ESOTERIC

DV-50

DVD/DVD-A/SACD/CD PLAYER

OWNER'S MANUAL 2

MANUEL DU PROPRIÉTAIRE . . . 56

SUPER AUDIO CD   TruSurround by SRS(●)   DVD AUDIO/VIDEO   NSV PRECISION VIDEO   DOLBY DIGITAL   DIGITAL dts SURROUND

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

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

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

WARNING : TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

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.
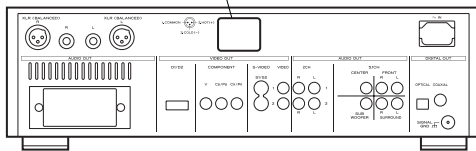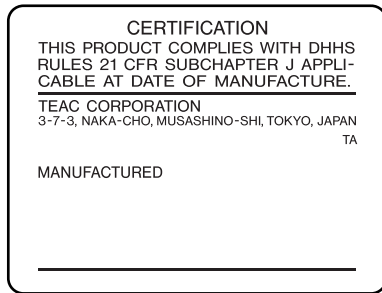
Important Safety Instructions

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 dripps 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.

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.

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CERTIFICATION
THIS PRODUCT COMPLIES WITH DHHS
RULES 21 CFR SUBCHAPTER J APPLI-
CABLE AT DATE OF MANUFACTURE.
TEAC CORPORATION
3-7-3, NAKA-CHO, MUSASHINO-SHI, TOKYO, JAPAN
                                          TA
MANUFACTURED
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Optical pickup :		
Type	:	OWY8007
Laser output	:	Less than 0.62 µW on the objective lens
Wavelength	:	790±20 nm (CD), 650±10 nm (DVD)

CAUTION

● DO NOT REMOVE THE PROTECTIVE HOUSING USING SCREWDRIVER.

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

● IF THIS PRODUCT DEVELOPS TROUBLE, MAKE A CONTACT WITH OUR SERVICEMAN, AND DO NOT USE THE PRODUCT IN A TROUBLED STATE.

For CANADA

AC POWER CORD CONNECTION

CAUTION:

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

Pour le CANADA

CORDE DE CONNEXION CA

ATTENTION:

POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

ENGLISH

Contents

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

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
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 (or) 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.

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.

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 floors, etc. you may stick the felt supplied with the unit to the bottom of the cover feet.

Pin-point foot
Bottom plate of the unit
Steel foot
Cover foot
Cover foot retaining screws
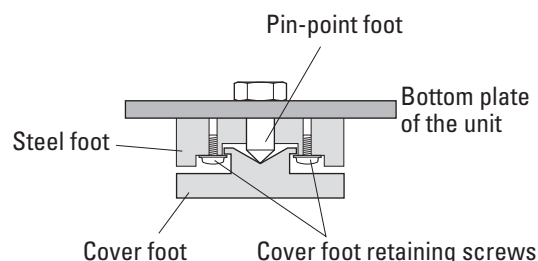
Type of Discs That Can be Played on This System

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.

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. The message, "COPY PROTECT PROGRAM, UNPLAYABLE" appears in the display during these parts of the disc.

- 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.

- Up to 20 characters of a title name can be displayed.

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.

MP3 compatibility

This player is compatible with CD-R, CD-RW and CD-ROM discs that contain MP3 audio tracks.

- File names of MP3 should be alphanumeric characters. This unit cannot display symbols and full-size or 2 bytes-wide characters (such as Japanese, Chinese, etc.) correctly. Also, be sure to use the file extension ".mp3".

- Only the first 8 characters of folder and track names (excluding the ".mp3" extension) are displayed.

- Use CD-R or CD-RW media for recording your MP3 files. The disc must be finalized in order to play.

- The CD-ROM must be ISO 9660 compatible.

- Mono or stereo MPEG-1 Audio Layer 3 format, 44.1 or 48kHz, fixed bit-rate. Incompatible files will not play and "UNPLAYABLE MP3 FORMAT" will be displayed.

- Not compatible with variable bit-rate (VBR) files.

- This player is not compatible with multi-session discs. If you try and play a multi-session disc, only the first session will be played.

- Audio encoded at 128Kbps should sound close to regular audio CD quality. Although this player will play lower bit-rate MP3 tracks, the sound quality becomes noticeably worse at lower bit-rates.

- When more than 250 MP3 files or folders are recorded on the disc, the unit might not be able to play it correctly.

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 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 discs
- discs that are dusty, soiled or marked with fingerprints

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

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

Example of Icons used on DVD discs:

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 uppermost. (Compact discs can be played or recorded only on one side.)

- To remove a disc from its storage case, press down on the center of the case and lift the disc out, holding it carefully by the edges.

How to remove the disc   How to hold the disc

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

- Never use such chemicals as record sprays, antistatic sprays or fluid, benzine or thinner to clean the discs. Such chemicals will do irreparable damage to the disc's plastic surface.

- Discs should be returned to their cases after use to avoid dust and scratches that could cause the laser pickup to "skip."

- Do not expose discs to direct sunlight or high humidity and temperature for extended periods. Long exposure to high temperatures will warp the disc.

- Do not play any disc that is warped, deformed or damaged. Playing such discs may cause irreparable harm to the playing mechanisms.

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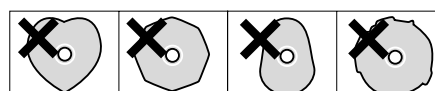
- If you are in any doubt as to the care and handling of a CD-R/CD-RW disc, read the precautions supplied with the disc, or contact the disc manufacturer directly.

Decoder

DIGITAL IN

Digital recording equipment such as CD recorder, MD deck, etc.

DIGITAL IN

Optical digital cable

RCA coaxial cable

XLR (balanced) pin numbers

1. COMMON — 2. HOT(+)

3. COLD (−)

A

XLR (BALANCED) R   R   L   XLR (BALANCED) L

1.COMMON — 2.HOT(+)

3.COLD (−)

AUDIO OUT

VIDEO OUT

D AUDIO OUT **C** DIGITAL OUT

D1/D2   COMPONENT   S-VIDEO   VIDEO   2CH   5.1CH

Y   Cв/Pв   Cr/Pr   S1/S2   R   L   CENTER   FRONT R   L

OPTICAL   COAXIAL

B

SUB WOOFER   SURROUND R L

SIGNAL GND

E

XLR cable

RCA cable

RCA cable

RCA cable

R   L   R   L
LINE IN   **LINE IN**

Amplifier

R   L
LINE IN

TV (Monitor)

CENTER   SUB WOOFER   R L SURROUND   R L FRONT

5.1CH AUDIO IN

Surround Amplifier

8

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.

A 2 channel high quality AUDIO OUT terminals

The XLR and RCA terminals output 2 channel analog audio. The sound output from these terminals is superior in quality.

If your amplifier has XLR analog inputs, connect the XLR outputs of the DV-50 to the appropriate inputs of the amplifier with commercially available balanced XLR cables.

If there are no XLR input terminals on the amplifier, use commercially available RCA cables to connect the RCA outputs of the DV-50 to the appropriate inputs of the amplifier.

B DIGITAL OUT terminals

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

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

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

- Select the proper digital output setting in accordance with your connection.

C 5.1CH AUDIO OUT terminals

5.1 channel analog audio is output from these terminals.
If your amplifier has 5.1 channel analog inputs, connect them with commercially-available RCA cables.

- Select "5.1" in the setup menu.(See page 15, 37)

D 2CH AUDIO OUT terminals

2 channel analog audio is output from these terminals.

E SIGNAL GND

You may improve the sound quality by connecting the earth terminal of DV-50 and the amplifier using a commercial PVC-covered electric cord.
- This is not a safety earth.

If you listen to multi-channel DVD-Audio through one of the digital outputs, it will be downmixed to stereo. Also, high sampling rate DVD-Audio (192kHz or 176.4kHz) will be downsampled to 96kHz, 88.2kHz, 48kHz or 44.1kHz, depending on the disc. Multi channel and high sampling rate DVD-Audio is only available through the analog outputs.
Some DVD-Audio and all SACD audio is output only through the analog outputs.

If you want to enjoy multi-channel sound of DVD-Audio and SACD, use the 5.1CH AUDIO OUT terminals.

Connection to a TV

XLR (BALANCED) R   R   L   XLR (BALANCED) L

H ~ IN

AUDIO OUT

F VIDEO OUT   **G**

D1/D2   COMPONENT   S-VIDEO   VIDEO   2CH   5.1CH   DIGITAL OUT

Y   CB/PB   CR/PR   S1/S2   R   L   CENTER   FRONT R   L   OPTICAL COAXIAL

1   1   1

2   2   R   L   2

R   L   SUB WOOFER   R   L SURROUND   SIGNAL GND

D-VIDEO cable

component video cable

S-VIDEO cable

RCA cable

Connect one of these cables

Supplied Power cord

D1/D2
D-VIDEO IN   S-VIDEO IN   VIDEO IN

Wall socket

Y   P$_B$ P$_R$

COMPONENT VIDEO IN

TV (Monitor)

10

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

If your TV or monitor is compatible with progressive scan, connect the TV via the COMPONENT VIDEO jacks using a component video cable, and select "Progressive" in the Setup menu (see page 41).

Connecting the COMPONENT VIDEO jacks using a component video cable is next to it.

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

Composite video output (VIDEO OUT) would be your final choice.

● For better picture quality, do not connect more than one video cable.
● Please connect this unit to a TV directly. If the TV is connected through a video cassette recorder, playback of a copy protected DVD disc could result in distorted picture quality.

F COMPONENT VIDEO jack

If your TV or monitor has COMPONENT VIDEO IN jacks, connect them with a quality component video cable.

● You can also use the D1/D2 D-Video jack.
● If your TV or monitor is compatible with progressive scan, connect the TV via the COMPONENT VIDEO jack and select "Progressive" in the Setup menu. When your TV or monitor isn't compatible with progressive scan, never select "Progressive". No picture will be shown on the monitor.

G S-VIDEO or VIDEO jacks

S-VIDEO connection is your third choice and is superior to the standard composite video connection.
If the component has a S-VIDEO jack, connect them with a high quality S-VIDEO cable.

If neither COMPONENT VIDEO nor S-VIDEO is available, connect the component with a high quality RCA cable designed for video applications.

H AC power cord

Insert the supplied AC power cord in the DV-50's socket. After all other connections are complete, connect the plug to the wall socket.

Do not use any power cords other than the one included with the DV-50 to avoid fire, electric shock, etc. If you are not going to use the unit for some time, disconnect the power cord from the wall socket.

Changing the Color System (NTSC/PAL)

The default color setting of this player is AUTO, and unless you experience picture distortion with some discs, you can leave the setting as it is.

If you experience picture distortion, you need to change the setting to match your TV.

1 Turn the unit off.
2 While holding down the SCAN button, press the POWER switch.

The color system changes as follows, and the selected color system is shown on the front panel display.

PAL :
Select PAL when a PAL TV (European standard) is connected.
NTSC :
Select NTSC when a NTSC TV (American standard) is connected.
AUTO :
Select AUTO when a MULTI TV is connected.

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.

Front Panel

24-bit UP CONVERT (kHz)

384   768   1536
352.8 705.6 1411.2 DSD

POWER   DIGITAL FILTER

RDOT
FIR
RDOT+FIR

OPEN/CLOSE

STOP   PLAY   PAUSE

ⓐ ⓑ ⓒ ⓓ ⓔ ⓕ ⓖ ⓗ ⓘ ⓙ ⓚ

Front Panel Display

ⓐ ⓑ ⓒ ⓓ ⓔ ⓕ ⓖ ⓗ ⓘ ⓙ ⓚ ⓛ

SACD VCD   GROUP TITLE   CHAPTER TRACK   TOTAL REMAIN   LAST MEMORY   ⅅⅅ DIGITAL   dts
DVD-AUDIO
VIDEO REPEAT   CONDITION ●
PROGRESSIVE   GUI   DOWN MIX
▶ ❚❚ 🎥   L C R 5.1CH
                                                                           LS S RS LFE

ⓥ ⓤ ⓣ ⓢ ⓡ   ⓠ   ⓟ ⓞ   ⓝ ⓜ

Remote Control Unit

OPEN/CLOSE   Ⓟ

1 2 3 4
5 6 7 8
9 +10 0 CLEAR

Ⓐ   Ⓠ

SEARCH MODE   REPEAT   A-B   PROGRAM
Ⓑ   Ⓒ   Ⓡ
                                  Ⓢ
LAST MEMORY   CONDITION MEMORY   FUNCTION MEMORY   RANDOM
Ⓓ   Ⓔ   Ⓣ
                                  Ⓤ
VIDEO OFF   FL DIMMER   STEP/SLOW
Ⓕ   Ⓖ   Ⓥ
SCAN   PREVIOUS   NEXT
Ⓗ   Ⓦ

STOP   PLAY   PAUSE
Ⓘ   Ⓙ   Ⓧ

MENU   TOP MENU
Ⓚ   Ⓨ

ENTER

SETUP   RETURN
Ⓛ
Ⓜ   Ⓩ

DISPLAY AUDIO SUBTITLE ANGLE
Ⓝ   ⓐ
Ⓞ   ⓑ

ESOTERIC

Front Panel

a POWER switch

When power is ON, the indicator lights.

● When moving the player, remove any disc and turn this switch OFF.

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

b Digital Filter switch

This switch changes the digital filter for the 2 channel high quality analog output.

c UP CONVERT indicators

Indicate the up-converted sampling frequency.

d Remote Sensor

Receives signals from the remote control unit. When you use the remote control unit, point the top of the remote control unit at this remote sensor.

e Disc tray

f Display

g STOP button

Stops playback.

h PLAY button

Starts playback.

i PAUSE button

Pauses playback.

j SKIP buttons

Skip tracks either forward or backwards.

k OPEN/CLOSE button

Opens and closes the disc tray.

Front Panel Display

a type of the disc loaded

b group

c title

d chapter

e track

f Illuminates to show the total play time

g Illuminates to show the remaining play time

h Illuminates when LAST MEMORY function is active.

i Illuminates during playback of a DVD disc recorded in DOLBY DIGITAL format.

j Illuminates when CONDITION MEMORY function is active.

k Illuminates during playback of a DVD disc recorded in DTS format.

l Illuminates when Virtual Surround is on.

m Illuminates when multi-channel source is downmixed to 2 channel.

n Illuminates when 5.1CH is selected.

o The channels recorded on the disc illuminate.

p Illuminates when an on-screen menu or MP3 navigator is displayed.

q Displays current status, play time, etc.

r Illuminates during repeat playback

s Illuminates during playback of a multi-angle section.

t Illuminates during pause.

u Illuminates during playback.

v Illuminates when "Progressive" is selected.

Remote Control Unit

A numeric buttons

Used for track selection, password, etc.

B SEARCH MODE

Changes the search mode.

C REPEAT

Used for repeat playback.

D LAST MEMORY

Used for bookmarking.

E CONDITION MEMORY

Used for memorizing settings for a disc.

F VIDEO OFF

Turns off the video output.

G FL DIMMER

Changes the brightness of the front panel display.

H SCAN

Used for scanning.

I STOP

Stops playback.

J PLAY

Starts playback.

K MENU

Displays a DVD disc menu.

L DIRECTION (UP/DOWN/LEFT/RIGHT), ENTER

Used for selecting an item in a menu.

M SETUP

Displays the Setup menu.

N DISPLAY

Displays the disc's information.

O AUDIO

Used for selecting an audio language.

P OPEN/CLOSE

Opens and closed the disc tray.

Q CLEAR

Used for clearing selection, etc.

R PROGRAM

Used for programmed playback.

S A-B

Used for A-B repeat playback.

T RANDOM

Used for shuffle playback.

U FUNCTION MEMORY

Used for memorizing shortcuts to items in the Setup menu.

V STEP/SLOW

Used for single stepping playback and slow-motion playback

W SKIP

Skip chapters or tracks.

X PAUSE

Pauses playback.

Y TOP MENU

Displays the top menu of a DVD disc.

Z RETURN

Returns to the previously displayed menu screen.

a ANGLE

During playback of DVD recorded with multiple angles, this button is used to change the angle.

b SUBTITLE

Used for selecting a subtitle language.

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.
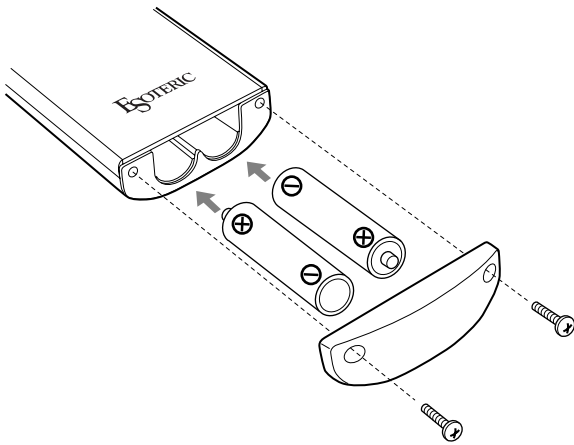
Battery Replacement

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 and non-rechargeable batteries can be used. Refer to the precautions on their labels.
● When the remote control unit is not to be used for a long time (more than a month), remove the batteries from the remote control unit to prevent them from leaking. If they leak, wipe away the liquid inside the battery compartment and replace the batteries with new ones.
● Do not heat or disassemble batteries and never dispose of old batteries by throwing them in a fire.

Notes on use

● Point the remote control unit at the player's remote sensor and use it within seven meters' distance 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.

7 m

DIRECTION — **ENTER**
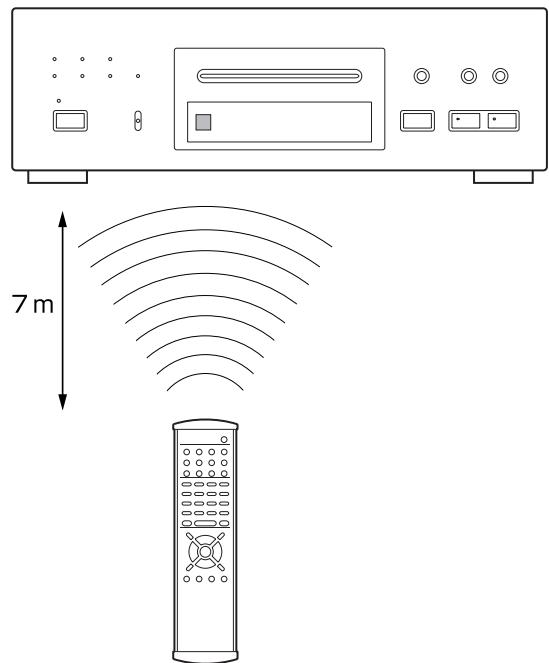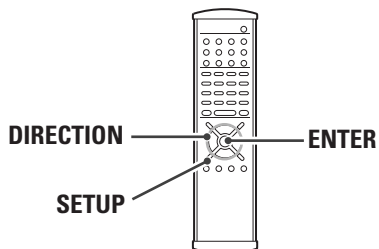
SETUP

The Setup Navigator will help you to make the basic settings.

