a menu track) where no music is recorded, playback may stop when this track is reached.

3 Finish the programming by pressing PLAY.

Programmed playback begins (if the disc is actually being played back while you are setting the program order, there's no need to press PLAY).
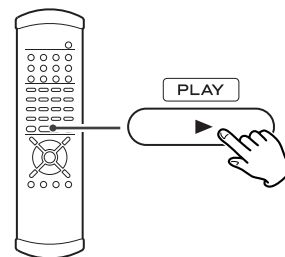
Skip between tracks in the programmed playback order using the SKIP buttons (|◄◄ /►►|).

Changing camera angle

Clearing the last track from the list

Push the CLEAR button to clear the last track from the list.
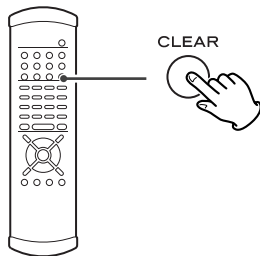
CLEAR

Adding tracks to the list

Use the number buttons to add tracks to the list.

1	2	3	4
5	6	7	8
9	+10	0	
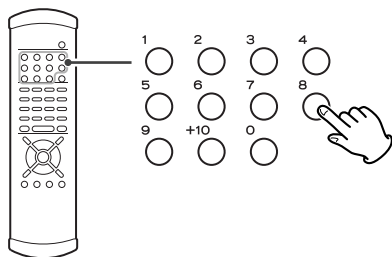
Clearing the whole program

Press the PROGRAM button to clear the program (playback continues from the current point).
The OPEN/CLOSE or the POWER button also clears the program.

PROGRAM
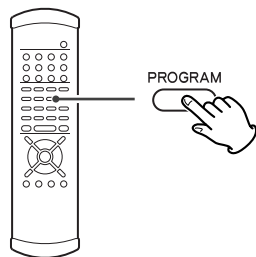
When a scene recorded with multiple angles is played, the angle icon appears on the screen. Each time you press the ANGLE button while the angle icon is displayed, the camera angle changes.

ANGLE

:01/04 → :02/04 → :03/04 → :04/04
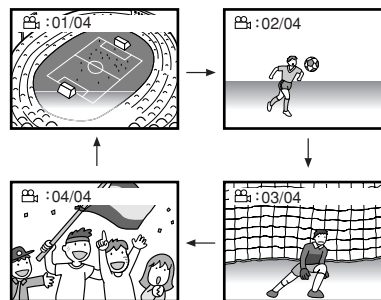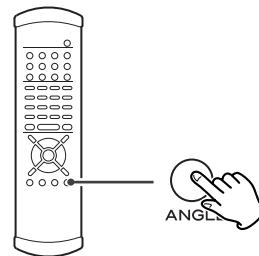
● When no other angle is recorded, the prohibit icon "⊘" will be displayed.

● You can change the setting so that the angle icon isn't displayed even when a scene recorded with multiple angles is played. See page 40 for details.

● The maximum number of angles stipulated by the manufacturer is 9.

● The ANGLE button doesn't work during pause.

23

Slow motion/frame advance

Selecting audio
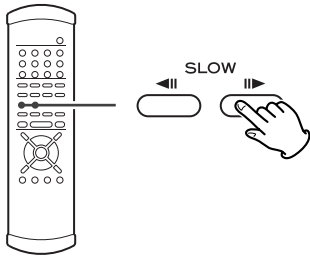
Slow motion

During playback, press either of the SLOW buttons (◀ǁ/ǁ▶) to slow playback in either direction.

Pressing PLAY resumes normal speed playback.

Repeated presses of the SLOW buttons change the slow playback speed:

ǁ▶ : 1/8 → 1/4 → 1/2 → normal speed

◀ǁ :1/20 → 1/16 → 1/12 → playback at normal speed

Frame advance

If you press the SLOW buttons when playback is paused, you can advance or go back a frame at a time.
Pressing PLAY restarts playback at normal speed.

● Sound is muted while slow playback or frame advance is taking place.

● You cannot use slow motion or frame advance with video CDs. Also some discs may not allow this. In these cases, the prohibit mark "⦸" is shown on screen if you attempt slow motion or frame advance.

● If the still or slow picture appears blurred, check the "still mode" setting (see page 39).
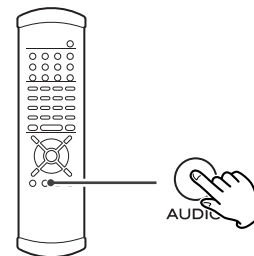
Many DVD discs include audio in different languages, as well as stereo and multi-channel surround versions of the soundtrack.
Video CDs allow the left, right or stereo channels to be selected. This facility is not available for audio CDs or SACD discs.
Pressing the AUDIO button changes between the different audio tracks available, and the result is shown on screen.

● Sometimes the picture playback will appear to freeze momentarily when the audio is changed.

● It may be necessary to change the audio on some discs using the on-screen disc menu.

● Some discs cannot have their audio changed in the way described here, as well as some discs which only have one audio stream. If you attempt to select different audio with these discs, the "prohibit" mark is shown on screen.

● Some DVD audio discs have two, or more, audio groups. In this case, select the audio group.

Selecting subtitles
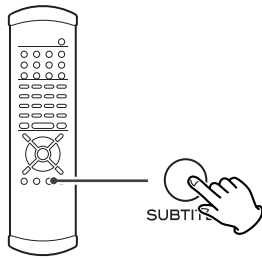
SUBTITLE

Use the SUBTITLE button to select DVD subtitles.
Repeated presses of this button cycle through available languages on a disc until OFF is reached (no subtitle).

● Subtitles do not always appear immediately after the language has been selected. It may be necessary to wait a few seconds until the subtitles appear.

● Some captions on some discs cannot be removed or changed using this button. Additionally, a disc must have at least one captioning language available for this to work. Some discs may have only one sub-caption language, in which case, the choice is obviously restricted to one subtitle or no subtitles.

● It may be necessary to change the subtitles on some discs using the on-screen disc menu.

● Some discs cannot have their subtitles changed in the way described here. If you attempt to select a different subtitle with these discs, the "prohibit" mark is shown on screen.

Lip sync
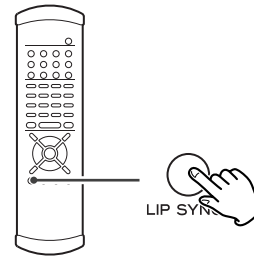
LIP SYNC

This function allows you to adjust the synchronization of the video and audio portions of a DVD.

Press the LIP SYNC button to display the current lip sync value (default is 0). Use the left and right cursor buttons to adjust the value. Positive values mean that the sound is delayed relative to the picture.

● Press LIP SYNC again to cancel this setting. Any other operational display appearing on screen will also cancel this setting. Note that lip sync should be cancelled if you need to use the left and right cursor buttons to navigate menus, etc.

● The lip sync value you set is stored when you turn the unit off, and will be remembered next time you turn the unit on again.

DVD   VCD   CD   SACD   DVD-A

Display dimming
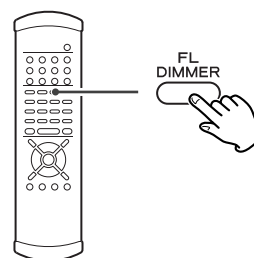
FL DIMMER

The display on the main unit can be dimmed to suit the environment in which you listen to music or watch video. There are three levels and an "off" setting.
Use the FL DIMMER button to cycle between these settings.

● Note that the OFF setting is not memorized when the power is turned off. When the unit is switched off with the display off, and then turned on again, the display is reset to the minimum brightness.

● In OFF mode, when you press a button such as PLAY, the illuminations turn temporarily on.

25
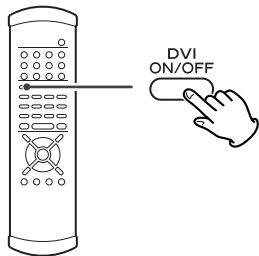
DVI output

The DVI ON/OFF button turns output from the DVI output on and off. In order to use this output, a DVI/HDCP-compliant television must be used.

● If the display is not HDCP-compliant, video playback may not occur.
● When this DVI output is turned on, even if progressive scan has been selected for the component video outputs, an interlaced signal is output.

DVI output format

When DVI output is turned on, the front panel's display shows the current format. Use the up and down cursor buttons to change the format when it is displayed.

480p (NTSC) or 576p (PAL)
1080i ← 720p
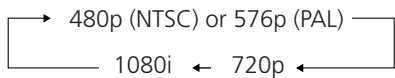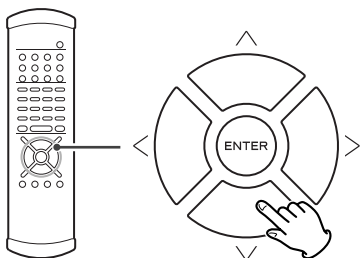
(i=interlaced, p=progressive scan)

DVI level

When DVI output is enabled, the black areas shown on the monitor may not appear dark enough. In this case, it is necessary to select the EXPAND option.
When the DVI output is selected and the format is visible on the front panel's display, use the right cursor button to select between EXPAND or NORMAL.
The relevant data are:

NORMAL: 16 (black) to 235 (white)
EXPAND: 0 (black) to 246 (white)
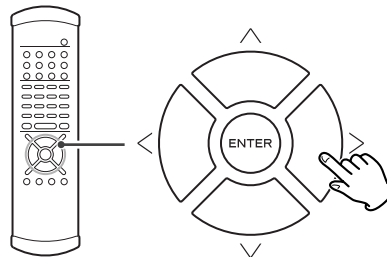
DVI output aspect ratio

It may sometimes be necessary to change the aspect ratio from 4:3 when video is output and displayed through the DVI terminal, especially when 720p or 1080i is selected. Use the television (monitor) controls to change the format.
If your television (monitor) cannot change the aspect ratio, change the output mode of the UX-3 in the following way:
When the DVI output is selected and the format is visible on the display, use the left cursor button to select between "DVI 4:3" or "DVI FULL" to match the television (monitor).
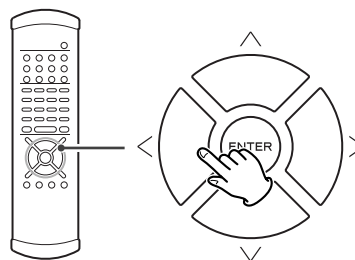
Turning video on and off
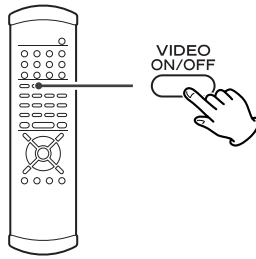
Use the VIDEO ON/OFF button to turn video output to the television (monitor) on and off. It is not necessary to turn video off, but you may notice a slight improvement in audio quality if you turn off the video when playing back SACD discs and CDs without video images.

Note that this setting is not memorized when the power is turned off.

DVD   SACD   DVD-A

Analog sound output (2CH/MULTI)
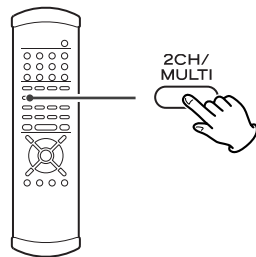
When playback is stopped, use the 2CH/MULTI button to select either 2CH (stereo) or MULTI (multi-channel surround) audio output.
This setting is also reflected in the configuration screen (see page 31).

2CH
The unit outputs 2-channel audio from the the i.LINK (AUDIO) and the AUDIO OUT terminals.
If multi-channel program material is played, the multi-channel material will be downmixed to two channels and the DOWNMIX indicator will light on the display.
See page 32 for how to set the downmix mode.

