Panasonic

Operating Instructions **DVD Home Theater Sound System**

Model No. SC-PT150



Before connecting, operating or adjusting this product, please read the instructions completely. Please keep this manual for future reference.

Your unit may not look exactly the same as illustrated.

The player plays DVD-Video marked with labels containing the region number or "ALL".

Region	Number
Continental Europe, the Middle East, South Africa, Saudi Arabia and Kuwait	2
Southeast Asia and Thailand	3

Example: For Continental Europe







USB connection for MP3 players

page **31**









Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully.

Operations in these instructions are described mainly with the remote control. but you can perform the operations on the main unit if the controls are the same.

Unless otherwise indicated, all illustrations shown are for Continental Europe.

System	SC-PT150	
Main unit	SA-PT150	
	For Continental Europe	For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait
Front speakers	SB-HF150	SB-HF150
Center speaker	SB-HC150	SB-HC150
Surround speakers	SB-HS151	SB-HS151
Subwoofer	SB-HW150 (Black) or SB-W340 (Silver)	SB-W340

Caution for AC Mains Lead

(For Saudi Arabia and Kuwait) ("GS" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as stated below.

If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL \perp OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

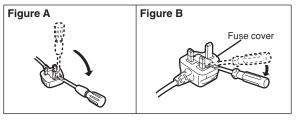
Remove the connector cover.

How to replace the fuse

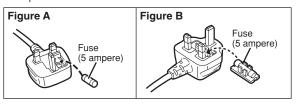
The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.



2. Replace the fuse and close or attach the fuse cover.



CAUTION!

THIS PRODUCT UTILIZES A LASER. **USE OF CONTROLS OR ADJUSTMENTS OR** PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
- USE ONLY THE RECOMMENDED ACCESSORIES.
- DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION!

- DO NOT INSTALL OR PLACE THIS UNIT IN A **BOOKCASE, BUILT-IN CABINET OR IN ANOTHER** CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF **ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND** ANY OTHER MATERIALS DO NOT OBSTRUCT THE **VENTILATION VENTS.**
- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, **CURTAINS, AND SIMILAR ITEMS.**
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- **DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.**

The socket outlet shall be installed near the equipment and easily accessible.

The mains plug of the power supply cord shall remain readily operable.

To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from AC receptacle.

SUOMI

VAROITUS!

LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSÄ KÄYTTÖOHJEESSA MAINITULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE.

VAROITUS:

VÄHENNÄ TULIPALON, SÄHKÖISKUN TAI LAITTEISTON VAHINGOITTUMISEN VAARAA

- TÄTÄ LAITETTA EI SAA ALTISTAA SATEELLE, KOSTEUDELLE, ROISKEILLE TAI TIPPUVILLE NESTEILLE. LAITTEEN PÄÄLLE EI SAA MYÖSKÄÄN ASETTAA MITÄÄN NESTEELLÄ TÄYTETTYÄ ESINETTÄ, KUTEN MALJAKKOA.
- KÄYTÄ VAIN SUOSITELTUJA LISÄVARUSTEITA.
- ÄLÄ IRROTA KANTTA (TAI TAUSTAA). SISÄLLÄ EI OLE KÄYTTÄJÄN HUOLLETTAVISSA OLEVIA OSIA. HUOLLON SAA SUORITTAA VAIN AMMATTITAITOINEN HENKILÖKUNTA.

VAROITUS!

- ÄLÄ ASENNA TAI LAITA TÄTÄ LAITETTA KABINETTITYYPPISEEN KIRJAKAAPPIIN TAI MUUHUN SULJETTUUN TILAAN, JOTTA TUULETUS ONNISTUISI. VARMISTA, ETTÄ VERHO TAI MIKÄÄN MUU MATERIAALI EI HUONONNA TUULETUSTA, JOTTA VÄLTETTÄISIIN YLIKUUMENEMISESTA JOHTUVA SÄHKÖISKU- TAI TULIPALOVAARA.
- ÄLÄ PEITÄ LAITTEEN TUULETUSAUKKOJA SANOMALEHDELLÄ, PÖYTÄLIINALLA, VERHOLLA TAI MUULLA VASTAAVALLA ESINEELLÄ.
- ÄLÄ ASETA PALAVAA KYNTTILÄÄ TAI MUUTA AVOTULEN LÄHDETTÄ LAITTEEN PÄÄLLE.
- HÄVITÄ PARISTOT LUONTOA VAHINGOITTAMATTOMALLA TAVALLA.

Pistorasia tulee asentaa laitteen lähelle helppopääsyiseen paikkaan.

Verkkojohdon pistokkeen on oltava aina helposti käytettävissä.

Tämä laite voidaan kytkeä kokonaan irti verkkovirrasta irrottamalla verkkojohdon pistoke pistorasiasta.

NORSK

ADVARSEL!

DETTE PRODUKTET ANVENDER EN LASER. BETJENING AV KONTROLLER, JUSTERINGER ELLER ANDRE INNGREP ENN DE SOM ER BESKREVET I DENNE BRUKSANVISNING, KAN FØRE TIL FARLIG BESTRÅLING.

DEKSLER MÅ IKKE ÅPNES, OG FORSØK ALDRI Å REPARERE APPARATET PÅ EGENHÅND. ALT SERVICE OG REPARASJONSARBEID MÅ UTFØRES AV KVALIFISERT PERSONELL.

ADVARSEL:

FØLG NEDENSTÅENDE INSTRUKSER FOR Å REDUSERE RISIKOEN FOR BRANN, ELEKTRISK STØT OG SKADE PÅ PRODUKTET:

- DETTE APPARATET MÅ IKKE UTSETTES FOR REGN, FUKTIGHET, DRYPP ELLER SPRUT, OG INGEN VÆSKEFYLTE GJENSTANDER, SOM F.EKS. VASER, MÅ PLASSERES PÅ APPARATET.
- BRUK KUN ANBEFALT TILBEHØR.
- IKKE FJERN DEKSELET (ELLER BAKSIDEN); APPARATET INNEHOLDER INGEN DELER SOM KAN SKIFTES ELLER REPARERES AV **BRUKEREN. OVERLAT TIL KVALIFISERTE** SERVICETEKNIKERE Å UTFØRE SERVICE.

ADVARSEL!

- APPARATET MÅ IKKE PLASSERES I EN **BOKHYLLE, ET INNEBYGGET KABINETT ELLER ET ANNET LUKKET STED HVOR VENTILASJONSFORHOLDENE ER** UTILSTREKKELIGE. SØRG FOR AT GARDINER ELLER LIGNENDE IKKE FORVERRER VENTILASJONSFORHOLDENE, SÅ RISIKO FOR ELEKTRISK SJOKK ELLER BRANN FORÅRSAKET AV OVERHETING UNNGÅS.
- APPARATETS VENTILASJONSÅPNINGER MÅ IKKE DEKKES TIL MED AVISER. BORDDUKER. GARDINER OG LIGNENDE.
- PLASSER IKKE ÅPEN ILD, SLIK SOM LEVENDE LYS. OPPÅ APPARATET.
- BRUKTE BATTERIER MÅ KASSERES UTEN FARE FOR MILJØET.

Strømuttaket må befinne seg i nærheten av utstyret og være lett tilgjengelig.

Støpslet på strømkabelen må være klart til bruk. Når dette apparatet skal kobles helt fra strømnettet (AC), må støpslet på strømkabelen trekkes ut av stikkontakten.

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

For Continental Europe

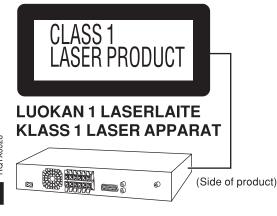
THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

SUOMI

TÄMÄ LAITE ON TARKOITETTU KÄYTETTÄVÄKSI LEUDOSSA ILMASTOSSA.

NORSK

DETTE APPARATET ER BEREGNET TIL BRUK UNDER MODERATE KLIMAFORHOLD.



Safety precautions

Placement



Set the unit up on an even surface away from direct sunlight, high temperatures, high humidity, and excessive vibration. These conditions can damage the cabinet and other components, thereby shortening the unit's service life.

Do not place heavy items on the unit.

Voltage



Do not use high voltage power sources. This can overload the unit and cause a fire.

Do not use a DC power source. Check the source carefully when setting the unit up on a ship or other places where DC is used.

AC mains lead protection



Ensure the AC mains lead is connected correctly and not damaged. Poor connection and lead damage can cause fire or electric shock. Do not pull, bend, or place heavy items on the lead.

Grasp the plug firmly when unplugging the lead. Pulling the AC mains lead can cause electric shock.