1 Press the POWER switch to turn the unit on.

POWER
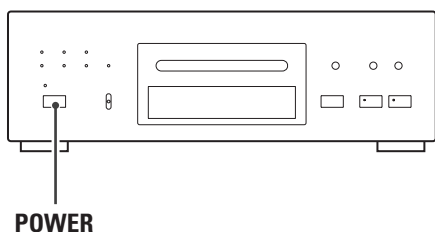
● Also turn on your TV and set its input to the correct position for DVD viewing (VIDEO, etc.).
● If a disc is set, press the OPEN/CLOSE button and remove the disc.

2 Press the SETUP button.

SETUP

The Setup Navigator appears on the screen.

● Buttons which can be used in the OSD menu are shown at the bottom of the screen.

3 Press the ENTER button to start the Setup Navigator.

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator

Setup Navigator — **Start**
Auto Start Off
ⓘ Setup using the Setup Navigator

◁▷△▽ Move | ENTER | Select | SETUP | Exit
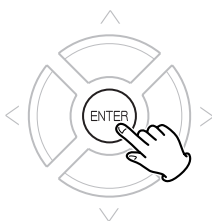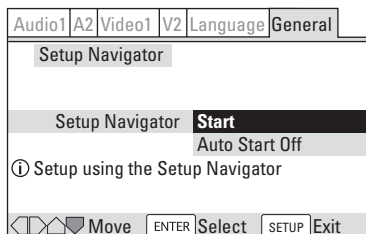
ENTER

● If you don't want to use the Setup Navigator, select "Auto Start Off" by pressing the DOWN button and the ENTER button.

● If you want to return to the previous screen, press the LEFT button.

4 Select a language for OSD (On Screen Display) by pressing the UP/DOWN buttons, and press the ENTER button.

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator — **English**
français
Language — Deutsch
OSD Language — Italiano
Español
ⓘ Select the On Screen Language

◁▷△▽ Move | ENTER | Select | SETUP | Exit
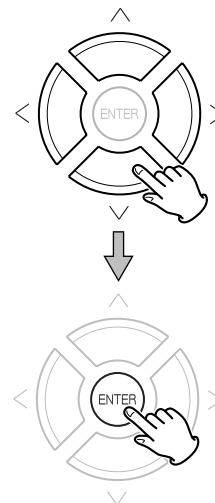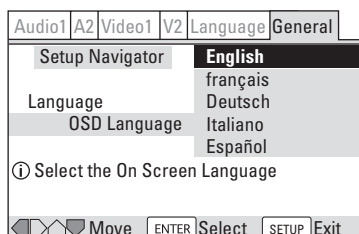
ENTER

The language for audio and subtitle is also set to the language you selected here. If you want to select other language for audio and subtitle, see 44 page later.

5 Select the type of TV by pressing the UP/DOWN buttons and the ENTER button.

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator

TV Connection
TV Type — **Widescreen (16:9)**
Standard (4:3)
ⓘ Widescreen TV
16:9 aspect ratio

◁▷△▽ Move | ENTER | Select | SETUP | Exit
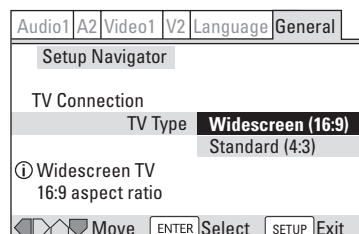
Select 16:9 when a wide-screen TV is connected. Otherwise select 4:3.

6 Select the type of analog audio connections.

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator

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

◁▷△▽ Move | ENTER | Select | SETUP | Exit
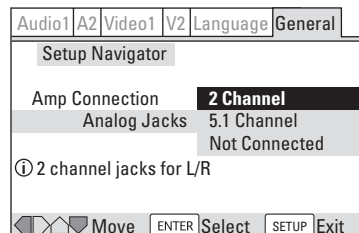
2 Channel:
Select this when the amplifier is connected via the 2CH AUDIO OUT jack.
5.1 Channel:
Select this when the amplifier is connected via the 5.1CH AUDIO OUT jack.
Not Connected:
Select this when you don't use analog audio output.

ENGLISH

7 **If you select "5.1 Channel" in step 6, confirm which speakers are connected to your amplifier.**

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator

Amp Connection
　　　　Center Speaker | **Present**
　　　　　　　　　　　　　Not Present
ⓘ Center speaker is connected
　to an amplifier

◀▷△▽ Move　ENTER Select　SETUP Exit
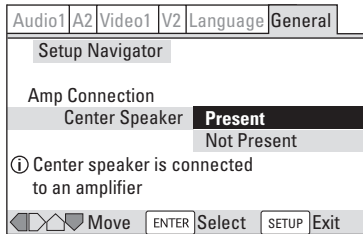
8 **Select the type of digital audio output.**

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator | **Dolby Digital**
　　　　　　　　　 Dolby Digital/DTS
Amp Connection　 Dolby Digital/MPEG
　　Digital Jack　 Dolby D/DTS/MPEG
　　　　　　　　　 PCM
　　　　　　　　　 Not Connected
ⓘ Compatible with Dolby Digital
◀▷△▽ Move　ENTER Select　SETUP Exit
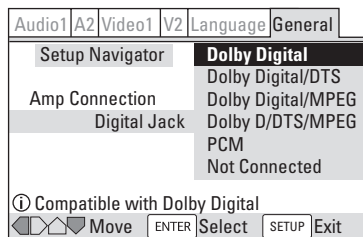
Dolby Digital:
　Select this when the unit is connected to an audio component equipped with a built-in Dolby Digital decoder via the DIGITAL OUT terminal.

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

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

Dolby D/DTS/MPEG:
　Select this when the unit is connected to an audio component equipped with a built-in Dolby Digital, DTS and MPEG decoder via the DIGITAL OUT terminal.

PCM:
　Select this when the unit is connected to an audio component such as CD recorder or MD deck via the DIGITAL OUT terminal.

Not Connected:
　Select this when you don't use the DIGITAL OUT terminal.

9 **Confirm whether your amplifier is compatible with 96kHz audio.**

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator

Amp Connection　 | **No**
　96 kHz PCM Audio　 Yes
　　　　　　　　　　　 Don't Know

ⓘ Digital jack not compatible with 96kHz

◀▷△▽ Move　ENTER Select　SETUP Exit
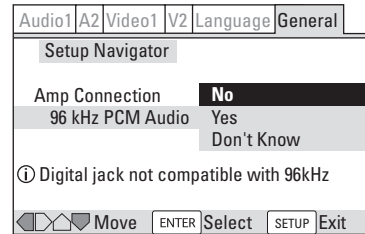
● This screen will not appear if you selected "Not Connected" in step **8**.
● When you select "No" or "Don't Know", any 96kHz audio will be downsampled to 48kHz.

10 **Select "Save Changes" to save the settings.**

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator

　　　　　　　　　　　　　 | **Save Changes**
Exit Setup Navigator　 Delete Changes
　　　　　　　　　　　　　 Start Again
ⓘ Changes are saved

◀▷△▽ Move　ENTER Select　SETUP Exit
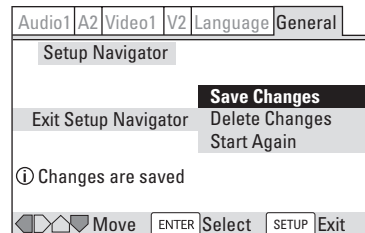
The settings are kept in memory, and the Setup Navigator disappears.

● If the Setup Navigator is still on the screen, press the SETUP button to exit.
● If you want to use the Setup Navigator again, it is available from the "General" tab of the Setup menu. Also, each individual setting can be changed using the appropriate menu option. See 34 page for details.

16
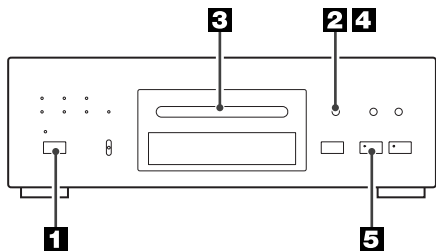
- In this manual, the term "DVD" means DVD-Video, DVD-Audio and DVD-R/RW. If a function is specific to a particular kind of DVD disc, it is specified.

- Turn the TV on and set its input to the correct position for DVD viewing (VIDEO etc.).

1 Press the POWER switch to turn the unit on.
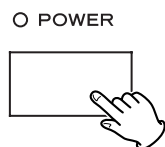
2 Press the OPEN/CLOSE button (⏏).

3 Place a disc on the tray with the printed label face up.
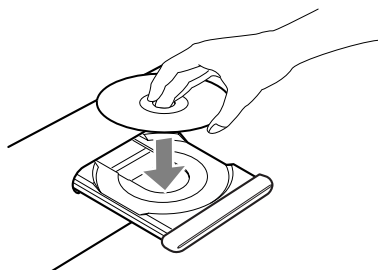
- If you are loading a double-sided DVD disc, load it with the side you want to play face down.
- Never place more than one disc on the tray.
- The disc must be loaded centrally into the disc tray. If the disc is not correctly loaded, it may not be possible to open the tray again once it has closed, so you should ensure the disc is always centrally loaded in the tray.

4 Press the OPEN/CLOSE button (⏏) to close the tray.

When a DVD is loaded, the playback may start automatically.

- It takes a while for the unit to load the disc.
- When loading a SACD, "Loading DVD" briefly appears on the screen, and then "SACD" indicator appears on the front panel display.

5 Press the PLAY button (▶) to start playback.
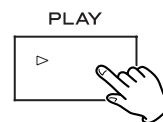
DVD:
If a title menu appears on the screen, select an item by pressing the DIRECTION buttons and then press the ENTER button.
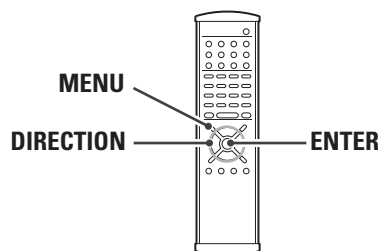
- Depending on the disc, you can use the numeric buttons to select an item.
- "Title menu" may simply be called "menu" or "title" in the instructions supplied with the disc.
- If you press the MENU button or the TITLE button during playback, title menu will appear on the screen. (In some cases, the playback might restart from the beginning of the disc automatically.)

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

- Press the ▶▶▌ button to advance to the next page. Press the ▌◀◀ button to return to the previous page.
- If you press the RETURN button during playback, the menu will appear on the screen.

- Following buttons does not work during PBC playback:

    REPEAT, A-B, PROGRAM, RANDOM, SEARCH MODE

- If you want to play a Video CD without PBC function, press the numeric buttons or the SKIP buttons in the stop mode. PBC function is turned off, and the playback will start from the selected track.

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Playback 2

DVD-RW:

Select "Original" or "Play List" by pressing the DIRECTION buttons, select an item by pressing the DIRECTION buttons, and press the ENTER button.

Original:

Titles recorded automatically during recording.

Play List:

Titles edited after recording.
(Not all DVD-RW discs contain a Play List.)

● You cannot switch between Original and Play List during playback.
● To preview the first frame of the highlighted menu item, press the RIGHT button.
● If you press the MENU button during playback, the menu will appear on the screen.

MP3:

Load a disc containing MP3 tracks, and press the MENU button to display the MP3 navigator.

current folder number and track number

total number of folders on the disc

cursor

Current : ▶1-1	MP3 Navigator
1~3 Folder◁ ▷Track	1~12
▲	**1. ALBUM1**	1. TRACK001
	2. ALBUM2	2. TRACK002
	3. BGM	3. TRACK003
		4. TRACK004
		5. TRACK005
▼		6. TRACK006
	ENTER Play MENU Exit	

total number of the tracks in the selected folder
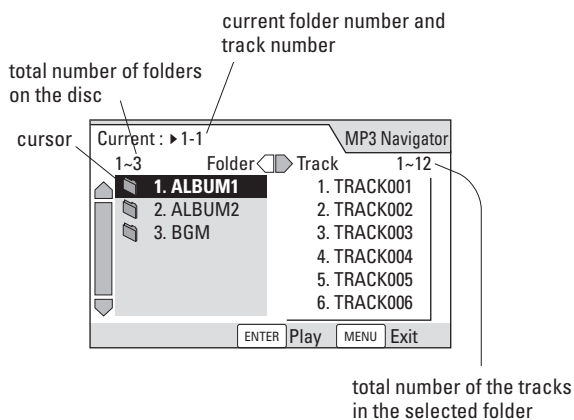
Select a folder by pressing the UP/DOWN buttons and press the ENTER button. Playback will start from the first track of the selected folder.

To start playback from a specific track, select a folder by pressing the UP/DOWN buttons and press the RIGHT button to move the cursor to the list of tracks. Select a track by pressing the UP/DOWN buttons and press the ENTER button to start playback.

● When the MP3 Navigator is active, following buttons will not work. Press the menu button to turn it off.

   REPEAT, A-B, PROGRAM, RANDOM, SEARCH MODE, AUDIO

● When playback is stopped by pressing the STOP button, the player remembers the current folder as long as the disc tray isn't opened. When you press the PLAY button next time, playback will start from the first track of that folder.
(This function doesn't work during programmed playback and shuffle playback.)
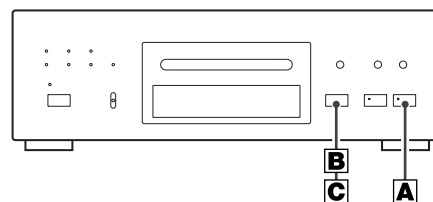
A To suspend playback temporarily (pause mode)
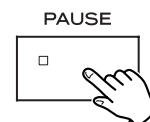
PAUSE

Press the PAUSE button (❚❚) during playback.
The video will stop on a single frame on DVD and VCD discs, and music will interrupt on CD, SACD and MP3 discs.
To resume playback, press the PLAY button (▶) or the PAUSE button (❚❚). Play will continue from where you paused the playback.

B To stop playback of CD, SACD and MP3

Press the STOP button (■).
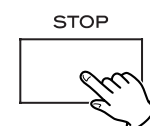
STOP

C To stop and resume playback of DVD-Video and VCD
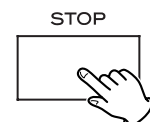
STOP

If you press the STOP button (■) during playback of DVD-Video or VCD, "RESUME" briefly appears on the screen, and the unit enters RESUME mode.
If you want to cancel the RESUME mode and stop playback completely, press the STOP button (■) again.

How to resume playback:

During playback of DVD, press the STOP button (■) at the point where you want to interrupt playback. Press the PLAY button (▶) to start playback from the interrupted point.

● If one of the following buttons is pressed, resume function will be cancelled:

   STOP in the stop mode, OPEN/CLOSE

D Screen Saver

When you leave the unit in pause or stop mode for 5 minutes, (or no button is pressed during playback of CD and MP3), the screen saver image appears on the screen.
Press any button to stop the screen saver.
Screen Saver function can be set off. See page 42 for details.

E Dimmer
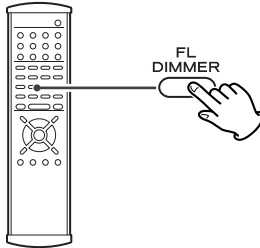
Each time the DIMMER button is pressed, the brightness of the front panel's display is changed.

F VIDEO OFF button
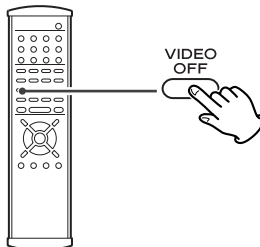
This button is used to turn on or off the video output temporarily. When listening to an audio discs such as SACD or CD, you can turn off the video output to obtain optimal sound.
● This function will be cancelled when the POWER button is pressed.

DVD

Select a Subtitle Language
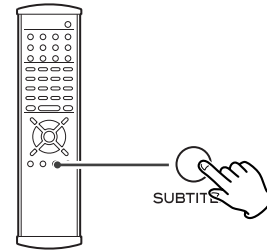
To select a subtitle language, press the SUBTITLE button during playback. Each time you press the SUBTITLE button, the subtitle languages included on the disc appear on the screen.

● It may take a few seconds till a selected subtitle appears on the screen.
● When no subtitles are recorded on the disc, "OFF" will be displayed.
● You can set a preferred subtitle language in the Setup menu. See page 45 for details.

● In some cases, a subtitle cannot be turned off even if you select "OFF". Movies recorded in a foreign language for the region being played often have "permanent" subtitles.
● Some discs allow you to change subtitles only via the disc menu. In that case, press the MENU button and change the settings.
● The maximum number of subtitle languages stipulated by the manufacturer is 32/32.

DVD VCD CD MP3

Select an Audio Language
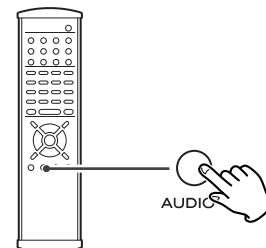
To select an audio language, press the AUDIO button during playback.
Each time you press the AUDIO button, a language and its sound recording system included on the disc appears on the screen.

● Some discs allow you to change audio language only via the disc menu. In that case, press the MENU button and change the settings.
● You can set a preferred audio language in the Setup menu. See page 44 for details.

● During playback of VCD, CD or MP3, you can switch channels (stereo, monaural left, monaural right) by pressing the AUDIO button. On DVD-RW discs that have both L and R audio channel, you can switch between the L, R, or a mix of both.

● This function is not available for SACD.

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Playback from a specific part

Direct Playback
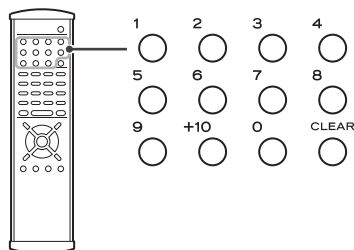
If the numeric buttons are pressed in the stop mode of DVD, playback will start from the selected title (or group).
If the numeric buttons are pressed during playback of DVD, the selected chapter (or track) will be played from the beginning.

In the stop or play mode of VCD, CD and MP3, select a track by pressing the numeric buttons. Playback starts from the selected track.

Example

To select 3 :

To select 10 :

To select 23 :

To skip to a specific chapter/track
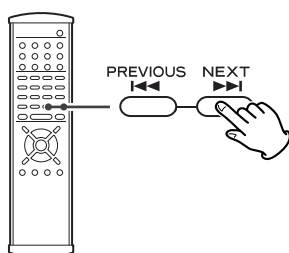
During playback, press the SKIP button (I◄◄ or ►►I) repeatedly until the desired chapter or track is found. The selected chapter/track will be played from the beginning.
When the I◄◄ button is pressed during playback of a CD, the track being played will be played from the beginning. To return to the beginning of the previous track, press the I◄◄ button twice.

● If the ►►I button is pressed in the resume mode of DVD, playback will start from the beginning of the title you interrupted playback last time.

Search for a part of a chapter/track
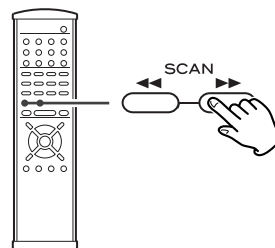
During playback, press the SCAN button (◄◄ or ►►) of the remote control unit. Press the PLAY button when the part you want to listen to is found.
Each time the SCAN button is pressed, the scan speed is incremented.