MULTI
The unit outputs the multi-channel surround sound.
Select this when the i.LINK (AUDIO) terminal is connected to a surround sound amplifier with a decoder.
5.1 indicator will light on the display.

● Note that if "MULTI" is selected, only the front L/R sound of the multi-channel material will be output from the analog AUDIO OUT terminals.
● This setting has no effect on the DIGITAL OUT terminals.
● This setting is ignored if you play a DVD-Video with the Audio Digital Out set to "Stream"(page 37) and the i.LINK output set to "i.60958"(page 42). To use this setting, set the Audio Digital Out to "Stream" and the i.LINK output to "i.PCM".

Clock Mode
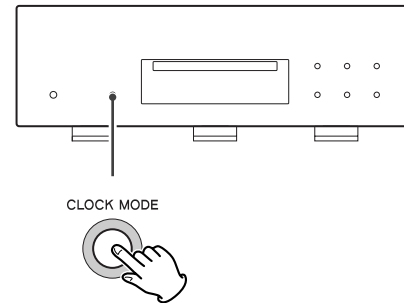
Word sync

For highly accurate playback, you can use the word clock (sync) output of an external unit such as the Esoteric G-25U, D-70 or G-0s to synchronize your whole audio system.

Use the CLOCK MODE (main unit) button to switch between Word ON and Word OFF.
When the unit is synchronizing to the external clock, the ring surrounding the button flashes. When it is locked, the button lights.

The main unit can accept and synchronize to the following frequencies received from external devices:
44.1kHz, 48kHz, 88.2kHz, 96kHz, 100kHz, 176.4kHz, 192kHz as well as frequencies which are 96% of these values, in the 4% DOWN mode.

Note that the sync connection should be made before the CLOCK MODE button is pressed. If no valid word sync signal is received, the display shows "No Word!".

4% DOWN mode

This allows a 4% reduction in frame rate. PAL video plays back at 25 frames per second (fps), but movies are shot at 24fps. This mode helps to resolve the discrepancy by allowing an external clock source at 4% less than standard to be received. The external clock source should be set to this 4% frequency reduction (called "PAL FILM" on the G-0 and G-0s models).

Press and hold the CLOCK MODE button on the main unit for three seconds or more to enter this mode.
The ring surrounding the button lights orange. Pressing this button again turns off the word sync.

Note that the signals from the S-Video and composite video outputs are cancelled when this mode is selected. In addition, the audio pitch drops.

Changing the display mode
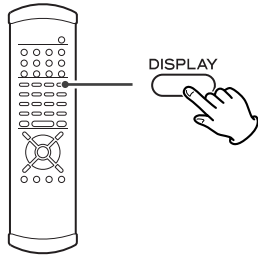
DISPLAY

During playback, it is possible to change the display as shown here. The display on both the main unit, and the on-screen display (when the video output is on) changes.

When playback stops, the display mode reverts to the first type of display.

DVD video playback (main unit display)

Elapsed time of current title

DVD VIDEO ▶ TITLE CHAPTER TOTAL
1· 3· 18:03

Currently-playing title   Currently-playing chapter

⬇

DVD VIDEO ▶ TITLE CHAPTER TOTAL REMAIN
1· 3·102:31

Time remaining for current title

⬇

DVD VIDEO ▶ TITLE CHAPTER
1· 3· 0:03

Elapsed time of current chapter

⬇

DVD VIDEO ▶ TITLE CHAPTER REMAIN
1 3· 7:49

Time remaining for current chapter
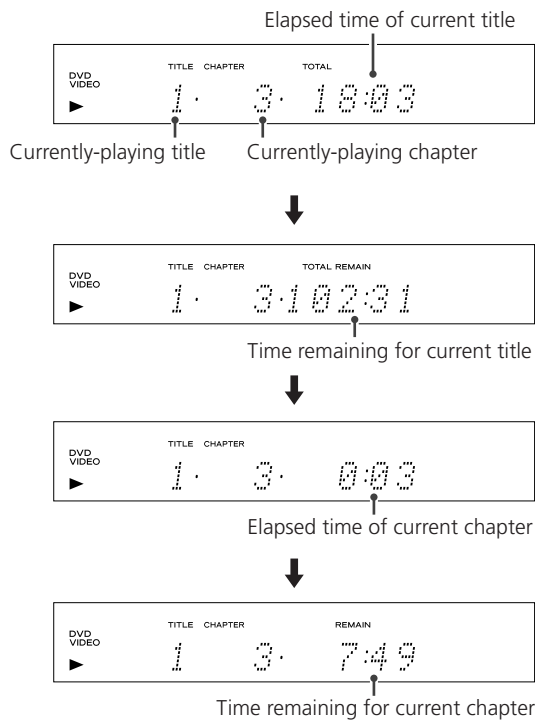
DVD video playback (on-screen display)

(no display)

⬇

Currently-playing title   Elapsed time of current title

Title	Chapter	Total Elapsed	Total Remain
01	03/37	10:53	140:17

Currently-playing   Number of chapters   Time remaining for
chapter   in current title   current title

⬇

Elapsed time of current chapter

Title	Chapter	Elapsed	Remain
01	03/37	0:03	3:39

Time remaining for current chapter

⬇

Total number of audio   Current Audio channels
versions recorded   Audio format   Language of audio format

Audio   1/2 : Dolby Digital 3/2.1   English
Subtitle   : 01/03 Japanese

Number of subtitles available   Currently-selected subtitle

DVD video (stopped, on-screen display)

(no display)

⬇

Total number of titles on disc

Total Title
12
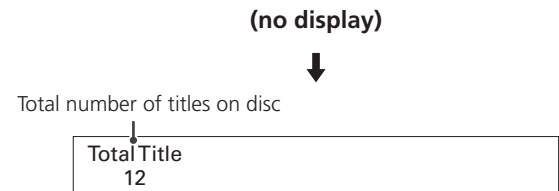
● When DVD video playback is stopped, the display of the main unit doesn't change.

DVD audio playback (main unit display)

Currently-playing group

DVD-AUDIO ▶ GROUP TRACK
1· 3· 0:03

Currently-playing track   Elapsed time of current track

⬇

DVD-AUDIO ▶ GROUP TRACK REMAIN
1· 3· 3:01

Time remaining for current track

⬇

DVD-AUDIO ▶ GROUP TRACK TOTAL
1· 3· 6:13

Elapsed time of current group

⬇

DVD-AUDIO ▶ GROUP TRACK TOTAL REMAIN
1 3· 37:49

Time remaining for current group
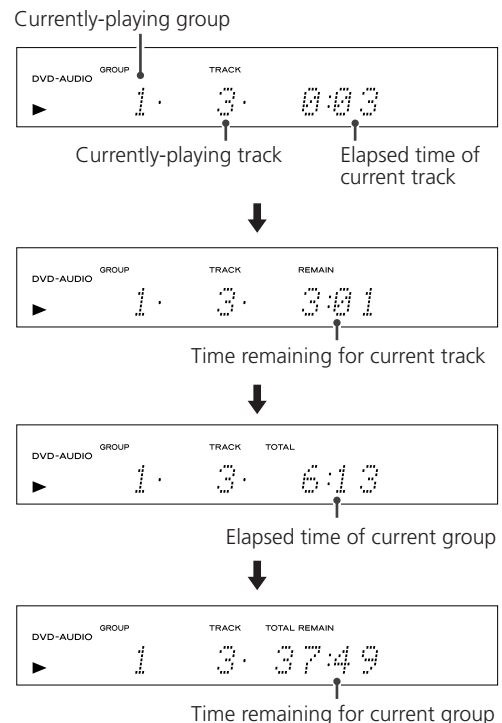
DVD audio playback (on-screen display)

(no display)

↓

Current group — Elapsed time of current track

Group	Track	Elapsed	Remain
01	02/10	01:50	04:41

Currently-playing track — Time remaining for current track

Total number of tracks on disc

↓

Elapsed time of current group

Group	Track	Total Elapsed	Total Remain
01	02/10	05:50	38:00

Time remaining for current group

↓

Audio format — Sampling frequency

Audio 1/1: PPCM 5.1ch / 96kHz / 24bit

Total number of audio versions recorded — Audio channels — Bit rate

DVD audio (stopped, on-screen display)

(no display)

↓

Total number of groups on disc

Total Group
04

● When DVD audio playback is stopped, no display appears on the main unit.

SACD/CD/video CD playback (main unit display)

TRACK
► 3. 0:03

Currently playing track — Elapsed time of current track

↓

TRACK   REMAIN
► 3. 3:01

Time remaining for current track

↓

TRACK   TOTAL
► 3. 6:13

Total elapsed time (disc)

↓

TRACK   TOTAL REMAIN
► 3. 67:49

Total time remaining (disc)

SACD/CD/video CD (stopped, main unit display)

TRACK   TOTAL
9. 67:49

Number of tracks on disc — Total disc running time

SACD/CD/video CD playback (on-screen display)

(no display)

↓

Number of tracks on disc — Elapsed time of current track

Track	Elapsed	Remain
02/36	00:09	03:51

Currently playing track — Time remaining for current tracks

↓

Total elapsed time

Track	Total Elapsed	Total Remain
02/36	03:09	56:51

Total time remaining (disc)

↓

Track	Total Elapsed	Total Time
02/36	03:09	60:00

Total disc running time

SACD/CD/video CD (stopped, on-screen display)

(no display)

↓

Total Track	Total Time
036	61:35

Number of tracks on disc — Total disc running time
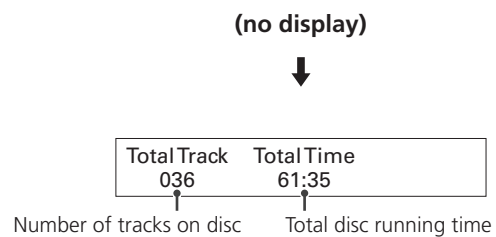
● The above does not apply to video CDs played back using the PBC system.

29

1 **Turn on the main unit, and the television (monitor).**

POWER
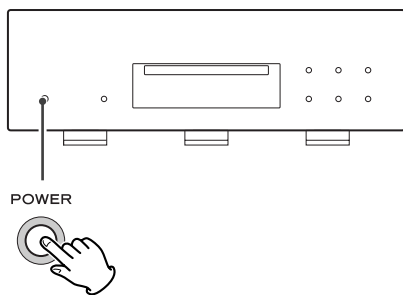
2 **Press the SETUP button.**
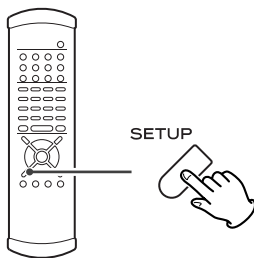
SETUP

The following appears on screen.

| AUDIO | VIDEO | LANGUAGE | GENERAL |

Analog Out   ▸ 2ch *
Digital Out   ▸ ON *
CD Digital Direct   ▸ Direct *
Audio DRC   ▸ OFF *
Group Playback   ▸ Single *
2ch Down Mix   ▸ Lo/Ro *

Move ⬌   Return ↺   Select ENTER   Exit SETUP
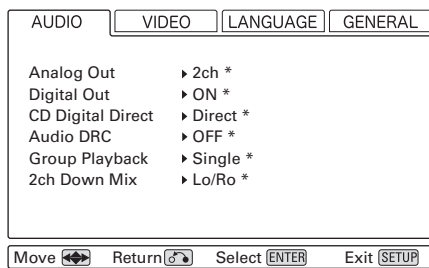
- Factory settings are marked with an asterisk "*".
- Exit the setup mode by pressing SETUP once again.
- Although it is possible to enter the setup screen while playback is continuing (or in resume mode), not all menu functions will be available. Expand the number of available functions by pressing the STOP button twice.

