


marantz®

Model ER2500 / SS2500 User Guide

DVD Surround Receiver /
5.1/6.1ch Speaker System



]

CAUTION	
OF ELECTRIC SHOCK DO NOT OPEN	
AVOID THE RISK OF ELECTRIC SHOCK, REMOVE COVER (OR BACK) SERVICABLE PARTS INSIDE FOR QUALIFIED SERVICE PERSONNEL	

with arrowhead symbol within an equilateral triangle is user to the presence of uninsulated "dangerous voltage" enclosure that may be of sufficient magnitude to constitute risk to persons.

It within an equilateral triangle is intended to alert the user important operating and maintenance (servicing) instructions accompanying the product.

**AVOID ELECTRIC SHOCK,
PROTECT FROM RAIN OR MOISTURE.**

AVOID ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO CORRESPONDING SOCKET.

ÉVITER LES CHOC ÉLECTRIQUES, INTRODUIRE LA FICHE DANS LA BORNE CORRESPONDANTE JUSQU'AU FOND.

NOTE:

Refer to the (Cable-TV) system installer's attention to Section 820-40 of the NEC for grounding and, in particular, specifies that the cable ground must be made to the building, as close to the point of cable entry as practical.

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

NOTE:

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

IMPORTANT SAFETY INSTRUCTIONS

READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

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



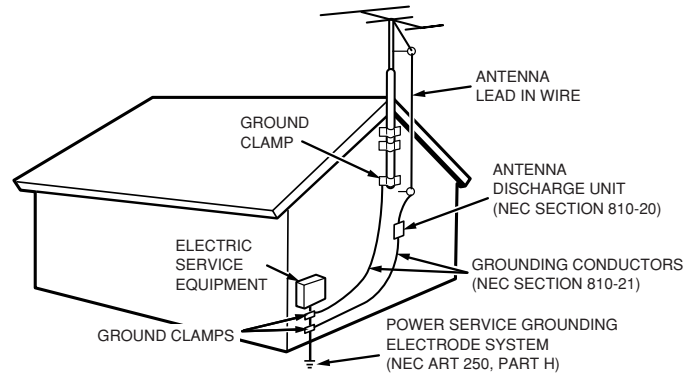
1. Read Instructions – All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Cleaning – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments – Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture – Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
8. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

10. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
11. Power Sources – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

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- duct is having eature. rent or cement service it plug as the al plug.
- outside j to the system (tection) static ectrical mation e mast of the rit, size tenna- nding or the
16. Lightning – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
 17. Power Lines – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
 18. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
 19. Object and Liquid Entry – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
 20. Servicing – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
 21. Damage Requiring Service – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power-supply cord or plug is damaged.
 - b. If liquid has been spilled, or objects have fallen into the product.
 - c. If the product has been exposed to rain or water.

- d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
 - e. If the product has been dropped or damaged in any way, and
 - f. When the product exhibits a distinct change in performance – this indicates a need for service.
22. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
 23. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
 24. Wall or Ceiling Mounting – The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
 25. Heat – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

**FIGURE 1
EXAMPLE OF ANTENNA GROUNDING AS PER
NATIONAL ELECTRICAL CODE, ANSI/NFPA 70**



NEC - NATIONAL ELECTRICAL CODE

This Class B digital apparatus complies with
Canadian ICES-003.

Cet appareil numérique de la Classe B est conforme
à la norme NMB-003 du Canada.

ESPAÑOL

il Marantz

GARANTIA

Para obtener información acerca de la garantía póngase en contacto con su distribuidor Marantz.

GUARDE SU RECIBO DE COMPRA

Su recibo de compra es su prueba permanente de haber adquirido un aparato de valor. Este recibo deberá guardarlo en un lugar seguro y utilizarlo como referencia cuando tenga que hacer uso del seguro o se ponga en contacto con Marantz.

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IMPORTANTE

Cuando solicite el servicio otorgado por la garantía el usuario tiene la responsabilidad de demostrar cuando efectuó la compra. En este caso, su recibo de compra será la prueba apropiada.

PORTUGUÊS

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GARANTIA

Para informações sobre a garantia, contactar o distribuidor Marantz local.

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GUARDAR O RECIBO DE COMPRA

O recibo é o registo permanente da compra que fez. Deve ser guardado num local seguro, para ser apresentado em questões relacionadas com o seguro ou para quando tiver de contactar a Marantz.

IMPORTANTE

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es.

Quando procurar assistência técnica ao abrigo da garantia, é da responsabilidade do consumidor estabelecer a prova e data de compra. O recibo é prova adequada.

English

WARNINGS

- Do not expose the equipment to rain or moisture.
- Do not remove the cover from the equipment.
- Do not insert anything into the equipment through the ventilation holes.
- Do not handle the mains lead with wet hands.
- Do not cover the ventilation with any items such as tablecloths, newspapers, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.
- Do not place anything about 0.2 meter above the top panel.
- Make a space of about 0.2 meter around the unit.

Français

AVERTISSEMENTS

- Ne pas exposer l'appareil à la pluie ni à l'humidité.
- Ne pas essayer de retirer le boîtier de l'appareil.
- Ne rien insérer dans l'appareil par les orifices de ventilation.
- Ne pas manipuler le cordon d'alimentation avec les mains mouillées.
- Ne pas recouvrir les orifices de ventilation avec un objet quelconque comme une nappe, un journal, un rideau, etc.
- Ne placer aucune source de flamme nue, comme une bougie allumée, sur l'appareil.
- Pour mettre au rebut les piles usées, respecter les lois gouvernementales ou les règlements officiels concernant l'environnement qui s'appliquent à votre pays ou région.
- Ne placez aucun objet à moins de 0,2 mètre environ du panneau supérieur.
- Veiller à ce qu'aucun objet ne soit à moins de 0,2 mètre des côtés de l'appareil.

Español

ADVERTENCIAS

- No exponga el equipo a la lluvia ni a la humedad.
- No extraiga la tapa del equipo.
- No introduzca nada en el interior del equipo a través de los orificios de ventilación.
- No maneje el cable de alimentación con las manos mojadas.
- No cubra la ventilación con objetos como manteles, periódicos, cortinas, etc.
- No deben colocarse sobre el equipo elementos con fuego, por ejemplo velas encendidas.
- Cuando se eliminen baterías usadas, deben cumplirse las reglamentaciones oficiales o las normas de protección medioambiental aplicables en su país o en su zona.
- No ponga nada a menos de 0,2 metro por encima del panel superior.
- Deje un espacio de unos 0,2 metro alrededor de la unidad.

Português

ADVERTÊNCIAS

- Não exponha o equipamento à chuva nem à humidade.
- Não retire a tampa do equipamento.
- Não atire nada para dentro do equipamento através dos orificios de ventilação.
- Não manuseie o cabo de alimentação com as mãos molhadas.
- Não cubrir os orificios de ventilação com objetos tais como toalhas de mesa, jornais, cortinas, etc.
- Não colocar chamas abertas tais como velas acesas, sobre o aparelho.
- Ao deitar foras as pilhas usadas, favor observar os regulamentos governamentais ou as regras com respeito ao meio ambiente que se aplicam no seu país ou área de residência.
- Deixar um espaço completamente livre de cerca de 0,2 metro acima do painel superior.
- Deixar um espaço de cerca de 0,2 metro ao redor do aparelho.

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PRECAUTIONS

The following precautions should be taken when operating the equipment.

GENERAL PRECAUTIONS

When siting the equipment ensure that:

- the ventilation holes are not covered;
- air is allowed to circulate freely around the equipment
- it is on a vibration free-surface;
- it will not be exposed to interference from an external source;
- it will not be exposed to excessive heat, cold, moisture or dust;
- it will not be exposed to direct sunlight;
- it will not be exposed to electrostatic discharges

Never place heavy objects on the equipment.

If a foreign body or water does enter the equipment, contact your nearest dealer or service centre.

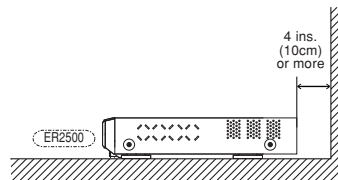
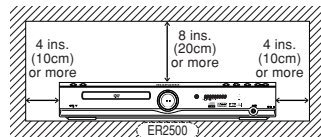
Do not pull out the plug by pulling on the mains lead, hold the plug.

It is advisable when leaving the house, or during a thunderstorm, to disconnect the equipment from the mains supply.

CAUTIONS ON INSTALLATION

For heat dispersal, leave at least 8 inches (20 cm) of space between the top, back and sides of this unit and the wall or other components.

- Do not obstruct the ventilation holes.



DESCRIPTION



DTS was introduced in 1994 to provide 5.1 channels of discrete digital audio into home theater systems. DTS brings you premium quality discrete multichannel digital sound to both movies and music.

DTS is a multichannel sound system designed to create full range digital sound reproduction.

The no compromise DTS digital process sets the standard of quality for cinema sound by delivering an exact copy of the studio master recordings to neighborhood and home theaters.

Now, every moviegoer can hear the sound exactly as the moviemaker intended.

DTS can be enjoyed in the home for either movies or music on of DVD's, LD's, and CD's.

"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.



The advantages of discrete multichannel systems over matrix are well known.

But even in homes equipped for discrete multichannel, there remains a need for high-quality matrix decoding. This is because of the large library of matrix surround motion pictures available on disc and on VHS tape; and analog television broadcasts. The typical matrix decoder of today derives a center channel and a mono surround channel from two-channel matrix stereo material. It is better than a simple matrix in that it includes steering logic to improve separation, but because of its mono, band-limited surround it can be disappointing to users accustomed to discrete multichannel.

Neo:6 offers several important improvements as follows,

- Neo:6 provides up to six full-band channels of matrix decoding from stereo matrix material. Users with 6.1 and 5.1 systems will derive six and five separate channels, respectively, corresponding to the standard home-theater speaker layouts.
- Neo:6 technology allows various sound elements within a channel or channels to be steered separately, and in a way which follows naturally from the original presentation.

- Neo:6 offers a music mode to expand stereo nonmatrix recordings into the five- or six-channel layout, in a way which does not diminish the subtlety and integrity of the original stereo recording.



DTS-ES Extended Surround is a new multichannel digital signal format developed by Digital Theater Systems Inc. While offering high compatibility with the conventional DTS Digital Surround format, DTS-ES Extended Surround greatly improves the 360-degree surround impression and space expression thanks to further expanded surround signals. This format has been used professionally in movie theaters since 1999.

In addition to the 5.1 surround channels (FL, FR, C, SL, SR and LFE), DTS-ES Extended Surround also offers the SB (Surround Back) channel for surround playback with a total of 6.1 channels. DTS-ES Extended Surround includes two signal formats with different surround signal recording methods, as DTS-ES Discrete 6.1 and DTS-ES Matrix 6.1.

"DTS", "DTS-ES" and "Neo:6" are trademarks of Digital Theater Systems, Inc.



Dolby Digital identifies the use of Dolby Digital audio coding for such consumer formats as DVD and DTV. As with film sound, Dolby Digital can provide up to five full-range channels for left, center, and right screen channels, independent left and right surround channels, and a sixth (".1") channel for low-frequency effects.

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FEATURES

ER2500

- 6.1ch DVD Receiver
- (5 speakers including phantom speaker for surround back and passive subwoofer)
- Easy speaker setting menu
- Sleep timer
- Play back DVD /VCD /CD-DA /CD-R /CD-RW /MP3/WMA /S-VCD /DVD+R /DVD+RW /DVD-R /DVD-RW(video mode) /JPEG photo data
- 10-bit/54 MHz Video DAC
- 24-bit/192 KHz Audio DAC

SS2500 (Optional)

- 5.1/6.1ch speaker system

ACCESSORIES

ER2500








- Remote control unit x1
- Batteries (AAA type) x2
- FM antenna x1
- AM antenna x1
- AC power cord x1 (only for ER2500S)
- AUDIO cable x1
- VIDEO cable x1
- User's guide x1
- Warranty card for USA x1 (only for ER2500U)
- Warranty card for CANADA x1 (only for ER2500U)

SS2500 (Optional)

- Front speakers (right and left) x 2
- Center speaker x 1
- Surround speakers (right and left) x 2
- Subwoofer x 1
- Speaker cord
 - 5m cord for front left (White) x 1
 - 5m cord for front right (Red) x 1
 - 5m cord for center (Green) x 1
 - 5m cord for subwoofer (Purple) x 1
 - 10m cord for surround left (Blue) x 1
 - 10m cord for surround right (Gray) x 1
 - 10m separation cord for surround back (Phantom) (Brown) x 1
- Tray for center speaker x 1
- Cushion for subwoofer x 4
- Terminal cover x 5

ABOUT DISCS

PLAYABLE DISCS

	DVD
 	DVD+R/DVD+RW DVD-R/DVD-RW Finalized DVD disc recorded in the DVD video format.
	Video CD (VCD) / Super Video CD(SVCD)
	Audio CD (CD-DA)
 	CD-R/CD-RW Finalized CD-R and CD-RW discs recorded in the CD-DA format. MP3 format (ⓂⓅⓅ p4 "ABOUT MP3/WMA") or Video-CD format can be played with the unit.