DVD-Video/DVD-RW

►► : ►► 1→ ►► 2→ ►► 3

◄◄ : ◄◄ 1→ ◄◄ 2→ ◄◄ 3

DVD-Audio

►► : ►► 2→ ►► 3

◄◄ : ◄◄ 2→ ◄◄ 3

CD/SACD/VCD

►► : ►► 1→ ►► 2

◄◄ : ◄◄ 1→ ◄◄ 2

● The sound is muted during playback of DVD and VCD.
● The scan speed of MP3 cannot be changed.
● This function may not work with some discs.
● The SKIP buttons (I◄◄ / ►►I) of the main unit can also be used. Press and hold the SKIP button and release it when the point you want to listen to is found.

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You can directly access any point on a disc using one of the search modes. Playback jumps to the point specified.

1 Select a search mode by pressing the SEARCH MODE button.

Each time the SEARCH MODE button is pressed, the mode is changed as follows:

DVD-Video/DVD-RW

```
  ┌──────→ title  →  chapter ──────┐
  └─ (off) ←  time/time+flame  ←───┘
```

DVD-Audio

```
  ┌─→ group → track → (page*) ─┐
  └──────── (off) ←────────────┘
```

CD/SACD

```
  ┌──────→ track  →  (off) ──────┐
  └──────────────────────────────┘
```

VCD

```
  ┌──────→ track  →  time ──────┐
  └────────── (off) ←───────────┘
```

MP3

```
  ┌──────→ folder  →  track ──────┐
  └────────── (off) ←─────────────┘
```
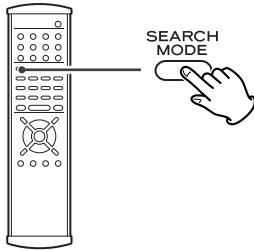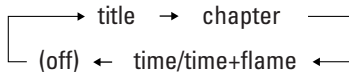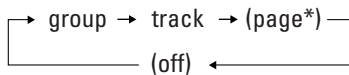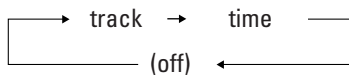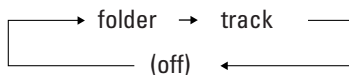
● When the unit is stopped, you cannot select time search nor frame search of DVD-Video.

*: Some DVD-Audio discs have still pictures. You might be able to search the still pictures by this function.

2 Enter the number of title, chapter, group or track by pressing the numeric buttons.
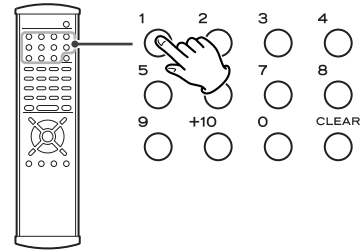
Example:
To select 10 : 1 → 0
To select 12 : 1 → 2

● The +10 button cannot be used.

3 Press the ENTER button or the PLAY button.
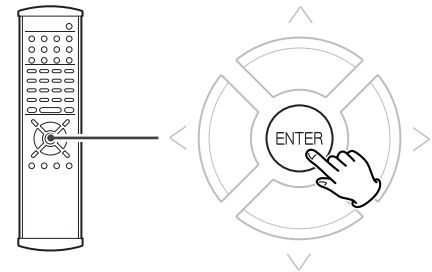
Playback starts from the specified point.

● If you selected the title number, playback will start from the first chapter of the selected title.
● The first track of a SACD is not always track no.1.

ENGLISH

● This function is not available for DVD-Audio, CD, SACD and MP3.

DVD-Video

1 During playback of DVD-Video, press the SEARCH MODE button twice.
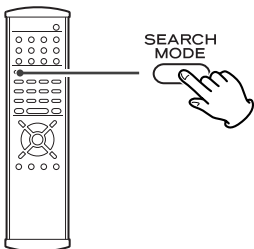
SEARCH
MODE

When the frame search option is set to off, the unit enters Time Search mode.
When the frame search option (page 42) is set to on, the unit enters Time & Frame Search mode.

2 Input the time by pressing the numeric buttons.

1	2	3	4
5		7	8
9	+10	0	CLEAR
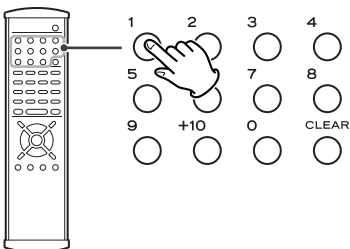
Example (Time Search):
To select a scene 39 minutes 58 seconds from the beginning of the selected title, press **3958**.

To select a scene 1 hour 50 minutes 10 seconds (110 minutes 10 seconds) from the beginning of the selected title, press **11010**.

Example (Time and Frame Search):
To select a scene 39 minutes 58 seconds from the beginning of the selected title, press **395800**.

To select a scene 1 hour 50 minutes 10 seconds (110 minutes 10 seconds) frame no.5 from the beginning of the selected title, press **1101005**.

● The +10 button cannot be used.

3 Press the ENTER button or the PLAY button.

ENTER
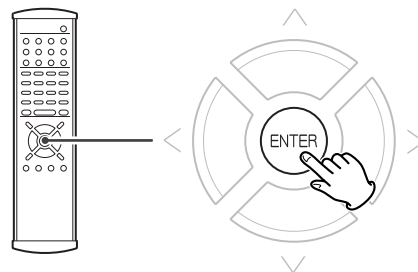
Playback starts from the selected part.
When the frame search option is on, playback pauses at the selected frame.
Depending on the disc, it may not be possible to search for a specific frame.

VCD

1 In the stop or play mode, press the SEARCH MODE button twice.

● This function doesn't work during PBC playback of VCD.

2 Input the time by pressing the numeric buttons.

Example:
To select a scene 39 minutes 58 seconds from the beginning of the disc, press 3958.

● The +10 button cannot be used.

About Frame

PAL displays 25 frames per second, numbered 0-24. NTSC displays 30 frames per second, numbered 0-29.
When the frame search option is on, you can check the frame number by pressing the DISPLAY button in the pause mode.

Each frame may not be appear in exact order when stepping through them. The number assigned to a specific frame may be different when stepping through the frames in forward or reverse mode.

frame number (00-29)

	1-4	18.17	18
Title	-133.55 /152.12

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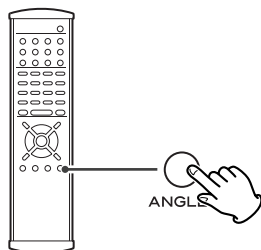
When a scene recorded with multiple angles is played, the angle icon appears on the screen. Each time you press the ANGLE button while the angle icon is displayed, the camera angle changes.

● 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 44 for details.

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

● If you press the ANGLE button during pause, pause mode will be cancelled.

Single Stepping Playback
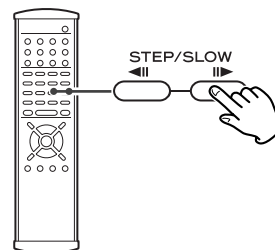
To play a disc frame by frame, press the STEP/SLOW button during playback (or in the pause mode). The DVD will "freeze" on a single video frame. Each time the STEP/SLOW button is pressed, the picture advances by one frame.

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

● During playback of DVD-Audio disc featuring browsable pictures, you can view the next picture by pressing the STEP/SLOW button.

● If the still picture is shaky, set the still picture option to "Field" (see page 44).

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Slow-Motion Playback
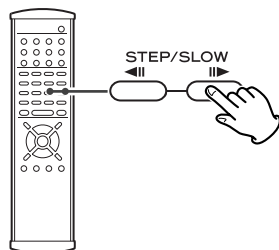
STEP/SLOW
◀II   II▶

To play a disc in slow-motion, press and hold the STEP/SLOW button during playback (or in the pause mode). When the Slow-Motion function is activated and "1/16" appears on the screen, release the button.
To resume normal playback, press the PLAY button (▶).

II▶ : slow forward playback
◀II : slow reverse playback (DVD only)

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

$$1/16 \rightarrow 1/8 \rightarrow 1/4 \rightarrow 1/2$$
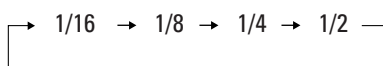
● The sound is muted during slow-motion playback.
● This function is not available for CD and MP3.

Shuffle Playback
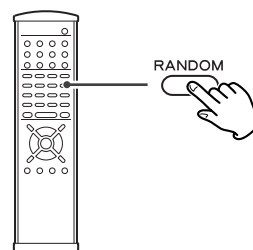
RANDOM

Tracks of a disc can be played randomly.

Chapter Shuffle Playback of DVD-Video

During playback of DVD-Video, press the RANDOM button and the ENTER button. All the chapters of the current title will be played randomly.

Title Shuffle Playback of DVD-Video

During playback of DVD-Video, press the RANDOM button twice and then press the ENTER button. All the titles of the disc will be played randomly.

Shuffle Playback of CD, VCD, MP3

During playback or in the stop mode, press the RANDOM button. All the tracks of the disc will be played randomly.

To cancel shuffle playback and resume normal playback, press the CLEAR button.

● If you press the ▶▶I button during shuffle playback, the next chapter/title/track will be randomly selected and played. A chapter/title/track cannot be replayed during shuffle playback.

● If one of the following buttons is pressed, shuffle mode will be cancelled:

   numeric buttons, STOP, CLEAR, REPEAT, OPEN/CLOSE, POWER

● This function isn't available for DVD-RW, SACD, and VCD with PBC.

● This function does not work during programmed playback and repeat playback.

Repeat Playback
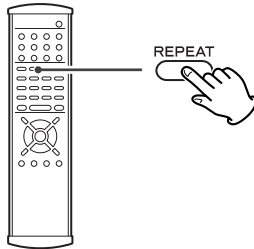
Each time the REPEAT button is pressed during playback, the mode is changed as follows :

DVD-Video

Repeat Chapter → Repeat Title
(Repeat off)

DVD-Audio

Repeat Track → Repeat Group
(Repeat off)

CD/VCD

Repeat Track → Repeat Disc
(Repeat off)

SACD

Repeat Track → Repeat All
(Repeat off)

MP3

Repeat Track → Repeat Folder
(Repeat off) ← Repeat Disc ←
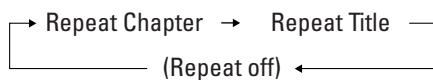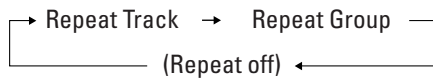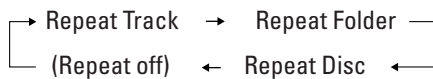
When the REPEAT button is pressed once:

The chapter or track being played will be played repeatedly. If you select another chapter or track in REPEAT CHAPTER mode, the chapter or track you selected will be played repeatedly.
During programmed playback, programmed chapters or tracks will be played repeatedly.

When the REPEAT button is pressed twice:

All the chapters or tracks of the current title/group/folder/disc will be played repeatedly.

When the REPEAT button is pressed 3 times:

Repeat mode will be cancelled.

When the REPEAT button is pressed 3 times (MP3):

All the tracks of the disc will be played repeatedly.
Repeat mode will be cancelled if you press the REPEAT button once again.

● This function does not work during PBC playback of VCD.
● If you change the angle, repeat mode will be cancelled.
● If one of the following buttons is pressed, repeat mode will be cancelled:
STOP, CLEAR, A-B, RANDOM, OPEN/CLOSE, POWER

A-B Repeat
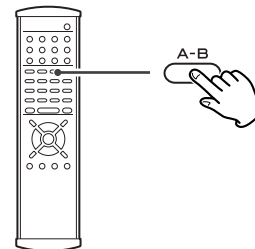
Repeat Playback of a Designated Section

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

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

The designated section will be played repeatedly.

If you press the PLAY button instead of A-B button, playback jumps back to point A.

● This function is not available for SACD and MP3.

● This function does not work during PBC playback of VCD.

● When playing a DVD-RW, the point A and B should be selected from the same title.

● If you change the angle by pressing the ANGLE button, A-B repeat mode will be cancelled.

● If one of the following buttons is pressed, A-B repeat mode will be cancelled:

STOP, CLEAR, SKIP, REPEAT, A-B, RANDOM, OPEN/CLOSE, POWER

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Programmed Playback

1, 2, 3...

PROGRAM

ENTER

DIRECTION
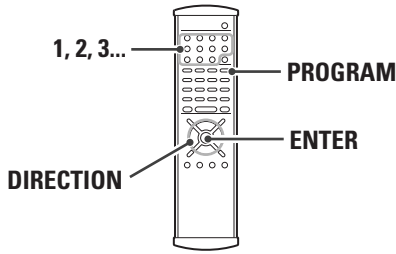
Up to 24 chapters or tracks can be programmed in the desired order.

● This function is not available for DVD-RW.
● This function does not work during PBC playback of VCD.

1 Press the PROGRAM button in the stop or play mode.

Program Chapter | Program Title

Current :   Title   1   Chapter   1
Title   1 (Chapter 1~35)

Program Memory ······ Off

◁▷△▽ Move   ENTER Play   PROGRAM Exit
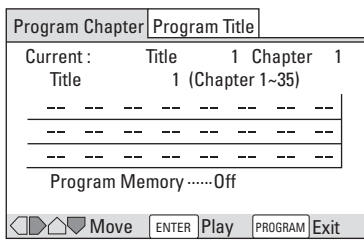
Program menu appears on the screen.
(example: program menu of DVD-Video)

● If you are programming CD, SACD or VCD, go to step **3**.
● If you want to program titles of DVD, press the RIGHT button to select "Program Title" tab. You cannot select both.
● When no button is pressed for 30 seconds, the program mode will be cancelled.

2 Press the DOWN button.

The cursor goes to the program list window.

Program Chapter | Program Title

Current :   Title   1   Chapter   1
Title   1 (Chapter 1~35)

Program Memory ······ Off

◁▷△▽ Move   ENTER Play   PROGRAM Exit
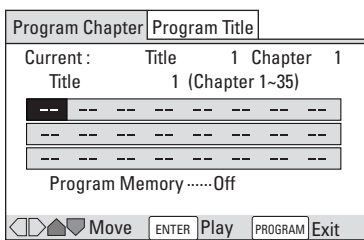
● If "Program Chapter" is selected and you want to select another title, press the UP button to move the cursor to the title input section, and input the title number by pressing the numeric buttons. The cursor go back to the program list window automatically.

title input section

Program Chapter | Program Title

Current :   Title   1   Chapter   1
Title   1 (Chapter 1~35)

◁▷ +/−
△▽ Move   ENTER Play   PROGRAM Exit
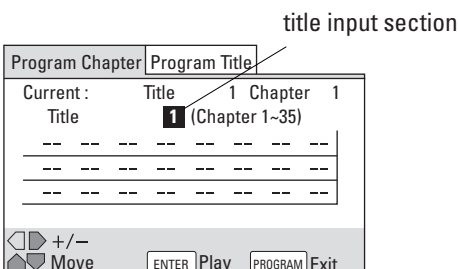
3 Press the numeric button to select a title/chapter/track.

Program Chapter | Program Title

Current :   Title   1   Chapter   1
Title   1 (Chapter 1~35)

05   03   --

Program Memory ······ Off

◁▷△▽ Move   ENTER Play   PROGRAM Exit
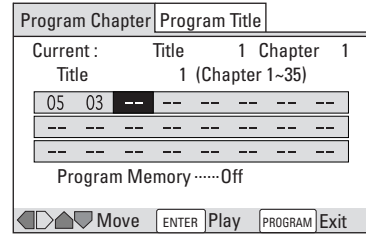
Repeat this step to program more.

● If you are programming CD, SACD or VCD, go to step **5**.
● You can program a pause by pressing the PAUSE button (❚❚). Note that a pause cannot be programmed at the first or last of the program list, and pauses cannot be programmed successively. Depending on the disc, the title menu might appear instead of pause.

● If you made a mistake, press the CLEAR button. The last programmed number will be deleted.
● The chapters must be selected from the same title.
● Track numbers over 100 on SACD cannot be programmed.

4 If you are programming DVD-Video, select on or off of "Program Memory" by pressing the DIRECTION buttons and the ENTER button.

Program Chapter | Program Title

Current :   Title   1   Chapter   1
Title   1 (Chapter 1~35)

05   03   03   ❚❚   09

Program Memory ❙ On
❙ Off

◁▷△▽ Move   ENTER Select   PROGRAM Exit
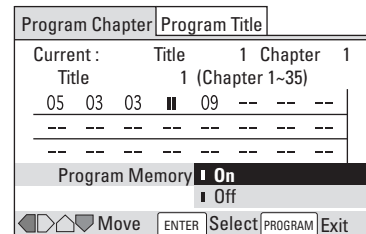
If you want to save the program list, select on. The program list will be automatically recalled when you load the disc next time.
Up to 24 latest discs can be memorized.

5 When programming has been finished, press the PLAY button or the ENTER button within 30 seconds.

● If you want to start programmed playback later, press the PROGRAM button instead.
● At the changeover of chapters, a chapter that wasn't programmed may appear momentarily. This is not a malfunction.

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Programming the current chapter or track
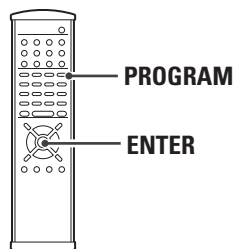
PROGRAM
ENTER

1 During playback, press and hold the PROGRAM button for about a second.

The chapter number and program number will be displayed on the screen for 2 seconds.

chapter number   program number

| Chapter | 09 ▶ Program | 01 |

To program more chapters, play another chapter and repeat this step.

● The selected chapter will be added to the last of the program list.

● If the last list created was a title list, the current title will be programmed.

● If the current title is not same as the title programmed last time, PROHIBIT icon will be displayed.

2 When programming has been finished, press the PROGRAM button briefly.

The program list appears on the screen.

3 Within 30 seconds, press the PLAY button (▶) or the ENTER button to start programmed playback.

To resume normal playback
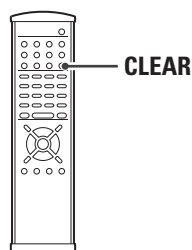
CLEAR

During programmed playback, press the CLEAR button to resume normal playback.

Or if you stop the programmed playback by pressing the STOP button, normal playback will start when you press the PLAY button next time.

The program list isn't lost. You can return to the programmed playback by pressing the PROGRAM button and the ENTER button.

1, 2, 3...
CLEAR
PROGRAM
ENTER
DIRECTION
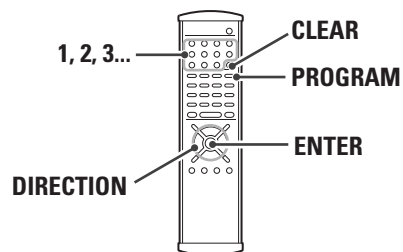
Checking the programmed content

Press the PROGRAM button to display the program list.

How to insert a chapter to the program list

Press the PROGRAM button to display the program list.
Move the cursor on the program number you want to insert a chapter by pressing the DIRECTION buttons, then input the chapter number by pressing the numeric buttons.

How to delete chapters from the program list

Press the PROGRAM button to display the program list.
Move the cursor on the program number to be deleted by pressing the DIRECTION buttons, then press the CLEAR button. The selected chapter is deleted from the program list, and the chapter programmed next is moved to take its place.

How to turn on or off the Program Memory

Press the PROGRAM button to display the program list.
Move the cursor on "On" or "Off" of the Program Memory by pressing the DIRECTION buttons, and then press the ENTER button.