3 **Use the cursor buttons to navigate the menus.**

ENTER

| AUDIO | VIDEO | LANGUAGE | GENERAL |

Analog Out   ▸ 2ch *
Digital Out   Multi Channel
CD Digital Direct
Audio DRC
Group Playback
2ch Down Mix

Move ⬌   Return ↺   Select ENTER   Exit SETUP
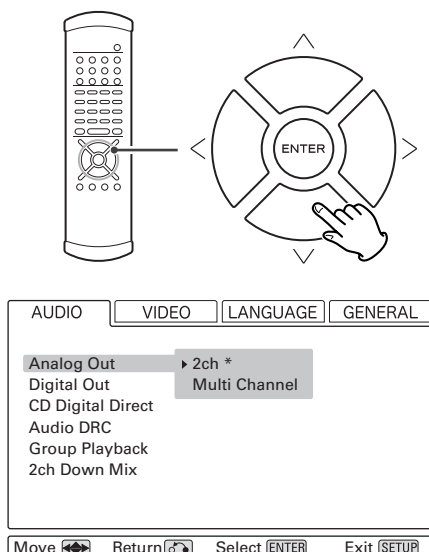
If no cursor is visible on the screen, using the left and right buttons changes between the top tabbed menus.
Use the up and down buttons to highlight menu items within these tabbed menus. RETURN returns to the top level.

4 **Enter the menu item with the right cursor button.**

ENTER

| AUDIO | VIDEO | LANGUAGE | GENERAL |

Analog Out   ▸ 2ch *
Digital Out   Multi Channel
CD Digital Direct
Audio DRC
Group Playback
2ch Down Mix

Move ⬌   Return ↺   Select ENTER   Exit SETUP
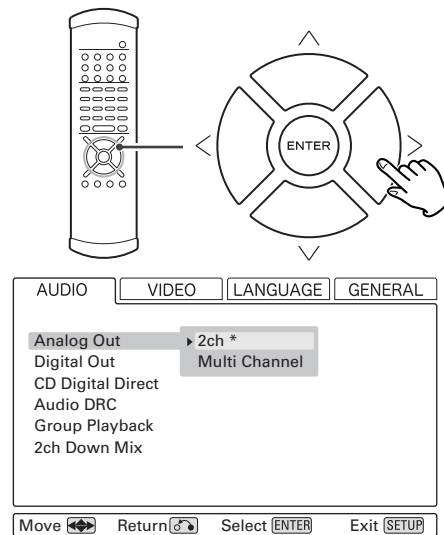
5 **Use the up and down cursor buttons to select the options within the menu item, and ENTER to confirm the entry.**

ENTER
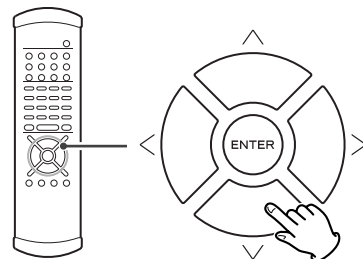
Individual menu functions are described on pages 31 through 41.
Repeat steps **3** through **5** as required.

6 **Exit the setup mode by pressing SETUP once more.**

SETUP
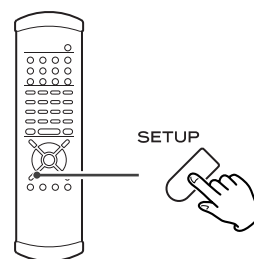
The display on the main menu also gives some menu messages and allows settings to be made, but it is easier to use the on-screen display to make these settings (remember that video output must be turned on!).

Analog output settings

[AUDIO → Analog Out]

```
┌─────────────────────────────────────────┐
│ AUDIO    VIDEO   LANGUAGE  GENERAL        │
│                                           │
│ Analog Out        ▸ 2ch *                 │
│ Digital Out         Multi Channel         │
│ CD Digital Direct                         │
│ Audio DRC                                 │
│ Group Playback                            │
│ 2ch Down Mix                              │
│                                           │
│ Move ◄●► Return ↺  Select ENTER  Exit SETUP │
└─────────────────────────────────────────┘
```
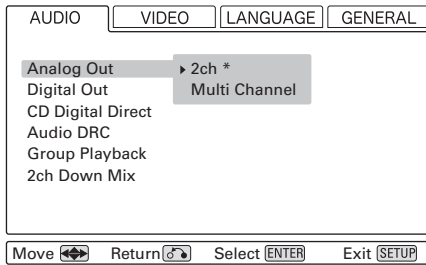
2ch *

Outputs 2-channel audio from the the i.LINK (AUDIO) and the AUDIO OUT terminals.

If multi-channel program material is played, the multi-channel material will be downmixed to two channels and the DOWNMIX indicator will light on the display.

See page 32 for how to set the downmix mode.

Multi Channel

The unit outputs the multi-channel surround sound.

Select this when the i.LINK (AUDIO) terminal is connected to a surround sound amplifier with a decoder.

5.1 indicator will lights on the display.

● Note that if "Multi Channel" is selected, only the front L/R sound of the multi-channel material will be output from the AUDIO OUT terminals.

● Note that some DVD discs cannot be downmixed (from multi channel to 2-channel). In these cases, no digital sound will be output.

● Speakers should be set up properly for multi-channel use. See page 36 for details.

● This setting has no effect on the DIGITAL OUT terminals.

Digital output settings

[AUDIO → Digital Out]

```
┌─────────────────────────────────────────┐
│ AUDIO    VIDEO   LANGUAGE  GENERAL        │
│                                           │
│ Analog Out                                │
│ Digital Out       ▸ ON *                  │
│ CD Digital Direct   OFF                   │
│ Audio DRC                                 │
│ Group Playback                            │
│ 2ch Down Mix                              │
│                                           │
│ Move ◄●► Return ↺  Select ENTER  Exit SETUP │
└─────────────────────────────────────────┘
```
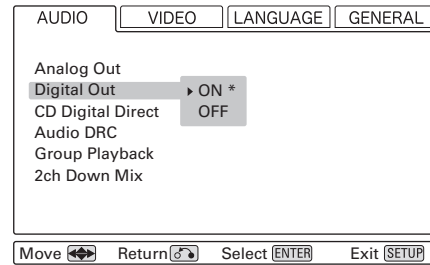
ON *

Audio is output from the i.LINK (AUDIO) terminal and the DIGITAL OUT terminals.

OFF

Audio is not output from the i.LINK (AUDIO) terminal and the DIGITAL OUT terminals. If you are not using the these terminals, we suggest that you use this OFF setting for better analog sound.

● Digital sound from SACD discs cannot be output from the DIGITAL OUT terminals.

● DVD audio at 192kHz or 174.4kHz is converted to 96/88.2kHz sampling frequency.

● If downsampling is turned on, 192kHz and 96kHz discs will be automatically converted to 48kHz digital audio, and 174.4kHz and 88.2kHz discs will be converted to 44.1kHz audio. Some discs converted in this way may not output digital audio (depending on the disc).

CD Digital Direct

[AUDIO → CD Digital Direct]

```
┌─────────────────────────────────────────┐
│ AUDIO    VIDEO   LANGUAGE  GENERAL        │
│                                           │
│ Analog Out                                │
│ Digital Out                               │
│ CD Digital Direct ▸ Direct *              │
│ Audio DRC           Normal                │
│ Group Playback                            │
│ 2ch Down Mix                              │
│                                           │
│ Move ◄●► Return ↺  Select ENTER  Exit SETUP │
└─────────────────────────────────────────┘
```
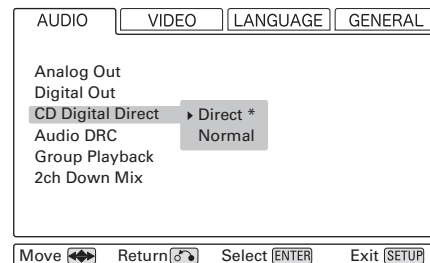
Direct *

This setting bypasses unnecessary circuitry and provides better sound quality when listening to audio CDs.

Normal

Use this setting only when playing back DTS-CDs (DTS digital surround).

Audio DRC (Dynamic Range Controlling)

[AUDIO → Audio DRC]

```
  AUDIO    VIDEO   LANGUAGE   GENERAL

 Analog Out
 Digital Out
 CD Digital Direct
 Audio DRC        ON
 Group Playback   ▸ OFF *
 2ch Down Mix


 Move ◄►   Return ↩   Select ENTER   Exit SETUP
```
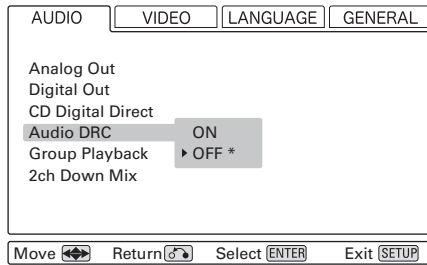
ON

Applies dynamic range control to Dolby Digital material, reducing the volume of loud sounds, and increasing the volume of quiet ones. This is useful for spoken word material, etc. as well as nighttime listening.

OFF *

Turns off the audio dynamic compression.

● This function is effective only when playing back a DVD disc recorded with Dolby Digital. This control has no effect on other discs.

● The overall effect of this setting depends on many things: the disc being played, the amplifier, and the speakers used for reproduction.

Group playback mode (DVD audio)

[AUDIO → Group Playback]

```
  AUDIO    VIDEO   LANGUAGE   GENERAL

 Analog Out
 Digital Out
 CD Digital Direct
 Audio DRC
 Group Playback   Continue
 2ch Down Mix     ▸ Single *


 Move ◄►   Return ↩   Select ENTER   Exit SETUP
```
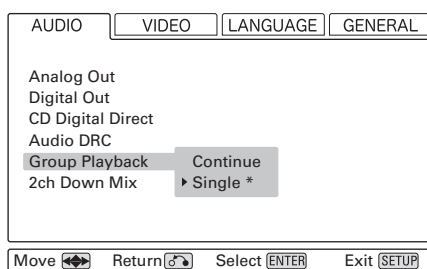
Continue

Plays all groups. Moving between groups is not possible when the menu screen is displayed.

Single *

Plays the group selected using the menu. Fast forward, track skip, etc. cannot be used to move between groups.

Downmix

[AUDIO → 2ch Down Mix]

```
  AUDIO    VIDEO   LANGUAGE   GENERAL

 Analog Out
 Digital Out
 CD Digital Direct
 Audio DRC
 Group Playback
 2ch Down Mix     ▸ Lo/Ro *
                    Lt/Rt


 Move ◄►   Return ↩   Select ENTER   Exit SETUP
```
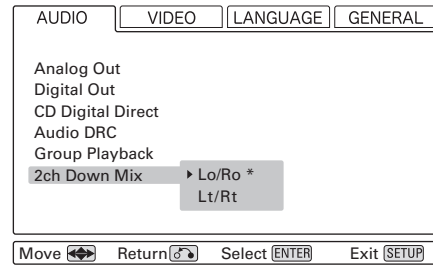
Lo/Ro *

Usual stereo mode. Use this for stereo playback, etc.

Lt/Rt

This mode is useful when recording multi-channel sound on a cassette tape deck or CD recorder connected via the AUDIO OUT jacks. With a Dolby Pro Logic decoder, the recorded sound can be decoded into multi-channel sound.

● Select between 2-channel and multi-channel modes using the 2CH/MULTI remote control button.

● Note that this setting is ignored for DVD audio discs and SACD discs; these are downmixed in the Lo/Ro mode automatically.