* Finalize is the process to make a DVD+R/DVD+RW, DVD-R/DVD-RW or CD-R/CD-RW playable for players (not recorders)
* Some discs may not be able to be played depending on condition of the discs and recording software.

NOT PLAYABLE DISCS

- DVD discs whose region number is not "1" nor "ALL".
- DVD-ROM
- DVD-RAM
- DVD-Audio
- CD-ROM
- CDV
- CD-G
- CVD
- Super Audio CD
- CD Photo, etc.

Caution

Some copy-controlled CDs may not conform to official CD standards. They are special discs and may not play on the this unit.

VIDEO FORMAT

This unit can handle with MULTI, NTSC or PAL format.

Caution

This unit cannot handle with NTSC4.43 and SECAM formats.

SETTING PICTURE FORMAT

1. Every time the **NTSC/PAL** button on the remote is pressed, picture format changes in the following order.



Caution

- If wrong color or disordered picture appears in the MULTI mode, switch the mode to NTSC or PAL.
- If a disc recorded in PAL(NTSC) is played in the NTSC(PAL) mode, picture may be disordered.

a disc.

disc

disc

the

ER2500
1. If the
disc is not
a DVD disc,

the front
panel shows
numbers.



STRUCTURE OF DVD DISCS

Depending on the material on the disc (a movie, video clips, a drama series, etc.), these discs may have one or more Titles, and each Title may have one or more Chapters. To make access easy and convenient, your player lets you move between Titles and between Chapters.



ABOUT VIDEO CDS

VARIATIONS OF VIDEO CD

- Video-CD Version 2.0
The Video-CD with PBC (Play Back Control : Menu playback function) function. You can choose or search a section to play with a menu displayed on the TV screen. Also still pictures can be displayed in higher quality.
- Video-CD Version 1.1
The video-CD without PBC function. It can play video and audio by operation much like to the ordinary audio-CD.

STRUCTURE OF VIDEO-CD DISCS

Depending on the material on the disc (a movie, video clips, a drama series, etc.), these discs may have one or more tracks, and tracks may have one or more indexes, as indicated on the disc case. To make access easy and convenient, your player lets you move between tracks and between indexes.



ABOUT AUDIO CD

STRUCTURE OF AUDIO CD

Audio CDs contain music tracks only. You can play them in conventional style through a stereo system, using the keys on the remote control and/or front panel.



ABOUT MP3/WMA

MP3 is the compressed music file in MPEG1, Audio Layer 3 format.
A WMA(Windows Media Audio) file is a Microsoft audio compression technology. WMA offers double the audio compression of the MP3 format.

Microsoft, Windows Media, and the Windows Logo are trademarks or registered trademarks of Microsoft Corporation in both the United States and other countries.



MP3/WMA PLAYBACK

- This player can play MP3/WMA discs recorded in ISO9660 format.
- The player plays the files with ".mp3/.WMA" extension only.
- The maximum file number in a disc is 650. (Including the number of folders.)
- The maximum folder layer number is 8.
- When playing a MP3/WMA disc, it may take more than 30 seconds depending on the number of files and folder layer structure.

ADDITIONAL INFORMATION

The glossy side shining like a rainbow is the front side of the disc, and the side on which the label is printed is the back.

Unlike conventional turntables for playing analog discs, the ER2500 reads the information recorded on the disc from underneath without contacting it using a beam of laser light. Therefore, the performance of a compact disc will not degrade like conventional analog records.

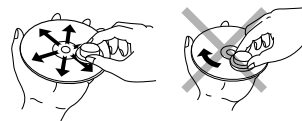
Handle discs carefully so as not to damage or scratch the front side.

To protect the disc, avoid placing it in the following locations:

- In direct sunlight or near a source of heat like a heater.
- In a place which is damp or dirty.
- In a place which could be exposed to rain, such as near a window.

Always keep the disc surface clean.

When cleaning the disc surface, always be sure to use a special compact disc cleaner and wipe as shown below.

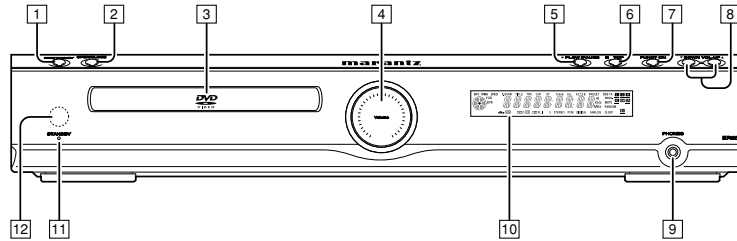


- Do not use conventional record cleaner for analog records, as this will adversely affect the disc surface.
Store discs properly by placing them in their disc cases.

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CONTROLS ON THE MAIN UNIT

FRONT PANEL



a.
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1 POWER ON / STANDBY button

- Press to turn power ON and press again to switch to STANDBY mode.

2 OPEN/CLOSE button

- Press this button to open and close the disc tray.

3 Disc tray

4 Master volume indication

- This indication shows volume status of the unit.
8dB 1 time shift the light up LED position.

5 ►PLAY/ II PAUSE button

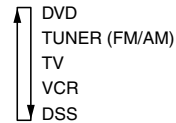
- In DVD mode, press this button to start playback.
- In DVD mode, press this button to pause playback.

6 ■ STOP button

- In DVD mode, press this button to stop playback.

7 FUNCTION button

- Press this button to select the input function. Pressing this button to change the function as follows:



8 VOLUME UP▲ / DOWN▼ buttons

- These buttons are used to change the master volume for listening. Press the **up** button to increase and the **down** button to decrease the volume.

9 PHONES jack

- For connecting stereo headphones. When the headphones are connected to this jack, the speaker sound is turned off and the surround mode be changed to stereo mode.

10 Display

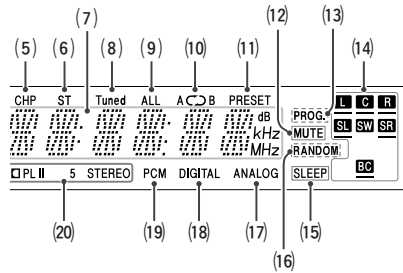
- When the unit is on, the current status of the unit is displayed.

11 STANDBY indicator

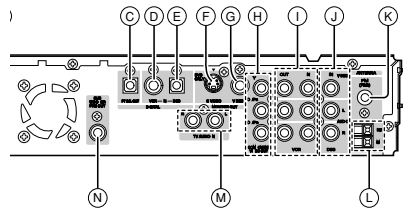
- The indicator lights GREEN when power is ON, and lights RED when in STANDBY mode.

12 Infrared sensor

- The infrared signal from the remote control enters the unit through this sensor.



- code.
- (13) PROG. indicates programmed playback is active.
 (14) Speaker icons.
 (15) Illuminates when SLEEP TIMER is set.
 (16) Illuminates during shuffle playback.
 (17) Illuminates when an analog source is selected.
 (18) Illuminates when a digital source is selected.
 (19) Type of audio signal.
 (20) Surround mode.
 playback. (21) Indicates encoding audio format.
 selected. (22) Operating status indicator.



(A) CENTER, SURROUND L/R and SUBWOOFER speaker terminals

- Connect the center, surround left and right, passive subwoofer speaker cord of center, surround L/R and subwoofer channels, observing the ⊕ and ⊖ polarity of the cord and terminals.

(B) FRONT L/R speaker terminals

- Connect the front left and right speaker cord of front channel, observing the ⊕ and ⊖ polarity of the cord and terminals.

(C) Digital output jack (Optical)

- The DVD, CD signals during playback are output digitally from this optical jack.

(D) VCR digital audio input jack (Coaxial)

- Connect to the digital audio output jack of a VCR.

(E) DSS digital audio input jack (Optical)

- Connect to the digital audio output jack of a DSS.

(F) S-Video output jack (DVD mode only)

- Connect to the s-video input jack of a monitor or TV input.

(G) Video output jack

- Connect to the composite video input jack of a monitor or TV input.

(H) Component video output jacks (DVD mode only)

- Connect to the component video input jacks of TV.

(I) VCR IN/OUT jacks

- Connect the IN jacks to the output jacks of VCR and the OUT jacks to VCR input jacks.

(J) DSS IN jacks

- Connect the IN jacks to the output jacks of DSS.

(K) FM antenna terminal (75 ohms)

- Connect an external FM antenna with a coaxial cable, or a cable network FM source.

(L) AM antenna and ground terminals

- Connect the supplied AM loop antenna. Use the terminals marked "AM" and "GND". The supplied AM loop antenna will provide good AM reception in most areas. Position the loop antenna until you hear the best reception.

(M) TV AUDIO IN jack

- Connect the IN jack to the audio output jack of TV.

(N) SUB WOOFER PRE OUT jack

- Connect to a component speaker input of an active subwoofer.

(O) SURROUND BACK CENTER speaker terminals

- Connect the separation cord supplied (Brown) for Surround Back (Phantom) observing the ⊕ and ⊖ polarity of the cord and terminals.
- If you use other 6.1ch speaker system than SS2500, connect the surround back center speaker cord of surround back center channel.

(P) AC power cable (ER2500U)

- Connect to an AC power outlet.
This unit has to be powered by 120V AC only.

(Q) AC IN (ER2500S)

- Connect to supplied an AC cable, and connect to an AC power outlet.
ER2500S unit has to be powered by 230V AC only.

ON THE REMOTE CONTROL UNIT

- ① **⏻ STANDBY/ON button**
- Press to turn power ON and press again to switch to STANDBY mode.
- ② **Function buttons**
- There are DVD, TUNER, TV, VCR, DSS buttons. These buttons are used to select the source to be played.
- ③ **A/D button (VCR / DSS mode only)**
- Press this button to switch between the analog and digital inputs.
- ④ **Numeric (ten keypad) button**
- These buttons are used to key in the track number, program number, preset channel number, password, etc directly.
- ⑤ **SURROUND button**
- Press this button to select for surround mode. The surround mode which can be select changes with audio signals and speaker settings. (p20) Select the appropriate surround mode according to the program source.
- ⑥ **VOLUME + / - (up / down) buttons**
- These buttons are used to change the volume for listening. Press the + button to increase and the - button to decrease the volume.
- ⑦ **DISPLAY button (DVD mode only)**
- This button is used to display the playback information during disc playback.
- ⑧ **DVD-SET UP button**
- In DVD mode, this button is used to display the setup menu (OSD) in stop mode.

⑨ **Cursor (▲, ▼, ◀, ▶) buttons**

- These buttons are used to operate the MENU functions.
 - ◀ : Moves the cursor left
 - ▶ : Moves the cursor right
 - ▲ : Moves the cursor up
 - ▼ : Moves the cursor down

⑩ **RETURN button**

- In DVD mode for DVD disc**
 - This button is used to exit menu of DVD disc.
- In DVD mode for Video CD disc**
 - This button is used to return the menu screen while playing VCD disc with PBC ON.

⑪ **SLEEP timer button**

- This button is used to set the sleep timer. Each press of this button change the sleep time following order.
10 → 20 → 30 → 40 → 50 → 60 → 70 → 80 → 90 → 100 → 110 → 120 → OFF (original display)
- The setting time passes, the power is turned off.

⑫ **TV POWER button***

- Press to turn power ON and press again to switch standby for TV.

⑬ **TV-INPUT button***

- Press this button to select for TV side input function.

⑭ **TV-VOL (▲ / ▼) button***

- These button are used to change the TV volume level.

⑮ **TV-CH (▲ / ▼) button***

- These button are used to change the TV channel.

* These buttons can be programmed to use the codes for your appliances of different brands from build in data bank. Other buttons can not be programmed.

⑯ **DIMMER button**

- This button is used to select the dimmer on / off. Repeatedly press the this button to select DIMM ON and DIMM OFF. When you select DIMM ON, the display is dimmed.

⑰ **MUTE button**

- This button is used to mute the sound from the speakers. When this button is pressed, the speakers' sound level is muted and "MUTE" appears on the display. Press this button again to cancel the muting function, and it can also be cancelled by pressing the volume up or down button.

⑱ **TOP MENU button**

- In DVD mode for DVD disc**
 - Press this button to display the title screen in a DVD disc. This button is to show the title menu screen of DVD discs that contain multiple titles.
- In DVD mode for Video CD disc**
 - This button is used to change PBC on / off in DVD mode.

⑲ **ENTER button**

- This button is used to enter the selected MENU function.

⑳ **MENU button**

- Press this button to display the menu in a DVD disc menu.