Do not handle the plug with wet hands. This can cause electric shock.

Foreign matter

Do not let metal objects fall inside the unit. This can cause electric shock or malfunction.



Do not let liquids get into the unit. This can cause electric shock or malfunction. If this occurs, immediately disconnect the unit from the power supply and contact your dealer.

Do not spray insecticides onto or into the unit. They contain flammable gases which can ignite if sprayed into the unit.

Service



Do not attempt to repair this unit by yourself. If sound is interrupted, indicators fail to light, smoke appears, or any other problem that is not covered in these instructions occurs, disconnect the AC mains lead and contact your dealer or an authorized service center. Electric shock or damage to the unit can occur if the unit is repaired, disassembled or reconstructed by unqualified persons.

Extend operating life by disconnecting the unit from the power source if it is not to be used for a long time.

CAUTION	LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class II
CAUTION	 CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1 +A2/ Class 1M
VARNING	 KLASS 1M SYNLIG OCH OSYNLIG LASERSTRÄLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÄLEN DIREKT GENOM OPTISKT INSTRUMENT.
FORSIGTIO	S - SYNLIG OG USYNLIG LASERSTRÅLING KLASS 1M, NÅR LÅGET ER ÅBENT. UNDGÅ AT SE LIGE PÅ MED OPTISKE INSTRUMENTER.
VARO!	 AVATTAESSA OLET ALTTIINA LUOKAN 1M NÄKYYÄÄ JA NÄKYMÄTÖNTÄ. LASERSÄTEILYÄ. ÄLÄ KATSO OPTISELLA LAITTEELLA SUORAAN SÄTEESEEN.
VORSICHT	 SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 1M, WENN ABDECKUNG GEÖFFNET. NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.
ATTENTIO	N = RAYONNEMENT LASER VISIBLE ET INVISIBLE, CLASSE 1M, EN CAS D'OUVERTURE. NE PAS REGARDER DIRECTEMENT À L'AIDE D'INSTRUMENTS D'OPTIQUE.
注意	ここを開くと可視及び不可視レーザ光が出ます。 ビームを見たり、触れたりしないでください。
注意	 打开时有可见及不可見繳充辐射、避免光束照射。 GB7241.1-2001/39 类 BOLXSD075

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Accessories



Please check and identify the supplied accessories.

☐ 1 Remote control

For Continental Europe

(N2QAYB000091)

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

(N2QAYB000092)



2 Remote control batteries



☐ 1 FM indoor antenna



☐1 AC mains lead

For Saudi Arabia and Kuwait



For Continental Europe, Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait



☐ 1 Sheet of speaker cable stickers

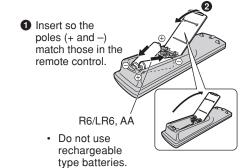


☐ 1 Video cable

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait



$\mathbb{Q}_{\mathbb{Q}}$ Preparing the remote control



- · mix old and new batteries.
- use different types of batteries at the same time.
- heat or expose batteries to flame.
- take apart or short circuit the batteries.
- attempt to recharge alkaline or manganese batteries.
- · use batteries if the covering has been peeled off.

Mishandling of batteries can cause electrolyte leakage which can severely damage the remote control.

Remove the batteries if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

Aim at the display (→ page 13), avoiding obstacles, at a maximum range of 7 m directly in front of the unit.



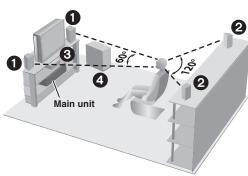
How you set up your speakers can affect the bass and the sound field. Note the following points:

- · Place speakers on flat secure bases.
- · Placing speakers too close to floors, walls, and corners can result in excessive bass. Cover walls and windows with thick curtains.



Setup example

Place the front, center, and surround speakers at approximately the same distance from the seating position. The angles in the diagram are approximate.



Other speaker setup options (⇒ page 10).

Use only supplied speakers

Using other speakers can damage the unit, and sound quality will be negatively affected.

Set the speakers up on an even surface to prevent them from falling. Take proper precautions to prevent the speakers from falling if you cannot set them up on an even surface.

Main unit

- Keep your speakers at least 10 mm away from the system for proper ventilation.
- To allow proper ventilation and to maintain good airflow around the main unit, position it with at least 5 cm of space on all sides.
- Do not block the ventilation holes of the main unit.

Center speaker

- Vibration caused by the center speaker can disrupt the picture if it is placed directly on the television. Put the center speaker on a rack or shelf.
- To prevent the speakers from falling, do not place directly on top of the television.

Subwoofer

Place to the right or left of the television, on the floor or a sturdy shelf so that it will not cause vibration. Leave a space of 30 cm from the television.

Caution

Refrain from holding the speaker's net.

Example: Front speaker



Note

- You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.
- Reduce the volume in the following cases to avoid damage:
 - When playing distorted sound.
 - When the speakers are reverberating due to a record player, a microphone (except For Continental Europe), noise from FM broadcasts, or continuous signals from an oscillator, test disc, or electronic instrument.
 - When adjusting the sound quality.
 - When turning the unit on or off.

If irregular coloring occurs on your television

The front and center speakers are designed to be used close to a television, but the picture may be affected with some televisions and setup combinations.

If this occurs, turn the television off for about 30 minutes.

The television's demagnetizing function should correct the problem. If it persists, move the speakers further away from the television.

Caution

- Use the speakers only with the recommended system. Failure to do so can damage the amplifier and speakers, and can cause fire. Consult a qualified service person if damage occurs or if a sudden change in performance is apparent.
- Do not attempt to attach these speakers to walls using methods other than those described in this manual.





Making the connections

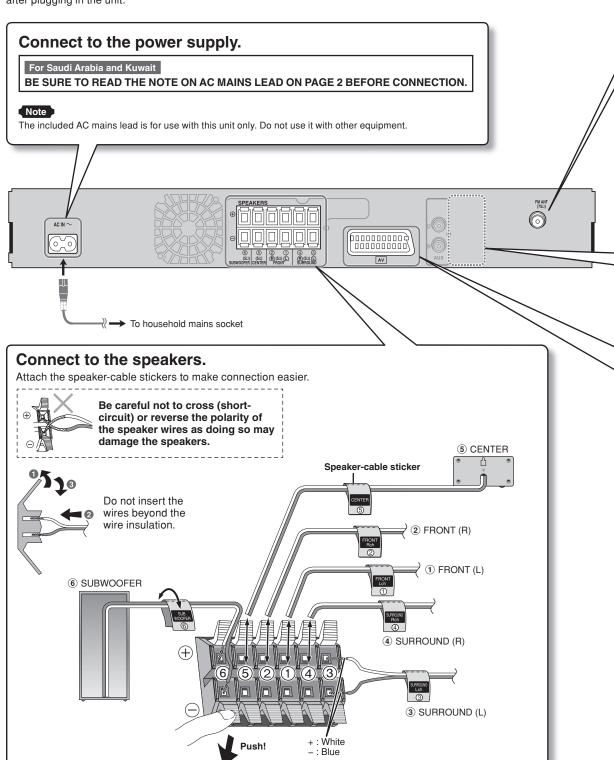
Making the connections

Connect the AC mains lead only after all other connections have been made.

• Ensure that you have the complete accessories before making the connections.

Conserving power

The main unit consumes a small amount of power, even when it is in standby mode (approx. 1 W). To save power when the unit is not to be used for a long time, unplug it from the household mains socket. You will need to reset some memory items after plugging in the unit.



RQTX0028

GETTING STARTED

Connect to the antenna.

■ FM indoor antenna

Tape the antenna where reception is the best.

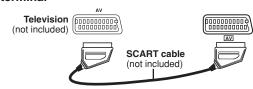


Connect to the various television terminals.

- Do not connect the unit through a video cassette recorder.
- Due to copy guard protection, the picture may not be displayed correctly.
- Turn the television off before connecting, and refer to the television's operating instructions.

For Continental Europe

■ Television with SCART terminal



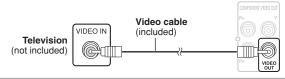
Using the SCART (AV) terminal

To improve picture quality, you can change the video signal output from the SCART (AV) terminal from "VIDEO" to either "S-VIDEO" or "RGB" to suit the type of television you are using. Select "S-VIDEO" or "RGB" from "VIDEO OUT-SCART" in "VIDEO" tab (→ page 22).

This connection will also enable you to play audio from your television through your home theater system. Refer to "Operating other equipment" (→ page 30).