Settings (Video)

Video adjustment

[VIDEO → Video Adjust]

1 Highlight the Video Adjust menu item and press the ENTER button.

```
AUDIO    VIDEO    LANGUAGE   GENERAL

Video Adjust
Progressive Setting




Move ◄►   Return ↺   Select ENTER   Exit SETUP
```

⬇

```
Reference*   Memory 1   Memory 2   Memory 3
Move ◄►   Return ↺   Select ENTER   Exit SETUP
```
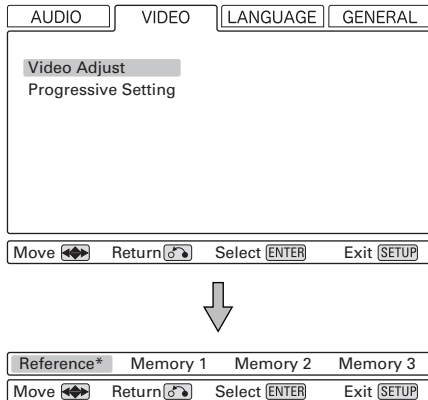
Near the bottom of the display, a row of four options appears: Reference, and three memory settings (Reference contains the factory default settings and the three memories can be used to make video settings for different monitors, types of program material, etc.).

Usually, you will not need to change these settings, but there may be occasions when you want to alter one or two parameters for a perfect picture.

2 To change settings, use the left and right cursor buttons to highlight one of the Memory settings, and press ENTER.

● Selecting the Reference setting returns you to the VIDEO menu.

3 Use the up and down buttons to select the parameter, and the left and right buttons to change the value.

Sharpness
Adjusts the sharpness of the picture shown on the monitor.

Contrast
Adjusts the picture contrast

Brightness
Adjusts the brightness of the picture

Gamma
Adjusts the gamma value of the picture

Hue
Adjusts the green/red balance of the picture (only for progressive-scan and S-Video output)

Chroma Level
Adjusts the chroma level of the picture

Chroma Delay
Sets the delay between the Y and C signals (only affects progressive-scan pictures).

Black Setup
Use this to enhance the black level of the picture, to assist in the "3D look" of some scenes. Normally, this setting should be 0 IRE. Change it only if really necessary.

4 Press RETURN when done, to return to the memory selection screen, or SETUP to exit the setup menu completely.

Progressive scan setting

[VIDEO → Progressive Setting]

```
AUDIO    VIDEO    LANGUAGE   GENERAL

Video Adjust
Progressive Setting   Progressive Mode
                      DCDi



Move ◄►   Return ↺   Select ENTER   Exit SETUP
```
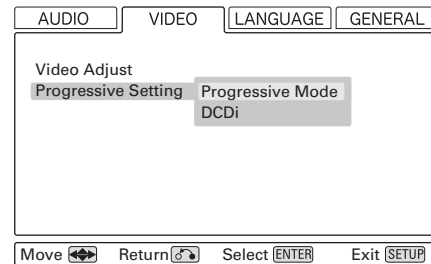
The progressive-scan mode setting menu has two sub-menus: Progressive Mode (progressive scan mode) and DCDi.

Progressive Mode

Within Progressive Mode, there are two settings: Auto* and Video (use the left and right cursor buttons to select these choices). Typically, the Auto setting should be used but in the case of jagged or blurred playback of a DVD, you may want to select the Video option.

DCDi

This is a special technology allowing high-quality images to be produced and you can set this On or Off* when progressive scan is taking place. Usually, you will not need this switched on, but some material demands the use of this progressive scan technology, especially if you notice "jaggies" on diagonal lines.

A note on progressive-scan

The video on DVD discs may be either originally shot on video or film. Video material has a frame rate of 30fps (NTSC) while film is at 24 frames per second. In progressive-scan mode, film material is converted to 60 frames per second, and the player adjust the picture match the quality from a cinema screen. As mentioned above, Auto is the usual setting for Progressive Mode, but Video may be used if the picture appears jagged.

33

Audio language selection

[LANGUAGE → Audio Language]

```
  AUDIO    VIDEO  LANGUAGE  GENERAL
 ┌─────────────────────────────────┐
 │ Audio Language   ▸ English *     │
 │ Subtitle Language  Japanese      │
 │ Subtitle Display   Other         │
 │ OSD Language                     │
 │                                  │
 │                                  │
 │                                  │
 └─────────────────────────────────┘
  Move ◂▸   Return ↺   Select ENTER   Exit SETUP
```
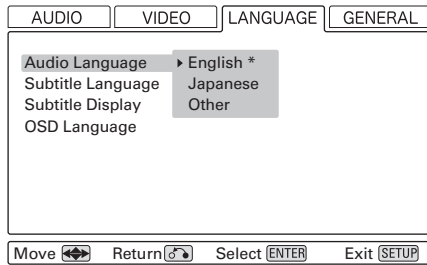
This provides an alternative to the AUDIO button for selecting alternative soundtracks. The default setting is English* but you can also select Japanese, or a number of other different languages as the audio track to be played from a multi-lingual disc.

To select a language other than English or Japanese, move the cursor to "Other" and press ENTER.

```
  AUDIO    VIDEO  LANGUAGE  GENERAL
 ┌─────────────────────────────────┐
 │ Audio Language     English *     │
 │ Subtitle Language  Japanese      │
 │ Subtitle Display ▸ Other         │
 │ OSD Language                     │
 │                                  │
 │ List of Language   en : English  │
 │ Code (0~9)         0  5  1  4     │
 └─────────────────────────────────┘
  Move ◂▸   Return ↺   Select ENTER   Exit SETUP
```

If you select the List of Language field, you see a list of ten relatively common languages. Select from this list by moving the cursor and pressing ENTER.

If the language you want is not listed here, but is listed on page 35, move the cursor to the Code (0 - 9) field (all numbers are reset as dashes) and use the number buttons to enter the four-digit code for that language. Press ENTER when done.

● If the selected language is not available on the disc, the first language of the disc is played.

Subtitle language selection

[LANGUAGE → Subtitle Language]

```
  AUDIO    VIDEO  LANGUAGE  GENERAL
 ┌─────────────────────────────────┐
 │ Audio Language                   │
 │ Subtitle Language ▸ English *    │
 │ Subtitle Display    Japanese     │
 │ OSD Language        Other        │
 │                                  │
 │                                  │
 │                                  │
 └─────────────────────────────────┘
  Move ◂▸   Return ↺   Select ENTER   Exit SETUP
```
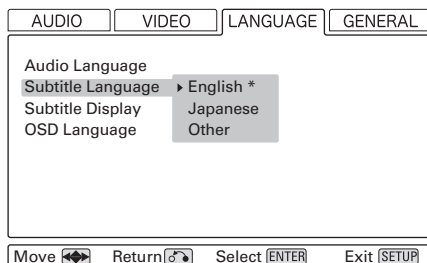
This provides an alternative to the SUBTITLE button for selecting alternative subtitle languages. The default setting is English* but you can also select Japanese, or a number of other different languages for the subtitles to be displayed.

To select a language other than English or Japanese, move the cursor to Other and press ENTER.

If you select the List of Language field, you see a list of ten relatively common languages. Select from this list by moving the cursor and pressing ENTER.

If the language you want is not listed here, but is listed on page 35, move the cursor to the Code (0 - 9) field (all numbers are reset as dashes) and use the number buttons to enter the four-digit code for that language. Press ENTER when done.

● If the selected language is not available on the disc, the first subtitle language of the disc is used.

Displaying subtitles

[LANGUAGE → Subtitle Display]

```
  AUDIO    VIDEO  LANGUAGE  GENERAL
 ┌─────────────────────────────────┐
 │ Audio Language                   │
 │ Subtitle Language                │
 │ Subtitle Display  ▸ ON *         │
 │ OSD Language        OFF          │
 │                                  │
 │                                  │
 │                                  │
 └─────────────────────────────────┘
  Move ◂▸   Return ↺   Select ENTER   Exit SETUP
```
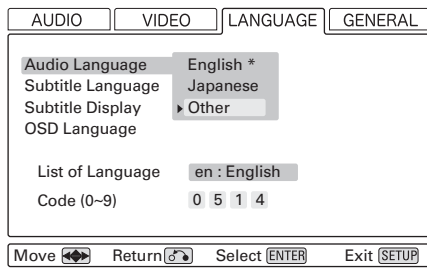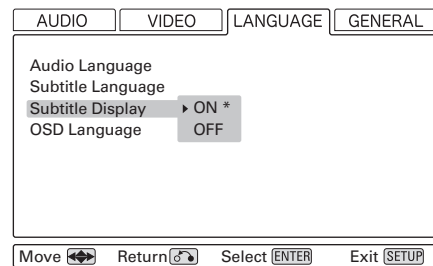
This turns subtitling ON* or OFF.
Note that the captions on some disks cannot be turned off.

On-screen display language

[LANGUAGE → OSD Language]

```
  AUDIO    VIDEO  LANGUAGE  GENERAL
 ┌─────────────────────────────────┐
 │ Audio Language                   │
 │ Subtitle Language                │
 │ Subtitle Display                 │
 │ OSD Language     ▸ English *     │
 │                    Japanese      │
 │                                  │
 │                                  │
 └─────────────────────────────────┘
  Move ◂▸   Return ↺   Select ENTER   Exit SETUP
```
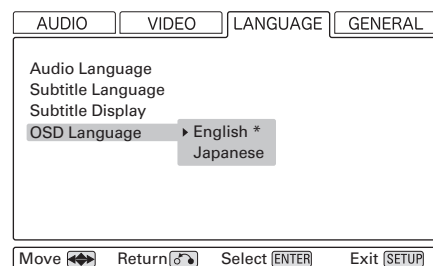
There are two choices here: English* and Japanese.

NOTE: If the unit is set to Japanese and you find it impossible to read the menu settings, etc., you can restore all the factory default settings, and the menus will appear in English again (all other settings will be wiped out. Alternatively, press SETUP, navigate to the third tab (言語), move down to "OSD 言語 " and select the first option " 英語 (English)".