- 5) — 26
 - 7) — 28
 - 1) — 32
 - 3) — 39
 - 4) — 41
 - 2) — 23
 - 1) — 24
 - 2) — 25
 - 1) — 26
 - 2) — 27
 - 1) — 28
 - 2) — 29
 - 1) — 30
 - 2) — 31
 - 1) — 32
 - 2) — 33
 - 1) — 34
 - 2) — 35
 - 1) — 36
 - 2) — 37
 - 1) — 38
 - 2) — 39
 - 1) — 40
 - 2) — 41
 - 1) — 42
- chapter / number
- 23** ▶ **/RDS button**
In DVD mode
 - Press this button for slow forward playback chapter.**In TUNER mode**
 - This button is unavailable.
 - 24** ◀ **/T.CLR button**
In DVD mode
 - Press this button for slow backward playback chapter.**In TUNER mode**
 - In Preset mode, press this button to clear preset memory.
 - 25** ▶ **(Play) /BAND button**
In DVD mode
 - In DVD or CD mode, press this button to start playback.**In TUNER mode**
 - Press this button to select FM or AM.
 - 26** **TUNE MODE button**
 - In TUNER mode, press this button to select between the Tuning mode and Preset mode.
 - 27** ■ **(Stop) /FM MODE button**
In DVD mode
 - Press this button to stop playback.**In TUNER mode**
 - In Tuning mode, press this button to select stereo or monoral mode, while listening to FM broadcasts.
 - 28** || **(Pause) /MEMORY button**
In DVD mode
 - In DVD or CD mode, press this button to pause playback.**In TUNER mode**
 - Press this button to memory the preset channels.
 - Press this button to scan the preset channels automatically for 2 seconds or more.
 - 29** **AUDIO button**
 - In DVD mode, press this button to select an audio.

- 30** **S.TITLE button**
 - In DVD mode, press this button to select a subtitle language.
- 31** **ANGLE button**
 - If the playing DVD disc contains multi-angle video, press this button to change the angle.
- 32** **ZOOM button**
 - Press this button to enlarge picture. (This function may be disabled depending on discs.)
- 33** **REPEAT 1/ALL button**
 - In DVD mode, press for repeat play during playback. Each time the button is pressed, the mode changes in the following sequence:

```

graph TD
    A[1-chapter(track) repeat] --> B[Title(all track) repeat]
    B --> C[Off]
    
```
- 34** **PRG (Program) button**
 - In DVD mode, press this button to program tracks for program play in stop mode. (VCD/CD)
- 35** **NTSC/PAL button**
 - Press this button to select for the picture format PAL, NTSC, or MULTI to match your TV.
- 36** **T.TONE button**
 - This button is used to output the test tone.

Note:
The maximum test tone level is depending on the volume level.
- 37** **SPK SET button**
 - Press this button to select for speaker size, speaker distance, speaker level by pressing the cursor buttons.
- 38** **RANDOM button**
 - Press for random play to play the tracks in a random sequence. (VCD/CD/MP3/WMA/JPEG)
- 39** **CLR (Clear) button**
 - Press this button to cancel a programmed track. (VCD/CD)

- 40** **NIGHT button**
 - Pressing this button prevents the Dolby Digital signal from playback at a loud voice. This function reduces the voice by 1/3 to 1/4 at maximum. Thus, it eliminates the occurrence of an abruptly loud voice at night.

The Night Mode is effective the Dolby Digital only when the signal is entered through the DVD, VCR, DSS, digital input jack and it compresses the dynamic range.
- 41** **TONE button**
 - Press this button to select for the tone (BASS or TREBLE). To adjust the tone level by pressing the volume buttons.

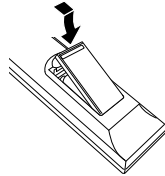
```

graph LR
    A[BASS] --> B[TRE]
    B --> C[OFF]
    
```
- 42** **REPEAT A-B button**
 - In DVD mode, used to set the starting and stopping points of a passage for repeated playback.

UNIT

the remote
: ER2500
ransmitter
SENSOR
1, remote

3. Close until it clicks.



Notes:

- Do not mix alkaline and manganese batteries.
- Do not mix old and new batteries.

CAUTIONS ON BATTERIES

- Use "AAA" type batteries in this remote control unit.
- If the remote control unit does not operate from close to the main unit, replace the batteries with new ones, even if less than a year has passed.
- The included battery is only for verifying operation. Replace it with a new battery as soon as possible.
- When inserting the batteries, be careful to do so in the proper direction, following the + and - marks in the remote control unit's battery compartment.
- To prevent damage or battery fluid leakage:
 - Do not use a new battery with an old one.
 - Do not use two different types of batteries.
 - Do not short-circuit, disassemble, heat or dispose of batteries in flames.
- Remove the batteries when not planning to use the remote control unit for a long period of time.
- If the batteries should leak, carefully wipe off the fluid from the inside of the battery compartment, then insert new batteries.
- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.

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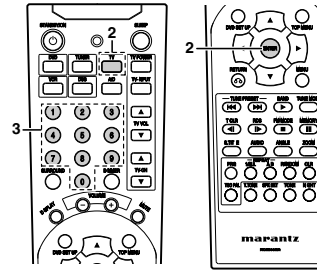
PROGRAMMING THE REMOTE CONTROL UNIT

The remote control unit RC2500ER must be programmed to use the codes for your appliances of different brands. This is done by keying in a 3-digit code or by scanning the codes until the correct one is found. We recommend to using the 3-digit code. This mode is faster and more reliable. The code scanning method should be used only if you cannot find the code for one of your appliances. The codes are listed at the end of this book.

Important:

- Use the remote control buttons for programming, not the buttons of the receiver or other appliances.
- Some codes may be not match your equipment. In this case, your equipment cannot be controlled with this remote controller.
- If the battery life of remote controller is lost, a program code will be reset from a memory.

PROGRAMMING WITH THE 3-DIGIT CODE



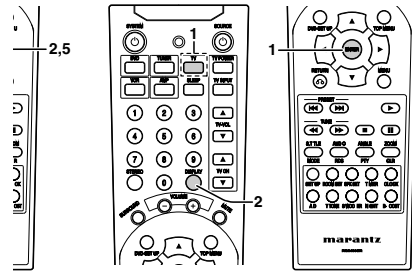
1. Turn on the appliance which should be controlled.
2. Press and hold down the **ENTER** button and press **TV** button until the indicator lamp blinks twice.
3. Press the 3-digit code for appliance. (code table at the end of this book)
 - If the 3-digit code is not pressed with 10 seconds, this programming function is canceled.
4. When the procedure is successful, the indicator lamp will blink twice.

Note:

- If the indicator lamp blinks in 1 second, program code is wrong.
- If the indicator lamp did not blink twice, then repeat steps 1 through 2 and try entering the same code again.

ENGLISH

CHECKING THE CODE



Once you have found and the codes for your various appliances, you may want to write them down here.

TV -----

1. Press and hold down the **ENTER** button and press **TV** button until the indicator lamp blinks twice.
2. Press the **DISPLAY** button. The indicator will blink twice.
3. After 2 seconds, the indicator will blink according to first, second and third digit for the current setup code, count the indicator blinks (e.g. 3 blinks = 3) and write down the number.

Note:

- If a code digit is "0", the indicator will blinks 10 times.

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Front left and right speakers
We recommend to set the front L and R speakers with 45-60 degrees from the listening position.



Center speaker
We recommend to set the front line of the center speaker with the front L/R speakers.

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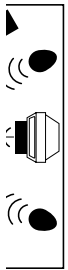
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Surround left and right speakers include phantom surround back speaker
Place the speakers right beside of the listening position or a little backward.

Subwoofer
We recommend to use a subwoofer to have maximum bass effect. Subwoofer bears only low frequency range so you can place it vertically or horizontally, anywhere in the room.

Note:
• Pay special attention for the following speakers placements.

Surround L and Surround R Speakers.
Place the Surround Speaker L (SS2500SL) to your left side and the Surround R Speaker (SS2500SR) to your right side. Do not interchange left and right.

Center Speaker
Lay the Center Speaker(SS2500C) on the tray attached as an accessory.

Subwoofer
• Vertical Setting

• Horizontal Setting

Cushion

Tray

Subwoofer

Tray

Tray

Tray

Tray

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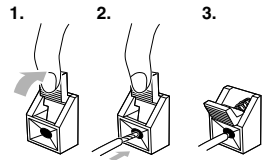
Tray

Tray

2. Connect Speaker to Unit. (p12)
Connect the speakers to the corresponding speaker terminals of the ER2500 using colored cords supplied.

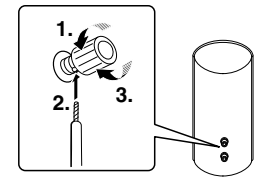
CONNECTING SPEAKER CORD TO UNIT

1. Push the terminal lever in the direction of the arrow, and keep this condition.
2. Insert the bare part of the cord into the hole in the side of each terminal.
3. Put the terminal lever back, and make sure it is fastened securely by pulling the cord lightly.

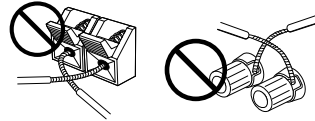


CONNECTING SPEAKER CORD TO 5.1/ 6.1CH SPEAKER SYSTEM SS2500

1. Loosen the knob by turning counterclockwise.
2. Insert the bare part of the cord into the hole in the side of each terminal.
3. Tighten the knob by turning clockwise to secure the cable.



- Caution:**
- Be sure to use speakers with the specified impedance shown on the rear panel of this unit.
 - To prevent damage to circuitry, do not let the bare speaker cords touch each other and do not let them touch any metal part of this unit.



- Do not touch the speaker terminals when the power is on. It may cause electric shocks.
- Do not connect more than one speaker cord to one speaker terminal. Doing so may damage this unit.

- Note:**
- Be sure to connect the positive and negative cords for the speaker properly. If they are miss-connected, the signal phase will be reversed and the signal quality will be corrupted.

SPECIAL INSTRUCTION FOR SURROUND L AND SURROUND R SPEAKERS.

The upper two terminals are for the Surround Back connection for both Surround L (SS2500SL) and Surround R (SS2500SR) speakers. Connect the brown cord supplied (separation cord for Surround Back) referring the label on rear of the cabinet.

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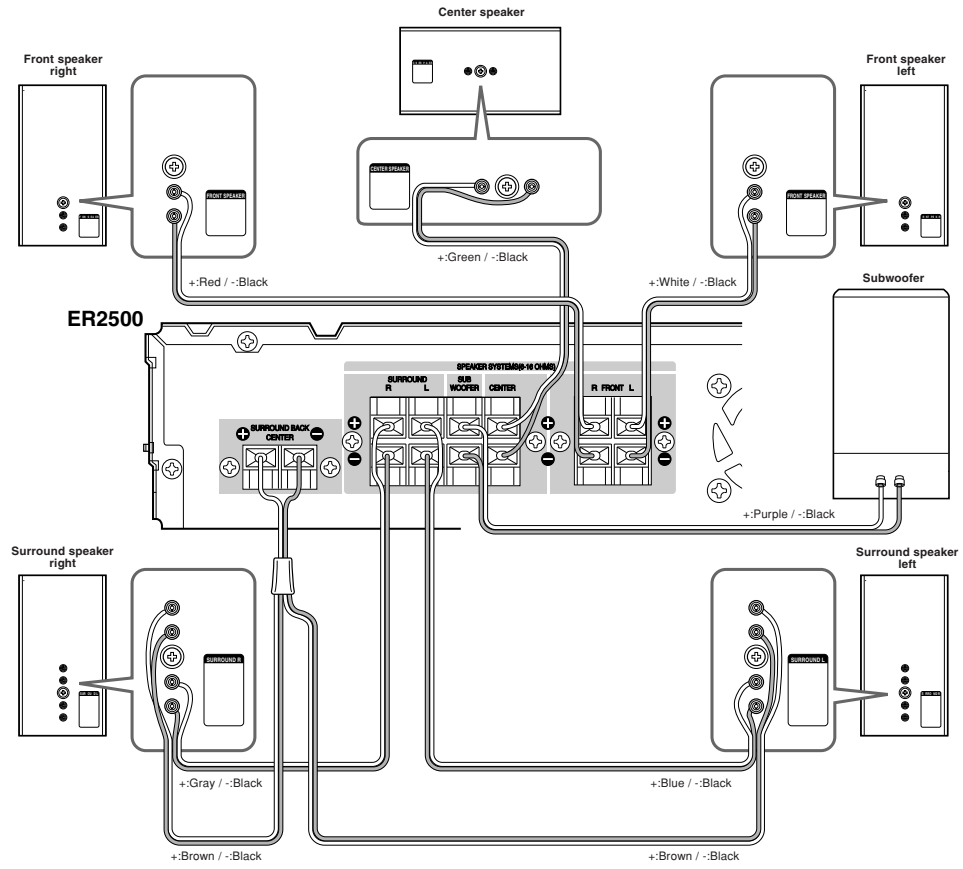
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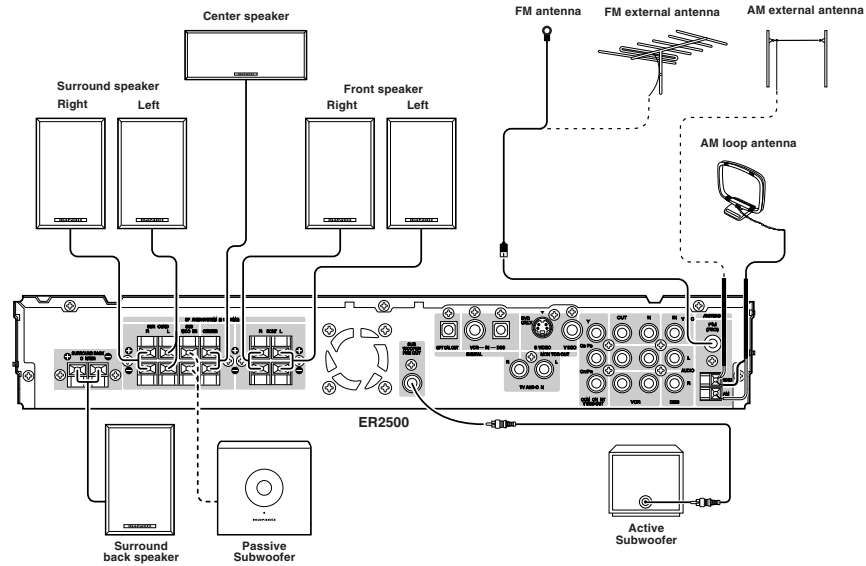
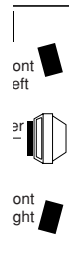
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CONNECTING THE SUPPLIED FM ANTENNA

The supplied FM antenna is for indoor use only. During use, extend the antenna and move it in various directions until the clearest signal is received. Fix it with push pins or similar implements in the position that will cause the least amount of distortion. If you experience poor reception quality, an outdoor antenna may improve the quality.