Clearing the program list

With the unit stopped, press the CLEAR button to clear program playback mode and the programmed content.

The program list is also cleared when the OPEN/CLOSE button is pressed.

● If the Program Memory is on, the program list will not be cleared even when the OPEN/CLOSE button is pressed.

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Programmed Playback of MP3

1, 2, 3... — PROGRAM

— ENTER

1 Press the PROGRAM button in the stop or play mode.

MP3 Program

Folder 001~003 ---------:---------
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---

◁▷△▽ Move | ENTER Play | PROGRAM Exit
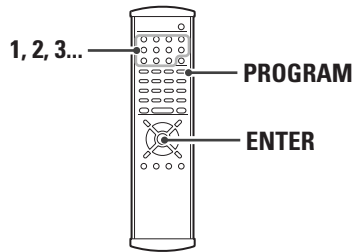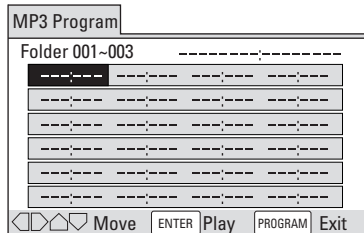
2 Select a folder number and track number to be programmed by pressing the numeric buttons.

MP3 Program

Track 001~050 ALBUM3 :--------
003:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---
---:--- ---:--- ---:--- ---:---

◁▷△▽ Move | ENTER Play | PROGRAM Exit
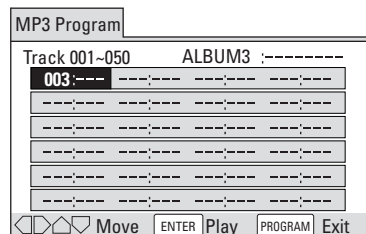
Example

To program track No.9 of folder No.3 : **3** → **9**
To program track No.1 of folder No.25 : **1** → **+10** → **+10** → **5**

Repeat this step to program more tracks.

3 When programming has been finished, press the ENTER button or the PLAY button within 30 seconds.

● If you want to start programmed playback later, press the PROGRAM button instead.

● See page 27 for the modification of the program list.

How to Program Using the MP3 Navigator

It is also possible to program tracks using the MP3 navigator.

PROGRAM

MENU —

ENTER
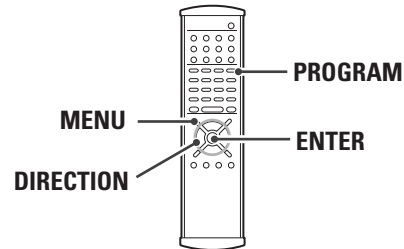
DIRECTION

1. Press the MENU button to display the MP3 navigator.

2. Move the cursor on the track to be programmed by pressing the DIRECTION buttons.

3. Press the PROGRAM button.

Current : ▶1-1   MP3 Navigator
1~3   Folder ◁▷ Track   1~12
📁 1. ALBUM1   ✔ₚ 1. TRACK001
📁 2. ALBUM2   2. TRACK002
📁 3. BGM   ✔   3. TRACK003
                             4. TRACK004
                             5. TRACK005
                             6. TRACK006

CLEAR | Del PGM | ENTER Play | MENU Exit
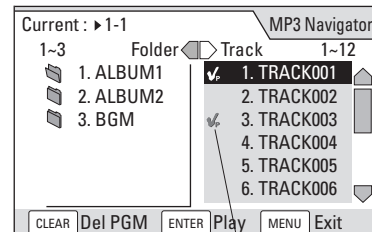
program icon

The track is programmed and the program icon (✔ₚ) appears.

● If you press the PROGRAM button repeatedly, the track will be programmed repeatedly.

● If you made a mistake, press the CLEAR button on the track to be deleted.

4. When programming has been finished, press the MENU button to exit the MP3 navigator.

5. Press the PROGRAM button.

The program list appears on the screen.

6. Press the ENTER or PLAY button to start programmed playback.

Last Memory
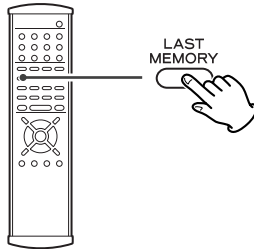
You can bookmark a place to resume playback later.

● Up to 5 latest discs can be memorized.
● Bookmarking also works with VCDs, but for one disc only. If you press the OPEN/CLOSE button, the bookmark will be erased.
● This function is not available for DVD-Audio and DVD-RW.
● Depending on the disc, this function may not work properly.
● This function may not work during PBC playback of VCD.

How to bookmark a place

1 **Press the LAST MEMORY button at the point where you want to interrupt playback.**

"Last Memory" briefly appears on the screen.

● If you want to change the marked place, press the LAST MEMORY button again. The bookmark will be overwritten.

2 **Press the POWER switch or the STOP button to stop playback.**

How to resume playback

1 **Load a bookmarked disc.**

If playback starts automatically, press the STOP button.

2 **Press the LAST MEMORY button.**

Playback starts from the bookmarked point.

How to erase the bookmark

1 **Load a bookmarked disc.**

If playback starts automatically, press the STOP button.

2 **Press the LAST MEMORY button.**

Playback starts from the bookmarked point.

3 **Press the LAST MEMORY button again.**

"LAST MEMORY" appears on the screen.

4 **Within 5 seconds, press the CLEAR button.**

The bookmark of the disc is erased.

Memorizing disc settings (Condition Memory)
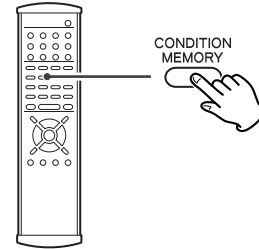
Using the Condition Memory function, settings for a disc can be memorized. Once memorized, your settings will be recalled automatically whenever you load the disc.

● Up to 15 latest discs can be memorized.
("Latest discs" means a disc "memorized" or "loaded" lately.)

● This function is not available for DVD-Audio and DVD-RW.

The settings memorized are:
Audio Language
Subtitle Language
Multi-Angle
Video Adjust
On Screen Display
Parental Lock level

To memorize these settings, press the CONDITION MEMORY button during playback of the disc.

To recall memorized settings, just load the disc. "Condition Memory" briefly appears on the screen, and "CONDITION" indicator lights on the front panel display.

To clear memorized settings, load the disc, press the CONDITION MEMORY button, and within 5 seconds press the CLEAR button.

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Each time the DISPLAY button is pressed during playback, following information will appear on the screen.

● When no button is pressed for 150 minutes, the information will disappear from the screen.

DVD-Video

current title number and chapter number
elapsed time of the current title

```
Play          1-4    18.17
Title    -133.55 / 152.12
```

remaining time of the current title
total playback time of the current title

```
Play          1-4    18.17
Chapter    6.00 / 6.07
```

elapsed time of the current chapter
total playback time of the current chapter

```
Play          1-4    18.17
Chapter   -0.07 / 6.07
```

remaining time of the current chapter

"#" appears during playback of film material (see page 43)

```
Play      #    1-4    18.17
Tr.Rate:■■■■■■■    5.8
```

level meter   data transmission rate

(off)

DVD-Audio

current group number and track number
elapsed time of the current track

```
Play          2-1    0.03
Track    -6.27 / 6.30
```

remaining time of the current track
total playback time of the current track

```
Play          2-1    0.03
Group   -43.28 / 43.31
```

remaining time of the current group
total playback time of the current group

"#" appears during playback of film material (see page 43)

```
Play      #    1-4    18.17
Tr.Rate:■■■■■■■■    5.8
```

level meter   data transmission rate

(off)

DVD-RW

current title number and chapter number
ORG: original
PL: play list
elapsed time of the current chapter

```
Play      ORG 1-1    0.54
Title   -118.59 / 119.53
```

remaining time of the current title
total playback time of the current title

```
Play      ORG 1-1    0.54
Tr.Rate:■■■■■■■■    5.8
```

level meter   data transmission rate

(off)

30

CD/SACD

current track number   elapsed time of the current track

```
Play          3      0.15
   Track    -4.26 /  4.41
```

remaining time of the current track   total playback time of the current track

⬇

total number of tracks (CD only)

```
Play        3/14    0.15
   All    -55.08 / 63.25
```

remaining time of the disc   total playback time of the disc

⬇

(off)

Video CD

● The DISPLAY button doesn't work during PBC playback.

total number of tracks

current track number   elapsed time of the disc

```
Play        3/10    8.02
   All    -35.06 / 43.08
```

remaining time of the disc   total playback time of the disc

⬇

current track number

```
Play          3     8.02
   Track    0.25 /  4.21
```

elapsed time of the current track   total playback time of the current track

⬇

```
Play          3     8.02
   Track   -3.56 /  4.21
```

remaining time of the current track

⬇

(off)

MP3

total number of tracks in the folder

track number   elapsed time of the current track

```
Play       5/52    0.53
   Track  TRACK005
```

track name

⬇

total number of folders

current folder number

```
Play       2/3     0.53
   Folder  ALBUM2
```

folder name

⬇

current folder number   track number

```
Play       2-5     0.53
   Track  -0.37 /  1.30
```

remaining time of the current track   total playback time of the current track

⬇

```
Play       2-5     0.53
   Tr.Rate:  160kbps
```

data transmission rate

⬇

(off)

Display (in the stop mode)

When the DISPLAY button is pressed in the stop mode, following information will appear on the screen.

● Press the RIGHT button to advance to the next page. Press the LEFT button to return to the previous page.

DVD-Video

```
Information : DVD

        Title    Chapter
         01      1~ 35
         02      1~  1
         03      1~  2


   ◁  1/1  ▷            DISPLAY Exit
```

title number   number of chapters in each title

DVD-Audio

number of tracks in each group

```
Information : DVD

        Group   Track
         01      1~ 10
         02      1~ 10
         03      1~ 10
         04      1~ 15


   ◁  1/1  ▷            DISPLAY Exit
```

group number   "Bonus group" before inputting the key number is shown in gray.

DVD-RW

disc name (if programmed)

```
Information : DVD-RW

      Disc    DV-50

      Title   Original  1
              Playlist  0


                      DISPLAY Exit
```

number of titles in the Original and Play List

CD/Video CD

total playback time of the disc

```
Information : Compact Disc

   Total Time          63.25
      Track  Time       Track  Time
       01    4.35        06    3.59
       02    3.25        07    3.30
       03    3.59        08    3.39
       04    3.30        09    4.50
       05    5.35        10    3.15
   ◁  1/2  ▷            DISPLAY Exit
```

track number   playback time of each track

SACD

total playback time of the disc

```
Information : SACD 2ch Area

   Total Time          63.25
      Track  Time       Track  Time
      001    4.35       006    3.59
      002    3.25       007    3.30
      003    3.59       008    3.39
      004    3.30       009    4.50
      005    5.35       010    3.15
   ◁  1/2  ▷            DISPLAY Exit
```

track number   playback time of each track

MP3

```
Information : MP3

      Folder   Track
       001     1~15
       002     1~53
       003     1~50


   ◁  1/1  ▷            DISPLAY Exit
```

folder number   number of tracks in each folder

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Digital Filter

DIGITAL FILTER
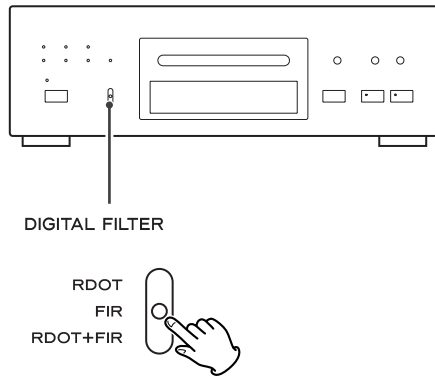
RDOT
FIR
RDOT+FIR

This switch changes the digital filter for the 2 channel high quality analog audio output terminal.

RDOT:

This is a digital filter using Fluency theory. The RDOT filter has a slow roll-off and natural extended audio characteristics and provides frequency multiplication.

FIR:

This FIR-type digital filter also provides frequency multiplication. It has a sharp roll-off and firmly-defined bass characteristics.

RDOT+FIR:

This combines the RDOT and FIR filters, allowing the best characteristics of each filter to be used.

● During playback of a SACD, the DSD filter is selected automatically, and the DSD indicator lights instead of the UP CONVERT indicators.
(DSD: Direct Stream Digital)

UP CONVERT indicator

24-bit UP CONVERT（kHz）

| 384 | 768 | 1536 | |
| 352.8 | 705.6 | 1411.2 | DSD |
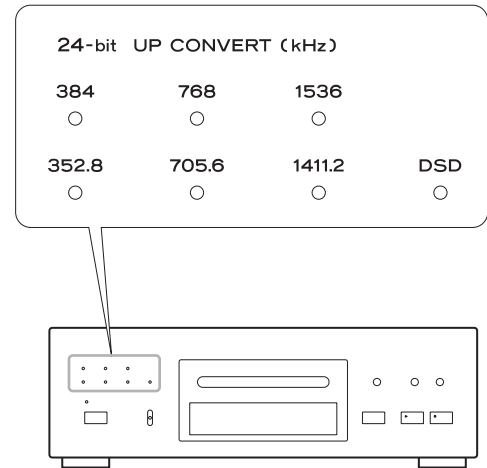
The UP CONVERT indicators indicate the up-converted sampling frequency.
It changes depending on the setting of the DIGITAL FILTER switch and the sampling frequency of the disc.

CD (44.1kHz)

RDOT : 705.6kHz (16 times)
FIR : 352.8kHz (8 times)
RDOT+FIR : 1411.2kHz (RDOT 4 times x FIR 8 times)

DVD-Video (48kHz)

RDOT : 768kHz (16 times)
FIR : 384kHz (8 times)
RDOT+FIR : 1536kHz (RDOT 4 times x FIR 8 times)

DVD-Video (96kHz)/DVD-Audio (96kHz)

RDOT : 768kHz (8 times)
FIR : 768kHz (8 times)
RDOT+FIR : 1536kHz (RDOT 2 times x FIR 8 times)

DVD-Audio (192kHz)

RDOT : 768kHz (4 times)
FIR : 1536kHz (8 times)
RDOT+FIR : 1536kHz (FIR 8 times)

ENGLISH

DIRECTION ——— ENTER
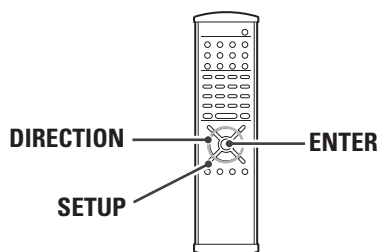
SETUP

This chapter describes how to use the Setup menu. Using the Setup menu, you can adjust the picture size, set a language for the OSD (on screen displays), limit playback by children, et cetera.

MAKE SURE YOUR TV IS CONNECTED TO THE DVD PLAYER AND TURNED ON. SET UP USES ON-SCREEN MENUS TO PROGRAM.

1 Press the SETUP button.

SETUP

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Navigator

| Setup Navigator | Start |
| | **Auto Start Off** |

ⓘ Disable the Auto Setup Navigator

◁▷△▽ Move | ENTER Select | SETUP Exit

The Setup menu appears on the TV screen.

● The Setup Navigator may appear on the screen if you haven't finished it yet. Select "Auto Start Off" by pressing the ENTER button. From next time, the settings you changed last time will appear.

● If a normal TV (4:3) is connected and you press the SETUP button during playback of DVD, the screen might be distorted a while. It is not a malfunction.
● Some settings may be grayed out and cannot be changed during playback. In that case, stop playback and press the SETUP button again.
● Use the SETUP button to display or exit the Setup menu.
● Very occasionally, the resume function might be cancelled by pressing the SETUP button.
● When no action is taken for 30 seconds, the Setup mode will be cancelled.

● Buttons which can be used in the Setup menu are shown at the bottom of the screen. In some cases you can press the RETURN button to leave the screen without making any changes.

2 Select an item you want to change using the DIRECTION buttons.

ENTER
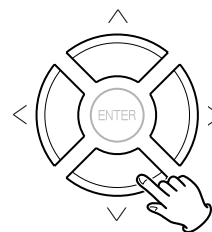
If you want to select another tab, move the cursor to the current tab by pressing the UP button, and press the RIGHT or LEFT button to select another tab.

3 Move the cursor to the option list by pressing the RIGHT button.
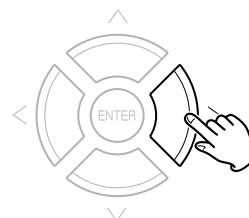
ENTER

4 Select an option by pressing the UP/DOWN buttons and press the ENTER button to save the selection.

ENTER ➡ ENTER
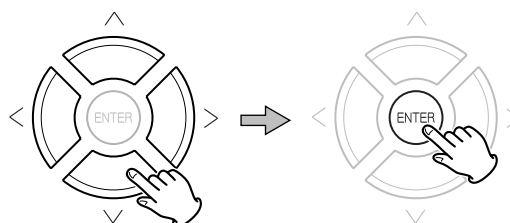
Repeat step 2 to 4 to change other settings.

5 When all the settings have been finished, press the SETUP button to exit the Setup menu.

SETUP

● The current setting for any option is marked with a colored box. The color of the box indicates what kind of disc the setting is applicable to: blue for DVD only; yellow for DVD and Video CD; orange for DVD-Audio, SACD and CD; green for any type of disc.

● If you try to change settings for DVD while a disc other than DVD is loaded, DVD icon will briefly appear on the screen. The change will take effect when a DVD is loaded next time.

● The language options shown in the on-screen display illustrations on the following pages may not correspond to those available in your country or region.

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How to initialize the settings
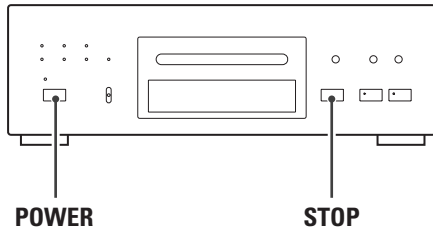
POWER   **STOP**

Settings are stored almost permanently, even when power is turned off and the unit is unplugged.

If you want to initialize the settings, do as follows;

1. **Turn the unit off.**

2. **With holding down the STOP button, press the POWER switch.**

All the settings in the Setup menu will be reset to the default settings.

Setup Menu Mode

Audio1	A2	Video1	V2	Language	General

Setup Menu Mode	▮ Expert
Setup Navigator	▯ Basic
Parental Lock	Off (us)
Bonus Group	
Auto Disc Menu	On
Group Playback	Single

◀▷△▽ Move   SETUP Exit
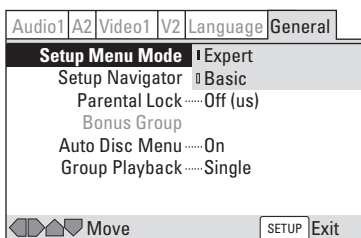
Expert (default):
You can access all the settings.

Basic:
Your access is limited to commonly used settings. An information bar appears to give you short explanation of the currently highlighted option.

● Settings marked with the EXPERT icon are available only in Expert mode.