Language Code List

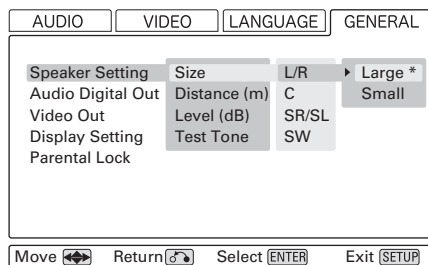| Language	Code	Language	Code	Language	Code
Japanese (ja)	1001	Guarani (gn)	0714	Pashto, Pushto (ps)	1619
English (en)	0514	Gujarati (gu)	0721	Quechua (qu)	1721
French (fr)	0618	Hausa (ha)	0801	Rhaeto-Romance (rm)	1813
German (de)	0405	Hindi (hi)	0809	Kirundi (rn)	1814
Italian (it)	0920	Croatian (hr)	0818	Romanian (ro)	1815
Spanish (es)	0519	Hungarian (hu)	0821	Kinyarwanda (rw)	1823
Chinese (zh)	2608	Armenian (hy)	0825	Sanskrit (sa)	1901
Dutch (nl)	1412	Interlingua (ia)	0901	Sindhi (sd)	1904
Portuguese (pt)	1620	Interlingue (ie)	0905	Sangho (sg)	1907
Swedish (sv)	1922	Inupiak (ik)	0911	Serbo-Croatian (sh)	1908
Russian (ru)	1821	Indonesian (in)	0914	Sinhalese (si)	1909
Korean (ko)	1115	Icelandic (is)	0919	Slovak (sk)	1911
Greek (el)	0512	Hebrew (iw)	0923	Slovenian (sl)	1912
Afar (aa)	0101	Yiddish (ji)	1009	Samoan (sm)	1913
Abkhazian (ab)	0102	Javanese (jw)	1023	Shona (sn)	1914
Afrikaans (af)	0106	Georgian (ka)	1101	Somali (so)	1915
Amharic (am)	0113	Kazakh (kk)	1111	Albanian (sq)	1917
Arabic (ar)	0118	Greenlandic (kl)	1112	Serbian (sr)	1918
Assamese (as)	0119	Cambodian (km)	1113	Siswati (ss)	1919
Aymara (ay)	0125	Kannada (kn)	1114	Sesotho (st)	1920
Azerbaijani (az)	0126	Kashmiri (ks)	1119	Sundanese (su)	1921
Bashkir (ba)	0201	Kurdish (ku)	1121	Swahili (sw)	1923
Byelorussian (be)	0205	Kirghiz (ky)	1125	Tamil (ta)	2001
Bulgarian (bg)	0207	Latin (la)	1201	Telugu (te)	2005
Bihari (bh)	0208	Lingala (ln)	1214	Tajik (tg)	2007
Bislama (bi)	0209	Laothian (lo)	1215	Thai (th)	2008
Bengali (bn)	0214	Lithuanian (lt)	1220	Tigrinya (ti)	2009
Tibetan (bo)	0215	Latvian (lv)	1222	Turkmen (tk)	2011
Breton (br)	0218	Malagasy (mg)	1307	Tagalog (tl)	2012
Catalan (ca)	0301	Maori (mi)	1309	Setswana (tn)	2014
Corsican (co)	0315	Macedonian (mk)	1311	Tonga (to)	2015
Czech (cs)	0319	Malayalam (ml)	1312	Turkish (tr)	2018
Welsh (cy)	0325	Mongolian (mn)	1314	Tsonga (ts)	2019
Danish (da)	0401	Moldavian (mo)	1315	Tatar (tt)	2020
Bhutani (dz)	0426	Marathi (mr)	1318	Twi (tw)	2023
Esperanto (eo)	0515	Malay (ms)	1319	Ukrainian (uk)	2111
Estonian (et)	0520	Maltese (mt)	1320	Urdu (ur)	2118
Basque (eu)	0521	Burmese (my)	1325	Uzbek (uz)	2126
Persian (fa)	0601	Nauru (na)	1401	Vietnamese (vi)	2209
Finnish (fi)	0609	Nepali (ne)	1405	Volapük (vo)	2215
Fiji (fj)	0610	Norwegian (no)	1415	Wolof (wo)	2315
Faroese (fo)	0615	Occitan (oc)	1503	Xhosa (xh)	2408
Frisian (fy)	0625	Oromo (om)	1513	Yoruba (yo)	2515
Irish (ga)	0701	Oriya (or)	1518	Zulu (zu)	2621
Scots-Gaelic (gd)	0704	Panjabi (pa)	1601		
Galician (gl)	0712	Polish (pl)	1612		

Use these speaker setup menus when the i.LINK (AUDIO) terminal is connected to a surround sound amplifier with a decoder, and when you don't use the speaker menus of the amplifier.

There is no need for this setup when not using the i.LINK (AUDIO) terminal, or when you use the speaker menus of the amplifier. In this case, leave this setup as it is (factory settings).

● This setup has an effect on the sound output from the i.LINK (AUDIO) terminal and the AUDIO OUT terminals when the Analog Out setting is set to "Multi Channel".
● In the following cases, the settings made here are ignored:
  • When the Analog Out setting is set to "2ch".
  • Play a DVD-Video with the i.LINK output set to "i.60958".

Speaker Size

[GENERAL → Speaker Setting → Size]

AUDIO	VIDEO	LANGUAGE	GENERAL

Speaker Setting	Size	L/R	▶ Large *
Audio Digital Out	Distance (m)	C	Small
Video Out	Level (dB)	SR/SL	
Display Setting	Test Tone	SW	
Parental Lock			

Move ◄► Return ↻ Select ENTER Exit SETUP

Select the size (Large* or Small) independently for the L/R (front pair of speakers), the C (center speaker) and the SR/SL (surround pair of speakers). Turn the subwoofer (SW) ON* or OFF (if you have no subwoofer).

Large *
Select this when the connected speakers can fully reproduce bass frequencies.

Small
Select this when the connected speakers are rather small and cannot reproduce bass frequencies.
When this setting is selected, bass frequencies are output from the subwoofer (if no subwoofer is connected, from the front speakers).

OFF
Select this when no speaker is connected. The sound is output from the front (or surround) speakers.
● When the front speaker is set to "Small", the subwoofer is set to "ON" automatically. You cannot set the subwoofer "OFF".

ON (subwoofer only)
Select this when a powered subwoofer is connected.

● For the center and surround pair options, if these speakers are not physically present, you can select OFF to prevent any output from those channels (you cannot turn off the front L/R pair). Any speakers turned off will downmix (if this option is selected) to the other enabled channels.
● Turning downmix on and off may affect the overall volume.

Speaker distance

[GENERAL → Speaker Setting → Distance]

Ideally, the speakers should be placed so that they are all the same distance from the listening position. If this is not possible, you should use this method described here to adjust them individually. It is also possible to adjust all distances together. The point of these settings is to provide the best synchronization between sound and image by delaying the sound by an appropriate amount. The subwoofer is not included in this setting (the placement of the subwoofer is less critical than that of other speakers).

AUDIO	VIDEO	LANGUAGE	GENERAL

Speaker Setting	Size		
Audio Digital Out	Distance (m)	L/R	3.0
Video Out	Level (dB)	C	3.0
Display Setting	Test Tone	SR/SL	3.0
Parental Lock			

Move ◄► Return ↻ Select ENTER Exit SETUP
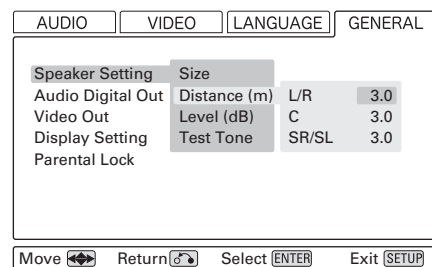
The L/R setting changes the distance of all speakers together. Pressing the up button adds 0.1m to each value, and pressing the down button subtracts 0.1m from each value.
Distances are measured in meters (1 meter = just over 3 feet, and 0.1 meter = about 4 inches).

Carry out this operation first before setting the other speaker distances.

After setting the L/R, C and SR/SL speaker distances together, you can now set the center and surround pair distances. The minimum distance for these is 0m and the maximum is 9m, with the additional restrictions described here.

● The distance that you set for the center speaker cannot be greater than the distance set for the L/R pair and must be within 1.7m of that L/R distance.
So for example, if the distance to the L/R pair is set to 5.0m, the center distance must be between 3.3m (5 - 1.7) and 5m.

● The distance that you set for the SR/SL surround pair cannot be greater than the distance set for the L/R pair (and must be within 9m of that distance).
So with the L/R pair set at 5m, the SR/SL pair distance can be set from 0m to 5m.

Speaker levels

[GENERAL → Speaker Setting → Level]

Use this to set the relative levels of the speakers. You can set the L/R pair together, and the center, and surround rear pair independently, as well as the subwoofer. The maximum value you can set here is 0dB and the minimum is −12dB, with settings made in 0.5dB increments. The default setting is each speaker channel set to 0dB.

1. **When you are ready to start, highlight the "Test Start" and press the ENTER button.**

```
 ┌─────────┐┌───────┐┌──────────┐┌─────────┐
 │ AUDIO   ││ VIDEO ││ LANGUAGE ││ GENERAL │
 └─────────┘└───────┘└──────────┘└─────────┘
  Speaker Setting    Size
  Audio Digital Out  Distance (m)   L/R      0.0
  Video Out          Level (dB)     C        0.0
  Display Setting    Test Tone      SR       0.0
  Parental Lock                     SL       0.0
                                    SW       0.0
                                    Test Start

  Move ◄◆►   Return ↺   Select ENTER   Exit SETUP
```
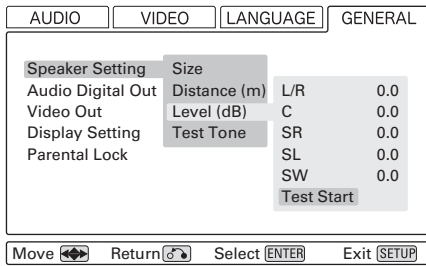
The unit outputs test tone from each channel in turn at the specified level for each channel.

● Test tone at very high levels may not be good for your speakers. Make sure the level of your system is turned down to a reasonable level before carrying out this operation.
● Test tone from subwoofer may be nearly inaudible. Check the level of subwoofer using source material containing low frequency sound.
● The unit won't output test tone when "i.60958" is selected. Select "i.PCM" to use test tone (see page 42).
● The unit won't output test tone when an SACD disc is (or had been) loaded. In this case, remove the disc, turn the unit off and on, and try again.

2. **Adjust the levels and continue using the test tone as necessary until you are happy with the balance.**

```
 ┌─────────┐┌───────┐┌──────────┐┌─────────┐
 │ AUDIO   ││ VIDEO ││ LANGUAGE ││ GENERAL │
 └─────────┘└───────┘└──────────┘└─────────┘
  Speaker Setting    Size
  Audio Digital Out  Distance (m)   L/R      0.5
  Video Out          Level (dB)     C        0.0
  Display Setting    Test Tone      SR       0.0
  Parental Lock                     SL       0.0
                                    SW       0.0
                                    Test Start

  Move ◄◆►   Return ↺   Select ENTER   Exit SETUP
```
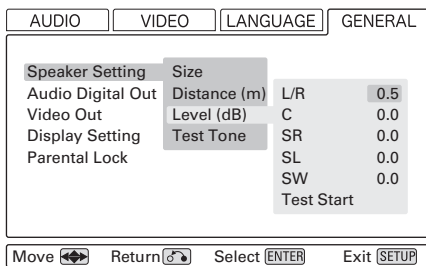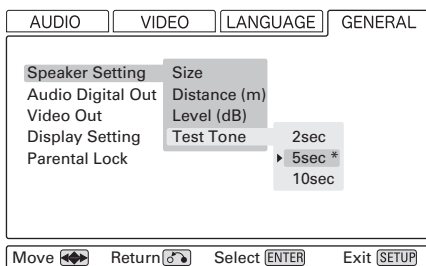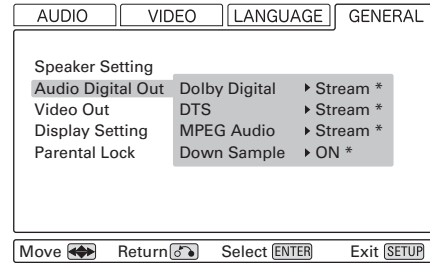
Test tone length

[GENERAL → Speaker Setting → Test Tone]

```
 ┌─────────┐┌───────┐┌──────────┐┌─────────┐
 │ AUDIO   ││ VIDEO ││ LANGUAGE ││ GENERAL │
 └─────────┘└───────┘└──────────┘└─────────┘
  Speaker Setting    Size
  Audio Digital Out  Distance (m)
  Video Out          Level (dB)
  Display Setting    Test Tone    2sec
  Parental Lock               ▸   5sec *
                                  10sec

  Move ◄◆►   Return ↺   Select ENTER   Exit SETUP
```

Select the Test Tone menu item, and choose between 2, 5* and 10 seconds. This represents the length of time that the test tone is output from each speaker when Test Start is selected.