CONNECTING AN FM OUTDOOR ANTENNA

Note:

- Keep the antenna away from noise sources (neon signs, busy roads, etc.).
- Do not put the antenna close to power lines. Keep it well away from power lines, transformers, etc.
- To avoid the risk of lightning and electrical shock, grounding is necessary.

CONNECTING AN AM OUTDOOR ANTENNA

An outdoor antenna will be more effective if it is stretched horizontally above a window or outside.

Note:

- Do not remove the AM loop antenna.
- To avoid the risk of lightning and electrical shock, grounding is necessary.

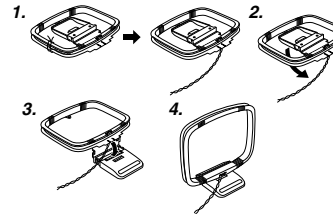
CONNECTING THE SUPPLIED AM LOOP ANTENNA

The supplied AM loop antenna is for indoor use only. Set it in the direction and position where you receive the clearest sound. Put it as far away as possible from the unit, televisions, speaker cables, and power cords.

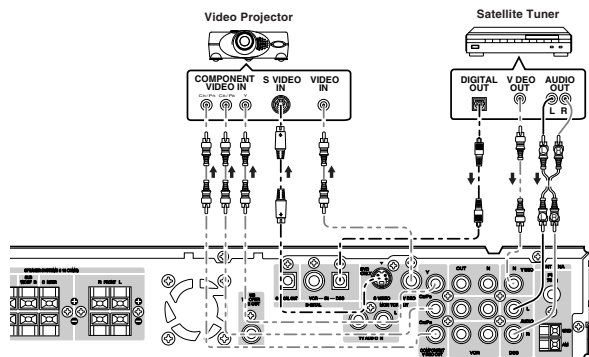
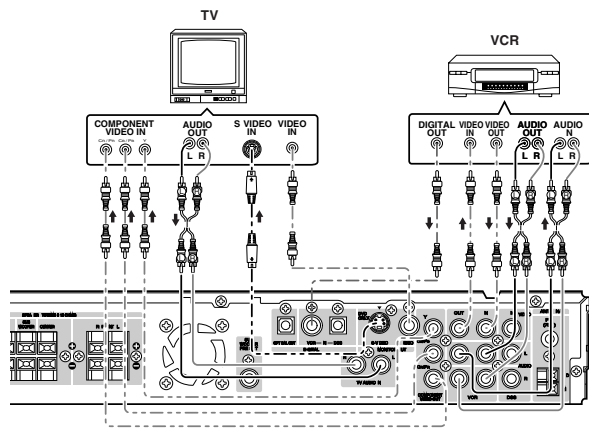
1. Press and hold down the lever of the AM antenna terminal.
2. Insert the bared wire into the antenna terminal.
3. Release the lever.

ASSEMBLING THE AM LOOP ANTENNA

1. Release the vinyl tie and take out the connection line.
2. Bend in the reverse direction.
3. Inserting into the hole to attach the loop antenna to the antenna stand.
4. With the antenna on top any stable surface.



ENGLISH



VIDEO, S-VIDEO, COMPONENT

There are 3 types of video jacks on the rear panel.

VIDEO jack

The video signal for the VIDEO jacks is the conventional composite video signal.

S-VIDEO jack (DVD mode only)

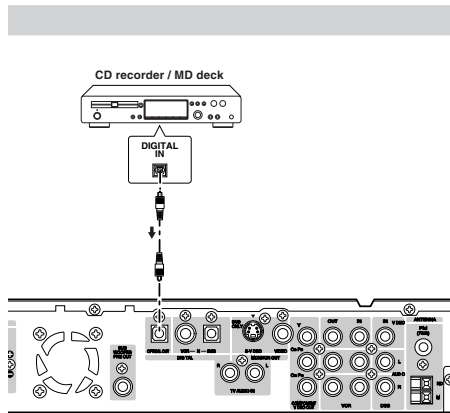
The video signal is separated into luminance (Y) and color (C) signals for the S-VIDEO jack. The S-VIDEO signals enables high-quality color reproduction. If your video component has an S-VIDEO output, we recommend to use it. Connect the S-VIDEO output jack on your video component to the S-VIDEO input jack on this unit.

Component jack (DVD mode only)

Make component video connections to a TV or monitor with component inputs to produce higher quality video images. Use a component video cable or 3 video cords to connect the component video out jacks on the this unit to the monitor.

Notes:

- Be sure to connect the left and right audio channels properly. Red connectors are for the R (right) channel, and white connectors are for the L (left) channel.
- Be sure to connect the inputs and outputs of the video signals properly.
- If you connect the S-VIDEO or component signal to the S-VIDEO or component jack on this unit, it is not necessary to connect the conventional video signal to the VIDEO (composite) jack. If you use both video inputs, this unit gives priority to the S-VIDEO signal.
- Each type of video jack works independently. Signals input to the VIDEO (composite) and S-VIDEO jacks or component are output to the corresponding VIDEO (composite) and S-VIDEO or component jacks, respectively.
- You may need to select the video output mode from setup menu. Refer to the setup menu operation.
- There is no Dolby Digital RF input jack. Please use an external RF demodulator with a Dolby Digital decoder to connect a video disc player which has a Dolby Digital RF output jack to the digital input jack on this unit.
- If you want to out the analog audio signal from VCR audio output terminal via FUNCTION button of ER2500 from digital source (include the build in DVD player), recommend to select STEREO surround mode with 2 speakers setting (Front speaker only).

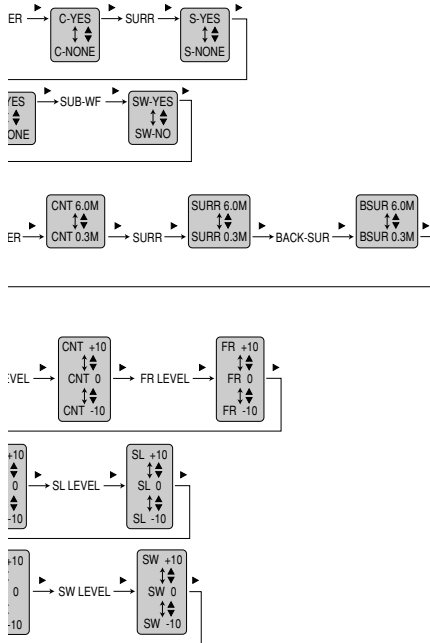


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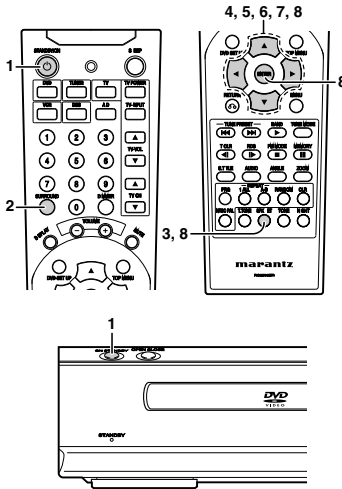
ENGLISH

ents, and determined the speaker layout, it is now time to enu for the optimum sound acoustics for your environment and ings by using the remote control.

s, the speaker setup mode will be cancelled. de or test tone function, there is the function which does not



SPEAKER SIZE



1. Press the **POWER ON/STANDBY** button on the main unit or the **STANDBY/ON** button on the remote control unit to turn the power ON.
2. If STEREO indicator is lit, press the **SURROUND** button and select another surround mode for 5.1 or 6.1channel (such as DOLBY PRO LOGIC IIx MOVIE or HALL).
3. Press the **SPK SET** button.
 - "SP SIZE" appears on the front display.
4. Press the **cursor ►** button.
 - "FRONT" appears on the front display.
5. Press the **cursor ►** button to set.
 - "F-LARGE" or "F-SMALL" appears on the front display.
6. Press the **cursor ▲/▼** buttons to change the front speaker size setting.
7. If you want to decide the speaker size setting, press the **cursor ►** button.
 - "WAIT" blinks for 4 seconds, and the setting is saved in memory.

8. Press the **cursor ►** button to set next speaker size setting (CENTER).
 - Repeat step 5. to 8. to set other speaker size settings.
 - When all the settings have been finished, press the **SPK SET** button or the **ENTER** button (or leave the unit for 10 seconds) to exit the speaker setup mode.

Note:

- "Back Surr" will be displayed in DTS Neo:6, DOLBY PRO LOGIC IIx, Dolby Digital EX, DTS ES, Hall, Theater and Live mode.

FRONT

F-LARGE :

Select this when the front speakers are large and no subwoofer is connected.
When "F-LARGE" is selected, SUBWOOFER is set to "SW-NO" automatically, and bass frequencies of the all channels are output from front speakers.

F-SMALL (Default) :

Select this when the front speakers are rather small and subwoofer is connected.
When "F-SMALL" is selected, SUBWOOFER is set to "SW-YES" automatically, and bass frequencies of the front channels are output from a subwoofer.

CENTER

C-YES (Default) :

Select this when the center speaker is connected.

C-NONE :

Select this when no center speaker is connected. The center channel will be output from front speakers.

SURROUND

S-YES (Default) :

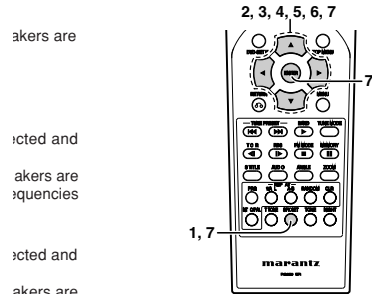
Select this when the surround speakers are connected.

S-NONE :

Select this when no surround speakers are connected.

SPEAKER DISTANCE

This mode is used to set the speaker distance from your listening position.



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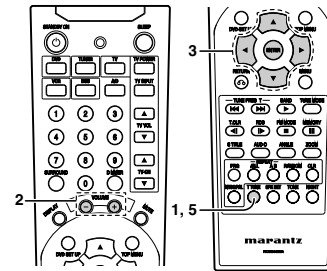
1. Press the **SPK SET** button.
 - "SP SIZE" appears on the front display.
2. Press the **cursor ▼** button.
 - "SP DIST" appears on the front display.
3. Press the **cursor ►** button.
 - "FRONT" appears on the front display.
4. Press the **cursor ►** button to adjust.
 - "F 2.1M" (front default) appears on the front display.
5. Press the **cursor ▲/▼** buttons to change the front speaker distance setting.
6. If you want to decide the speaker distance setting, press the **cursor ►** button.
7. Press the **cursor ►** button to set next speaker size setting (CNT).
 - Repeat step 4. to 7. to set other speaker distance settings.
 - When all the settings have been finished, press the **SPK SET** button or the **ENTER** button (or leave the unit for 10 seconds) to exit the speaker setup mode.

SPEAKER BALANCE (TEST TONE)

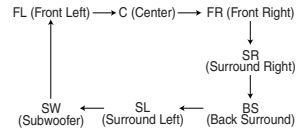
The test tone function is useful to adjust the relative volume level between speakers

Once the balance is set, you don't have to change the balance as long as the speakers aren't moved.

- It is also possible to adjust the relative volume level during playback DVD.
- Use the remote control from your listening position.



1. Press the **T.TONE** button.
 - The test tone is emitted from each speaker in the following order at 4-second intervals.
 - If certain speakers are not used, (for example, no center speaker) the test tone will automatically skip over that channel.



Note:

- "Back Surr" will be displayed in DTS Neo:6, DOLBY PRO LOGIC IIx, Dolby Digital EX, DTS ES, Hall, Theater and Live mode.

2. Adjust the master volume to the normal listening level by **VOLUME** buttons.
3. Using the **cursor ▲/▼** buttons, adjust the volume level of each speakers so that the test tone from each speakers sounds the same.
 - The volume level can be adjusted in 1 dB steps from -10 dB to +10 dB.
 - Adjust the volume level of each speakers, while the blinking display of each speakers appears on the front display.
4. Repeat step 3. for other speakers until all speakers are adjusted to the same volume level.
5. When the setting has been finished, press the **T.TONE** button to stop the test tone.

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6. Press the **cursor ►** button to set next speaker volume level setting (C LEVEL).
 - Repeat step 4. to 6. to set other speaker volume level settings.
 - When all the settings have been finished, press the **SPK SET** button or the **ENTER** button (or leave the unit for 10 seconds) to exit the speaker setup mode.