Audio DRC (Dynamic Range Controlling)

Audio1	A2	Video1	V2	Language	General

Audio DRC	▮ Off
Dolby Digital Out	▯ On
DTS Out	DTS▶PCM
Linear PCM Out	Down Sample On
MPEG Out	MPEG▶PCM
Digital Out	On
SACD Playback	2ch Area

◀▷△▽ Move   SETUP Exit
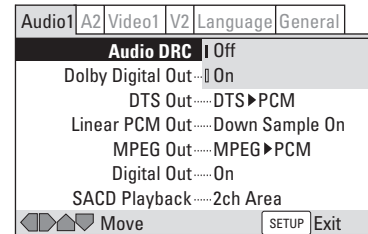
In many listening situations, you may find loud passages objectionable. Adjusting this setting allows you to compress the sounds into a range that you may find more suitable for a particular listening situation. Dolby Digital satisfies these needs through the dynamic range controlling.
Select on or off to fit the individual listening situation of the audience.

Off (default) :
Audio with uncompressed dynamic range.
On :
Audio with compressed dynamic range.

● This function is effective only when playing back a DVD disc recorded with Dolby Digital. This control has no effect on other discs.
● The effect of Audio DRC varies depending on your amplifier and speakers.
● This function has effect on both analog and digital output. If you want to use this function with digital output, set "Dolby Digital Out" to "Dolby Digital-PCM", and "Digital Out" to "On".

Dolby Digital Out

Audio1	A2	Video1	V2	Language	General

Audio DRC	Off
Dolby Digital Out	▮ Dolby Digital
DTS Out	▯ Dolby Digital▶PCM
Linear PCM Out	Down Sample On
MPEG Out	MPEG▶PCM
Digital Out	On
SACD Playback	2ch Area

◀▷△▽ Move   SETUP Exit
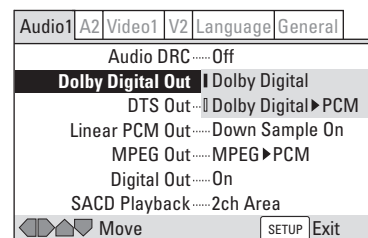
Dolby Digital (default):
Select this when the unit is connected to an audio component equipped with a built-in Dolby Digital decoder via the DIGITAL OUT terminal.

Dolby Digital ▶ PCM:
Select this when the unit is connected to an audio component such as CD recorder or MD deck via the DIGITAL OUT terminal. Dolby Digital signal is converted to PCM.

ENGLISH

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DTS Out

```
Audio1 A2 Video1 V2 Language General
         Audio DRC ······ Off
   Dolby Digital Out ······ Dolby Digital
          DTS Out ▯ DTS
   Linear PCM Out ····· ▮ DTS▶PCM
         MPEG Out ······ MPEG▶PCM
        Digital Out ······ On
    SACD Playback ······ 2ch Area
   ◀▮▷△▽ Move              SETUP Exit
```

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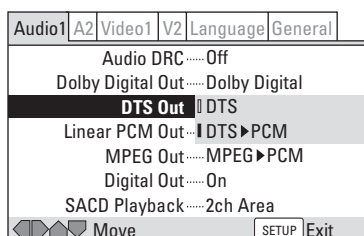
Select this when the unit is connected to an audio component equipped with a built-in DTS decoder via the DIGITAL OUT terminal.

DTS ▶ PCM (default):

Select this when the unit is connected to an audio component such as CD recorder or MD deck via the DIGITAL OUT terminal. DTS signal is converted to PCM.

● If the connected component isn't compatible with DTS, never select "DTS".

Linear PCM Out

```
Audio1 A2 Video1 V2 Language General
         Audio DRC ······ Off
   Dolby Digital Out ······ Dolby Digital
          DTS Out ······ DTS▶PCM
   Linear PCM Out ▮ Down Sample On
         MPEG Out ····· ▯ Down Sample Off
        Digital Out ······ On
    SACD Playback ······ 2ch Area
   ◀▮▷△▽ Move              SETUP Exit
```
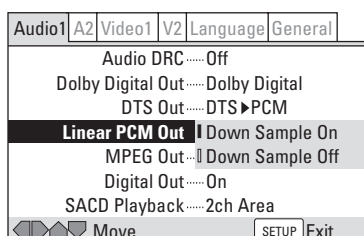
Down Sample On (default):

Select this when a component connected via the DIGITAL OUT terminal isn't compatible with high sampling rate (96kHz). 96kHz audio will be converted to 48kHz.

Down Sample Off:

Select this when a component connected via the DIGITAL OUT terminal is compatible with high sampling rate (96kHz).

● Even when "Down Sample Off" is selected, some discs will output down sampled audio. High sampling rate DVD-Audio discs (192kHz or 176.4kHz) are always down sampled to 96kHz or 88.2kHz.

MPEG Out

```
Audio1 A2 Video1 V2 Language General
         Audio DRC ······ Off
   Dolby Digital Out ······ Dolby Digital
          DTS Out ······ DTS▶PCM
   Linear PCM Out ······ Down Sample On
         MPEG Out ▯ MPEG
        Digital Out ····· ▮ MPEG▶PCM
    SACD Playback ······ 2ch Area
   ◀▮▷△▽ Move              SETUP Exit
```
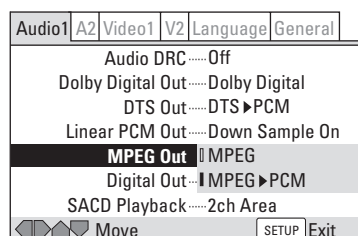
MPEG:

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

MPEG ▶ PCM (default):

Select this when the component connected via the DIGITAL OUT terminal isn't compatible with MPEG. MPEG audio is converted to PCM audio.
Multi channel audio is down mixed to 2 channel automatically.

● If down mixing is prohibited by the disc, no signal will be output from the DIGITAL OUT terminal.

Digital Out   EXPERT

```
Audio1 A2 Video1 V2 Language General
         Audio DRC ······ Off
   Dolby Digital Out ······ Dolby Digital
          DTS Out ······ DTS▶PCM
   Linear PCM Out ······ Down Sample On
         MPEG Out ······ MPEG▶PCM
        Digital Out ▮ On
    SACD Playback ▯ Off
   ◀▮▷△▽ Move              SETUP Exit
```
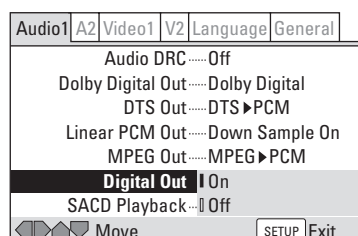
On (default):

Select this when a component is connected via the DIGITAL OUT terminal.

Off:

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

● Note that a SACD cannot output digital signal.

SACD Playback `EXPERT`

```
┌─────────────────────────────────────┐
│ Audio1│A2│Video1│V2│Language│General │
│         Audio DRC······Off           │
│   Dolby Digital Out······Dolby Digital│
│            DTS Out······DTS▶PCM      │
│     Linear PCM Out······Down Sample On│
│           MPEG Out···▮2ch Area       │
│         Digital Out···▯Multi-ch Area │
│     SACD Playback ▯CD Area           │
│  ◁▷△▽  Move          SETUP│Exit      │
└─────────────────────────────────────┘
```
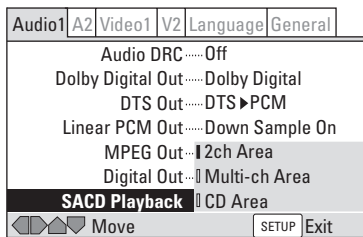
SACD discs can be divided up into several different areas – stereo audio, 5.1 channel audio and, for hybrid SACDs, standard CD audio. The SACD Playback setting enables you to select which area of the disc you want to play.

If you select an area that doesn't exist on the disc loaded, a different area of the disc will play. For example, if you choose CD audio but the disc loaded is not a hybrid SACD, the stereo SACD audio will play.

Default setting is "2ch Area".

Virtual Surround

```
┌─────────────────────────────────────┐
│ A1│Audio2│Video1│V2│Language│General │
│   Virtual Surround ▮Off              │
│         Audio Out ▯TruSurround       │
│      Speaker Setting                 │
│         Gain Setting······Fix        │
│     CD Digital Direct······Off       │
│                                      │
│  ◁▷△▽  Move          SETUP│Exit      │
└─────────────────────────────────────┘
```

When used with stereo sources, TruSurround creates a realistic surround-sound effect using just two speakers. If your amplifier is connected via the 2CH AUDIO OUT terminals (▲ or ▶ of page 9) and "Audio Out" is set to "2 Channel"(see page 37), you can simulate surround sound by selecting "TruSurround".

● There is no effect when the audio source is DVD-Audio, DTS or 96 kHz LPCM or during playback of CD, MP3 and SACD.

● The digital audio output level is reduced when playing 2 channel Dolby Digital DVDs or Video CDs with TruSurround selected. If you play a multi-channel Dolby Digital DVD with Dolby Digital to PCM conversion (see page 35) and TruSurround selected, there is no digital output.

● The effect of virtual surround varies depending on your amplifier and speakers.

● Default setting is Off.

Audio Out

```
┌─────────────────────────────────────┐
│ A1│Audio2│Video1│V2│Language│General │
│   Virtual Surround······Off          │
│        Audio Out ▮2 Channel          │
│      Speaker Setting ▯5.1 Channel    │
│         Gain Setting······Fix        │
│     CD Digital Direct······Off       │
│                                      │
│  ◁▷△▽  Move          SETUP│Exit      │
└─────────────────────────────────────┘
```
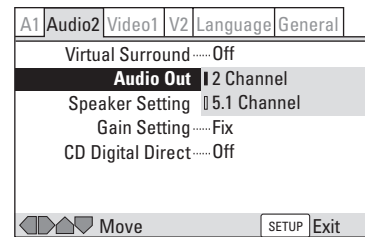
2 Channel (default):
    Select this when the amplifier is connected via the 2CH AUDIO OUT terminals (▲ or ▶ of page 9).

5.1 Channel:
    Select this when the amplifier is connected via the 5.1CH AUDIO OUT terminals.

● Even when "5.1 Channel" is selected, you will not get multi-channel sound unless a multi-channel disc is played.

● When "2 Channel" is selected, multi-channel sound is down mixed to 2 channel.

● When "5.1 Channel" is selected, front left and right channels are output from the 2CH AUDIO OUT jacks (▲ and ▶ of page 9).

● If you change the setting during slideshow of DVD-Video, the sound might be stopped for about 30 seconds.

● Some DVD-Audio discs don't allow down-mixing of audio. These discs always output multi-channel audio regardless of the setting made here.

ENGLISH

Speaker Setting

This setting is necessary only when your amplifier is connected via the 5.1CH AUDIO OUT jack.
This setting does not affect digital audio output.

1 Select "Start" and press the ENTER button.

A1	Audio2	Video1	V2	Language	General

Virtual Surround ······ Off
Audio Out ······ 5.1 Channel
Speaker Setting   **Start**
Gain Setting ······ Fix
CD Digital Direct ······ Off

◁▷△▽ Move | ENTER Select | SETUP Exit
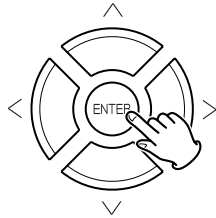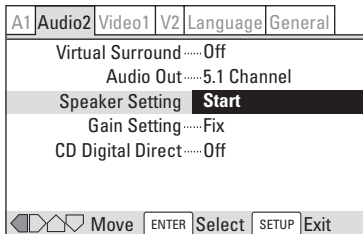
2 Select a speaker by pressing the UP/DOWN buttons, and change the size by pressing the LEFT/RIGHT buttons.

A1	Audio2	Video1	V2	Language	General

Speaker Setting
Size
L/R ······ Large
C   **Large**
LS ······ Large
RS ······ Large
SW ······ On   Return
△▽ Move | ENTER Select | SETUP Exit
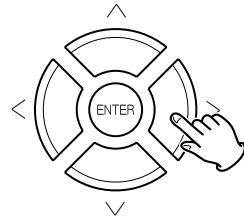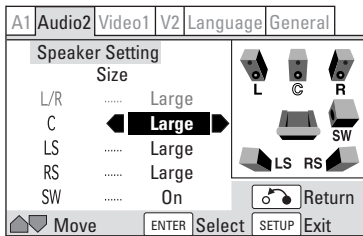
L/R: front speakers
C: center speaker
LS: left surround speaker
RS: right surround speaker
SW: subwoofer

● The size of L/R is fixed to Large. You cannot change.
● Note that the LS and RS speakers cannot be set independently.

C, RS and LS can each be set to Large, Small or Off. Set a speaker to Large if the main speaker cone is 12cm or more; set to Small if it is smaller than 12cm.

The subwoofer (SW) can only be set to On or Off.

The graphic on the right of the screen represents your speaker setup, with the currently selected speaker's name highlighted in blue, and the speakers set to "Large" or "Small" highlighted in yellow.

3 Move the cursor to "Size" by pressing the UP button.

A1	Audio2	Video1	V2	Language	General

Speaker Setting
Size
L/R ······ Large
C ······ Large
LS ······ Large
RS ······ Large
SW ······ On   Return
▷ Distance | ENTER Select | SETUP Exit
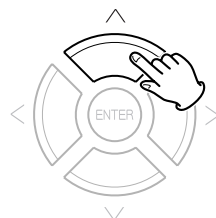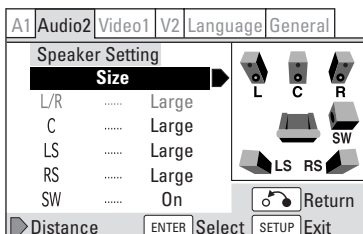
4 Press the RIGHT button to select "Distance".
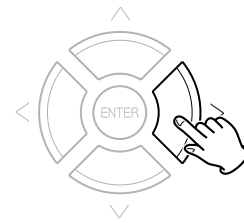
5 Select a speaker by pressing the UP/DOWN buttons, and change the distance by pressing the LEFT/RIGHT buttons.

A1	Audio2	Video1	V2	Language	General

Speaker Setting
Distance
L/R ······ 3.0 m
C   **2.8 m**
LS ······ 3.0 m
RS ······ 3.0 m
SW ······ 3.0 m   Return
△▽ Move | ENTER Select | SETUP Exit
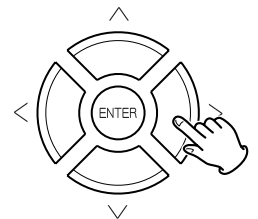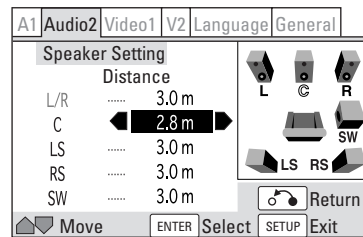
Set the distance from your listening position to each speaker.
● The distance setting for any speaker that was set to "Off" in the Size screen will be grayed out.

Adjustable range (0.1 meter's step)
L/R: 0.3m to 9m
C, SW: ±2m of the L/R setting
LS, RS: -6m to +2m of the L/R setting

● Based on the distance you set here, delay time is set automatically.
● This setting does not apply to SACD playback.

6 When all the setting has been finished, press the ENTER button to save the setting and return to the Setup menu.
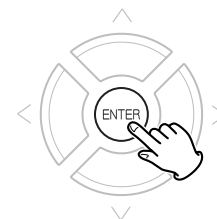
● During playback of a DVD-Audio, speakers are fixed to "Large" regardless of the setting.
● During playback of a DVD-Audio which allows downmixing, if C, LS, or RS speakers is set to Off, the audio is automatically downmixed to stereo.

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Gain Setting (Test Tone) **EXPERT**

If a surround amplifier is connected via the 5.1CH AUDIO OUT terminals, this function is useful to adjust the relative volume between speakers.
Once the balance is set, you don't have to change the balance as long as the speakers aren't moved.

● Use the remote control from your listening position.
● Set the "Audio Out" to "5.1 Channel".
● The test tone will not work with the disc tray open, or while a disc is playing.

● Finish the "Speaker Setting" beforehand.

● Default setting is "Fix". Under the default setting, all channels are output at the relative volumes they were recorded at. Change the setting to "Variable" if you want to adjust the relative volume levels of any of the speakers.

1 Select "Variable" by pressing the DIRECTION buttons, and press the ENTER button.
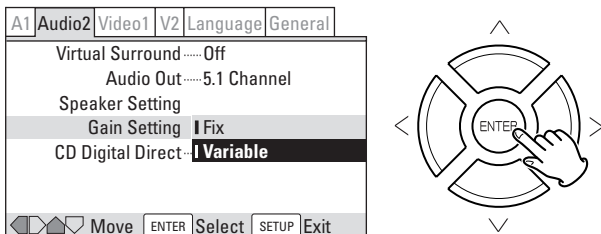
2 Press the RIGHT button to switch to "Test Tone" screen.
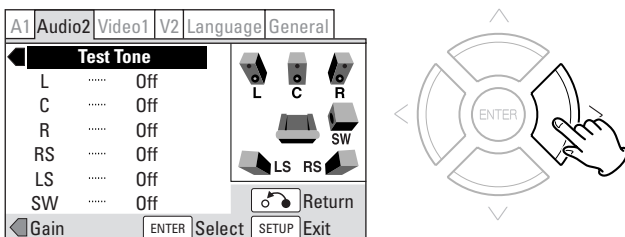
3 Select a speaker by pressing the UP/DOWN buttons, and select "On" or "Auto" by pressing the LEFT/RIGHT buttons.
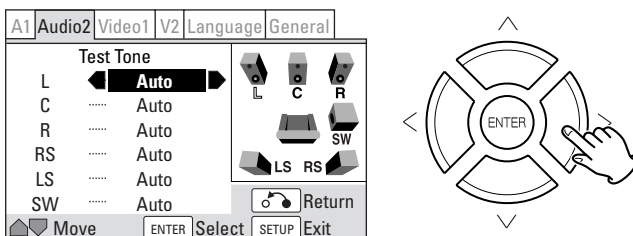
Off:
   Test tone is off.
On:
   Test tone is emitted from the selected speaker.
Auto:
   Test tone is emitted from each speaker (excluding the subwoofer) at 2-second intervals.

● If one of the speakers is set to "Auto", others are fixed to "Auto" automatically.
● If certain speakers are not being used, (for example, no center speaker) the test tone will automatically skip over that channel.

4 Move the cursor to "Test Tone" by pressing the UP button.
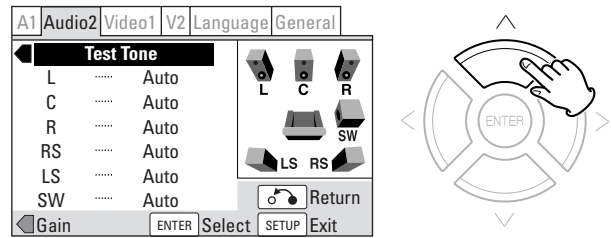
5 Press the LEFT button to switch to "Gain Setting" screen.
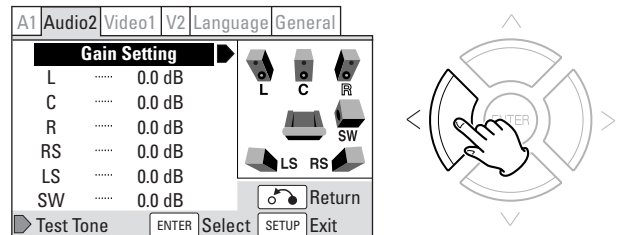
6 Adjust the volume of each speakers so that the test tone from each speakers sounds the same.