Digital output formats

[GENERAL → Audio Digital Out]

```
 ┌─────────┐┌───────┐┌──────────┐┌─────────┐
 │ AUDIO   ││ VIDEO ││ LANGUAGE ││ GENERAL │
 └─────────┘└───────┘└──────────┘└─────────┘
  Speaker Setting
  Audio Digital Out  Dolby Digital   ▸ Stream *
  Video Out          DTS             ▸ Stream *
  Display Setting    MPEG Audio      ▸ Stream *
  Parental Lock      Down Sample     ▸ ON *

  Move ◄◆►   Return ↺   Select ENTER   Exit SETUP
```

Use this to select the format of different digital audio types for different purposes, as detailed below:

Dolby Digital

Select either "Stream" for use with Dolby Digital compatible amplifiers or "PCM" for use when connecting to a CD recorder, MD deck, etc.

dts

Select either "Stream" for connection to a dts-compatible amplifier, or "PCM" for use with more general equipment. Do not select the Stream option when connecting to non-dts-compatible equipment.

MPEG Audio

Select either "Stream" for connection to an MPEG-compatible amplifier, or "PCM" for use with more general equipment.

Down Sample

Enable (ON*) or disable (OFF) downsampling. That is, all digital signals are converted, and output at 48kHz or 44.1kHz. Use this if your amplifier does not have 96kHz/88.2kHz capability.

Note that even when downsampling is turned off, some discs are automatically downsampled to 48kHz or 44.1kHz.
Also note that even when downsampling is turned off, all discs with sampling frequencies of 192kHz or 176.4kHz are always downsampled to 96kHz or 88.2kHz respectively.

37

```
┌─────────┬───────┬──────────┬─────────┐
│ AUDIO   │ VIDEO │ LANGUAGE │ GENERAL │
└─────────┴───────┴──────────┴─────────┘

  Speaker Setting
  Audio Digital Out   TV Screen      ▶ 16 : 9 *
  Video Out           S-Video Out    ▶ S2 *
  Display Setting     Comp. Video    ▶ Interlace *
  Parental Lock       PL-NT Conv.    ▶ OFF *
                      Caption        ▶ OFF *
                      Still Mode     ▶ Auto *

  Move ◀▶   Return ↩   Select ENTER   Exit SETUP
```
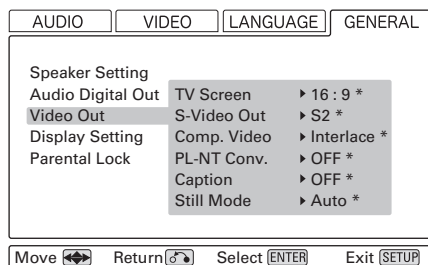
This menu item contains a number of different options, all concerned with the video output from the unit.

TV screen

[GENERAL → Video Out → TV Screen]

Because the shape of the television or monitor may not match the shape of the movie frame, you may need to change the way in which the image is displayed to avoid distortion on older televisions, which use a 4:3 aspect ratio; high-definition televisions use 16:9 (as do movies).

Note that you may need to read your television's manual in conjunction with this section in order to achieve the best results. Some discs do not allow the aspect ratio to be changed and you will therefore have to change the aspect ratio on the TV.
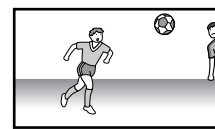
Make this setting while playback is stopped; you cannot do this while playing back a disc.

16:9 *

Use with a 16:9 wide television.

4:3 picture   16:9 picture

4:3LB (Letterbox)

This mode is used with 4:3 televisions. 4:3 images are displayed normally. 16:9 images are visible at their full width, but a blank area is left at the top and bottom of the screen.

4:3 picture   16:9 picture

4:3PS (Pan & Scan)

This mode is used with 4:3 televisions. 4:3 images are displayed normally. When showing 16:9 programs, the full height of the screen is used, but the left and right part of the image are cut off.
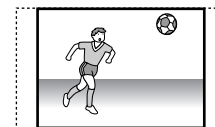
4:3 picture   16:9 picture

S-Video output

[GENERAL → Video Out → S-Video Out]

If a television is connected using the S-Video output, the signal can be set to change the aspect ratio of the television automatically.

S1

The aspect ratio information (16:9 and 4:3) is included in the S1-Video signal.

S2*:

In addition to the information of S1, "4:3 Letterbox" information is included in the S2-Video signal. If your wide-screen television is compatible with S2-Video, correct aspect ratio will be selected automatically.

● If the picture is stretched or distorted, select "S1".

Component video output

[GENERAL → Video Out → Comp. Video]

This setting allows the selection of interlaced (Interlace*) or progressive-scan (Progressive) video from the component video outputs.
Progressive-scan video provides a better, clearer picture. However, it is not supported by every television or monitor, and you should ensure that this is supported fully before turning on this option.

● When your TV isn't compatible with progressive scan, never select "Progressive". No picture will be shown on the monitor.
In case you select "Progressive" by mistake, connect your TV via the VIDEO OUT jack or S-VIDEO jack to display the Setup menu and change the setting to "Interlace", or initialize the settings (see page 7).

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

PAL-NTSC conversion

[GENERAL → Video Out → PL-NT Conv.]

This allows you to play back and show NTSC discs on PAL equipment, or the other way round. There are three options:

OFF*
PAL discs can only be shown on PAL equipment, and NTSC discs can only be shown on NTSC equipment. Use this setting to produce the best possible picture, by playing each type of disc on the appropriate equipment.

PAL>NTSC
PAL discs can be displayed on NTSC equipment. The bottom part of the picture is cut off, and the height is elongated.

NTSC>PAL
NTSC discs can be played back on PAL equipment. The height of the picture is reduced.

Closed captioning

[GENERAL → Video Out → Caption]

The unit can play back DVD discs which include closed captioning information and show the closed captions (on a suitably-equipped television).
Turn this function either ON or OFF*.

Still mode

[GENERAL → Video Out → Still Mode]

There are three options to enable different still modes for DVD, depending on whether a movie or other type of video is being played back. This setting determines the clearest still picture obtained when the DVD playback is paused.

Auto*
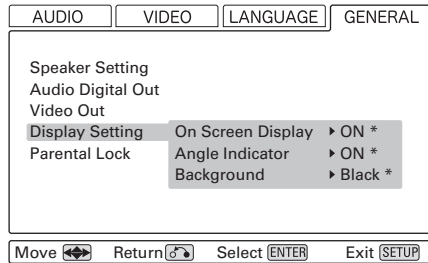Automatically chooses between field and frame modes.

Field
Usually provides a sharp still picture. But depending on the disc, the image might be shaky even when "Field" is selected.

Frame
Usually provides a better still picture with movie DVDs.

Settings (General/Display)

```
┌────────┬───────┬──────────┬─────────┐
│ AUDIO  │ VIDEO │ LANGUAGE │ GENERAL │
├────────┴───────┴──────────┴─────────┤
│                                     │
│ Speaker Setting                     │
│ Audio Digital Out                   │
│ Video Out                           │
│ Display Setting   On Screen Display  ▸ ON *
│ Parental Lock     Angle Indicator    ▸ ON *
│                   Background         ▸ Black *
│                                     │
│                                     │
├─────────────────────────────────────┤
│ Move ⬌  Return ↩  Select ENTER  Exit SETUP │
└─────────────────────────────────────┘
```

On-screen display

[GENERAL → Video Out → On Screen Display]

When a button is pressed and this setting is ON*, the screen shows that button's name and/or icon, etc. Turn this OFF if you do not need this kind of on-screen display.

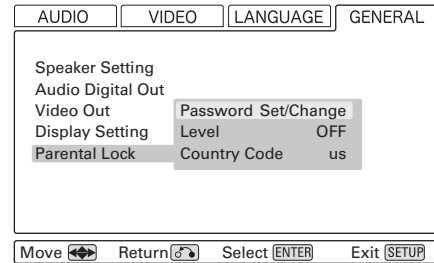### Angle indication

[GENERAL → Video Out → Angle Indicator]

For discs which support different angles (see page 23), this allows the angle indicator mark to be displayed (ON*) or not (OFF) when an alternative angle is available on the section of the disc being played back.

Background color

[GENERAL → Video Out → Background]

When the disc is stopped, this sets the background color of the screen. Choose between Black*, Gray and Blue.

Parental Control

```
┌────────┬───────┬──────────┬─────────┐
│ AUDIO  │ VIDEO │ LANGUAGE │ GENERAL │
├────────┴───────┴──────────┴─────────┤
│                                     │
│ Speaker Setting                     │
│ Audio Digital Out                   │
│ Video Out         Password Set/Change
│ Display Setting   Level         OFF │
│ Parental Lock     Country Code   us │
│                                     │
│                                     │
├─────────────────────────────────────┤
│ Move ⬌  Return ↩  Select ENTER  Exit SETUP │
└─────────────────────────────────────┘
```

It is possible to protect the playback of discs containing material unsuitable for viewing by children which parents do not wish their children to view, as DVD discs can contain information regarding their suitability for children recorded on them. Such levels may vary from country to country, and this unit allows such variable restrictions.
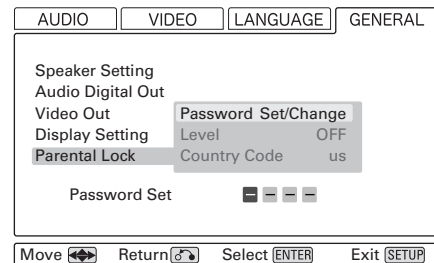
Before a disc protected in this way can be played back on the unit, it is necessary to enter a password which temporarily changes the level to a more "relaxed" value.

These different levels of protection also allow you to change the levels of protection as your children grow up, for example.

NOTE: If the user settings are reset, the password (and hence parental control) is disabled.

Setting the password

[GENERAL → Parental Lock → Password Set/Change]

```
┌────────┬───────┬──────────┬─────────┐
│ AUDIO  │ VIDEO │ LANGUAGE │ GENERAL │
├────────┴───────┴──────────┴─────────┤
│                                     │
│ Speaker Setting                     │
│ Audio Digital Out                   │
│ Video Out         Password Set/Change
│ Display Setting   Level         OFF │
│ Parental Lock     Country Code   us │
│                                     │
│           Password Set   ▪ ▪ ▪ ▪    │
├─────────────────────────────────────┤
│ Move ⬌  Return ↩  Select ENTER  Exit SETUP │
└─────────────────────────────────────┘
```
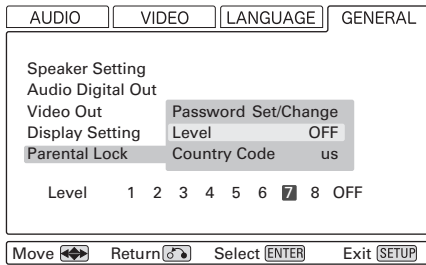
The first time that you use the unit (or the first time that you use the unit after resetting to factory settings), other parental lock options are disabled. All you can do is enter a 4-digit password using the number buttons on the remote control unit.

Enter this number (and remember it!), as you will need it to change the level of control in the future as well as to temporarily unlock discs for playback.