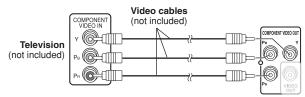
For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

■ Television with a VIDEO IN terminal



For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

■ Television with COMPONENT VIDEO IN terminals



Using the COMPONENT VIDEO OUT terminals

The COMPONENT VIDEO OUT terminals provides a purer picture. These terminals can be used for either interlaced or progressive output. Connection using these terminals outputs the color difference signals (PB/PR) and luminance signal (Y) separately in order to achieve high fidelity in reproducing colors.

- The description of the component video input terminals depends on the television or monitor (example: Y/P_B/P_R, Y/B-Y/R-Y, Y/CB/CR).
- · Connect to terminals of the same color.

To enjoy progressive video

- Connect to a progressive output compatible television.
- Set the "VIDEO OUT (I/P)" to "PROGRESSIVE" (→ page 22, "VIDEO" tab).
 All Panasonic televisions that have "PROGRESSIVE" input connectors are compatible. Consult the manufacturer if you have another brand of television.

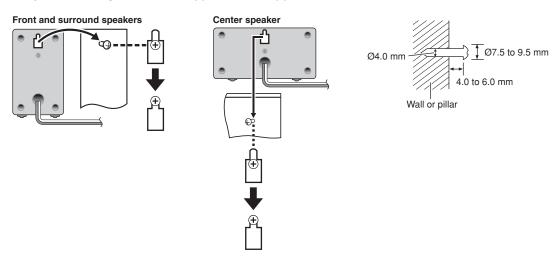


Other speaker setup options

■ Attaching to a wall

You can attach the front, surround and center speakers to the wall.

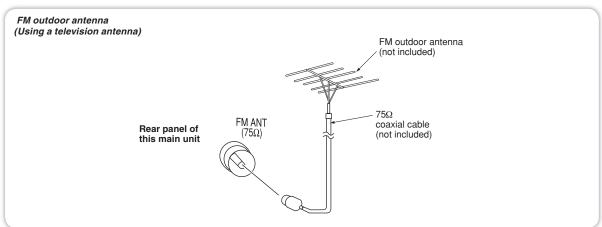
- The wall or pillar on which the speakers are to be attached should be capable of supporting 10 kg per screw. Consult a qualified building contractor when attaching the speakers to a wall. Improper attachment may result in damage to the wall and speakers.
- 1 Drive a screw (not included) into a wall.
- 2 Fit the speaker securely onto the screw(s) with the hole(s).



Optional antenna connections

Use outdoor antennas if radio reception is poor.

- Disconnect the outdoor antenna when the unit is not in use.
- Do not use the outdoor antenna during a lightning storm.



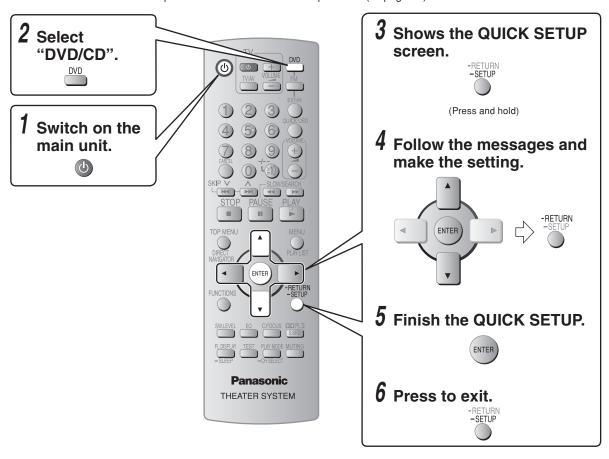
- Disconnect the FM indoor antenna.
- The outdoor antenna should be installed by a competent technician.

The QUICK SETUP screen assists you to make necessary settings.

To display the picture from this main unit, switch on the television and change the television's input mode which is connected to this main unit (example: VIDEO 1, AV 1, etc.).

To change your television's input mode, refer to its operating instructions.

This remote control is able to perform some basic television operations (⇒ page 32).



To change these settings later

Select "QUICK SETUP" in "OTHERS" tab (→ page 23).

Menu language Choose the language for the on-screen messages.	• ENGLISH	• (Language options)*					
TV Type Select to suit the type of television.	• <u>STANDARD</u> • PROJECTION	• CRT • PLASMA	• LCD				
TV's Aspect Ratio Choose the setting to suit your television and preference.	• 4:3 PAN&SCAN • 16:9 NORMAL	• 4:3 LETTERBOX • 16:9 SHRINK	• 4:3 ZOOM • 16:9 ZOOM				
* Language options: For Continental Europe, the Middle East, South Africa, Saudi Arabia and Kuwait: FRANÇAIS, ESPAÑOL, DEUTSCH, РУССКИЙ, MAGYAR, ČESKY, POLSKI For Southeast Asia and Thailand: 繁體中文							

· Underlined items in the above table are the factory preset.



Discs that can be played

Disc	Indicated in these instructions by		Remarks
DVD-Video	VIDEO VIDEO	DVD-V	High quality movie and music discs.
Video CD	DIGITAL VIDEO COMPACT COMPAC	VCD	Music discs with video. Including SVCD (Conforming to IEC62107).
CD	DIGITAL AUDIO	CD	Music discs.

■ Disc handling precautions (O: Playable, X: Not playable)

Disc	Logo	Recorded on a DVD video recorder, etc.		Recorded on a personal computer, etc.				Finalizing ^{*6}	
	,	DVD-VR ×2	DVD-V *4	WMA	MP3	JPEG	MPEG4	DivX ^{×9}	3
DVD-RAM	RAM RAM 4.7	0	_	×	0	0	O**8	0	Not necessary
DVD-R/RW	R R W	0	0	×	0	0	0	0	Necessary
DVD-R DL	R DL	O*3	0	×	×	×	×	×	Necessary
+R/+RW	_	×	(O) ^{*5}	×	×	×	×	×	Necessary
+R DL	_	×	(O) ^{*5}	×	×	×	×	×	Necessary
CD-R/RW ^{%1}	_	_	_	0	0	0	0	0	Necessary ^{×7}

- It may not be possible to play all the above-mentioned discs in some cases due to the type of disc, the condition of the
 recording, the recording method, or how the files were created (→ page 24, Tips for making data discs).
- * This unit can play CD-R/RW recorded with CD-DA or Video CD format.
- ^{x2} Discs recorded on DVD video recorders or DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).
- Discs recorded on DVD video recorders or DVD video cameras. using Version 1.2 of the Video Recording Format (a unified video recording standard).
- ³⁴ Discs recorded on DVD video recorders or DVD video cameras using DVD-Video Format.
- *S Recorded using a format different from DVD-Video Format, therefore, some functions cannot be used.
- ** A process that allows play on compatible equipment. To play a disc that is displayed as "Necessary" on this unit, the disc must first be finalized on the device it was recorded on.
- *7 Closing the session will also work.
- ** MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system].
- *9 Functions added with DivX ultra are not supported.

Note about using a DualDisc

The digital audio content side of a DualDisc does not meet the technical specifications of the Compact Disc Digital Audio (CD-DA) format so playback may not be possible.

■ Discs that cannot be played

DVD-RW version 1.0, DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD, Photo CD, DVD-RAM that cannot be removed from their cartridge, 2.6-GB and 5.2-GB DVD-RAM, and "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.

■ Video systems

- This unit can play PAL and NTSC, but your television must match the system used on the disc.
- PAL discs cannot be correctly viewed on an NTSC television.
- This unit can convert NTSC signals to PAL 60 for viewing on a PAL television (→ page 22, "NTSC DISC OUT" in "VIDEO" tab).



Standby/on switch [0/I] (14)

Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.



Panasonio

Display

|**◄◄/◀◀, ▶▶/▶▶**|/∨ TUNING ∧

Skipping or slow-search play, Select the radio stations (26)

VOLUME

+. - VOLUME

or down (14)

Turn the volume up

MIC jack

Connect a microphone (28)

Adjust the microphone volume (28)

▲ OPEN/CLOSE Open or close the

disc tray (14)

AC supply indicator [AC IN]

This indicator lights when the unit is connected to the AC mains supply.

• USB port -

Connect a USB device (31)

■/-TUNE MODE/–FM MODE Stop playback, Select the tuning mode (26), Adjust the FM reception condition (26)

►/MEMORY

Disc playback (14).