   Select a speaker by pressing the UP/DOWN buttons, and change the level by pressing the LEFT/RIGHT buttons.
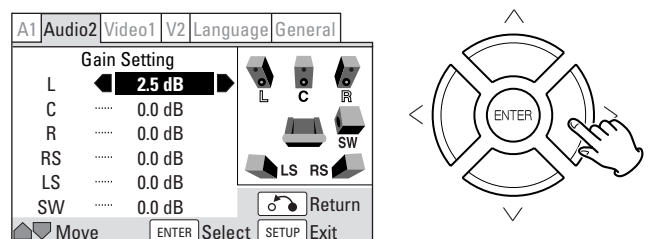
● The level can be adjusted in 0.5 dB steps from -6 dB to +6 dB.
● The name of currently selected speaker is highlighted in sky blue, a speaker emitting the test tone is highlighted in yellow, and the speaker currently selected and emitting the test tone is highlighted in bright green.

7 When the setting has been finished, press the ENTER button to save the setting and return to the setup menu.
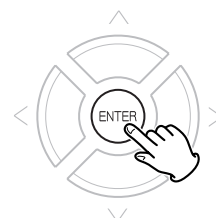
● Many AV amplifiers allow you to make similar settings at the amplifier side. In this case, set the channel levels at the player or the amplifier, not both.

● When "Variable" is selected, the output level of all the speakers are lowered by 6dB to make space for adjustment. Consequently the total output level may sound lower compared with "Fix".

● Gain settings are not effective when playing a CD with "CD Digital Direct" (see page 40).

ENGLISH

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Settings (Audio)

CD Digital Direct EXPERT

```
A1 Audio2 Video1 V2 Language General
        Virtual Surround ······ Off
             Audio Out ······ 2 Channel
        Speaker Setting
          Gain Setting ······ Fix
        CD Digital Direct  ▌ On
                           ▯ Off

   ◁▷△▽  Move              SETUP  Exit
```
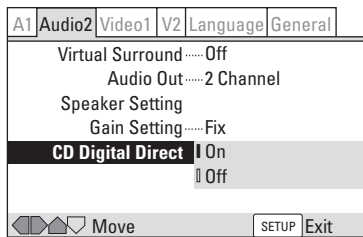
On:

For better sound quality of audio CD, select "On". The unit bypasses audio circuits which are not necessary for audio CD.

Off (default):

Be sure to select "Off" when you play a DTS encoded CD, or noise will be produced.

Settings (Video)

TV Screen

```
Audio1 A2 Video1 V2 Language General
        TV Screen  ▯ 4:3 (Letter box)
   Component Video ▯ 4:3 (Pan&Scan)
        Video Out ▌ 16:9 (Wide)
      S-Video Out ▯ 16:9 (Compressed)
     Frame Search ····· Off
      Screen Saver ····· Off

   ◁▷△▽  Move              SETUP  Exit
```
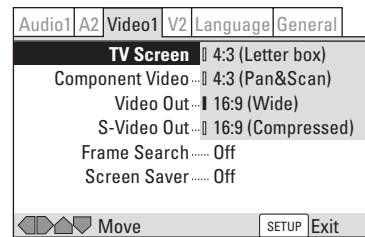
Select the aspect ratio to match your TV.
● You cannot change this setting during playback.

4:3 (Letter Box)

When you connect a normal TV to the system, this setting displays a wide picture with black bars at the top and bottom of the screen.

4:3 picture   16:9 picture

4:3 (Pan & Scan)

When you connect a normal TV to the system, this setting displays a wide picture on the whole TV screen with a portion (right and left sides of the picture) automatically cut off.
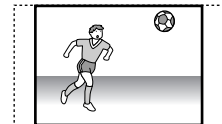
4:3 picture   16:9 picture

16:9 (Wide) (default)

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

16:9 (Compressed)

When your TV is compatible with progressive scan and isn't capable of changing aspect ratio, select this setting. 4:3 picture will be displayed with black bars on right and left sides of the screen.
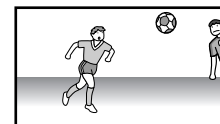
4:3 picture   16:9 picture

● Some wide-screen discs that do not permit Pan & Scan mode playback are automatically played in Letterbox mode.
● Depending on the DVD, 4:3 Letterbox may be selected automatically instead of 4:3 Pan & Scan and vice versa.

● If WIDE is selected and a normal TV is connected, 16:9 content will appear distorted during playback (objects look thin).
● You must also read the instructions of your TV.

Component Video

This setting is necessary only when your TV or monitor is connected via the COMPONENT VIDEO OUT terminals.

```
┌─────────────────────────────────────────┐
│ Audio1 │ A2 │ Video1 │ V2 │ Language │ General │
├─────────────────────────────────────────┤
│        TV Screen ····· 16:9 (Wide)        │
│ ▐ Component Video ▯ Progressive           │
│       Video Out ···▮ Interlace            │
│     S-Video Out ····· S2                  │
│   Frame Search ····· Off                  │
│    Screen Saver ····· Off                 │
│                                           │
│ ◁▷△▽  Move              SETUP  Exit       │
└─────────────────────────────────────────┘
```
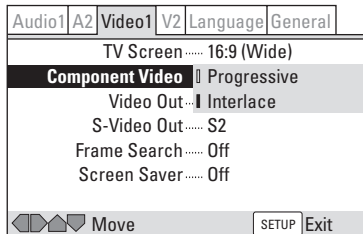
Progressive:
Select this when your TV is compatible with progressive scan. Compared to a standard interlaced TV picture, a progressive scan TV is capable of stable, flicker-free images.

Interlace (default):
Select this when your TV is not compatible with progressive scan.

● 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 35).

● If this player is set to output progressive-scan video, it's possible that the picture will appear stretched when playing discs recorded in 4:3 format. This happens when the TV's aspect ratio is set "Full". To see the picture in its correct aspect ratio, change the TV setting to "Normal".
If your TV doesn't have settings to change the aspect ratio of the picture, set this player to 16:9(Compressed).

● Not all progressive-scan TVs are fully compatible with this unit. In case of trouble, please select "Interlace".

Video Out (European model only)

This setting is necessary only when your TV or monitor is connected via the AV CONNECTOR 1(RGB).
Select the proper signal to be output from the AV CONNECTOR 1(RGB).

```
┌─────────────────────────────────────────┐
│ Audio1 │ A2 │ Video1 │ V2 │ Language │ General │
├─────────────────────────────────────────┤
│       TV Screen ······ 16:9 (Wide)        │
│  Component Video ······· Interlace        │
│ ▐ Video Out ▮ Video                       │
│    S-Video Out ···▯ S-Video               │
│   Frame Search ···▯ RGB                   │
│    Screen Saver ······· Off               │
│                                           │
│ ◁▷△▽  Move             SETUP  Exit        │
└─────────────────────────────────────────┘
```
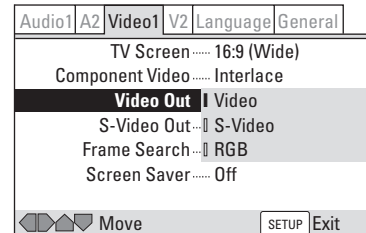
Video (default):
Outputs composite video signal. Compatible with all TVs, but lowest quality of the three.

S-Video:
Outputs S-Video signal. Select this when your TV or monitor is compatible with S-Video.

RGB:
Outputs RGB video signal. Select this when your TV or monitor is compatible with RGB. This setting gives the best picture quality of the three.

● When your TV isn't compatible with RGB or S-Video, never select them. No picture will be shown on the monitor.

In case you select RGB or S-Video by mistake, connect your TV via the AV CONNECTOR 2 (or VIDEO OUT jack or S-VIDEO jack) to display the Setup menu and change the setting to "Video", or initialize the settings (see page 35).

S-Video Out `EXPERT`

This setting is necessary only when your TV or monitor is connected via the S-VIDEO OUT terminals (or when S-Video signal is output from the AV CONNECTOR).

```
┌─────────────────────────────────────────┐
│ Audio1 │ A2 │ Video1 │ V2 │ Language │ General │
├─────────────────────────────────────────┤
│       TV Screen ····· 16:9 (Wide)         │
│  Component Video ······ Interlace         │
│       Video Out ······ Video              │
│ ▐ S-Video Out ▯ S1                        │
│   Frame Search ···▮ S2                    │
│    Screen Saver ······ Off                │
│                                           │
│ ◁▷△▽  Move             SETUP  Exit        │
└─────────────────────────────────────────┘
```
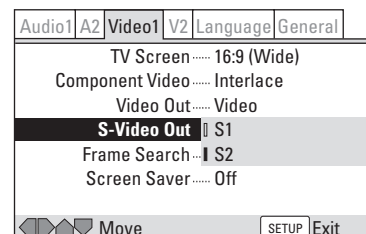
S1:
Outputs the S1-Video signal containing information on the aspect ratio(4:3 and 16:9).
S2 (default):
In addition to the information of S1, S2-Video signal contains information on the aspect ratio (4:3 Letter Box). When your wide-screen TV is compatible with S2-Video, correct aspect ratio will be selected automatically.

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

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Frame Search EXPERT

```
┌─────────────────────────────────────┐
│Audio1│A2│Video1│V2│Language│General  │
│        TV Screen······ 16:9 (Wide)   │
│  Component Video······ Interlace     │
│       Video Out······ Video          │
│      S-Video Out······ S2            │
│     Frame Search   ▯ On              │
│      Screen Saver ···▮ Off           │
│                                      │
│  ◁▯▷△▽ Move         SETUP Exit       │
└─────────────────────────────────────┘
```
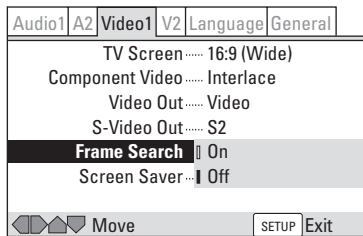
On:
If you want to use Frame Search function, select "On".
You can check the frame number by pressing the DISPLAY button in the pause mode.

Off (default):
Frame Search function is disabled, and the frame number doesn't appear on the screen.

Screen Saver EXPERT

The screen saver is useful to prevent your display from being burned in a ghost image.

```
┌─────────────────────────────────────┐
│Audio1│A2│Video1│V2│Language│General  │
│        TV Screen······ 16:9 (Wide)   │
│  Component Video······ Interlace     │
│       Video Out······ Video          │
│      S-Video Out······ S2            │
│     Frame Search······ Off           │
│      Screen Saver  ▯ On              │
│                   ▮ Off              │
│  ◁▯▷△▽ Move         SETUP Exit       │
└─────────────────────────────────────┘
```
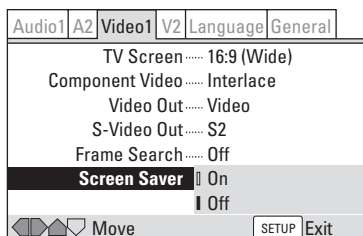
On:
When you leave the unit in pause or stop mode for 5 minutes, (or no button is pressed during playback of CD and MP3), the screen saver image appears on the screen. Press any button to stop the screen saver.

Off (default):
Screen saver is off.

Background

You can select the background color (gray or black) that is displayed in the stop mode.

```
┌─────────────────────────────────────┐
│Audio1│A2│V1│Video2│Language│General  │
│      Background  ▮ Gray              │
│     Video Adjust···▯ Black           │
│      Still Picture······ Auto        │
│  On Screen Display······ On          │
│     Angle Indicator······ On         │
│                                      │
│                                      │
│  ◁▯▷△▽ Move         SETUP Exit       │
└─────────────────────────────────────┘
```
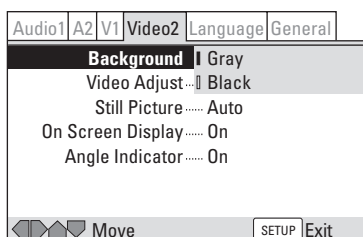
The default setting is gray.

Video Adjust

You can select one of the preset settings optimized for display device (TV, plasma display, professional monitor). You can also set up your own setting and save it in the player's memory.

● If you start adjustment during playback or pause of DVD, you can see the effect of each setting on the picture.

● If a 4:3 standard TV is connected and the video adjust menu is selected during playback of DVD, the display might be distorted momentarily. It is not a malfunction.

Selecting one of the preset settings

1 Select "Start" by pressing the DIRECTION buttons, and press the ENTER button.

```
┌─────────────────────────────────────┐
│Audio1│A2│V1│Video2│Language│General  │
│       Background······ Gray          │
│      Video Adjust   Start            │
│      Still Picture······ Auto        │
│  On Screen Display ···· On           │
│     Angle Indicator······ On         │
│                                      │
│  ◁▯▷△▽ Move  ENTER Select SETUP Exit │
└─────────────────────────────────────┘
```
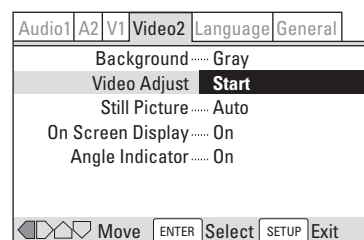
2 Select "Video Memory Select" by pressing the DIRECTION buttons, and press the ENTER button.

```
┌───────────────────────────┐
│ Video Memory Select        │
│ Video Setup                │
└───────────────────────────┘
```

3 Select a setting by pressing the DIRECTION buttons.

```
┌───────────────────────────────────┐
│ TV(CRT)     PDP       Professional │
│ Memory 1    Memory 2  Memory 3     │
└───────────────────────────────────┘
```

TV(CRT) : optimized for a standard television.
PDP : optimized for a plasma display.
Professional : optimized for a professional monitor.
Memory 1, 2, 3 : User presets (see page 43 for details)

4 Press the ENTER button to save the change.
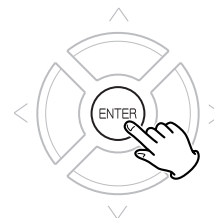
● Depending on the disc and your TV/monitor, the effect of these settings may not be clear.

Creating your own setting

1 Select "Start" by pressing the DIRECTION buttons, and press the ENTER button.

```
┌──────────────────────────────────────┐
│ Audio1 A2 V1 │Video2│ Language General │
│                                        │
│      Background ······ Gray            │
│      Video Adjust   │ Start │          │
│      Still Picture ······ Auto         │
│   On Screen Display ······ On          │
│    Angle Indicator ······ On           │
│                                        │
│   ◁▷△▽  Move  │ENTER│ Select │SETUP│ Exit │
└──────────────────────────────────────┘
```

2 Select "Video Setup" by pressing the DIRECTION buttons, and press the ENTER button.

```
┌──────────────────────────────┐
│ Video Memory Select          │
│ │ Video Setup │               │
└──────────────────────────────┘
```
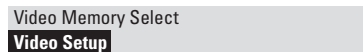
3 Select a parameter by pressing the UP/DOWN buttons, and change the value by pressing the RIGHT/LEFT buttons.

Repeat this step to set other parameters.


```
PureCinema         │ Auto1 │ Auto2  On  Off
  △▽ Move    │ENTER│ Select │DISPLAY│ Check
```


Press the DISPLAY button to list the parameters.

```
                    Page 1/2                                    Page 2/2
Prog.Motion     fast ├──┼┼┼│┼┼┼│ slow      Detail         Off ├──┼│┼┼┼│ max
PureCinema      │Auto1│ Auto2  On  Off      White Level    min ├┼┼┼│┼┼┼│ max
YNR             Off ├──┼│┼┼┼│ max           Black Level    min ├┼┼┼│┼┼┼│ max
CNR             Off ├──┼│┼┼┼│ max           Black Setup      │ 0 IRE │ 7.5 IRE
MNR             Off │┼┼┼│┼┼┼│ max           Gamma           – ├──┼┼┼│┼┼┼│ +
BNR             Off │┼┼┼│┼┼┼│ max           Hue          green ├┼┼┼│┼┼┼│ red
Sharpness High  soft ├──┼┼┼│┼┼┼│ fine        Chroma Level   min ├┼┼┼│┼┼┼│ max
Sharpness Mid   soft ├──┼┼┼│┼┼┼│ fine        Chroma Delay    – ├──┼┼┼│┼┼┼│ +
Memory             │ Off │ 1  2  3          Memory            │ Off │ 1  2  3
```

4 Press the ENTER button to save the change and exit.
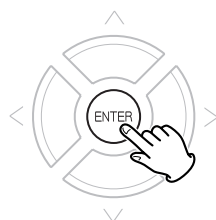
If you want to save your setting in Memory 1, 2 or 3:

1. When all the video adjustment has been finished in step **3**, select "Memory" by pressing the UP/DOWN buttons, and select 1, 2 or 3 by pressing the RIGHT/LEFT buttons.
● The older setting will be overwritten.

2. Press the ENTER button to save and exit.
   Your setting is stored in the selected memory.

```
┌──────────────────────────────────────────────────────────┐
│ Prog.Motion  : When using progressive scan, this adjusts the │
│                motion and still picture quality.           │
│ PureCinema  : When watching DVD movies, PureCinema        │
│                optimizes the picture quality. The default setting is │
│                Auto1, but if the picture appears unnatural, set to │
│                Auto2, On or Off.                           │
│ YNR          : Adjusts the amount of noise reduction (NR) applied │
│                to the Y (brightness) component.            │
│ CNR          : Adjusts the amount of noise reduction (NR) applied │
│                to the C (color) component.                 │
│ MNR (Mosquito Noise Reduction) : Adjusts the amount of noise │
│                reduction applied to the mosquito noise (video │
│                artifacts on the edge of the image resulting from │
│                MPEG compression).                          │
│ BNR (Block Noise Reduction) : Adjusts the amount of noise  │
│                reduction applied to the block noise.       │
│ Sharpness High : Adjusts the sharpness of the high-frequency │
│                (finely detailed) elements in the picture.  │
│ Sharpness Mid : Adjusts the sharpness of the mid-frequency (less │
│                detailed) elements in the picture.          │
│ Detail       : Adjusts how sharp edges appear in the picture. │
│ White Level  : Adjusts the intensity of white in the picture. │
│ Black Level  : Adjusts the intensity of black in the picture. │
│ Black Setup  : For correction of floating black color.     │
│ Gamma        : Adjusts the brightness of the darker images in the │
│                picture.                                    │
│ Hue          : Adjusts the overall color balance between red and │
│                green.                                      │
│ Chroma Level : Adjusts how saturated colors appear.        │
│ Chroma Delay: Compensates for misalignment of the Y       │
│                (brightness) and the C (color) components.  │
└──────────────────────────────────────────────────────────┘
```
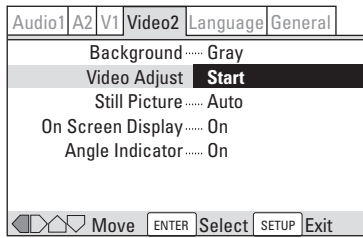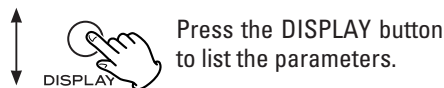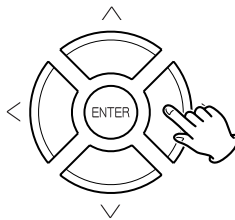
PureCinema

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

Still Picture `EXPERT`

The player uses one of two processes when displaying a still frame from a DVD disc.

```
Audio1 A2 V1 Video2 Language General
         Background······ Gray
         Video Adjust
         Still Picture   ▯ Field
    On Screen Display   ▯ Frame
       Angle Indicator···▯ Auto


    ◁▷△▽ Move              SETUP Exit
```
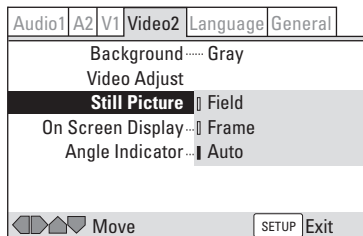
Field :
produces a stable, generally shake-free image.
Frame :
produces a sharper image, but more prone to shake than field stills.
Auto (default) :
automatically chooses the best setting each time.