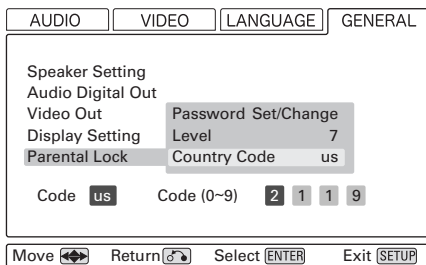## Setting the level of control

[GENERAL → Parental Lock → Level]

```
┌──────────────────────────────────────────┐
│ AUDIO    VIDEO   LANGUAGE   GENERAL        │
│                                            │
│  Speaker Setting                           │
│  Audio Digital Out                         │
│  Video Out          Password Set/Change    │
│  Display Setting    Level          OFF     │
│  Parental Lock      Country Code    us     │
│                                            │
│     Level    1  2  3  4  5  6  [7]  8  OFF │
│                                            │
│ Move ◄►   Return ↻   Select ENTER   Exit SETUP │
└──────────────────────────────────────────┘
```

Once a password has been entered, you can enter a control level, ranging from 1 (strict control) through 8 (much less strict) to OFF* (no control at all).

When Level is selected, you must make the selection within 30 seconds. Press ENTER to confirm the setting.

Country Code

[GENERAL → Parental Lock → Country Code]

```
┌──────────────────────────────────────────┐
│ AUDIO    VIDEO   LANGUAGE   GENERAL        │
│                                            │
│  Speaker Setting                           │
│  Audio Digital Out                         │
│  Video Out          Password Set/Change    │
│  Display Setting    Level            7     │
│  Parental Lock      Country Code    us     │
│                                            │
│   Code [us]     Code (0~9)   [2] 1 1 9      │
│                                            │
│ Move ◄►   Return ↻   Select ENTER   Exit SETUP │
└──────────────────────────────────────────┘
```

As well as the level, you can change the country to which the level applies. Select the Country code option, enter the 4-digit country code and press ENTER. The two-letter country code changes.

Playing a controlled disc

If you then attempt to play a disc whose level is greater than the level you have set, the disc shows a screen which explains that the disc cannot be played with this level of control. Following the on-screen instructions, you will be prompted to turn off the level, temporarily while the disc is being played. Enter the 4-digit password, and then press ENTER. The disc can then be played.

If you eject the disc or turn off the unit with the disc inserted, the password to play back the disc is "forgotten" by the unit. To play the disc again, you must enter the password again.

Resetting the password

You can reset the password at any time. Choose the Password Set/Change option, enter the old password and then enter the new password (number buttons).

Country	Input Code	Country Code
ARGENTINA	0118	ar
AUSTRALIA	0121	au
AUSTRIA	0120	at
BELGIUM	0205	be
BRAZIL	0218	br
CANADA	0301	ca
CHILE	0312	cl
CHINA	0314	cn
DENMARK	0411	dk
FINLAND	0609	fi
FRANCE	0618	fr
GERMANY	0405	de
HONG KONG	0811	hk
INDIA	0914	in
INDONESIA	0904	id
ITALY	0920	it
JAPAN	1016	jp
KOREA, REPUBLIC OF	1118	kr
MALAYSIA	1325	my
MEXICO	1324	mx
NETHERLANDS	1412	nl
NEW ZEALAND	1426	nz
NORWAY	1415	no
PAKISTAN	1611	pk
PHILIPPINES	1608	ph
PORTUGAL	1620	pt
RUSSIAN FEDERATON	1821	ru
SINGAPORE	1907	sg
SPAIN	0519	es
SWITZERLAND	0308	ch
SWEDEN	1905	se
TAIWAN, PROVINCE OF CHINA	2023	tw
THAILAND	2008	th
UNITED KINGDOM	0702	gb
UNITED STATES OF AMERICA	2119	us

When the i.LINK (AUDIO) terminal is connected to an amplifier or a D/A converter, select proper i.LINK output setting.
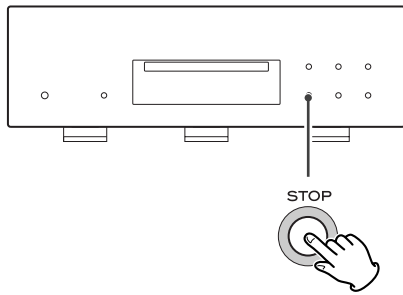
STOP

When playback is stopped, hold down the STOP button for more than 2 seconds and release it when "i.60958", "i.PCM" or "i.OFF" appears on the display.
Each time the STOP button is pressed for 2 seconds, the output setting changes.

When using the i.LINK terminal, select "i.60958" or "i.PCM", and set the Digital Output setting to "ON".

i.60958

When the disc is DVD-video/VCD/CD, the digital signal is output in the format (Stream or PCM) you set in the Audio Digital Out (see page 37).
● DSD signal is output during playback of a SACD disc, and linear PCM digital signal during playback of a DVD-Audio disc.

i.PCM

Linear PCM digital signal is output when the disc is DVD-video/VCD/CD.
Dolby Digital/DTS/MPEG signals are converted into linear PCM.
When the i.LINK (AUDIO) terminal is connected a component without a Dolby Digital/DTS/MPEG decoder, select "i.PCM".

● Some amplifiers may regard this signal as DVD-Audio.
● DSD signal is output during playback of a SACD disc, and linear PCM digital signal during playback of a DVD-Audio disc.

i.OFF

Select this when you don't use the i.LINK (AUDIO) terminal.
No signal is output from the i.LINK (AUDIO) terminal.

● There is no difference between i.60958 and i.PCM as far as SACD or DVD-Audio disc playback is concerned.
● Set the Analog Out setting to "Multi channel" to output the surround sound from a DVD-Audio and SACD disc.
When the Analog Out setting is set to "2ch", the multi-channel sound is downmixed to 2 channels.
● In case you experience any problem with the audio output, read the instructions of the connected component to check the adaptable format.
If the connected component cannot accept 4% down signal, set the 4% down mode off.

Flow Status

While the display shows "i.60958" or "i.PCM", repeatedly press the STOP button to turn ON or OFF the flow status.

If the component connected via the i.LINK terminal is compatible with the flow rate control, and if you set the flow status of the UX-3 ON, the connected component will work in the flow rate control mode.

● Though the flow status function of the UX-3 is not same as the flow rate control, RAM buffer of the connected component will absorb clock differences and control the flow rate using the clock of the connected component.

● In the following cases, set the flow status OFF:
• The connected component isn't compatible with the flow rate control.
• Though the connected component is compatible with the flow rate control, the flow rate control doesn't work properly with this unit.
• Sound skips.

● During playback of a video source, the flow status is automatically set to OFF to keep the synchronization of audio and video.

● When the flow status is set to ON, "i.60958 FL" or "i.PCM FLOW" will appear on the display instead of "i.60958" or "i.PCM".

The i.LINK is also known as IEEE 1394, an international specification.

This unit is ready for i.LINK (AUDIO).

By connecting an i.LINK (AUDIO)-capable device to the IEEE 1394 (or i.LINK (AUDIO) terminal on this unit using an i.LINK cable, you can transmit SACD multi-channel signals that could not be transmitted but in analog format in the past can be transmitted in its original digital format, in addition to the capability of transmitting 2-ch linear PCM data and multi-channel compressed audio signals.

If you have multiple i.LINK-capable devices, you can connect them through other devices to transmit data between them, so you don't need to be concerned with the order of connection.

Copyright protection system DTCP

To play back audio sounds recorded on SACD or DVD discs using i.LINK, both the player and the D/A converter need to be ready for the copyright protection system DTCP (Digital Transmission Content Protection).

This unit is ready for DTCP.

Data transfer rate

There are three transfer rates: 100 Mbps (S100), 200 Mbps (S200), and 400 Mbps (S400). This unit is capable of transferring data at a maximum 400Mbps.

For connection to an i.LINK-capable device, use a commercially available S400-compliant 6-pin i.LINK cable.

When connecting multiple i.LINK-capable devices, avoid connecting a device having slow transfer rate between devices having high transfer rate since this reduces the transfer rate of your whole system. Connect devices having high transfer rate towards the source as far upriver as possible.

NOTES
● Among the i.LINK formats there are "MPEG-2 TS" for BS digital source and "DV" for digital video for DVD recorders, as well as the "i.LINK (AUDIO)" (A&M Protocol). Never connect devices that are not ready for i.LINK (AUDIO) to this unit. If you do, this unit and others may get out of order or be damaged.

● In the process of data transfer, avoid plugging/unplugging the i.LINK cables in use or switch on/off the power.

● Among the i.LINK-capable devices there are some that, if not turned on, are not capable of relaying data.

● Chances are some i.LINK-capable devices will not respond to this unit's command.

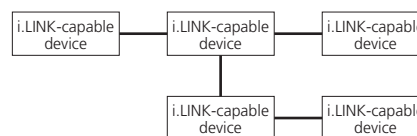## How to connect multiple i.LINK-capable devices

Daisy chain connection

You can daisy-chain up to 17 devices including this unit.
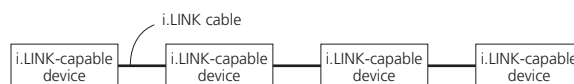
Connection in tree structure

If you are using a device having three or more i.LINK connectors, you may want to get the connection branched out. This way of connection allows you to connect up to 17 devices including this unit.

Your system does not work if data is fed back to the output device. Be careful not to create a loop.
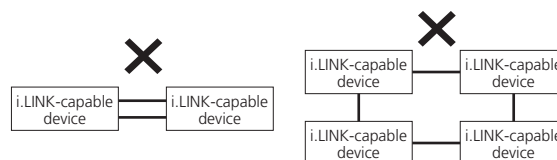
The i.LINK interface of this unit is designed in accordance with the following specifications:

1) IEEE Std 1394a-2000, Standard for a High Performance Serial Bus
2) Audio and Music Data Transmission Protocol 2.0

This unit is compliant with IEC 60958 bitstream, DVD-Audio, SACD in the AM824 sequence adaptation layers of this protocol.

The i.LINK logo is a trademark of Sony Corporation, registered in the U.S. and other countries.

In case you experience any problem with this unit, please take the time to look through this chart and see if you can solve the problem yourself before you call your dealer.

No power
➡ Check the connection to the AC power supply. Check and make sure the AC source is not a switched outlet and that, if it is, the switch is turned on. Make sure there is power to the AC outlet by plugging another item such as a lamp or fan.
➡ Press the POWER switch of the main unit to turn it on.

Remote control doesn't work.
➡ Press the POWER switch of the main unit to turn it on.
➡ If the batteries are dead, change the batteries.
➡ Use remote control unit within the range (5m /15ft) and point at the front panel.
➡ Clear obstacles between the remote control unit and the main unit.
➡ If a strong light is near the unit, turn it off.

Severe hum or noise is heard.
➡ Place the unit as far away from a TV as possible.
➡ Make sure the line cords and speaker cables are as far away from the AC supply as possible.

Will not play.
➡ Reload the disc with the label side UP.
➡ This unit cannot play such discs as CD-ROMs. Use a playable disc (see page 9).
➡ If the disc is dirty, clean the surface of the disc.
➡ A blank disc has been loaded. Load a prerecorded disc.
➡ Check the region code of the DVD (see page 8).
➡ If the unit is condensed, leave the unit for one or two hours with the power turned on (see page 43).

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

Settings are canceled.
➡ When the power is suddenly cut due to power failure or by unplugging the power cord, settings will be cancelled. Be sure to turn the unit off by pressing the POWER switch before unplugging the power cord.

Cannot access some setup menu items.
➡ Although it is possible to enter the setup screen while playback is continuing (or in resume mode), not all menu functions will be available. Expand the number of available functions by pressing the STOP button twice (see page 30).

Scanning stops.
➡ Scanning does not work within menus.

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

There is no sound or only a very low-level sound is heard.
➡ Check that the amplifier and speakers are connected securely.
➡ Check the operation of the amplifier.
➡ Check the audio output setting (see page 31).
➡ When the amplifier is connected via the i.LINK (AUDIO) or the DIGITAL OUT terminal, set the Digital Out setting to "ON" (see page 31).
➡ The sound is muted during pause, slow-motion, fast forward/reverse, and stepping playback. Press the PLAY button to resume normal playback.