Memorize the receiving radio stations (26)

SELECTOR (14, 26) For Continental Europe

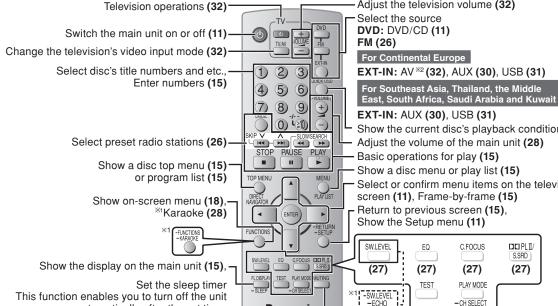
DVD/CD → USB → FM → AV^{×2} → AUX → Returns to DVD/CD

ы

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

DVD/CD → USB → FM → AUX → Returns to DVD/CD

Remote control



Panasonic

THEATER SYSTEM

Adjust the television volume (32)

For Continental Europe

EXT-IN: AV[∞] (32), AUX (30), USB (31)

For Southeast Asia, Thailand, the Middle

Show the current disc's playback condition (16)

Adjust the volume of the main unit (28)

Basic operations for play (15)

Show a disc menu or play list (15)

Select or confirm menu items on the television

C.FOCUS

(27)

PLAY MODE

(16, 28)

DD PLI/

S.SRD

(27)

screen (11), Frame-by-frame (15)

-ECHO (28)

To mute the sound

To cancel

(27, 29)

- · Press [MUTING] again or adjust the
- Muting is cancelled when you switch the unit to standby.

To cancel the timer

automatically after the set time.

To confirm the remaining time

Press and hold [-SLEEP] again.

SLEEP 30 → SLEEP 60 → SLEEP 90

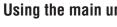
U OFF ← SLEEP 120 ←

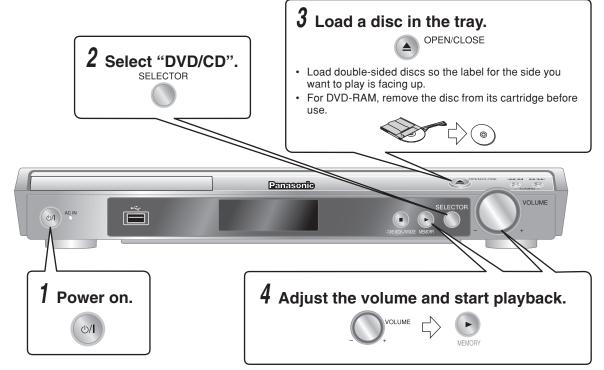
Press and hold [-SLEEP] to select "OFF".



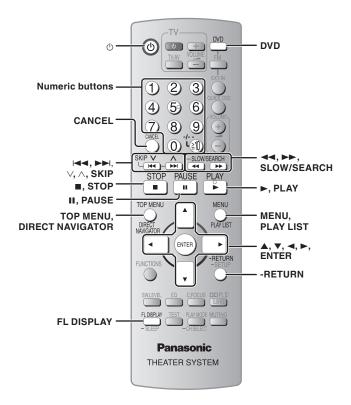
For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

^{*2 &}quot;AV" works only when the scart cable is connected (→ page 30).





Using the remote control



Stop



The position is memorised while "RESUME" is on the display.

- Press [►, PLAY] to resume.
- Press [■, STOP] again to clear the position.

Pause



PAUSE • Press [▶, PLAY] to resume playback.

Search (during play)



- Play speed increases up to 5 steps.
- Press [▶, PLAY] to resume normal playback.

Slow-motion play (during pause)



- Play speed increases up to 5 steps.
- VCD Slow motion play is for forward direction only.
- Except MPEG4 DivX.
- Press [►, PLAY] to resume normal playback.

Main unit display



DVD-V DVD-VR WMA MP3 MPEG4 DivX

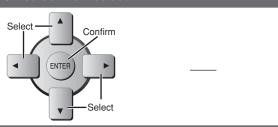
Time display ↔ Information display

SLIDE ↔ Information display

Skip



On-screen item select



Enter numbers







DVD-V (while stopped) DVD-VR VCD CD







VCD with Playback control (PBC) Press [■, STOP] and then press the numeric buttons to cancel the PBC functions.

Note

• The numeric buttons that can function depend on the number of tracks on the

Cancel the numbers





DIRE NAVIGATOR

Shows a disc top menu.

DVD-VR

Shows the program (→ page 17).

DVD-V Shows a disc menu.

MENU PLAY LIST

DVD-VR

Shows the playlist (→ page 17).

-RETURN



VCD with Playback control (PBC) Shows a disc menu.

Frame-by-frame (during pause)



• DVD-VR VCD Forward direction only.

Return to previous screen



Note

DISC CONTINUES TO ROTATE WHILE MENUS ARE DISPLAYED.

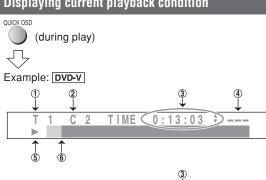
Press [■, STOP] when you finish to preserve the unit's motor and your television screen.

Total title number may not be displayed properly on +R/+RW.



🂫 Advanced play

Displaying current playback condition



The OSD's (on-screen display) abbreviations are as described below;

Current playback item

example: T = Title (DVD-V) or Track (CD VCD)

C = Content (WMA MP3 MPEG4 DivX)

TIME <2:30:21

PG = Program or PL = Playlist (DVD-VR)

- ② Current playback chapter example: C= Chapter (DVD-V)
- 3 Elapsed or remaining play time (Press [▲, ▼] to view the elapsed or remaining play
- time.) 4 Play mode condition
- ⑤ Playback condition
- 6 Current playback position

Note

WMA MP3

Remaining play time cannot be viewed.

Program and Random play

DVD-V VCD CD WMA MP3 JPEG MPEG4 DivX

PLAY MODE (during stop)

Example: DVD-V

→ Program → Random – − Off (Normal play) ←

To exit program or random play mode while stopped.

PLAY MODE (several times)

- DVD-V Some items cannot be played even if you have programmed them.
- Program and random play functions only within the selected "AUDIO", "PICTURE" and "VIDEO" folder.

Program play (up to 30 items)

1 To select the items.



- Press [-RETURN] to select from the previous
- Repeat this step to program other items.

Example: DVD-V

DVD-V PROGRAM	
SELECT TITLE	TITLE CHAP.
TITLE 1 TITLE 2 TITLE 3	1 2 3
TITLE 4 TITLE 5 TITLE 6 TITLE 7	5 6 7
	8 9 10
START: PLAY	CLEAR ALL



DVD-V PROGRAM				
SELECT CHAPTER		TITLE	CHAI	٠.
ALL	1	2	1	
CHAP. 1	2	2	2	
CHAP. 2	3	3	6	
CHAP. 3	4	3	3	
CHAP. 4	5	5	1	
CHAP. 5	6	5	5	
CHAP. 6	7	5	7	
CHAP. 7	8	5	8	
CHAP. 8	9	2	- 1	
₩ CHAP. 9	10	2	4	
START · DI AV		_	IEVB	AII

2 PLAY

To select all the Items

Press [▲, ▼] to select "ALL".

Then press [ENTER] again to confirm.

To clear the selected program

- 1. Press [▶, ▲, ▼] to select the program number.
- 2. Press [CANCEL].

To clear the whole program

Select "CLEAR ALL" with [▶] and press [ENTER]. The whole program is also cleared when the unit is turned off, the disc tray is opened or another source is selected.

Random play

1 To select a title.









· Press [ENTER] again to cancel the selection.



RQTX0028

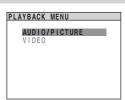
${f eta}_{f ar b}$ Playing data discs using navigation menus

Playing data discs

Select "DATA" in "OTHERS" tab (→ page 23) to play WMA, MP3, JPEG, MPEG4 or DivX content.

WMA MP3 JPEG MPEG4 DivX

Playing items in order (PLAYBACK MENU)

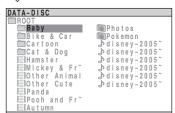


To select "AUDIO/PICTURE" or "VIDEO".



Playing from the selected item





: Group (Folder)*

: JPEG

: WMA/MP3 content (File)*

MPEG4 and DivX video content (File)*

 $^{ imes}$ Files are treated as contents and folders are treated as groups in these instructions.

Maximum file or folder name: approximate 12 characters

2 To select the group.



3 To start play from the selected content.



To exit the screen Press [MENU].

Playing RAM and DVD-R/-RW (DVD-VR) discs

DVD-VR

- Titles appear only if the titles are recorded on the disc.
- You cannot edit programs, play lists and disc titles.

Playing the programs

1 TOP MENU (during stop)
DIRECT NAVIGATOR



2 To select from the program.





To exit the screen

Press [DIRECT NAVIGATOR].

Playing a play list

Applicable only when the disc contains a play list.