● Depending on the disc, the image might be shaky even when "Field" is selected.

On Screen Display `EXPERT`

```
Audio1 A2 V1 Video2 Language General
         Background······ Gray
         Video Adjust
         Still Picture······ Auto
    On Screen Display   ▯ On
       Angle Indicator···▯ Off


    ◁▷△▽ Move              SETUP Exit
```
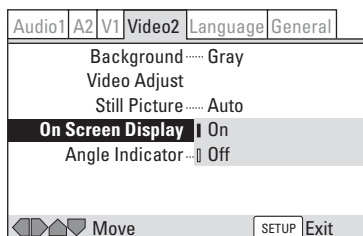
If you select "Off", messages (such as "►► 1" appears during scan) will not appear on the screen, and the DISPLAY button will not work.

Angle Indicator `EXPERT`

Select whether the angle mark appears on the screen or not during playback of a multi-angles scene.

```
Audio1 A2 V1 Video2 Language General
         Background······ Gray
         Video Adjust
         Still Picture······ Auto
    On Screen Display······ On
       Angle Indicator   ▯ On
                         ▯ Off

    ◁▷△▽ Move              SETUP Exit
```
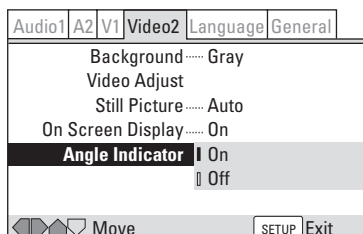
On (default) : ANGLE mark appears on the screen.
Off : ANGLE mark doesn't appear.

● You can change the angles using the ANGLE button (see page 23).

OSD Language

You can select the language for OSD (On Screen Display). This setting allows you to select a preferred language for the Setup menu and operating messages. The default language is ENGLISH.

```
Audio1 A2 Video1 V2 Language General
    OSD Language    ▯ English
    Audio Language   ▯ français
  Subtitle Language  ▯ Deutsch
     Auto Language   ▯ Italiano
      DVD Language   ▯ Español
    Subtitle Display······ On
       Subtitle Off······ Selected Subtitle
    ◁▷△▽ Move              SETUP Exit
```

Audio Language

You can select a preferred audio language.

```
Audio1 A2 Video1 V2 Language General
    OSD Language······ English
    Audio Language   ▯ English
  Subtitle Language  ▯ French
     Auto Language   ▯ German
      DVD Language   ▯ Italian
    Subtitle Display ▯ Spanish
       Subtitle Off  ▯ Other
    ◁▷△▽ Move              SETUP Exit
```

If the language you specify here is recorded on a DVD disc, the system automatically plays the disc in that language (although this depends on the Auto Language setting of page 45).

● If the language you specify here is not recorded on a DVD disc, one of the actual recorded languages is automatically selected.

● If you want to specify a language other than those listed, see page 45.

● You can select any recorded language for audio by pressing the AUDIO button when playing a DVD disc. (It does not affect this setting.)
● You cannot change this setting during playback.

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Subtitle Language

You can select a preferred subtitle language.

```
Audio1 A2 Video1 V2  Language  General
      OSD Language ···· English
    Audio Language ··· English
   Subtitle Language  French
      Auto Language ··· German
      DVD Language ··· Italian
    Subtitle Display ··· Spanish
      Subtitle Off ··· Other
      Move              SETUP  Exit
```

If the language you specify here is recorded on a DVD disc, the system automatically plays the disc in that language (although this depends on the Auto Language setting of page 45).

● If the language you specify here is not recorded on a DVD disc, one of the actual recorded languages is automatically selected.

● If you want to specify a language other than those listed, see page 45.

● You can select any recorded language for subtitle using the SUBTITLE button when playing a DVD disc.(It does not affect this setting.)

● You cannot change this setting during playback.
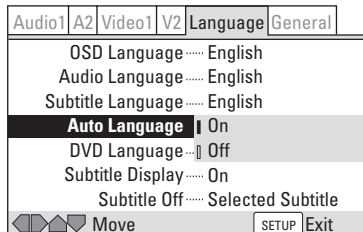
Auto Language

```
Audio1 A2 Video1 V2  Language  General
      OSD Language ···· English
    Audio Language ··· English
   Subtitle Language ··· English
      Auto Language  On
      DVD Language ··· Off
    Subtitle Display ··· On
      Subtitle Off ···· Selected Subtitle
      Move              SETUP  Exit
```

When set to On, the player always selects the default language on a DVD disc (French dialog for a French movie, for example). Movies in your native language won't have any subtitles, while foreign language movies will be shown with subtitles.

Set to Off to have the system play discs according to your Audio Language and Subtitle Language settings.

● Depending on the disc, the Auto Language function doesn't work properly.

● You cannot change this setting during playback.

DVD Language EXPERT

```
Audio1 A2 Video1 V2  Language  General
      OSD Language  w/Subtitle Language
    Audio Language  English
   Subtitle Language  French
      Auto Language  German
      DVD Language  Italian
    Subtitle Display  Spanish
      Subtitle Off  Other
      Move              SETUP  Exit
```

Some multilingual discs have disc menus in several languages. This setting specifies in which language the disc menus should appear.

● If you select "w/Subtitle Language", the menu will appear in the language selected in "Subtitle Setting".

● If you want to specify a language other than those listed, see page 45.

● You cannot change this setting during playback.

Selecting a Language from the Language Code List

1. Select "Others" and press the ENTER button.

2. Select a language.

```
Audio1 A2 Video1 V2  Language  General
 Audio Language
   List of Languages     Code (0~2)
  en : English          0 5 1 4

    +/−                    Return
    Move      ENTER Select  SETUP Exit
```
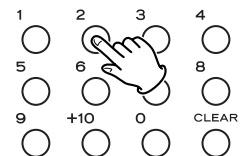
Pick up the code from the list on page 55, and input the 4-digit code by pressing the numeric buttons.
                    or
Select a language from "List of Language" by pressing the UP or DOWN button repeatedly.

3. Press the ENTER button.

ENGLISH

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Subtitle Display `EXPERT`

Audio1	A2	Video1	V2	Language	General

OSD Language ------ English
Audio Language ------ English
Subtitle Language ------ English
Auto Language ------ On
DVD Language ---- ▯ On
Subtitle Display ▯ Off
Subtitle Off ---- ▯ Assist Subtitle
◄▯△▽ Move   `SETUP` Exit

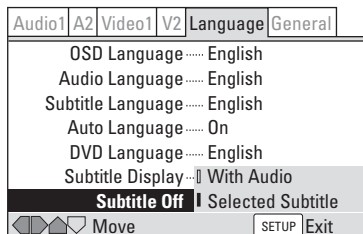**On (default) :** Subtitles are displayed.
Off : No subtitles are displayed.
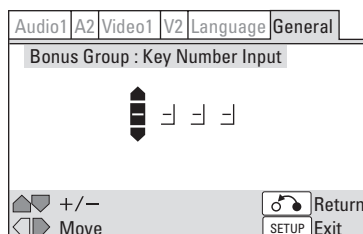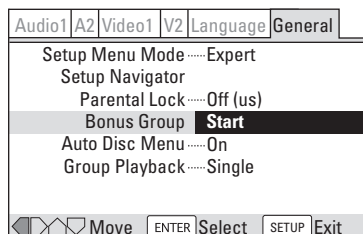**Assist Subtitle :** The extra assist subtitles recorded on certain discs will be displayed.

● If there is no subtitle information recorded on the disc, no subtitles are displayed even if this function is set to On.
● Whether this setting is On or Off, you can still switch subtitles (or switch them off) using the SUBTITLE button.

Subtitle Off `EXPERT`

Audio1	A2	Video1	V2	Language	General

OSD Language ------ English
Audio Language ------ English
Subtitle Language ------ English
Auto Language ------ On
DVD Language ------ English
Subtitle Display --- ▯ With Audio
Subtitle Off ▯ Selected Subtitle
◄▯△▽ Move   `SETUP` Exit

Some discs display subtitles even if the Subtitle Display setting is set to Off. In this case, you can either have the subtitles displayed in the same language as your preferred audio language (With Audio), or in your preferred subtitle language (Selected Subtitle).

Bonus Group `EXPERT`

Audio1	A2	Video1	V2	Language	General

Setup Menu Mode ------ Expert
Setup Navigator
Parental Lock ------ Off (us)
Bonus Group   **Start**
Auto Disc Menu ------ On
Group Playback ------ Single

◄▯△▽ Move   `ENTER` Select   `SETUP` Exit

Audio1	A2	Video1	V2	Language	General

Bonus Group : Key Number Input

▲
▯ ⌐│ ⌐│ ⌐│
▼

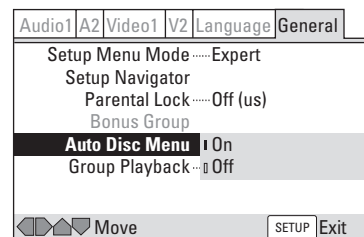△▽ +/−   ♻ Return
◄▷ Move   `SETUP` Exit

Some DVD-Audio discs have an extra bonus group that requires a 4-digit key number to access. When you try to play the bonus group, the key number input screen will automatically appear. Input the number and press ENTER.

By inputting the key number beforehand, you can be free from the input screen during playback.

● See the disc packaging for details and the key number.
● If you eject the disc, switch the power off, or unplug the player, you will need to re-enter the key number.

Auto Disc Menu `EXPERT`

Audio1	A2	Video1	V2	Language	General

Setup Menu Mode ------ Expert
Setup Navigator
Parental Lock ------ Off (us)
Bonus Group
Auto Disc Menu ▯ On
Group Playback ▯ Off

◄▯△▽ Move   `SETUP` Exit
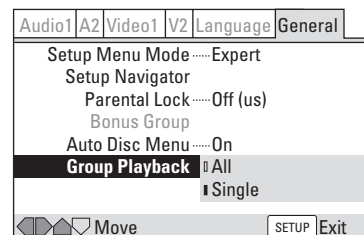
On (default):
The disc menu is automatically displayed after loading.
Off :
The disc menu will not appear. If you want to display the disc menu, press the MENU button during playback.

● Depending on the disc, this function may not work properly.

Group Playback `EXPERT`

Audio1	A2	Video1	V2	Language	General

Setup Menu Mode ------ Expert
Setup Navigator
Parental Lock ------ Off (us)
Bonus Group
Auto Disc Menu ------ On
Group Playback ▯ All
▯ Single

◄▯△▽ Move   `SETUP` Exit

All : All the groups on a DVD-Audio disc will be played.
Single (default) : The selected group will be played.

● When the player is set to Single, and if you try to play all the groups by using the disc menu, only one group might be played.
● Even if the players is set to All, only one group will be played if you select a group from the disc menu.

● Depending on the disc, this function may not work properly.
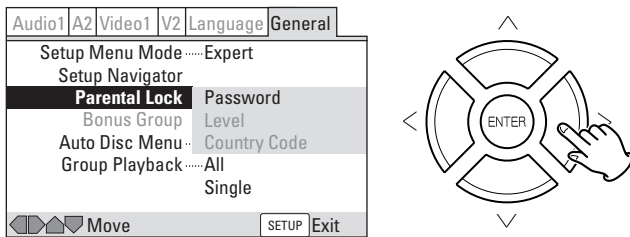
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Playing some DVD discs can be limited depending on the age of the users.

Some DVD discs also support the Country Code feature. The player does not play certain scenes on these discs, depending on the country code you set.
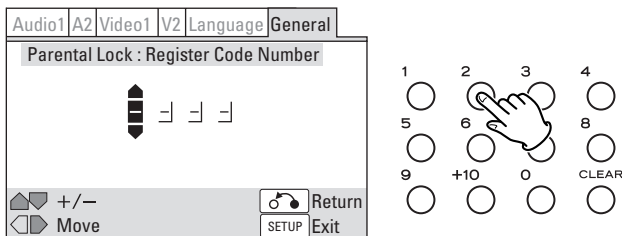
When you use this function for the first time, you have to set a password.
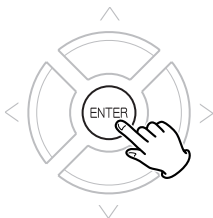
How to set a password

1 **Select "Password" and press the ENTER button.**

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Menu Mode ······Expert
Setup Navigator
Parental Lock Password
Bonus Group Level
Auto Disc Menu ·· Country Code
Group Playback ······ All
Single

◄▷∧∨ Move   SETUP Exit

2 **Enter your 4-digit password using the numeric buttons (0 to 9).**

| Audio1 | A2 | Video1 | V2 | Language | General |

Parental Lock : Register Code Number

⌐| ⌐| ⌐|

∧∨ +/−   ♂ Return
◄▷ Move   SETUP Exit

3 **Press the ENTER button.**

Now the password is set. Please write your password down and put in a safe place.

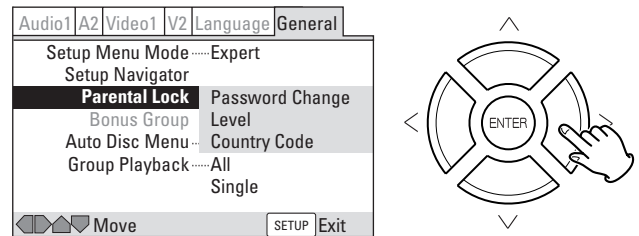● If you forget your password, initialize the settings and set a new password again.

How to change your password

1. **Select "Password Change" and press the ENTER button.**
2. **Enter your old password using the numeric buttons (0 to 9)**
3. **Press the ENTER button.**
4. **Enter your new password using the numeric buttons (0 to 9).**
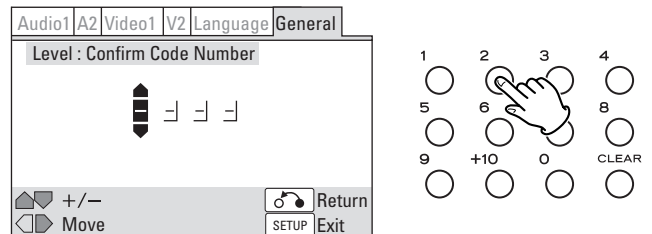5. **Press the ENTER button.**

How to change the Parental Lock Level

The default setting is "Off".
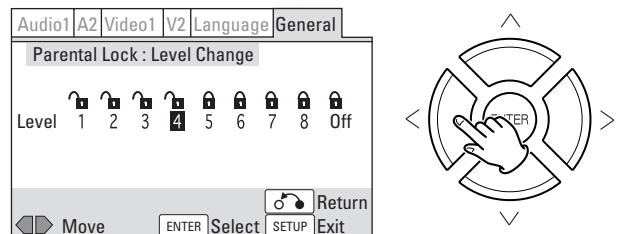
1 **Select "Level" and press the ENTER button.**

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Menu Mode ······Expert
Setup Navigator
Parental Lock Password Change
Bonus Group Level
Auto Disc Menu Country Code
Group Playback All
Single

◄▷∧∨ Move   SETUP Exit

2 **Enter your password using the numeric buttons (0 to 9), and press the ENTER button.**

| Audio1 | A2 | Video1 | V2 | Language | General |

Level : Confirm Code Number

⌐| ⌐| ⌐|

∧∨ +/−   ♂ Return
◄▷ Move   SETUP Exit

3 **Change the level by pressing the RIGHT or LEFT button.**

The lower the level is set, the stricter the limitation is offered.

| Audio1 | A2 | Video1 | V2 | Language | General |

Parental Lock : Level Change

Level   1 2 3 4 5 6 7 8 Off

                    ♂ Return
◄▷ Move   ENTER Select   SETUP Exit

4 **Within 30 seconds, press the ENTER button.**
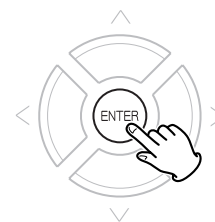
Now the parental lock level has been changed.

● If the rating of the loaded DVD disc is higher than the level you set, the system will require a password. Enter your password and press the ENTER button to start playback.

ENGLISH

Parental Lock 2

How to change the country code

The default country code is "US".

1 Select "Country Code" and press the ENTER button.

| Audio1 | A2 | Video1 | V2 | Language | General |

Setup Menu Mode ------ Expert
Setup Navigator
Parental Lock   Password Change
Bonus Group   Level
Auto Disc Menu ---- Country Code
Group Playback ------ All
                    Single

◄►▲▼ Move   SETUP Exit

2 Enter your password using the numeric buttons (0 to 9), and press the ENTER button.
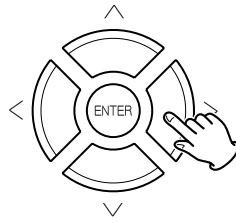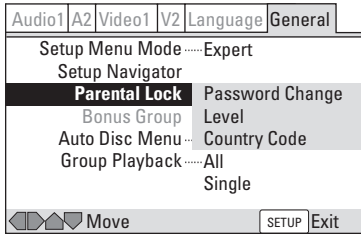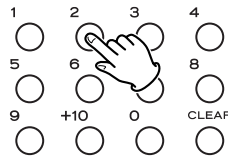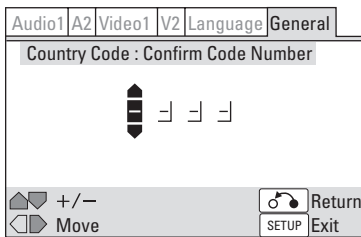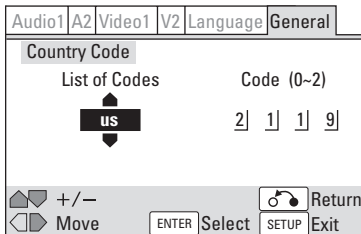

| Audio1 | A2 | Video1 | V2 | Language | General |

Country Code : Confirm Code Number

▲▼ +/−   ♂♪ Return
◄► Move   SETUP Exit

3 Select a country code.

| Audio1 | A2 | Video1 | V2 | Language | General |

Country Code

List of Codes   Code (0~2)
     us   2 1 1 9

▲▼ +/−   ♂♪ Return
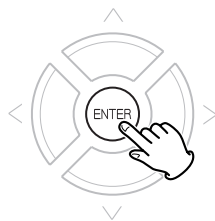◄► Move   ENTER Select   SETUP Exit

Pick up the code from the list on page 48, and input the 4-digit code by pressing the numeric buttons.

or

Select a country from "List of Codes" by pressing the UP or DOWN button repeatedly.