No multi-channel audio output
➡ Set the Analog Output setting to "Multi-Channel", or use the 2CH/MULTI button of the remote control unit to change the settings (see page 31).
➡ Change the speaker configuration if necessary (see page 36).
➡ For digital multi-channel output, you must use a multi-channel surround amplifier, and set the Audio Digital Out settings to "Stream" (see page 37).
➡ SACD and DVD audio discs may have more than one group or playback area, not all of which contain multi-channel audio data. Choose another group or playback area (see page 20).

Overall volume is low, or balance between speakers is strange
➡ A speaker's level (or that of a pair of speakers) has been set up too low or too high in the speaker setup (see page 37). Correct the levels.
➡ When the unit is downmixing multi-channel audio, the volume differs from the non-downmixed level. Use the amplifier to adjust the volume.
➡ When configuring speaker sizes, making "small" and "off" settings on speakers other than the subwoofer can affect the subwoofer volume. Adjust the level on the subwoofer itself (see page 36).

No digital audio output.
➡ Check that the Digital Out setting is set to "ON" (see page 31). When using the i.LINK (AUDIO) terminal, set the i.LINK output setting to "i.60958" or "i.PCM"(see page 42).
➡ Some DVD-Audio discs prohibit digital audio output.
➡ Digital audio from a SACD disc cannot be output from the DIGITAL OUT terminals. Use the i.LINK (AUDIO) terminal.
➡ No digital audio is output from the DIGITAL OUT terminals when playing DVD-Audio in multi-channel (other than Dolby Digital or DTS).

Digital audio recording is not possible on another device
➡ Check that the Digital Out setting is set to "ON". And the digital output format must be set to "PCM" (see page 31, 37). Set the Analog Output setting to "2ch".
➡ Copy-prohibit material cannot be copied digitally.

Cannot output 96kHz or 88.2kHz digital audio.
➡ Check that the Audio Digital Out setting is set to "Down Sample OFF" (see page 37).
➡ Some copy protected discs do not output high sampling rate digital audio.

No DTS audio output.
➡ When your amplifier is not equipped with DTS decoder, set the DTS setting to "PCM". Or press the AUDIO button to select any other audio (see page 37, 24).
➡ When playing back a DTS-CD, set the CD Digital Direct setting to "Normal" (see page 31).
➡ Check the setting of your amplifier.

Noticeable difference in DVD, CD and SACD's volume.
➡ That is because DVDs, CDs and SACDs use different recording methods.

No picture/distorted picture
➡ Check the connection to the television (monitor)
➡ Check the operating instructions for the television (monitor) to make sure that you have the right input selected, etc.
➡ Use the VIDEO ON button of the remote control unit to turn the video on (see page 27).
➡ If you are using a DVI-D connection, make sure it is configured correctly (see page 26).
➡ If you are using a component or D1/D2 connection, make sure it is configured correctly (see page 39).
➡ Make sure that the PAL-NTSC conversion setting matches the television/monitor.
➡ When your television/monitor isn't compatible with Progressive scan, never set the Component Video setting to "Progressive" (see page 39).

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

The image is distorted or monochromatic.
➡ The color system selected does not match your TV (see page 7).
➡ Adjust the aspect ratio to correspond to the television/monitor in use (see page 38).
➡ If using an S1/S2 S-Video connection, you may need to set the output signal to "S1" (see page 38).

The aspect ratio of the screen cannot be changed.
➡ The aspect ratio might be fixed by the disc.

Screen is suddenly stretched 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.

DISPLAY button doesn't work.
No message appear on the screen.
➡ Set the On Screen Display option to "ON" (see page 40).

ANGLE mark doesn't appear on the screen.
➡ Set both the Angle Indicator option and the On Screen Display option to "ON" (see page 40).

Picture and sound don't match up.
➡ Use the lip sync feature to adjust the relative timing of picture and audio (see page 25).

The CLOCK MODE button flashes and the display shows "No Word!"
➡ The word sync mode is selected, but there is no clock source. Turn the word sync mode off (see page 27).
➡ No word clock is being received. Check cables, connections, and settings of the clock generator.

The CLOCK MODE button flashes and the display shows "WRD UNLCK!"
➡ Invalid word sync signal is received. Check the setting of the clock generator.

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

Beware of condensation

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

Maintenance

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

Specifications

General

System . . . . DVD-Video, DVD-Audio, DVD-R/RW,
Video-CD, SACD, and CD
Power supply
  Europe model . . . . AC 230 V, 50 Hz
  U.S.A./Canada model. . . . . AC 120 V, 60 Hz
  Korea model . . . . AC 220 V, 60 Hz

Power consumption . . . . 40 W

Weight . . . . 23.5 kg (51-3/4 lb)
External dimensions (W x H x D) . . . . . . 442 x 153 x 353 mm
(17-3/8″ x 6″ x 13-7/8″)

Operating temperature. +5°C - +35°C
Operating humidity . . . . 5% to 85% (no condensation)
Storage temperature. –20°C - +55°C

Video Output

S-Video output (S1/S2)
  Y (luminance) - Output level . . . . 1 Vp-p (75 Ω)
  C (color) - Output level . . . . 286 mVp-p (75 Ω)
  Jacks . . . . S-VIDEO jack

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

Component video output (Y, P$_B$, P$_R$)
  Y-Output level . . . . 1.0 Vp-p (75 Ω)
  P$_B$, P$_R$-Output level . . . . 0.7 Vp-p (75 Ω)
  Jacks . . . . BNC jacks

D1/D2 video output (Y, P$_B$, P$_R$)
  Y-Output level . . . . 1.0 Vp-p (75 Ω)
  P$_B$, P$_R$-Output level . . . . 0.7 Vp-p (75 Ω)
  Jacks . . . . D terminal

DVI-D video output (HDCP compatible digital RGB)
  Jacks . . . . . DVID 24pin (conform to TMDS, single link only)

Audio output (Analog Audio)

Jacks . . . . XLR jacks (2 channel) x 1
RCA jacks (2 channel) x 1
Maximum Output level (1 kHz, full scale)
RCA: 2.5 Vrms (47 kΩ)
XLR: 2.5 Vrms (600 Ω)
Nominal Output level (1 kHz, full scale –20dB)
RCA: 250 mVrms (47 kΩ)
XLR: 250 mVrms (600 Ω)

Frequency response . . . . 5Hz - 80 kHz (DVD-Audio)
Signal-to-Noise Ratio (S/N) . . . . 112 dB (SACD, 1 kHz)
Dynamic range . . . . 106 dB (SACD, 1 kHz)
Total harmonic distortion . . . . 0.001% (SACD, 1 kHz)
Decodable format. . . . . DTS, DTS 96/24, Dolby Digital
PCM 44.1 kHz-192 kHz/16-24 bit, DSD

Audio output (Digital Audio)

OPTICAL . . . . Optical digital jack x 1, –15 to –21 dBm
COAXIAL . . . . RCA jack x 1, 0.5 Vp-p/75 Ω

Word Synchronization input format

Jack. . . . . BNC
Input level . . . . 4.5 Vp-p/75 Ω

The main unit can accept and synchronize to the following
frequencies (rectangular wave) received from external devices:
44.1kHz, 48kHz, 88.2kHz, 96kHz, 100kHz, 176.4kHz,
192kHz as well as frequencies which are 96% of these
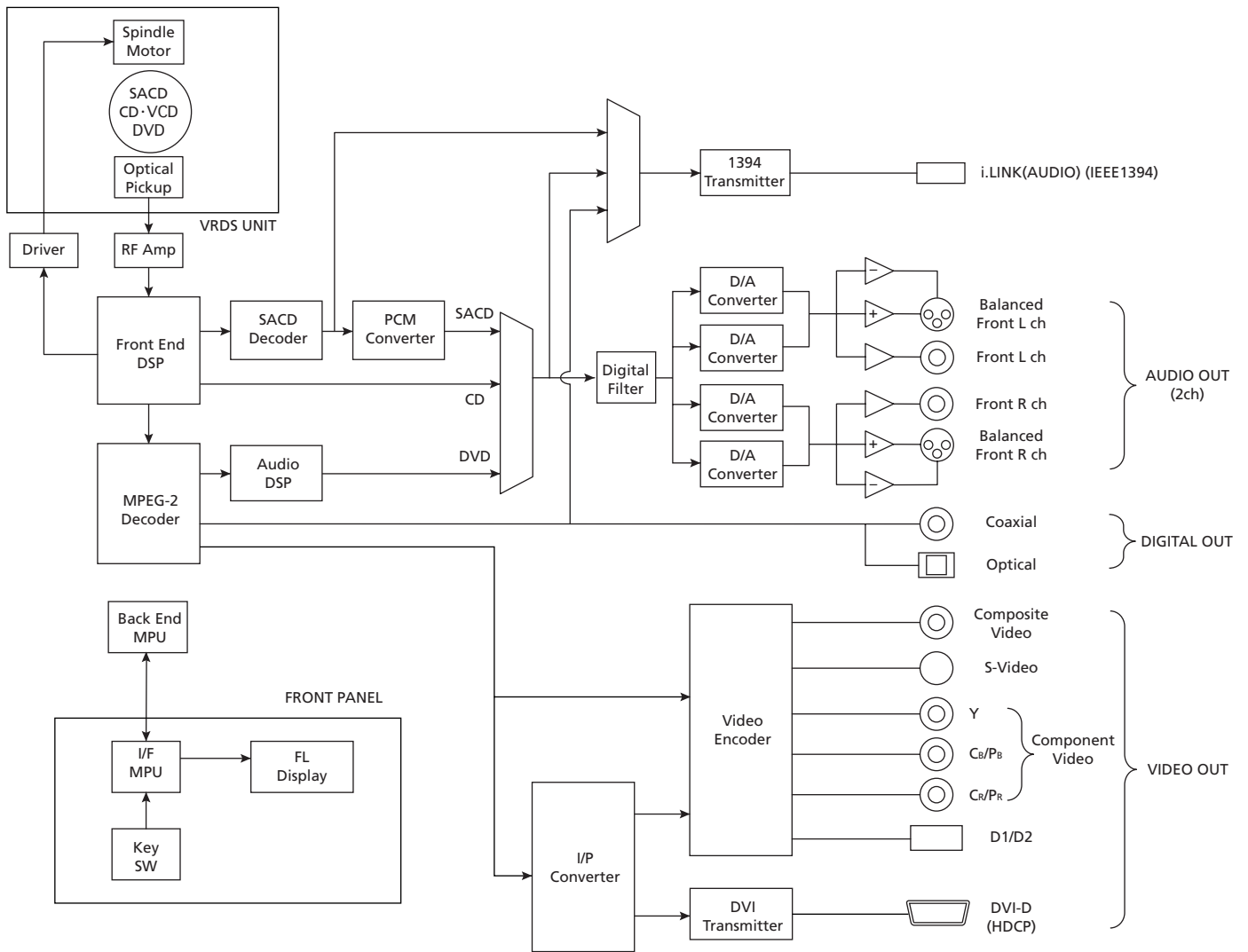values, in the 4% DOWN mode.

Accessories

Power cord x 1
Remote Control Unit (RC-942) x 1
Batteries (AA, R6 or SUM-3) x 2
Screwdriver x 1
Felt x 3
Warranty card x 1
Owner's manual x 1

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

46

ESOTERIC

This appliance has a serial number located on the rear panel. Please record
the model number and serial number and retain them for your records.

Model number   Serial number   0305·MA-0959A

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