Note:

- "Back Surr" will be displayed in DTS Neo:6, DOLBY PRO LOGIC IIx, Dolby Digital EX, DTS ES, Hall, Theater and Live mode.

DEFAULT SETTING (EXCEPT THE DVD SETUP MENU)

If this default setting is performed, all the settings except the DVD setup menu are reset to the factory defaults.

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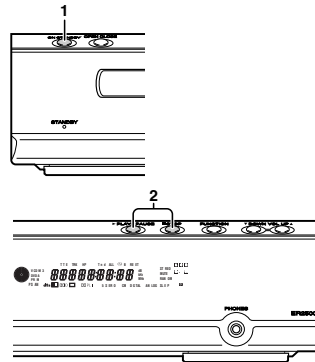
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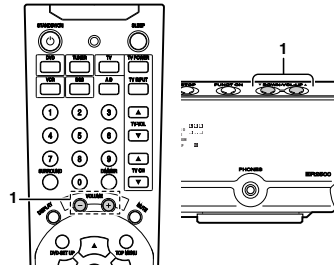


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1. Press the **POWER ON/STANDBY** button on the main unit to turn the power OFF.
2. Press the continuously with **► (PLAY)**, **■ (STOP)** and **► (PLAY)** buttons on the main unit.
 - All the settings are reset.

ADJUSTING THE MASTER VOLUME



- Adjust the volume to a comfortable level using the **VOLUME +/-** buttons on the remote control unit or **VOLUME UP/DOWN** buttons on the main unit.
 - To increase the volume, press the **VOLUME +** button or press **VOLUME UP** button, to decrease the volume, press the **VOLUME -** button or press **VOLUME DOWN** button.

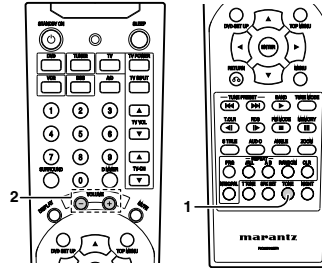


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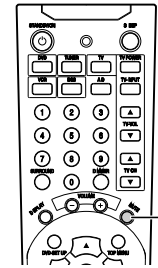
ADJUST TONE CONTROL (BASS AND TREBLE)



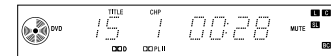
- Press the **TONE** button on the remote control unit to select "BASS" or "TRE (treble)".
 - Each time the **TONE** button is pressed, the mode is changed as follows :

▶ BASS → TRE → OFF ◀
 - To adjust the level of low frequency sound range, select "BASS".
 - To adjust the level of high frequency sound range, select "TRE (treble)".
- Press the **cursor ▲/▼** buttons on the remote control unit to change the tone level.
The tone level can be adjusted in 2 dB steps from -10 to +10.

MUTING THE SOUND



- To mute the sound temporarily, press the **MUTE** button on the remote control unit. Press the **MUTE** button again to restore the sound. If you change the volume during the muting or in tone control mode, the muting will be cancelled.
 - While muting function is performed, the **MUTE** indicator lights red on the front display.





- When you press the **SURROUND** button, the sound is cut off for a moment.
- Note that surround speakers are necessary for DOLBY DIGITAL, DTS, DOLBY PRO LOGIC II, HALL, THEATER, LIVE, 5 STEREO mode to function, and a Back Surround speaker is needed for the HALL, THEATER, LIVE, DTS NEO:6, DTS ES, DOLBY DIGITAL EX, DOLBY PRO LOGIC IIx MOVIE and DOLBY PRO LOGIC IIx MUSIC mode to function.
- All Input function have last memory for Surround Mode.

SURROUND MODE

DOLBY PRO LOGIC II MOVIE (Only 5.1ch Setting)

The Movie mode is optimized for movies or programs with Dolby Surround soundtracks. This mode is also appropriate for use with video game.

DOLBY PRO LOGIC II MUSIC (Only 5.1ch Setting)

The Music mode creates a rich and enveloping surround ambience from stereo sources such as CDs.

HALL

When playing recordings of live music, this mode provides a feeling similar to actually being in a concert hall.

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When this mode is selected, the normal program source is directed to the main speakers and a reverberated sound is directed to the surround speakers.

This mode is suited to program sources which contain a large amount of reverberation.

THEATER

This mode provides a three dimensional surround effect similar to that of movie theater. With this mode, you can enjoy a surround effect similar to Dolby Surround sound even when playing a video program which is not encoded with the Dolby Surround system.

LIVE

The reverberation of this mode produces a sound field which recreates the sound of a stadium.

5 STEREO

The Front left channel signals are output to the surround and surround back signal left channels, the front right channel signals are output to the surround and surround back signal right channels, and the in-phase component of the left and right channels is output to the center channel.

Use this mode to enjoy stereo sound.

STEREO

Sound is output from front speakers.

- When DTS or DOLBY DIGITAL is selected, the surround sound is down mixed to 2 channel.

DOLBY DIGITAL

This mode is enabled when playing source materials encoded in Dolby Digital.

Playing multichannel encoded 6.1 or 7.1-channel Dolby Digital sources provides five main audio channels (left, center, right, surround left and surround right) and Low Frequency Effect channel. Dolby Digital EX decoding is not available in this mode.

Pro Logic IIx MOVIE (Only 6.1ch Setting)

Dolby Pro Logic IIx brings the excitement of surround sound to any stereo mix, while making existing Dolby Surround mixes sound more like discrete 5.1 channels Surround sound.

This mode provides 6.1 or 7.1 channel surround sound from Dolby Surround encoded stereo movie sound tracks.

Pro Logic IIx MUSIC (Only 6.1ch Setting)

Dolby Pro Logic IIx brings the excitement of surround sound to any stereo mix, while making existing Dolby Surround mixes sound more like discrete 5.1 channels Surround sound.

This mode provides 6.1 or 7.1 channel surround sound from conventional stereo sources, analog or digital, such as CD, Tape, FM, TV, Stereo VCR, etc.

Notes:

- Pro Logic IIx mode will decode as Pro Logic II mode when the SURROUND BACK SPEAKER is set NONE in SPEAKER SETUP menu. (See SPEAKER SETUP, p16)
- Pro Logic IIx mode is available for a 2ch or 5.1ch input signal which is encoded in Dolby Digital, PCM or Analog format.
- PCM-audio signals can be subjected to Pro Logic processing when the sampling frequency is 32 kHz, 44.1 kHz or 48 kHz.

Dolby Digital EX (Only 6.1ch Setting)

In a movie theater, film soundtracks that have been encoded with Dolby Digital Surround EX technology are able to reproduce an extra channel which has been added during the mixing of the program.

This channel, called Surround Back, places sounds behind the listener in addition to the currently available front left, front center, front right, surround right, surround left and subwoofer channels.

This additional channel provides the opportunity for more detailed imagine behind the listener and brings more depth, spacious ambience and sound localization than ever before.

Dolby Digital EX is not available in the system without surround back speaker(s).

DTS-ES (Discrete 6.1, Matrix 6.1)

(Only 6.1ch Setting)

DTS-ES adds the surround center channel audio to the DTS 5.1-channel format to improve the acoustic positioning and makes acoustic image movement more natural with the 6.1-channel reproduction.

This receiver incorporates a DTS-ES decoder, which can handle DTS-ES Discrete-encoded and DTS-ES Matrix-encoded program sources from DVD, etc..

DTS-ES Discrete 6.1 features digital discrete recording of all channels including the surround back channel(s) and higher quality of audio reproduction.

DTS-ES is not available in the system without a surround back speaker.

This mode cannot be used when an analog input has been selected.

dts :

This mode is enabled when playing source materials encoded in dts multichannel.

Playing multichannel encoded 5.1-channel dts sources provides five main audio channels (left, center, right, surround left and surround right) and Low Frequency Effect channel.

dts-ES decoding is not available in this mode.

The DTS mode cannot be used when an analog input has been selected.

The relation between the selected surround mode and the input signal

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The surround mode is selected with the **SURROUND** button on the remote control unit. However, the sound you hear is subject to the relationship between the selected surround mode and input signal. That relationship is as follows;

Speaker setting:

- 6.1ch = Front L/R, Center, Surround L/R, Surround Back (Phantom), Subwoofer
- 5.1ch = Front L/R, Center, Surround L/R, Subwoofer

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DVD mode										
Speaker setting	Input Signal	Surround mode (Possible to select surround decode format)								
6.1ch	PCM*	PRO LOGIC IIX MOVIE	PRO LOGIC IIX MUSIC	DTS NEO:6 CINEMA	DTS NEO:6 MUSIC	HALL	THEATER	LIVE	5 STEREO	STEREO
	Dolby Digital 5.1	DOLBY DIGITAL EX	PRO LOGIC IIX MUSIC	DOLBY DIGITAL	STEREO	--	--	--	--	--
	Dolby Digital 4.1	DOLBY DIGITAL EX	PRO LOGIC IIX MUSIC	DOLBY DIGITAL	STEREO	--	--	--	--	--
	Dolby Digital 5.1 EX	DOLBY DIGITAL EX	PRO LOGIC IIX MUSIC	DOLBY DIGITAL	STEREO	--	--	--	--	--
	Dolby Digital 2ch	PRO LOGIC IIX MOVIE	PRO LOGIC IIX MUSIC	STEREO	--	--	--	--	--	--
	DTS 5.1	DTS ES MATRIX	DTS	STEREO	--	--	--	--	--	--
	DTS 6.1 Discrete	DTS ES DISCRETE	DTS	STEREO	--	--	--	--	--	--
5.1ch	DTS 6.1 Matrix	DTS ES MATRIX	DTS	STEREO	--	--	--	--	--	--
	PCM*	PRO LOGIC II MOVIE	PRO LOGIC II MUSIC	DTS NEO:6 CINEMA	DTS NEO:6 MUSIC	HALL	THEATER	LIVE	5 STEREO	STEREO
	Dolby Digital 5.1	DOLBY DIGITAL	STEREO	--	--	--	--	--	--	--
	Dolby Digital 5.1 EX	DOLBY DIGITAL	STEREO	--	--	--	--	--	--	--
	Dolby Digital 2ch	PRO LOGIC II MOVIE	PRO LOGIC II MUSIC	STEREO	--	--	--	--	--	--
	DTS 5.1	DTS	STEREO	--	--	--	--	--	--	--
	DTS 6.1 Discrete	DTS	STEREO	--	--	--	--	--	--	--
DTS 6.1 Matrix	DTS	STEREO	--	--	--	--	--	--	--	

PCM* : 32kHz, 44.1kHz, 48kHz, 96 → 48kHz

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the Dolby

TV / TUNER mode										
Speaker setting	Input Signal	Surround mode (Possible to select surround decode format)								
6.1ch	Analog	PRO LOGIC IIX MOVIE	PRO LOGIC IIX MUSIC	DTS NEO:6 CINEMA	DTS NEO:6 MUSIC	HALL	THEATER	LIVE	5 STEREO	STEREO
5.1ch	Analog	PRO LOGIC II MOVIE	PRO LOGIC II MUSIC	DTS NEO:6 CINEMA	DTS NEO:6 MUSIC	HALL	THEATER	LIVE	5 STEREO	STEREO

DSS / VCR mode										
Speaker setting	Input Signal	Surround mode (Possible to select surround decode format)								
6.1ch	Analog	PRO LOGIC IIX MOVIE	PRO LOGIC IIX MUSIC	DTS NEO:6 CINEMA	DTS NEO:6 MUSIC	HALL	THEATER	LIVE	5 STEREO	STEREO
	PCM*	PRO LOGIC IIX MOVIE	PRO LOGIC IIX MUSIC	DTS NEO:6 CINEMA	DTS NEO:6 MUSIC	HALL	THEATER	LIVE	5 STEREO	STEREO
	PCM**	STEREO	--	--	--	--	--	--	--	--
	Dolby Digital 5.1	DOLBY DIGITAL EX	PRO LOGIC IIX MUSIC	DOLBY DIGITAL	STEREO	--	--	--	--	--
	Dolby Digital 4.1	DOLBY DIGITAL EX	PRO LOGIC IIX MUSIC	DOLBY DIGITAL	STEREO	--	--	--	--	--
	Dolby Digital 5.1 EX	DOLBY DIGITAL EX	PRO LOGIC IIX MUSIC	DOLBY DIGITAL	STEREO	--	--	--	--	--
	Dolby Digital 2ch	PRO LOGIC IIX MOVIE	PRO LOGIC IIX MUSIC	STEREO	--	--	--	--	--	--
	DTS 5.1	DTS ES MATRIX	DTS	STEREO	--	--	--	--	--	--
	DTS 6.1 Discrete	DTS ES DISCRETE	DTS	STEREO	--	--	--	--	--	--
	DTS 6.1 Matrix	DTS ES MATRIX	DTS	STEREO	--	--	--	--	--	--
5.1ch	Analog	PRO LOGIC II MOVIE	PRO LOGIC II MUSIC	DTS NEO:6 CINEMA	DTS NEO:6 MUSIC	HALL	THEATER	LIVE	5 STEREO	STEREO
	PCM*	PRO LOGIC II MOVIE	PRO LOGIC II MUSIC	DTS NEO:6 CINEMA	DTS NEO:6 MUSIC	HALL	THEATER	LIVE	5 STEREO	STEREO
	PCM**	STEREO	--	--	--	--	--	--	--	--
	Dolby Digital 5.1	DOLBY DIGITAL	STEREO	--	--	--	--	--	--	--
	Dolby Digital 5.1 EX	DOLBY DIGITAL	STEREO	--	--	--	--	--	--	--
	Dolby Digital 2ch	PRO LOGIC II MOVIE	PRO LOGIC II MUSIC	STEREO	--	--	--	--	--	--
	DTS 5.1	DTS	STEREO	--	--	--	--	--	--	--
	DTS 6.1 Discrete	DTS	STEREO	--	--	--	--	--	--	--
	DTS 6.1 Matrix	DTS	STEREO	--	--	--	--	--	--	--

PCM* : 32kHz, 44.1kHz, 48kHz
PCM** : 96kHz



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1. Press the **POWER ON/STANDBY** button on the main unit or the **STANDBY/ON** button on the remote to turn the power ON.
 - The display will be like below.