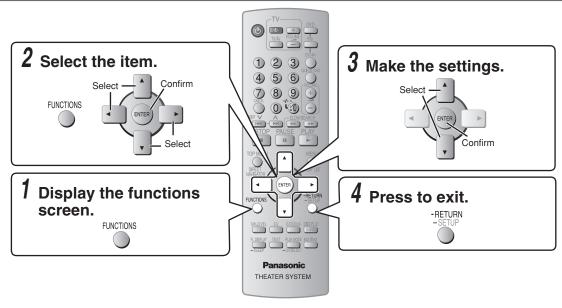
2 To select from the play list.



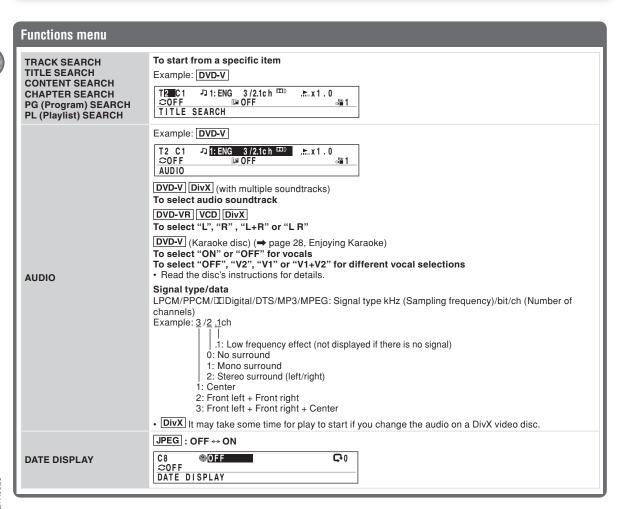
3 ENTER

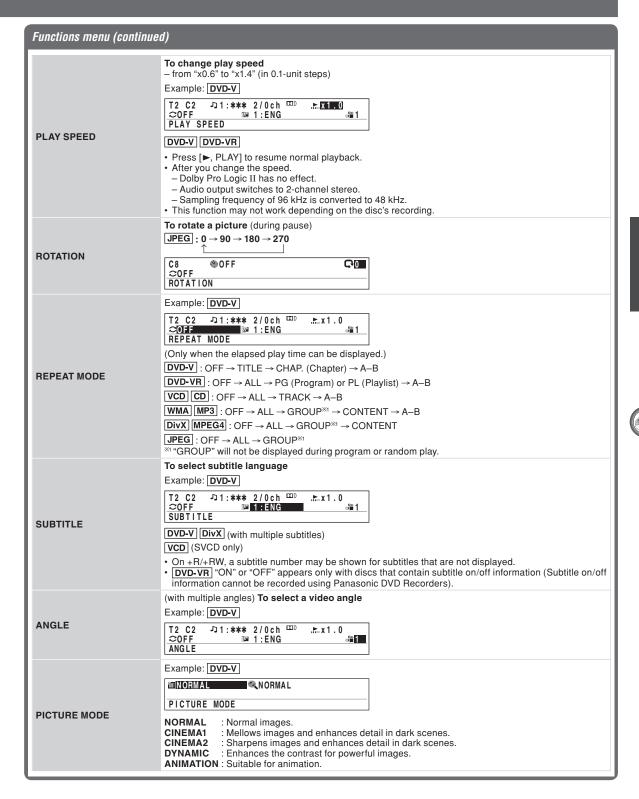
To exit the screen Press [PLAY LIST].





Items shown differ depending on the type of disc as well as the recording format.





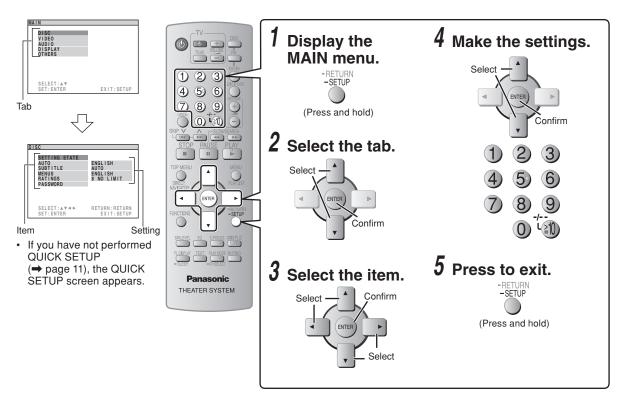


Functions menu (continue	ed)
	To select various zoom sizes Example: DVD-V
70014	MORMAL NORMAL
ZOOM	NORMAL
	AUTO x2 x4
SOURCE SELECT	DivX When you select "AUTO" the constructing method of the DivX contents is automatically distinguished and output. If the picture is distorted, select "INTERLACE" or "PROGRESSIVE" depending on which constructing method was used when the contents were recorded to disc. AUTO INTERLACE PROGRESSIVE
	Example: DVD-VR
	SOURCE SELECT
	To make the dialogue in movies easier to hear Example: DVD-V
DIALOGUE ENHANCER	OFF INCHIOFF DIALOGUE ENHANCER
	DVD-V (Dolby Digital, DTS, MPEG, 3-channel or higher, with the dialogue recorded in the center channel) DivX (Dolby Digital, 3-channel or higher, with the dialogue recorded in the center channel) OFF ↔ ON
	OFF → MOVIE → MUSIC
.	(⇒ page 27, Enhancing the stereo sound : Dolby Pro Logic II) Example: DVD-V
Dolby PLII	OFF Dolby PLII
	OFF ↔ ON (⇒ page 28, Enjoying Karaoke)
KARAOKE MODE ^{*2}	Example: DVD-V
	KARAOKE MODE
	Example: DVD-V
	TRANSFER MODE
	If you have set "VIDEO OUT (I/P)" to "PROGRESSIVE" (→ page 22, "VIDEO" tab), press [▲, ▼] to select the method of conversion for progressive output to suit the type of material. • The setting will return to AUTO or AUTO1 when the disc tray is opened.
TRANSFER MODE ^{X2}	When playing PAL discs or MPEG4 or DivX video contents AUTO: Automatically detects the film and video content, and appropriately converts it. VIDEO: Select when using AUTO, and the content is distorted. FILM: Select this if the edges of the film content appear jagged or rough when AUTO is selected. However, if the video content is distorted as shown in the illustration to the right, then select AUTO.
	When playing NTSC discs AUTO1 : Automatically detects the film and video content, and appropriately converts it. AUTO2 : In addition to AUTO1, automatically detects film contents with different frame rates and appropriately converts it. VIDEO : Select when using AUTO1 and AUTO2, and the content is distorted.

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

DISC OPERATIONS

$ho_{f o}$ Changing the player settings



- The settings remain intact even if you switch the unit to standby.
- Underlined items are the factory settings in the following table.

QUICK SETUP enables successive settings of the items in the shaded area.

AUDIO Choose the audio language.	• ENGLISH	• (Language options)**1	• ORIGINAL [™] 2	• OTHER *3		
SUBTITLE Choose the subtitle language.	• <u>AUTO</u> **4	• ENGLISH	• (Language options)*1	• OTHER*3		
MENUS	• ENGLISH	• (Language options)**1				
Choose the language for disc menus. Changing the menu language in QUICK SETUP also changes this setting.	• OTHER	_ %3				
RATINGS Set a ratings level to limit DVD-Video play.	Setting ratings (When level 8 is selected) • 0 LOCK ALL: To prevent play of discs without rating levels. • 1 to 7: To prohibit play of DVD-Video with corresponding ratings recorded on them. • 8 NO LIMIT When you select your ratings level, a password screen is shown. Enter your password and then follow the on-screen instructions. Do not forget your password. A message screen will be shown if a DVD-Video disc exceeding the ratings level is inserted in the unit. Follow the on-screen instructions.					
PASSWORD Change the password for "RATINGS".	• CHANGE	gs (When level 0 to 7 is sele screen instructions.	ected)			
Language options: For Continental Europe, the Middle FRENCH, SPANISH, GERMAN, RUS: For Southeast Asia and Thailand The original language designated on.	SIAN, HUNGARIA : CHINESE TRAD	N, CZECH and POLISH.	ait :			
 The original language designated on Input a code number referring to the t If the language selected for "AUDIO" i 	able (→ page 36).		uage (if available on the dis	c).		



QUICK SETUP enables successive settings of the items in the shaded area.

MAIN menu (continued)

■ "VIDEO" tab

TV ASPECT

Choose the setting to suit your television and preference.

4:3 PAN&SCAN: Regular aspect television (4:3)

The sides of the widescreen picture are cut off so it fills the screen (unless prohibited by the disc).



 4:3 LETTERBOX: Regular aspect television (4:3) Widescreen picture is shown in the letterbox style.