4 Press the ENTER button.

Now the country code has been changed.

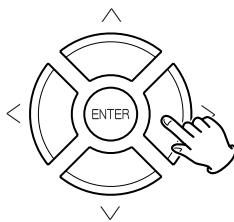| Country	Input Code	Country Code
ARGENTINA	0118	ar
AUSTRALIA	0121	au
AUSTRIA	0120	at
BELGIUM	0205	be
BRAZIL	0218	br
CANADA	0301	ca
CHILE	0312	cl
CHINA	0314	cn
DENMARK	0411	dk
FINLAND	0609	fi
FRANCE	0618	fr
GERMANY	0405	de
HONG KONG	0811	hk
INDIA	0914	in
INDONESIA	0904	id
ITALY	0920	it
JAPAN	1016	jp
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

You can create up to 5 shortcuts to the Setup menu items that you often access. Rather than navigate through the whole Setup menu each time you want to alter a setting, you can access the setting straight from the Function Memory list.
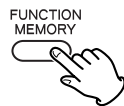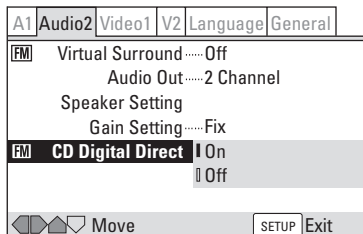
How to add a menu item to the Function Memory list

1 Press the SETUP button to display the Setup menu.

SETUP

2 Select a menu item you want to add by pressing the DIRECTION buttons.

ENTER

3 Press the FUNCTION MEMORY button.

| A1 | Audio2 | Video1 | V2 | Language | General |

FM Virtual Surround ······ Off
         Audio Out ······ 2 Channel
    Speaker Setting
      Gain Setting ······ Fix
FM **CD Digital Direct** ‖ On
                        ‖ Off

◁▷△▽ Move   SETUP Exit

FUNCTION MEMORY

The item is added to the Function Memory list, and "FM" icon appears on the left side of the item.
Repeat step **2** and **3** to add more items.

● If you try to add more than 5 items, the PROHIBIT icon will appear on the screen.
● To delete an item from the Function Memory list, select an item with FM icon by pressing the DIRECTION buttons, and press the FUNCTION MEMORY button.

● Following items cannot be added to the Function Memory list, and the PROHIBIT icon or "This item cannot be registered in the function memory" will appear on the screen:

DTS Out	Subtitle Display
SACD Playback	Subtitle Off
TV Screen	Setup Navigator
Audio Language	Parental Lock
Subtitle Language	Bonus Group
Auto Language	Group Playback
DVD Language	

4 When the selection has been finished, press the SETUP button to exit the Setup menu.

SETUP

How to use the shortcut

● If you were in the Setup menu, press the SETUP button to exit.

1 Press the FUNCTION MEMORY button.

Function Memory
Virtual Surround
CD Digital Direct
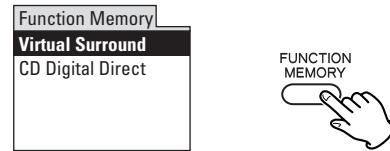
FUNCTION MEMORY

The Function Memory list appears on the screen.

● If there is no shortcut in the list, "FM creates menu item shortcuts" will appear.
● If no button is pressed for 30 seconds, the list will disappear from the screen.

2 Select a shortcut by pressing the UP/DOWN buttons, and press the ENTER button.
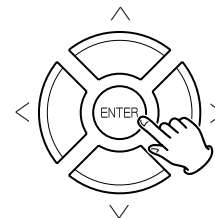
ENTER

The Setup menu which include the selected item appears on the screen.
Change the setting using the DIRECTION buttons and the ENTER button.

3 Press the FUNCTION MEMORY button to exit.

FUNCTION MEMORY

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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 or a TEAC service center.

No power
➡ Check the connection to the AC wall outlet. Make sure the outlet is not switched by a lamp switch by plugging in another electrical device to see if the outlet is "live".
➡ 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.
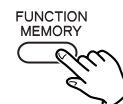➡ Use remote control unit within the range (5m /15ft) and point at the front panel.
➡ Clear obstacles between the remote control unit and the main unit.
➡ If a strong light is near the unit, turn it off.

Severe hum or noise is heard.
➡ Check that the speakers and components are connected securely.
➡ Make sure the line cords and speaker cables are as far away from the AC supply as possible.
➡ This unit cannot play such discs as CD-ROMs. Use a playable disc.

Cannot play.
The disc is ejected automatically after loading.
➡ Reload the disc with the label side UP.
➡ If the disc is dirty, clean the surface of the disc.
➡ A blank disc has been loaded. Load a prerecorded disc.
➡ Check the region code of the DVD.
➡ If the unit is condensed, leave the unit for one or two hours with the power turned on (see page 51).

PROHIBIT icon (📷 or 🚫) 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.
➡ If the power is switched off before exiting the Setup menu, the settings are not stored. Make sure that you exit the Setup menu after changing any settings before switching off.

When making changes in the Setup menus, "DVD" is displayed.
➡ If you try to change settings for DVD while a disc other than DVD is loaded, "DVD" icon will briefly appear on the screen. The change will take effect when a DVD is loaded next time.

Some settings in the Setup Menu do not appear.
➡ Settings marked with the "EXPERT" icon are available only in Expert mode (see page 35).

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 37)
➡ When the amplifier is connected via the DIGITAL OUT terminal, set the Digital Out setting to "On".
➡ The sound is muted during pause, slow-motion, fast forward/reverse, and stepping playback. Press the PLAY button to resume normal playback.

Cannot play multi-channel audio.
➡ Set the Audio Out setting to "5.1 Channel".
➡ Check that the settings in the Speaker Setting screen are correct.
➡ Display the disc menu and select a multi-channel audio language.

No digital audio output.
➡ Check that Digital Out setting is set to On.
➡ Some DVD-Audio discs prohibit digital audio output.
➡ No digital audio is output when playing SACD.
➡ No digital audio is output when playing DVD-Audio in multi-channel(other than Dolby Digital or DTS) or 192/176.4kHz.

Cannot output 96kHz or 88.2kHz digital audio.
➡ Check that the Linear PCM setting is set to Down Sample Off.
➡ 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 Out setting to "DTS-PCM". Or press the AUDIO button to select other audio languages.
➡ Check the setting of your amplifier.

No picture.
➡ Turn on the TV.
➡ Check that the system is connected properly.
➡ Make sure you have selected the proper video input on the TV so that you can view the pictures from the DVD player.
➡ Check the Video Out settings.
➡ When your TV isn't compatible with Progressive scan, never set the progressive mode on. (see page 41)

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.
➡ Select the aspect ratio to match your TV.

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The aspect ratio of the screen cannot be changed.
- ➡ The aspect ratio might be fixed by the disc.
- ➡ Depending on the TV, you may not be able to change the aspect ratio.
- ➡ If you TV is connected via the S-VIDEO terminal, set the S-Video Out setting to "S1".

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.

Can't perform frame search, or the frame number is not displayed.
- ➡ Check that the Frame Search option is set to On.
- ➡ You can only use frame search with DVD-Video discs. To display the frame number, press the DISPLAY button in the pause mode.

Frame search doesn't find the frame number input, or some frames are skipped when using frame advance.
- ➡ You may experience this with discs recorded in 24 frames/second progressive scan format. With these discs, the player "misses" one frame every six frames. For this reason, the frame numbers do not appear continuous when using frame advance, and it may not be possible to display the exact frame you searched for. The player does not actually drop any frames that are recorded on the disc, however.

No Progressive scan output.
- ➡ Make sure media is NTSC. Progressive scan will only work in NTSC format.

Cannot play DVD-RW disc.
- ➡ If "COPY PROTECT PROGRAM, UNPLAYABLE" appears on the screen, the disc cannot be played.

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

The disc containing the MP3 tracks won't play.
"UNPLAYABLE MP3 FORMAT" is displayed.
- ➡ Read "MP3 compatibility information" on page 6.

DISPLAY button doesn't work.
No message appear on the screen.
- ➡ Set the On Screen Display option to "On".

ANGLE mark doesn't appear on the screen.
- ➡ Set both the Angle Indicator option and the On Screen Display option to "On".

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

Beware of condensation

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

Maintenance

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

ENGLISH

Aspect ratio

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

Bit rate

Value indicating the amount of video data compressed in a DVD per second. The unit is Mbps (mega bit per second). 1 Mbps indicates that the data per second is 1,000,000 bits. The higher the bit rate is, the larger the amount of data. However, this does not always mean that you can get higher quality pictures.

Bonus Group

An extra group on some DVD-Audio discs that requires a key number to access.

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

Chapter

Sections of a picture or a music piece on a DVD-Video that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want.

Digital audio

An indirect representation of sound by numbers. During recording, the sound is measured at discrete intervals (44,100 times a second for CD audio) by an analog-to-digital converter, generating a stream of numbers. On playback, a digital-to-analog converter generates an analog signal based on these numbers.

Dolby Digital

In this format, the rear speakers output stereo sound with an expanded frequency range and a subwoofer channel for deep bass is independently provided. This format is also called "5.1" because the subwoofer channel is counted as 0.1 channel (since it functions only when a deep bass effect is needed). All six channels in this format are recorded separately to realize superior channel separation. Furthermore, since all the signals are processed digitally, less signal degradation occurs. The name "AC-3" comes from the fact that it is the third audio coding method to be developed by the Dolby Laboratories.

DTS

Digital audio compression technology that the Digital Theater Systems, Inc. developed. This technology conforms to 5.1-channel surround. The rear channel is stereo and there is discrete subwoofer channel in this format. DTS provides the same 5.1 discrete channels of high quality digital audio. The good channel separation is realized because the all channel data is recorded discretely and digitally processed.

DVD

A disc that contains up to 8 hours of moving pictures even though its diameter is the same as a CD.
The data capacity of a single-layer and single-sided DVD, at 4.7 GB (Giga Byte), is 7 times that of a CD.
Furthermore, the data capacity of a dual-layer and single-sided DVD is 8.5 GB, a single-layer and double-sided DVD 9.4 GB, and a dual-layer and double-sided DVD 17 GB. The picture data uses the MPEG 2 format, one of the worldwide standards of digital compression technology. The picture data is compressed to about 1/40 of its original size. The DVD also uses the variable rate coding technology that changes the data to be allocated according to the status of the picture.
The audio data is recorded in Dolby Digital as well as in PCM, allowing you to enjoy more real audio presence.
Furthermore, various advanced functions such as the multi-angle, multilingual, and Parental Control functions are provided with the DVD.

Dynamic range

The difference between the quietest and loudest sounds possible in an audio signal (without distorting or getting lost in noise). Dolby Digital and DTS soundtracks are capable of a very wide dynamic range, delivering dramatic cinema-like effects.

Group

A collection of tracks on a DVD-Audio disc. Equivalent to "title" of a DVD-Video disc.

MP3

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

MPEG AUDIO

International standard coding system to compress audio digital signals authorized by ISO/IEC. MPEG 1 conforms to up to 2-channel stereo. MPEG 2 used on DVDs conforms to up to 7.1-channel surround.
This player can convert MPEG audio to PCM format.

MPEG VIDEO

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

Multi-angle function

Various angles, or viewpoints of the video camera, for a scene are recorded on some DVDs

Multilingual function

Several languages for the sound or subtitles in a picture are recorded on some DVDs.

Parental Control

A function of the DVD-Video to limit playback of the disc by the age of the users according to the limitation level in each country. The limitation varies from disc to disc; when it is activated, playback is completely prohibited, violent scenes are skipped or replaced with other scenes and so on.

PCM (Pulse Code Modulation)

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

PBC (PlayBack Control)

A system of navigating a Video CD through on-screen menus recorded onto the disc.

PureCinema

Video on a DVD discs may be either video material (originally shot on video) or film material (originally shot on film). Video material has a frame rate of 30 frames/sec.(NTSC), compared with 24 frames/sec. for film. This player converts film material to 60 frames/sec. (in progressive scan mode). PureCinema adjusts the picture so that it matches more closely the picture quality of a cinema screen.

You can see whether video on a DVD disc is film or video material by displaying the video transmission rate (see page 30). If # appears above the transmission rate display, it is film material.

Regions

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

Sampling frequency

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

Slideshow

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

Title

The longest sections of a picture or a music piece on a DVD-Video; a movie, etc., for a picture piece on video software; or an album, etc., for a music piece on an audio software disc. Each title is assigned a title number enabling you to locate the title you want.

Track

Sections of a picture or a music piece on a CD, SACD, DVD-Audio or Video CD. Each track is assigned a track number enabling you to locate the track you want.

Video CD

A compact disc that contains moving pictures.
The picture data uses the MPEG 1 format, one of the worldwide standards of digital compression technology.
The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm Video Disc can contain up to 74 minutes of moving pictures.
Video CDs also contain compact audio data. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. Video CDs can hold 6 times the audio information of conventional audio CDs.
There are 2 versions of Video CDs, and this system conforms to both versions.
- Version 1.1: You can play only moving pictures and sounds.
- Version 2.0: You can play high-resolution still pictures and enjoy PBC functions.

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General

System . . . . DVD-Video, DVD-Audio, DVD-R/RW, Video-CD, SACD, CD and MP3 files

Power supply. AC120V, 60Hz

Power consumption . . . . 34 W

Weight . . . . 21.2 kg (46-11/16 lbs)

External dimensions (W x H x D). . . . . 442 x 157 x 354 mm
(17-3/8" x 6-3/16" x 13-15/16")

Operating temperature . . . . +5°C ~ +35°C (40°F ~ 95°F)

Operating humidity . . . . 5% to 85% (no condensation)

Storage temperature. . . . . -20°C ~ +55°C (-4°F ~ 131°F)

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 (2 individual outputs)

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 . . . . RCA jacks

D1/D2 video output

Y-Output level . . . . 1.0 Vp-p (75 Ω)

P$_B$, P$_R$-Output level . . . . 0.7 Vp-p (75 Ω)

Jack . . . . D terminal

Audio output (Analog Audio)

2CH AUDIO OUT . . . . RCA jack x2, 2.2 Vrms (1 kHz, 0 dB)

5.1CH AUDIO OUT. . . . . RCA jack x1, 2.2 Vrms (1 kHz, 0 dB)

High Quality 2CH AUDIO OUT (XLR x1, RCA jack x1)

RCA. 2.2 Vrms/47kΩ (0dB)

XLR 2.2 Vrms/600Ω (0dB)

Frequency response . . . . 5Hz ~ 80 kHz (-3dB)

Dynamic range (1 kHz) . . . . 108 dB

Total harmonic distortion (1 kHz). 0.001%

Crosstalk (1 kHz) . . . . 110 dB

Audio output (Digital Audio)

OPTICAL . . . . Optical digital jack x 1, -15~-21 dBm

COAXIAL . . . . RCA jack x 1, 0.5 Vp-p/75 Ω

Accessories

Power cord x 1

Remote Control Unit (RC-908) x 1

Batteries (AA, SUM-3) x 2

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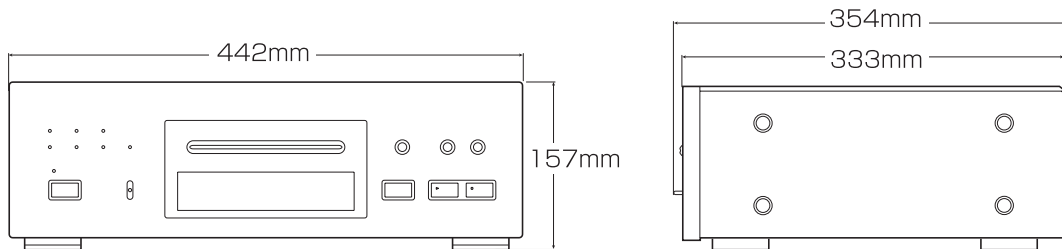
Language	Code
Japanese (ja)	1001
English (en)	0514
French (fr)	0618
German (de)	0405
Italian (it)	0920
Spanish (es)	0519
Chinese (zh)	2608
Dutch (nl)	1412
Portuguese (pt)	1620
Swedish (sv)	1922
Russian (ru)	1821
Korean (ko)	1115
Greek (el)	0512
Afar (aa)	0101
Abkhazian (ab)	0102
Afrikaans (af)	0106
Amharic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

Language	Code
Guarani (gn)	0714
Gujarati (gu)	0721
Hausa (ha)	0801
Hindi (hi)	0809
Croatian (hr)	0818
Hungarian (hu)	0821
Armenian (hy)	0825
Interlingua (ia)	0901
Interlingue (ie)	0905
Inupiak (ik)	0911
Indonesian (in)	0914
Icelandic (is)	0919
Hebrew (iw)	0923
Yiddish (ji)	1009
Javanese (jw)	1023
Georgian (ka)	1101
Kazakh (kk)	1111
Greenlandic (kl)	1112
Cambodian (km)	1113
Kannada (kn)	1114
Kashmiri (ks)	1119
Kurdish (ku)	1121
Kirghiz (ky)	1125
Latin (la)	1201
Lingala (ln)	1214
Laothian (lo)	1215
Lithuanian (lt)	1220
Latvian (lv)	1222
Malagasy (mg)	1307
Maori (mi)	1309
Macedonian (mk)	1311
Malayalam (ml)	1312
Mongolian (mn)	1314
Moldavian (mo)	1315
Marathi (mr)	1318
Malay (ms)	1319
Maltese (mt)	1320
Burmese (my)	1325
Nauru (na)	1401
Nepali (ne)	1405
Norwegian (no)	1415
Occitan (oc)	1503
Oromo (om)	1513
Oriya (or)	1518
Panjabi (pa)	1601
Polish (pl)	1612

Language	Code
Pashto, Pushto (ps)	1619
Quechua (qu)	1721
Rhaeto-Romance (rm)	1813
Kirundi (rn)	1814
Romanian (ro)	1815
Kinyarwanda (rw)	1823
Sanskrit (sa)	1901
Sindhi (sd)	1904
Sangho (sg)	1907
Serbo-Croatian (sh)	1908
Sinhalese (si)	1909
Slovak (sk)	1911
Slovenian (sl)	1912
Samoan (sm)	1913
Shona (sn)	1914
Somali (so)	1915
Albanian (sq)	1917
Serbian (sr)	1918
Siswati (ss)	1919
Sesotho (st)	1920
Sundanese (su)	1921
Swahili (sw)	1923
Tamil (ta)	2001
Telugu (te)	2005
Tajik (tg)	2007
Thai (th)	2008
Tigrinya (ti)	2009
Turkmen (tk)	2011
Tagalog (tl)	2012
Setswana (tn)	2014
Tonga (to)	2015
Turkish (tr)	2018
Tsonga (ts)	2019
Tatar (tt)	2020
Twi (tw)	2023
Ukrainian (uk)	2111
Urdu (ur)	2118
Uzbek (uz)	2126
Vietnamese (vi)	2209
Volapük (vo)	2215
Wolof (wo)	2315
Xhosa (xh)	2408
Yoruba (yo)	2515
Zulu (zu)	2621

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TEAC

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   PRINTED IN JAPAN 0203·MA-0782A