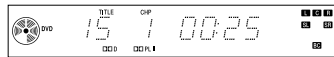
2. Press **OPEN/CLOSE** button on the main unit to open the disc tray.
3. Set a disc on the disc tray, label side up. And then press **OPEN/CLOSE** button on the main unit to close the disc tray.
 - Never place more than one disc on the tray.



- DVD** For DVD, once a disc is loaded, it is played automatically.
In stop mode, press ► (PLAY) button to start the play.

FL Display will be like below.

If DVD menu is displayed on the TV screen, see "DVD MENU" page (p24).



- VCD** For VCD, when VCD disc with PBC function is loaded, a VCD menu is displayed on the TV screen. (PBC function is ON.)

Select an item by pressing the **numeric** buttons to start playback.

For details on VCD playback and setting the PBC function, see "Playing VCD disc with PBC function" (p25).



- VCD** For VCD playback, once a disc is loaded, it is played automatically. FL Display will be like below.

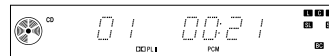
For details on VCD playback and setting the PBC function, see "Playing VCD disc with PBC function" (p25).



4. Press the ► (PLAY) button to start the play.

CD SVCD

For Audio CD playback, FL Display will be like below.



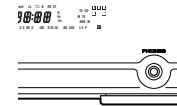
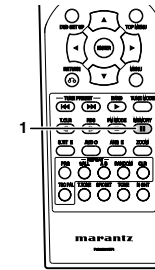
MP3 WMA JPEG

With MP3, WMA or JPEG discs, playback does not start when the ► (PLAY) button is pressed.

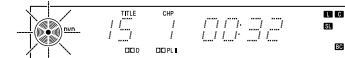
For the procedure for playing back MP3 and WMA discs, see "Playing MP3/WMA" (p25).

For the procedure for playing back JPEG discs, see "Viewing JPEG" (p26).

TO PAUSE PLAYING

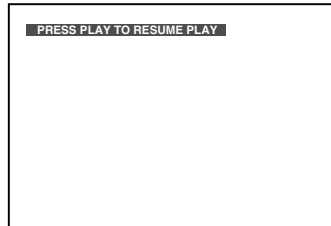


1. Press the || (PAUSE) button.
To resume playing, press the ► (PLAY) button.



Note:

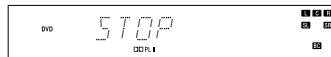
You can change the DVD disc while this unit is waiting to resume playback with the current disc. This resume function can memorize the resume position for a maximum 3 discs. When you reload the disc with resume playback function next time, "PRESS PLAY TO RESUME PLAY" appears on the TV screen.



Press the ► (PLAY) button within 10 seconds. Playback resumes from the point where it left off the last time.

DEACTIVATE RESUME FUNCTION

- After stopping playback (Resume status displayed), press ■ (STOP) button again to deactivate the resume function.



- Press ► (PLAY) button to start playback from the beginning.

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FL Display

VCD For VCD disc with PBC function, FL Display is like below in stop mode.



For VCD disc without PBC function, FL Display is like below in stop mode.



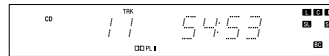
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CD SVCD

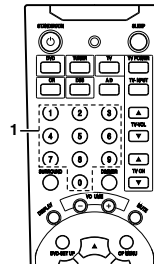
For Audio CD discs, FL Display is like below in stop mode.



DIRECT SEARCH

VCD SVCD CD MP3 WMA JPEG

With the VCD, SVCD, CD, MP3, WMA or JPEG discs, you can choose a track directly by pressing a **numeric** button on the remote control unit.

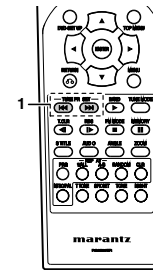


1. With the VCD, SVCD, CD, MP3, WMA or JPEG discs, specify the track number using the **numeric** buttons (0 to 9) on the remote control unit.

Chapter 3 : Press **numeric** button "3".
Track 12 : Press **numeric** button "1" and then **numeric** button "2" within two seconds.

2. After selecting a track, it is played automatically from the selected track.

SKIP PLAY



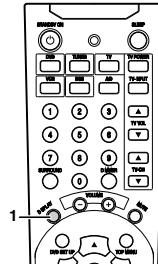
1. While playing, press ◀◀ button or ▶▶ button to skip to the previous or next chapter (track).
 - Every time ▶▶ button is pressed, the unit skips to the next chapter (track).
 - If ◀◀ button is pressed once, the unit skips to the beginning of the current chapter(track). If the button is pressed more than 2 times, the unit skips to the previous chapter(track) every time the button is pressed.

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GUI (GRAPHICAL USER INTERFACE)

DVD VCD SVCD CD

When you press the **DISPLAY** button during a disc playback, the playback information (title, chapter, time, etc.) appears for 10 seconds on the TV or screen.



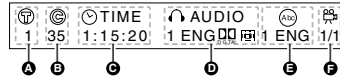
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1. While playing, press **DISPLAY** button on the remote control unit, the playback information (title, chapter, time, etc.) appears on the TV or screen.
 - Using the **cursor** buttons, select a direct playback item. Then, select a title, chapter/track or time position to play back directly with the **numeric** buttons.
- Press **ENTER** button to start playback from the selected a title, chapter/track or time position.

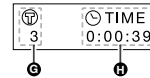
al play.

For DVD playback



- A** : current title number
- B** : current chapter number
- C** : elapsed time of the title
- D** : audio channel
- E** : subtitle language
- F** : angle mark and angle number

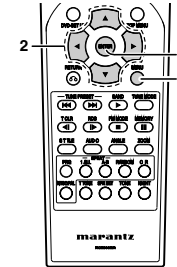
For VCD, SVCD or CD playback



- G** : current track number
- H** : elapsed time of the track

DVD MENU DVD

Most of DVD discs have their own menu screen (DVD menu). In this menu, you can choose a chapter, audio language, subtitle, etc.



1. Insert a DVD disc. The menu will be displayed on TV. If menu is not displayed, press **MENU** button (or **TOP MENU** button) on the remote control unit.
2. Press **Cursor** button to select a chapter (menu item).
3. Press **ENTER** button to confirm the item.
 - If a chapter is selected, the chapter is played automatically.
 - If an audio language or subtitle is selected, press **▶ (PLAY)** button to start playback from the beginning.
 - Press **MENU** button to return to the previous menu.

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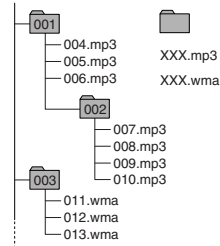
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o 9) and rol unit to ayed.

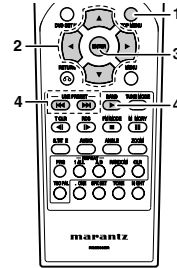
PLAYING MP3/WMA MP3 WMA

If disc in MP3/WMA format is loaded, menu screen is displayed on TV automatically. This menu shows folder and file (track) names that are given with a PC, etc.

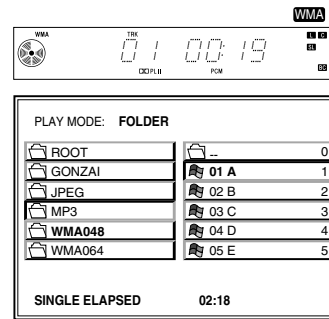
- Folder and file names are shown up to 10 characters. ID3 tag information is not shown.
- Characters except "A-Z", "0-9", "_", "." are not displayed correctly.
- Do not use special letters such as "/ : * ? < > " etc.
- The order shown in the menu may not be the same to the order shown in a PC.



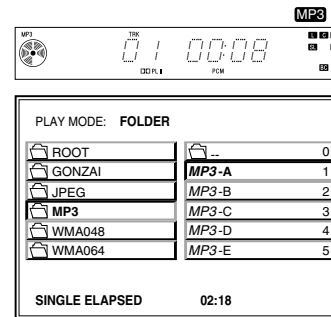
- This unit can play MP3/WMA discs recorded in ISO9660 format.
- The unit plays the files with ".mp3/.WMA" extension only.
- The maximum file number in a disc is 650. (Including the number of folders.)
- The maximum folder layer number is 8.
- When playing a MP3/WMA disc, it may take more than 30 seconds depending on the number of files and folder layer structure.



1. When a disc is loaded, menu screen is displayed on TV. If menu is not displayed, press **TOP MENU** button on the remote control unit.
2. Choose a track by pressing a **Cursor** button.
3. Press **ENTER** button to confirm the selected track.
4. Press the **▶ (PLAY)** button to start the play.
 - To select a track while playing MP3/WMA, press **◀◀** or **▶▶** button on the remote control unit.



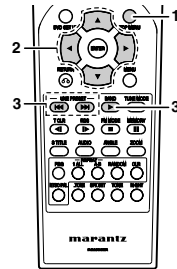
- When a WMA disc with a recorded artist or title is played back, the artist's name or title is displayed at the bottom of the menu screen. (Max. 32 characters) However, the information is displayed only when English is the selected on-screen display language. The area remains blank when other languages are selected.



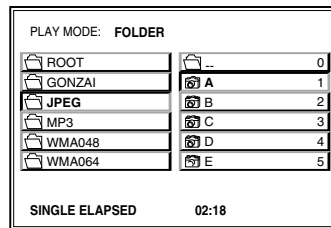
ENGLISH

VIEWING JPEG **JPEG**

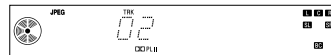
This unit can play discs with JPEG (picture) files. JPEG images can be displayed up to a max. 5120 x 3840 pixel.



1. When a disc is loaded, menu screen is displayed on TV. If menu is not displayed, press **TOP MENU** button on the remote control unit.
2. Choose a file by pressing a **Cursor** button.



3. Press the **▶ (PLAY)** button to view the file.
 - To select a file while playing JPEG, press **◀◀** or **▶▶** button on the remote control unit.



TO FLIP THE PICTURE

1. Press **Cursor(▲ / ▼)** buttons on the remote control unit during showing a picture to flip the picture horizontally or a vertically.

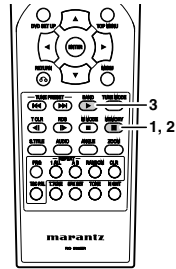
TO ROTATE THE PICTURE

1. Press **Cursor(◀ / ▶)** buttons on the remote control unit during showing a picture to rotate the picture clockwise or counter clockwise.

CAUTIONS ON JPEG RECORDINGS.

- Total number of files and folders on the disc should be less than 650.
- If the files have ".jpe" or ".jpeg" extensions, please rename them as ".jpg" files.
- File names without ".jpg" extension will not be able to be read by this player. Even though the files are shown as JPEG image files in windows explorer.

STEP PLAY DVD



1. While playing, press **II** (PAUSE) button to still the picture.
2. Press **II** (PAUSE) button to step the frame forward.

Note:

- In frame-by-frame play, there is no audio
- 3. To return to normal play, press **▶** (PLAY) button.

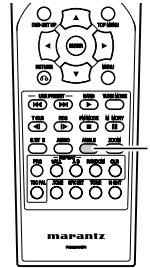
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Y) button.

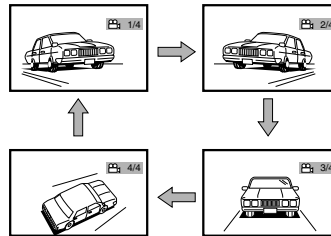
CHANGING ANGLES DVD

You can switch angles to play for DVD discs which contain multiple angles.

For multi-angle DVD discs mark is printed on the packages. Also, if multi-angle is available on a scene, appears on TV screen.



1. When appears during playback, press **ANGLE** button on the remote control unit.
 - Each time **ANGLE** button is pressed, angle changes.

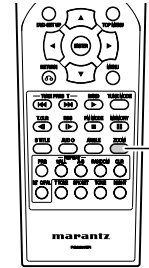


ZOOM FUNCTION DVD

When playing a wide aspect picture in letter box format on a normal aspect (4:3) TV, the center part of the picture can be enlarged. With switching to this zoomed display, picture display can be fit into the TV screen. Nonetheless, both side ends of the picture can not be displayed

Note:

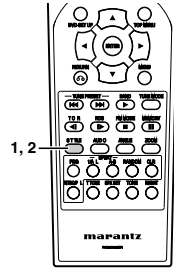
Some DVD discs cannot be zoomed.