- 4:3 ZOOM: Regular aspect television (4:3) The picture zooms in and out.
- 16:9 NORMAL: Widescreen television (16:9) Laterally stretches image.
- 16:9 SHRINK: Widescreen television (16:9) Images appear in the center of the screen.
- 16:9 ZOOM: Widescreen television (16:9) Expands to 4:3 aspect ratio.

T١	/ T	YF	PΕ		

Select to suit the type of television.

 STANDARD PROJECTION • CRT PLASMA

• 60 ms

• 40 ms

· LCD

• 80 ms

• 100 ms

TIME DELAY

When connected with a Plasma display, adjust if you notice the audio is out of sync with the video.

· NTSC: When connected to a NTSC television. • PAL60: When connected to a PAL television.

(*5 "NTSC" is the factory preset.)

• 20 ms

NTSC DISC OUT

Choose PAL 60 or NTSC output when playing NTSC discs (→ page 12, Video systems).

STILL MODE

Specify the type of picture shown when paused.

0 ms

• FIELD*6: The picture is not blurred, but picture quality is lower. S-VIDEO

VIDEO OUT - SCART*7

Choose the video signal format to be output from the SCART (AV) terminal.

• RGB

VIDEO OUT (I/P)[™]

Select "PROGRÉSSIVE" only if connecting to a progressive output compatible television.

INTERLACE

• PROGRESSIVE (a message screen will appear, follow the on-screen instructions)

■ "AUDIO" tab

DYNAMIC RANGE		nd the hig	hest sou			sing the range of the lowest te night viewing.
SPEAKER SETTINGS (→ page 23) Set the delay time for your center and surround speakers	SETTINGS C DELAY: SL/SR DELAY:	• <u>0ms</u>	_	• 2ms • 10ms	 •4ms	• 5ms

■ "DISPLAY" tab

			_			
LANGUAGE	** • ENGLISH	 FRANÇAIS 	 ESPAÑOL 	 DEUTSCH 	• РУССКИЙ	
	 MAGYAR 	 ČESKY 	 POLSKI 			
	*5 • ENGLISH	• 繁體中文				

- *5 For Southeast Asia and Thailand
- *6 Refer to "Frame still and field still" (→ page 37, Glossary).
- *7 For Continental Europe
- For Continental Europe , the Middle East, South Africa, Saudi Arabia and Kuwait
 - For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

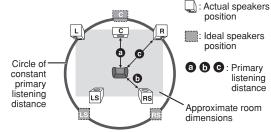
MAIN menu (continued)	
■ "OTHERS" tab	
REGISTRATION DivX Displays the unit's registration code.	SHOW CODE You need this registration code to purchase and play DivX Video-on-Demand (VOD) content. (→ page 24, "About DivX VOD content")
JPEG TIME Set the speed of the slideshow.	1 SEC • 2 SEC • 3 SEC • 4 SEC to 15 SEC • 15 SEC to 60 SEC (in 5-unit steps) • 60 SEC to 180 SEC (in 30-unit steps)
FL DIMMER Change the brightness of the unit's display.	BRIGHT DIM AUTO: The display is dimmed, but brightens when you perform some operations.
QUICK SETUP	• SET • <u>YES</u> • NO
DVD-VR/DATA Select to play only DVD-VR or DATA format (→ page 17).	• DVD-VR • DATA
DEFAULTS This returns all values in the MAIN menu to the default settings.	RESET The password screen is shown if "RATINGS" (→ page 21) is set. Please enter the same password, then turn the unit off and on again.

Changing the delay time of the speakers

Effective when playing multi-channel audio

difference.

(Center and surround speakers only)
For optimum listening with 5.1-channel sound, all the speakers, except for the subwoofer, should be the same distance from the seating position. If you have to place the center or surround speakers closer to the seating position, adjust the delay time to make up for the



If either distance **a** or **b** is less than **c**, find the difference in the table and change to the recommended setting.

coming.			
Center spe	aker	6 Surround sp	eaker
Difference (Approx.)	Setting	Difference (Approx.)	Setting
30 cm	1 ms	150 cm	5 ms
60 cm	2 ms	300 cm	10 ms
90 cm	3 ms	450 cm	15 ms
120 cm	4 ms		
150 cm	5 ms		

■ To enter the speaker setting

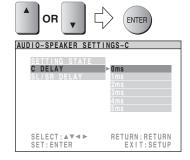
1 To select the speaker.



C DELAY = Center delay

SL / SR DELAY = Surround left / Surround right delay

2 To select the delay time.



To exit the setup Press and hold [-SETUP].





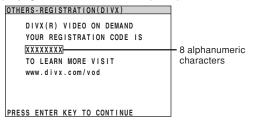
About DivX VOD content

DivX Video-on-Demand (VOD) content is encrypted for copyright protection. In order to play DivX VOD content on this unit, you first need to register the unit.

Follow the online instructions for purchasing DivX VOD content to enter the unit's registration code and register the unit. For more information about DivX VOD, visit www.divx.com/vod.

■ Display the unit's registration code

(→ page 23, "REGISTRATION (DIVX)" in "OTHERS" tab)



- We recommend that you make a note of this code for future reference.
- After playing DivX VOD content for the first time, another registration code is then displayed in "REGISTRATION (DIVX)". Do not use this registration code to purchase DivX VOD content. If you use this code to purchase DivX VOD content, and then play the content on this unit, you will no longer be able to play any content that you purchased using the previous code.

 If you purchase DivX VOD content using a registration code different from this unit's code, you will not be able to play this content. ("Authorization Error" is displayed.)

■ Regarding DivX content that can only be played a set number of times

Some DivX VOD content can only be played a set number of times. When you play this content, the remaining number of plays is displayed. You cannot play this content when the number of remaining plays is zero. ("RENTAL EXPIRED" is displayed.)

When playing this content

- · The number of remaining plays is reduced by one if
- you press [७] or press and hold [–SETUP].
- you press [■, STOP]. (Press [■, PAUSE] to pause play.)
- you press [I◄◄, ▶►I] (skip) or [◄◄, ▶►] (slow/search) etc. and arrive at another content or the start of the content
- Resume (⇒ page 15, Stop) function does not work.



Tips for making data discs

- When there are more than eight groups, the eighth group onwards will be displayed on one vertical line in the menu screen.
- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

· Discs must conform to UDF 2.0.

- Discs must conform to UDF bridge (UDF 1.02/ISO9660).
- This unit does not support multi-session. Only the default session is played.

CD-R/RW

- Discs must conform to ISO9660 level 1 or 2 (except for extended formats).
- This unit supports multi-session but if there are many sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.

Naming folders and files

Files are treated as contents and folders are treated as groups on this unit.

At the time of recording, prefix folder and file names. This should be with numbers that have an equal number of digits, and should be done in the order you want to play them (this may not work at times). Files must have the extension (\Rightarrow see below).

WMA (Extension: ".WMA" or ".wma")

- · Compatible compression rate: between 48 kbps and 320 kbps.
- You cannot play WMA files that are copy-protected.
- This unit does not support Multiple Bit Rate (MBR).

MP3 (Extension: ".MP3" or ".mp3")

- Compatible compression rate: between 32 kbps and 320 kbps.
- This unit does not support ID3 tags.
- Compatible sampling rates:
 - DVD-RAM, DVD-R/RW: 11.02, 12, 22.05, 24, 44.1 and 48 kHz
 - CD-R/RW: 8, 11.02, 12, 16, 22.05, 24, 32, 44.1 and 48 kHz

JPEG (Extension: ".JPG", ".jpg", ".JPEG" or ".jpeg")

- JPEG files taken on a digital camera that conform to DCF Standard (Design rule for Camera File system) Version 1.0 are displayed. Files that have been altered, edited or saved with computer picture editing software may not be displayed.
- This unit cannot display moving pictures, MOTION JPEG and other such formats, and still pictures other than JPEG (Example: TIFF), or play pictures with attached audio.

MPEG4 (Extension: ".ASF" or ".asf")

- You can play MPEG4 data [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system] recorded with Panasonic SD multi cameras or DVD video recorders with this unit.
- The recording date may differ from that of the actual date.

DivX (Extension: ".DIVX", ".divx", ".AVI" or ".avi")

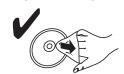
- You can play all versions of DivX® video (including DivX®6) [DivX video system/MP3, Dolby Digital or MPEG audio system] with standard playback of DivX® media files. Functions added with DivX Ultra are not supported.
- GMC (Global Motion Compensation) is not supported.
- DivX files greater than 2 GB or have no index may not be played properly on this unit.
- This unit supports all resolutions up to maximum of 720 x 480 (NTSC)/720 x 576 (PAL).
- · You can select up to eight types of audio and subtitles on this unit.

Disc handling precautions

- Do not attach labels or stickers to discs. This may cause disc warping, rendering it unusable.
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not use scratch-proof protectors or covers.
- · Do not use the following discs:
 - Discs with exposed adhesive from removed stickers or labels (rented discs. etc).
 - Discs that are badly warped or cracked.
 - Irregularly shaped discs, such as heart shapes.

■ To clean discs

Wipe with a damp cloth and then wipe dry.





2 Using the radio

Manual tuning

1 To select "FM".

SELECTOR

OR



(main unit)

(remote control)

2 To select "MANUAL".



-TUNE MODE/-FM MODE (main unit)

3 To select the frequency.

H4/44 PP/PPI





(main unit)

when a station is found.

Press and hold [∨ TUNING ∧] until the frequency starts scrolling to start automatic tuning. Tuning stops

Presetting the channel

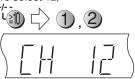
Remote control only

Up to 30 stations can be set for FM.

- 1. While listening to the radio broadcast Press [ENTER].
- While the frequency and "PGM" are flashing on the display

Press the numeric buttons to select a channel.

 To select a 2-digit number Example: To select 12,



Alternatively, press [∨, ∧], then press [ENTER].

The station occupying a channel is erased if another station is preset to that channel.

Automatic presetting

1 To select "FM".







(main unit)

(remote control)

2 Press and hold.



(main unit)

OR OR



Release the button when "FM AUTO" is displayed.

The tuner tunes to the lowest frequency and starts to preset all the stations it can receive into the channels in ascending order.

- "SET OK" is displayed when the stations are set, and the radio tunes to the last preset station.
- "ERROR" is displayed when automatic presetting is unsuccessful. Preset the channels manually (see left).

Selecting the preset channels

1 To select "FM".



2 To select the channel.



TO L

Alternatively, press [∨, ∧].
 When a stereo FM broadcast is being received,
 "ST" lights in the display.



If noise is excessive in FM

Main unit only

Press and hold [-FM MODE] to display "MONO".

Press and hold [-FM MODE] again to cancel the mode. The mode is also cancelled when you change the frequency.

Using sound effects

- The following sound effects may not be available or have no effect depending on the type of source.
- You may experience a reduction in sound quality when these sound effects are used with some sources. If this occurs, turn the sound effects off.

Enhancing the sound from the center speaker: **Center Focus**

This applies to discs where the dialogue is recorded in the center channel.

You can make the sound of the center speaker seem like it is coming from within the television.





C FOCUS ON ↔ C FOCUS OFF

This also works when Dolby Pro Logic II is turned on.

Adjusting the amount of bass: Subwoofer level

You can adjust the amount of bass. The unit automatically selects the most suitable setting according to the type of playback source.





DVD-V DVD-VR

SUB W 4 (factory preset) → SUB W 1

L SUB W 3 ← SUB W 2 ←

When another source is selected

SUB W 2 (factory preset) → SUB W 3 — SUB W 1 ← SUB W 4 ←

When AV or AUX source is selected

For Continental Europe

SUB W 1 (factory preset) → SUB W 2 ____ SUB W 4 ← SUB W 3 ←

When DVD/CD source is selected

For Continental Europe

SUB W 2 (factory preset) → SUB W 3 ____ SUB W 1 ← SUB W 4 ←

- To check the current setting, press [SW.LEVEL].
- The setting you make is retained, and recalled every time you play the same type of source.

Changing the sound quality: Equalizer Mode (EQ)



SOFT*: For background music. **HEAVY**: Adds punch to rock. **CLEAR**: Clarifies higher sounds.

> : Cancel (no effect is added) (factory preset).

To check the current setting, press [EQ].

FLAT

You can adjust the volume of the surround speakers to get the best surround effect (→ page 28, Adjusting the volume of each speaker: Speaker level adjustments).

Enhancing the stereo sound: Dolby Pro Logic II

Except DivX

Dolby Pro Logic II is an advanced decoder that derives 5-channel surround (Left and Right Front, Center, Left and Right Surround) from stereo sound sources, whether or not it has been specifically Dolby Surround encoded.





MOVIE: Movie software, recorded in

Dolby Surround. MUSIC: Stereo sources.

OFF : Cancel.

- This function is only available for DVD/CD and USB
- "DDPLII" lights when there is effect.

Enhancing the stereo sound: Super Surround



MOVIE: Use this mode when playing

movie software.

MUSIC:

Adds surround effects to stereo

sources.

OFF : Cancel.

- Super Surround and EQ can be turned on simultaneously.
- This function is only available for FM, AV and AUX mode.

For Continental Europe Factory preset when AV or AUX source is selected.

Adjusting the volume of each speaker: Speaker level adjustments

This is one of the ways to get appropriate surround effects.

Preparation



1 While stopped and no on-screen display is shown To output a test signal.



L: Front left

C: Center

R: Front right

RS: Right surround

LS: Left surround

• There is no output from SW (subwoofer) channel.

2 To set the volume level normally used for listening.



3 To adjust the speaker level for each speaker.







 Adjust the speaker levels to the same level as the front speakers.

C, RS, LS: -6 dB to +6 dB

To stop the test signal

Press [TEST] again.

To adjust speaker level during play

(Effective when playing multi-channel audio or when Dolby Pro Logic II is on.)

 Press and hold [-CH SELECT] to select the speaker.

$$L \rightarrow C \rightarrow R \rightarrow RS \rightarrow LS \rightarrow SW$$

SW: Subwoofer

- You can adjust SW only if the disc includes a subwoofer channel.
- "SW" does not appear on the display and is not adjustable when "□□PLII" is lit.
- "S" appears on the display when "MOVIE", "MUSIC" is selected with Super Surround (→ page 27).

In this case, you can adjust both surround speaker levels at the same time using $[\blacktriangle, \blacktriangledown]$.

S: -6 dB to +6 dB

2. Press [▲] (increase) or [▼] (decrease) to adjust the speaker level for each speaker.

C, RS, LS, SW: -6 dB to +6 dB

(L, R: Only the balance is adjustable.)

 To adjust the balance of the front speakers, while "L" or "R" is selected, press [◄, ►].

Solution Enjoying Karaoke

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

Preparation

1 Lower the microphone volume to "MIN".



2 Connect the microphone to the jack.

Use a dynamic microphone. Microphone plug type: Ø6.3 mm monaural.



Note

- If a strange noise (howling) is emitted during use, move the microphone away from the speakers, or turn down the microphone volume.
- When you are not using the microphone, disconnect it from the microphone jack, and turn down the microphone volume level to "MIN".
- While karaoke mode is turned on, multi channel signals will be down-mixed to 2 channel signals.
- Karaoke function will automatically turn off when the tray opens, when you change the source or when the unit is turned off.

Enjoying karaoke with karaoke DVD and VCD

DVD-V VCD

1 Start playback.



2 To display the audio menu on the television.



(Press and hold)

3 To switch on the karaoke function.





4 Adjust the mic volume and sing along.

To exit the screen
Press [-KARAOKE].

Enioving karaoke with other sources

You can also perform karaoke with discs other than those described and also in USB mode.

1 Start play.

Refer to the pages for the source

- Discs: (→ page 14), Disc Basic play
- Optional USB connection and operation (audio mode does not work) (→ page 31).
- 2 Make the selection (→ see below, Audio mode).
 Only necessary if the vocals and melody are spilt between the left and right channels.



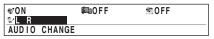
3 Start singing (→ see below, Mic volume adjustment).

Even if the vocals and melody are not split, you may still be able to lower the volume of the vocals. (\Rightarrow see right, Vocal cancel function)

Audio mode (AUDIO CHANGE)

- 1 Repeat steps 1 to 2 of Enjoying karaoke with karaoke DVD and VCD (→ page 28).
- 2 To select "AUDIO CHANGE".





3 To select audio mode.



DVD-V (Karaoke discs)

Solo

Off : No vocal On : Vocal

Duet

Off: No vocal V1+V2: Vocal 1 and 2 V1: Vocal 1 V2: Vocal 2

- · Choose "Off" for karaoke.
- Choose "V1" or "V2" to duet with the player.

VCD and other sources

- L R:Left channel sound is heard from the left speaker and right channel sound is heard from the right speaker — vocal and accompaniment
- L: Only left channel sound no vocal R: Only right channel sound vocal
- L + R:Left and right channel sounds are mixed and heard from both speakers
- · Select no vocal for karaoke.
- · Vocal and no vocal may be reversed.