1. Press **ZOOM** button on the remote control unit while playing or pausing.
 - Each time **ZOOM** button is pressed, picture is zoomed in the following magnification ratio.
 - ▶ Normal play → 2X
 - ← 16X ← 4X ←
 - You can shift the zoom point by pressing the **cursor** buttons during zoom playback.

CHANGING SUBTITLE LANGUAGES **DVD**

For DVD discs that contain multiple subtitle languages.



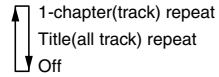
If unit is played audio, video, audio

1. If **S.TITLE** button on the remote control unit is pressed once while playing, the language of the currently displayed subtitle is displayed.
2. Press **S.TITLE** button again to change subtitle language.
 - Each time **S.TITLE** button is pressed, subtitle language changes. If it is set to off, no subtitle is displayed.

REPEAT PLAY

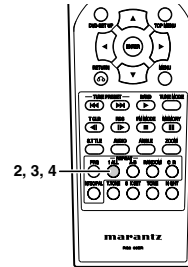
DVD VCD SVCD CD

Each time **REPEAT 1/ALL** button on the remote control unit is pressed, repeat mode is changed in the following order.

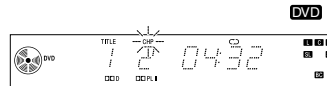


Note:

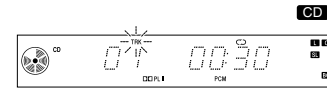
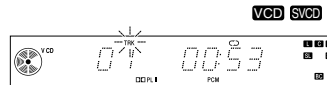
For repeat play on VCD discs with PBC function, disable PBC function first.



1. Play the title or chapter(track) you want to repeat.
2. Press **REPEAT 1/ALL** button on the remote control unit once.
 - For DVD discs, currently played chapter is repeated.



• For VCD, SVCD and Audio CD discs, currently played track is repeated.

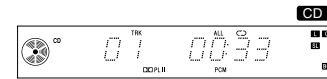
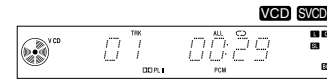


3. Press **REPEAT 1/ALL** button on the remote control unit once again.

- For DVD discs, currently played title is repeated.



- For VCD, SVCD and Audio CD discs, the entire disc is repeated.



4. Press **REPEAT 1/ALL** button on the remote control unit again to clear the repeat.

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changed

- Press **REPEAT 1/ALL** button on the remote control unit to select the folder repeat mode.

PLAY MODE: FOLDER REPEAT		
ROOT	MP301-A	0
GONZAI	MP302-B	1
JPEG	MP303-C	2
MP3	MP304-D	3
WMA048	MP305-E	4
WMA064		5

SINGLE ELAPSED 02:18

- Press **▶** (PLAY) button to repeat play.
 - The folder is repeated.

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MP3		
MP3	TRK	01 00:30
	DD FL I	PCM

- Select the folder you want to repeat.
- Press **REPEAT 1/ALL** button on the remote control unit to select the disc repeat mode.

PLAY MODE: DISC REPEAT		
ROOT	MP301-A	0
GONZAI	MP302-B	1
JPEG	MP303-C	2
MP3	MP304-D	3
WMA048	MP305-E	4
WMA064		5

SINGLE ELAPSED 02:18

- Press **▶** (PLAY) button to repeat play.
 - The entire disc is repeated.

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4
5

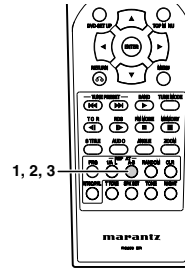
MP3
TRK
01 00:25
DD FL I
PCM

A-B REPEAT PLAY DVD VCD SVCD CD

You can play a specific part (between A and B) in a chapter(track) repeatedly.

Note:

- This function cannot be used for MP3/WMA/JPEG discs.



- At the beginning of the desired passage, press **REPEAT A-B** button on the remote control unit.

- "ACD" indicator lights up.

DVD		
DVD	TITLE	04 13:11
	DD FL I	

VCD SVCD		
VCD	TRK	01 00:35
	DD FL I	PCM

CD		
CD	TRK	01 00:15
	DD FL I	PCM

- At the end of the desired passage, press **REPEAT A-B** button again, then "ACD" indicator lights up and the desired passage is played repeatedly.

DVD		
DVD	TITLE	04 13:54
	DD FL I	

VCD SVCD		
VCD	TRK	01 00:08
	DD FL I	PCM

CD		
CD	TRK	01 00:07
	DD FL I	PCM

- Press **REPEAT A-B** button to cancel the A-B repeat play.

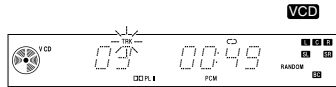
ENGLISH



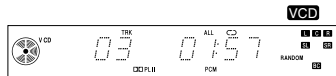
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- If **REPEAT** button is pressed once in random play, currently played track is played repeatedly.
- For VCD discs, FL Display will be like below.



- If **REPEAT** button is pressed twice in random play, all tracks in the disc is played repeatedly in random sequence.
- For VCD discs, FL Display will be like below.



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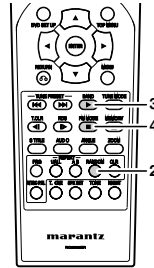
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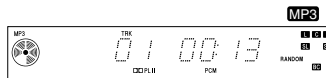
MP3 WMA JPEG



1. In stop mode, select the track (file) you want to play.
2. When the **RANDOM** button on the remote control unit is pressed, the play mode on TV is changed random mode.

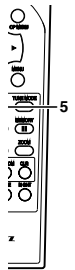
PLAY MODE: RANDOM ON	
ROOT	0
GONZAI	MP301-A 1
JPEG	MP302-B 2
MP3	MP303-C 3
WMA048	MP304-D 4
WMA064	MP305-E 5
SINGLE ELAPSED 02:18	

3. Press **▶** (PLAY) button to random play.
 - All files in a folder is played in random sequence.



4. Press **■** (STOP) button to stop random play.

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- Select the tracks to be programmed using the **numeric** buttons on the remote control unit.
 - To input a 2-digit track number to select a track using the **numeric** buttons, first input the 10's digit and, within 2 seconds, input the 1's digit.
 - When track 3 has been selected



- Press **ENTER** button.
 - The selected track is programmed, and then unit enter to programming mode again for select the next program track.
 - For VCD discs, FL Display will be like below.



- Repeat step 2 and 3 for programming more tracks. And then press **■** (STOP) button to confirm completion of all the programming.
 - If the number of programmed tracks exceeds 32, the display below will be shown.



- Upon completion of all the programming, press the **▶** (PLAY) button.
The selected tracks are now played in the programmed order.
- Press **■** (STOP) button to stop program play.

To check the programmed track

- While the unit is stopped and in program mode, press the **Cursor**(▲ / ▼) buttons on the remote control unit repeatedly.
 - Track number, program number and the total playback time is displayed in order.

To clear the entire program

- While the unit is stopped and in program mode, press the **CLEAR** button on the remote control unit for more than 3 seconds.
 - All programmed tracks are cleared from memory.

To delete a specified programmed track

- While the unit is stopped and in program mode, press the **Cursor**(▲ / ▼) buttons on the remote control unit to select a track you want to delete.
- Press the **CLEAR** button on the remote control unit.
 - A specified track will be deleted.

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- To select the desired band (FM or AM), press the **BAND** button on the remote control unit.
 - The bands are switched by pressing the **BAND** button between FM and AM band.

- Press **◀** or **▶** button to tune in the desired station manually.
 - Press **◀** or **▶** button for 2 seconds or more, automatic searching begins then stops when a station is tuned in. If tuning does not stop at the desired station, try to the manual tuning.
 - When **◀** or **▶** button is pressed momentarily, the frequency changes by a fixed step. (ER2500U)

FM : 100 kHz steps
AM : 10 kHz steps
 (ER2500S)
FM : 50 kHz steps
AM : 9 kHz steps

Press **◀** or **▶** button repeatedly until the station you want to listen to is found.

FM MODE button

Pressing this button alternates between Stereo mode and Monaural mode.

Stereo FM stereo broadcasts are received in stereo and the "STEREO" indicator lights on the front display.

Mono To compensate for weak FM stereo reception, select this mode. Reception will now be forced monaural, reducing unwanted noise.

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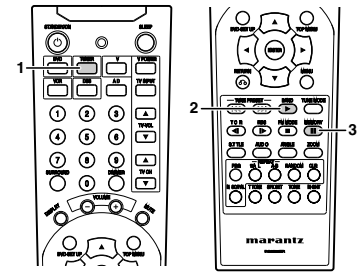
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PRESET MEMORY OPERATION

This unit can store up to total 30 stations selected in the FM and AM bands.

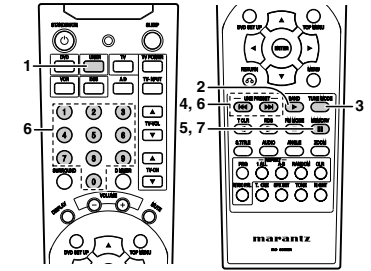
Auto preset memory

This allows a band to be scanned automatically, a station with good reception to be found and to be stored in the preset memory.



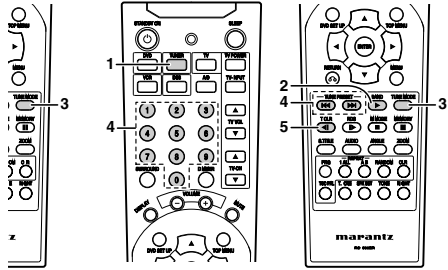
- To select Tuner, press the **TUNER** button on the remote control unit.
- To select the band (FM or AM) you want to preset, press the **BAND** button on the remote control unit.
- To start auto preset memory, press the **II / MEMORY** button for more than 2 seconds.
 - Up to 30 of the best received stations in your area will be stored automatically. Then you can select each stations easily.

Manual preset memory



- To select Tuner, press the **TUNER** button on the remote control unit.
- To select the band (FM or AM) you want to preset, press the **BAND** button on the remote control unit.
- To change the Tuning mode (Tune modes are Tuning mode and Preset mode), press the **TUNE MODE** button on the remote control unit.
 - When unit is in the Preset mode, "PRESET" indicator appears on the front display.
 - If "PRESET" indicator is lit, press the **TUNE MODE** button to change the manual tuning mode.
- To select the station you want to preset, press the **◀** or **▶** button on the remote control unit.
- To set the station, press the **II / MEMORY** button briefly.
- While the "PROG." indicator blinks, select a preset channel to store the station using the **◀** or **▶** buttons or **numeric** buttons.
 - If no buttons are pressed for 5 seconds, the display returns to Tuning mode.
- To store the preset channel, press the **II / MEMORY** button.
 - The frequency of the radio station is stored in the preset channel memory.
- Repeat step **3** and **7** for store more stations.

CLEARING PRESET CHANNEL



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1. To select Tuner, press the **TUNER** button on the remote control unit.
2. To select the band (FM or AM), press the **▶/BAND** button on the remote control unit.
3. To change the Preset mode (Tune modes are Tuning mode and Preset mode), press the **TUNE MODE** button on the remote control unit.
 - When unit is in the Preset mode, “PRESET” indicator appears on the front display.
4. Press the **◀◀** or **▶▶** button to select the preset channel you want to clear.
 - You can select a preset channel directly by pressing a **Numeric** button.
5. Press **T.CLR** button.

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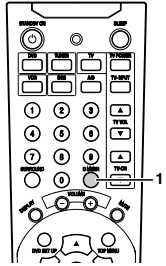
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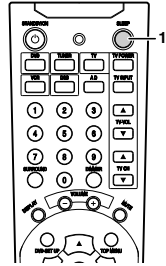
USING THE DIMMER FUNCTION



You can dim the front display.

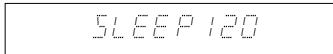
1. Press the **DIMMER** button on the remote control unit repeatedly to select "DIMM ON" and "DIMM OFF".
 - When you select "DIMM ON", the display is dimmed.

USING THE SLEEP TIMER



The power can be switched off after a specified amount of time.

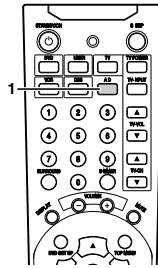
1. Press the **SLEEP** button on the remote control unit repeatedly until desired time appears on the display.
 - The sleep time can be changed by 10 minutes step.
10 → 20 → 30 → 40 → 50 → 60 → 70 → 80 → 90 → 100 → 110 → 120 → OFF (original display) → 10 → ...



- When you set the sleep timer, the dimmer function is turned on automatically.
- If you want to check the remaining time, press the **SLEEP** button once. The remaining time will be displayed for 4 seconds, and return to the normal display.
- The setting time passes, the power is turned off.

ANALOG/DIGITAL (VCR / DSS mode only)

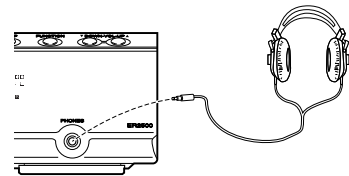
Selecting Analog audio input or Digital audio input. If you have already connected both digital and analog inputs to input source, you can select temporarily the audio input mode for each input source with **A/D** button.



1. When **A/D** button is pressed, the input mode is switched between the analog and digital inputs.
 - In Digital mode, the digital input jacks are selected.
 - In Analog mode, the analog input jacks are selected.

LISTENING THROUGH HEADPHONES

This jack may be used to listen to the unit's output through a pair of headphones. Be certain that the headphones have a standard 1/4" stereo phono plug. (Note that the speakers will automatically be turned off when the headphone jack is in use.)



- Notes:**
- When using headphones, the surround mode will change to STEREO mode compulsorily.



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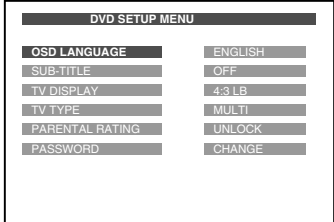
; PAL)

OSD LANGUAGE

You can select the language for OSD (On Screen Display). This setting allows you select a preferred language for the DVD SETUP menu operating messages and sound track language. The default language is "ENGLISH".

Note:
In case of resume playing the language setting what you selected before will be appear.

1. To select DVD mode, press the **DVD** button on the remote control unit.
2. Press **DVD-SETUP** button to display the setup menu in stop mode.
3. With **Cursor** buttons, select "OSD LANGUAGE".

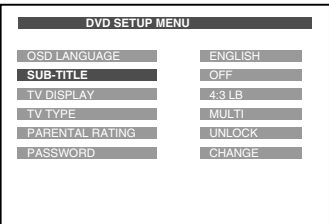


4. Press **ENTER** button repeatedly, select your preferred language.
 - You can select from English, French, Spanish.
5. Press **DVD-SETUP** button to confirm it and to exit from the setup menu.

SUB-TITLE

To set the subtitle language to display. The default setting is "OFF".

1. To select DVD mode, press the **DVD** button on the remote control unit.
2. Press **DVD-SETUP** button to display the setup menu in stop mode.
3. With **Cursor** buttons, select "SUB-TITLE".

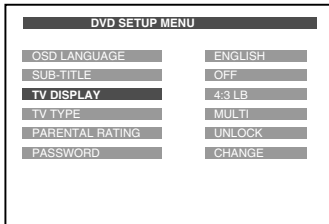


4. Press **ENTER** button repeatedly, select your preferred language.
 - You can select from OFF, English, French, Spanish, German, Italian and Dutch.
5. Press **DVD-SETUP** button to confirm it and to exit from the setup menu.

TV DISPLAY

This menu is to set picture aspect ratio to fit into your TV. The default setting is "4:3 LB".

1. To select DVD mode, press the **DVD** button on the remote control unit.
2. Press **DVD-SETUP** button to display the setup menu in stop mode.
3. With **Cursor** buttons, select "TV DISPLAY".



4. Press **ENTER** button repeatedly, select the aspect ratio of your TV.
 - You can select from 4:3 LB, 4:3 PS and 16:9/WIDE.
- 4:3 LB(Letter Box): Displays wide picture on aspect 4:3 TV in Letter Box format.
 4:3 PS(Pan-Scan): Displays wide picture on aspect 4:3 TV in Pan & Scan format.
 16:9/WIDE: Set here when your TV has wide screen.

Note:
When setting the aspect ratio, see the following section "**How it is displayed**".

5. Press **DVD-SETUP** button to confirm it and to exit from the setup menu.

- When your TV is 16:9 screen.



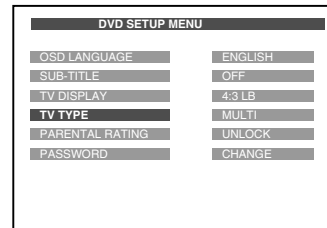
Picture in 16:9 aspect ratio	
Player's setting	How it looks
<p>16:9 Wide Picture is displayed in right aspect ratio.</p>	
Picture in 4:3 aspect ratio	
Player's setting	How it looks
<p>16:9 Wide Black bars appear on both side of picture but picture is displayed in right aspect ratio.</p>	
<p>16:9 Wide If picture is displayed vertically squeezed like shown at right, check settings of your TV and set it to normal. See the instruction manual of your TV for details.</p>	

Note:
Some disc will not allow you to change the aspect ratio.

TV TYPE

Set up picture format according to type supported by your TV or monitor.
If your TV is MULTI or PAL, press the **NTSC/PAL** button repeatedly until "MULTI" or "PAL" appears on the TV screen.
The default setting of ER2500U is "NTSC".
The default setting of ER2500S is "PAL".

1. To select DVD mode, press the **DVD** button on the remote control unit.
2. Press **DVD-SETUP** button to display the setup menu in stop mode.
3. With **Cursor** buttons, select "TV TYPE".

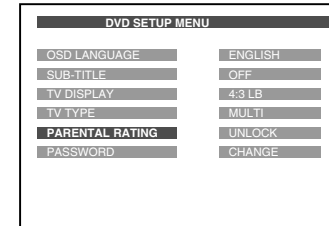


4. Press **ENTER** button repeatedly, select the picture format.
 - You can select from MULTI, NTSC and PAL.
- MULTI: Select MULTI when a MULTI TV is connected.
NTSC: Select NTSC When a NTSC TV is connected.
PAL: Select PAL when a PAL TV (European standard) is connected.
5. Press **DVD-SETUP** button to confirm it and to exit from the setup menu.

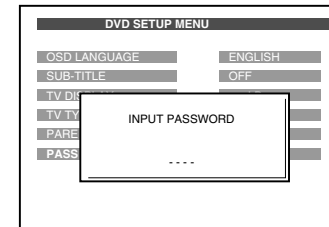
PARENTAL RATING

If a disc has parental lock level, the disc is played with restriction based on parental lock level and disc contents. You can set the player not to play what you do not want to show to children. To play restricted disc contents, you need to enter password. This section explains how to set parental lock level. The default setting is "UNLOCK".

1. To select DVD mode, press the **DVD** button on the remote control unit.
2. Press **DVD-SETUP** button to display the setup menu in stop mode.
3. With **Cursor** buttons, select "PARENTAL RATING".



4. Press **ENTER** button, the password input screen is displayed on TV.



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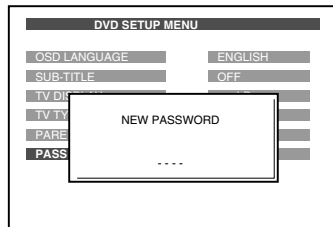
WORD".



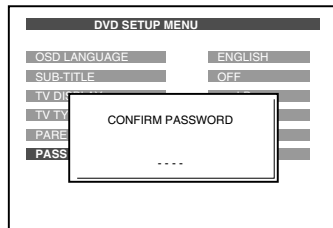
d change



5. With **numeric** buttons, enter your old password.
 - The default password is "0000". When setting the password first time, enter "0000" for the old password.
6. With **numeric** buttons, enter your new password.



7. With **numeric** buttons, enter to confirm your new password.



- After you entered the new password, the password input screen disappears and then the setup menu appears again.

8. Press **DVD-SETUP** button to confirm it and to exit from the setup menu.

PROGRESSIVE SCAN VIDEO OUTPUT

Notes:

- Regardless of the setting, the VIDEO jack is active Progressive scan off mode.
- If your TV is compatible with progressive scan, connect the TV via the COMPONENT VIDEO OUTPUT jack. Press the **DVD-SETUP** button to display the setup menu in stop mode. Press the **DISPLAY** button. "PROGRESSIVE SCAN ON MODE" will be display under the menu. If you don't want to change progressive scan mode, Press **DISPLAY** button again.
- When your TV or monitor isn't compatible with progressive scan, never set the progressive scan mode to ON. No picture will be shown on the monitor. In case you set the progressive scan mode to "ON" by mistake, press the **DVD-SETUP** button again. DVD SETUP MENU will display on TV. And press the **DISPLAY** button to turn OFF the progressive scan mode.
- If you play the DVD disc with NTSC to PAL or PAL to NTSC video conversion and Progressive Scan On mode, a part of Subtitles may not be able to be displayed depending on recording condition. In this case, we recommend set to use Progressive Scan Off mode.

DEFAULT SETUP (DVD SETUP MENU ONLY)

If this default setup is set, all the settings made in the DVD setup menu are reset to the factory defaults.

1. To select DVD mode, press the **DVD** button on the remote control unit.
2. Press **DVD-SETUP** button to display the setup menu in stop mode.
3. With **numeric** buttons, enter "2580".
 - After you entered "2580", the message "FACTORY RESET" appears on the setup menu.
 - If you don't want to reset the settings, press the **DVD-SETUP** button.
4. Press **ENTER** button, reset to the default.
 - All the settings are reset.
5. Press **DVD-SETUP** button to quit the setup menu.

Notes:

- If you have forgotten the password, perform this default setup to all the settings.

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The image is distorted or monochromatic.

- The color system selected does not match your TV.
- Select the aspect ratio to match your TV.

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.

There is no sound or only a very low-level sound is heard.

- Check that the speakers and components are connected securely.
- Check the operation of the connected component.
- Check the audio output setting.
- The sound is muted during pause, slow play, fast forward/reverse, and step play. Press the ► (PLAY) button to resume normal playback.

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.

Remote control doesn't work.

- When the function is selected by the main unit and remote control unit differs, remote control doesn't work. Press the **FUNCTION** buttons of the remote control unit to select correct function. (Even when the **FUNCTION** buttons are pressed without IR sensor at the main unit, the function of the remote control unit will be changed.)
- If the batteries in remote control unit are dead, change the batteries.
- Use remote control unit within the range (5m / 15ft) and IR sensor 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.

Cannot play.

- Load a disc with the playback side facing down. 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.

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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.

Can not receive FM/AM radio broadcast.

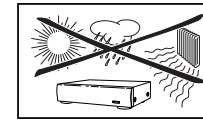
- Connect the antenna correctly.
- Change the antenna location.
- For FM radio, stereo receiving can cause a bit more noise than monaural receiving. Change the receiving mode to monaural.
- Noise on AM radio may be caused by another equipment. Move the equipment far from the tuner or loop antenna.
- Multi-path distortion (radio signal is received through multiple paths because of reflection by buildings or so) may cause noise. Change the location of the antenna or the unit.

MAINTENANCE

Clean this unit with a soft, slightly dampened lint-free cloth. Do not use any cleaning agents as they may have a corrosive effect.



Do not expose the unit, batteries or discs to humidity, rain, sand or excessive heat (caused by heating equipment or direct sunlight).



If the this unit cannot read discs correctly use a commonly available cleaning disc to clean the lens before taking the unit to be repaired. Other cleaning methods may destroy the lens. Always keep the tray closed to avoid dust on the lens.

The lenses may cloud over when this unit is suddenly moved from cold to warm surroundings. It is not possible to play a disc then. Leave the unit in a warm environment until the moisture evaporates.

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..... 0.8%)	90 W/Ch
..... 5%)	100 W/Ch
..... 0.1%	
..... 80 dB	

..... FM 87.5 ~ 108 MHz (100 kHz steps)	
..... FM 87.5 ~ 108 MHz (50 kHz steps)	
..... FM Mono 70 dB	
..... FM Stereo 70 dB	
..... FM Mono 0.3%	
..... FM Stereo 0.3%	
..... 1 kHz 40 dB	

..... AM 520 ~ 1720 kHz (10 kHz steps)	
..... AM 531 ~ 1629 kHz (9 kHz steps)	
..... 35 dB	
..... 30% Mod. 2.0%	

..... Semiconductor	
..... 12cm / 8cm	
..... MPEG-2	
..... 54MHz/10 Bits	
..... 4:3 / 16 9	
..... 20 Hz - 20 kHz (44.1 kHz)	
..... 20 Hz - 22 kHz (48 kHz)	

GENERAL

Power Supply Rating	
ER2500U	AC 120 V / 50 Hz
ER2500S	AC 230 V / 50 Hz
Power Consumption	155 W
Dimensions (W x H x D)	430 mm x 360 mm x 74 mm
Weight	5.5 kg
Operating temperature	5 °C ~ 35 °C (40 °F ~ 95 °F)
Operating humidity	5% ~ 90%

- SS2500 (Optional) -

FRONT (SS2500F), CENTER (SS2500C)

Type	2 way, Closed Cabinet
Tweeter	19mm Dome, Magnetically Shielded
Woofer	8 cm Corn, Magnetically Shielded
Impedance	6 ohms
Frequency Range	100 Hz - 20 kHz
Dimensions (WxHxD)	105 x 185 x 135 mm
Weight	1.2 kg

SURROUND L (SS2500SL), SURROUND R (SS2500SR)

Type	Surround / Phantom Surround Back, Closed Cabinet
Surround	8 cm Corn, Full Range
Impedance	6 ohms
Frequency Range	100 Hz - 20 kHz
Phantom Surround Back	5 cm Corn, Full Range
Impedance	12 ohms
Frequency Range	150 Hz - 20 kHz
Dimensions (WxHxD)	105 x 185 x 135 mm
Weight	1.0 kg

SUBWOOFER (SS2500SW)

Type	Passive, Bass- reflex type
Woofer	20 cm, Corn Magnetically Shielded
Impedance	6 ohms
Frequency Range	40 Hz - 150 Hz
Dimensions (WxHxD)	246 x 360 x 360 mm
Weight	8.2 kg

Specifications subject to change without prior notice.

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