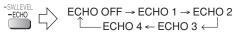
Mic volume adjustment

Main unit only

Turn to adjust the microphone's volume level. $_{\mbox{\tiny{MIC}}\mbox{\tiny{LEVEL}}}$



Adding an echo effect



(Press and hold)

The effect increases with the level.

Vocal cancel function

Use this function on stereo sources to block out the vocals so you can sing along to the music.

- 1 Repeat steps 1 to 2 of Enjoying karaoke DVD and VCD (→ page 28).
- 2 To select "VOCAL CANCEL".



3 To switch the function on or off.

FNTFR



This function is not suitable for the following sources.

- Monaural recordings
- · Chorus works or duets

Changing the pitch

Use this function to change the pitch level.

- 1 Repeat steps 1 to 2 of Enjoying karaoke DVD and VCD (→ page 28).
- 2 To select "KEY CONTROL".



 $oldsymbol{3}$ To select the pitch level.





$\mathbb{Q}_{ar{b}}$ Operating other equipment

Optional audio connection for video cassette recorder or television

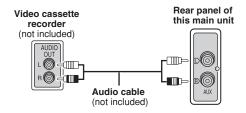
Press [EXT-IN] (→ page 13) to select "AUX" as the source to operate the audio input.

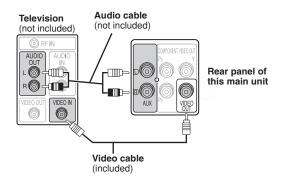
For Continental Europe

This audio connection will enable you to play audio from your video cassette recorder through your home theater system.

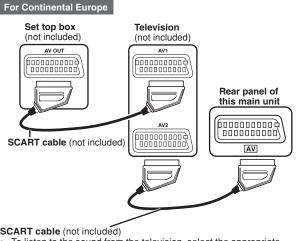
For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

This audio connection will enable you to play audio from your television through your home theater system.





Optional connection for set top box, cable TV box or video cassette recorder



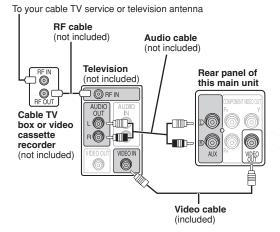
SCART cable (not included)

To listen to the sound from the television, select the appropriate audio out (example: Monitor) on the television.

Sound from the television

Press [EXT-IN] (→ page 32) to select the "AV" audio input from the remote control.

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait



Optional USB connection and operation

WMA MP3 JPEG MPEG4

The USB connectivity enables you to connect and play tracks or files from USB mass storage class devices. Typically, USB memory devices. (Bulk only transfer)

Preparation

Before connecting any USB mass storage device to the unit, ensure that the data stored therein has been backed up.

It is not recommended to use a USB extension cable. The USB device is not recognised by this unit.

1 Connect the USB mass storage device (not included).



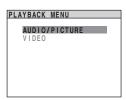
2 To select "USB" as the source, press several times.



Select the desired item for playback.



Example:





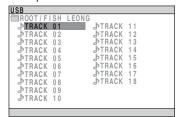


3 Adjust the volume of the main unit.



4 Begin playback by selecting the track from the USB mass storage device.

Example:





To return to the previous screen Press [-RETURN].

For other operating functions, they are similar as those described on "DISC OPERATIONS" (→ page 14 to 25).

Compatible Devices

- Devices which are defined as USB mass storage class:
 - USB devices that support bulk only transfer.
 - USB devices that support USB 2.0 full speed.

Qa

Optional USB connection and operation (continued)

Supported Formats

	File name	File extension
Still pictures	JPG≈¹	.jpg .jpeg
Music	MP3 WMA	.mp3 .wma
Video	MPEG4*2	.asf

It may not be possible to play all the files due to the condition on how they were created.

Note

- CBI (Control/Bulk/Interrupt) is not supported.
- Digital Cameras that use PTP protocol or which require additional program installation when connected to a PC are not supported.
- A device using NTFS file system is not supported. [Only FAT 16/32 (File Allocation Table 16/32) file system is supported].
- · Depending on the sector size, some files may not work.
- It will not operate with Janus enabled MTP (Media Transfer Protocol) devices.
- Maximum folder: 256 folders
- Maximum file: 4000 files
- · Maximum file name: 12 characters
- · Maximum folder name: 12 characters
- Only one memory card will be selected when connecting a multiport USB card reader. Typically the first memory card inserted.

Operating the television

You can use the remote control to operate a Panasonic television.

Aim the remote control at the television.

To switch the television on or off



To switch the television's video input mode



Adjust the volume



To play audio from your television through your home theater system

Preparation

Connect your equipment referring to "Connect to the various television terminals" (→ page 9).

For Continental Europe

Press [EXT-IN] to select "AV" as the source. Then reduce the volume on the television to its minimum, and control the volume on this main unit.

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

Press [AUX] to select "AUX" as the source. Then reduce the volume on the television to its minimum, and control the volume on the main unit.

Note

- · The remote control may not work properly with some models.
- You can enjoy 5.1-channel surround sound when you turn on Super Surround (MOVIE, MUSIC) (→ page 27).

^{*2} For Panasonic D-Snap/DIGA.



🇞 Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the solutions indicated in the chart do not solve the problem, consult your dealer for instructions.

■ Power		Page
No power.	Insert the AC mains lead securely.	8
The unit is automatically switched to the standby mode.	The Sleep timer was working and had reached the set time limit.	13

■ Unresponsive or inoperable function

No response when any buttons are pressed.	 This unit cannot play discs other than the ones listed in these operating instructions. The unit may not be operating properly due to lightning, static electricity or some other external factor. Turn the unit off and then back to on. Alternatively, turn the unit off, disconnect the AC mains lead, and then reconnect it. Condensation has formed: Wait 1 to 2 hours for it to evaporate. 	12 —
No response when remote control buttons are pressed.	 Check that the batteries are installed correctly. The batteries are depleted. Replace them with new ones. Aim the remote control at the display and operate. 	6 6 13
No picture or sound.	Check the video or speaker connection. Check the power or input setting of the connected equipment and the main unit. Check that the disc has something recorded on it.	8, 9 — —
You have forgotten your ratings password. Reset all the settings to Factory Preset.	While stopped and "DVD/CD" is the source, press and hold [■] on the main unit and [≧10] on the remote control until "INITIALIZED" (or "INITIALISED") disappears from the television. Turn the unit off and on again. All settings will return to the default values.	_

■ Specific operation undesirable or unexpected

- opcome operation unaconat	no or unexpected	
It takes time before play starts.	 Play may take time to begin when an MP3 track has still picture data. Even after the track starts, the correct play time will not be displayed. This is normal. MP3 This is normal on DivX video. DivX 	_ _
Folders on a data CD are not displayed correctly. WMA MP3 JPEG MPEG4 DivX	Folders deeper than the eighth layer are displayed as the eighth layer.	_
A menu screen appears during skip or search. VCD	This is normal for Video CDs.	_
Playback control menu does not appear. VCD with playback control	• Press [■, STOP] twice and then press [►, PLAY].	_
The program and random play functions do not work. DVD-V	These functions do not work with some DVD-Videos.	_
Play does not start.	 This unit may not play WMA and MPEG4 that contains still picture data. If playing DivX VOD content, refer to the homepage where you purchased the DivX VOD content. (Example: www.divx.com/vod) [DivX] If a disc contains CD-DA and other formats, proper playback may not be possible. 	=

■ Subtitle

No subtitles. • Display the subtitles. ("SUBTITLE" in Functions menu) • Subtitles may not be displayed depending on the disc. DivX	19 19
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■ A-B repeat

Point B is automatically set.	The end of an item becomes point B when it is reached.	_

■ Menus

The Setup menu cannot be accessed.	Select "DVD/CD" as the source. Cancel program and random play. Cancel JPEG's playback.	 16
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🕞 Troubleshooting guide (continued)

■ Sound abnormal or improp	er	Page
Sound is distorted.	Noise may occur when playing WMA.	_
Effects do not work.	 Some audio effects do not work or have less effect with some discs. Dolby Pro Logic II does not work if you have changed the play speed. 	_
Humming is heard during play.	An AC mains lead or fluorescent light is near the main unit. Keep other appliances and cables away from the main unit.	_
No sound.	There may be a slight pause in sound when you change the play speed. Audio may not be output due to how files were created. DivX	_

■ Picture abnormal or unviewable

The picture on the television is	The unit and television are using different video systems.	_
not displayed correctly or	*1Use a multi-system or NTSC television.	
disappears.	*2Use a multi-system or PAL television.	
	 The system used on the disc does not match your television. PAL discs cannot be correctly viewed on an NTSC television. This unit can convert NTSC signals to PAL 60 for viewing on a PAL television ("NTSC DISC OUT" in "VIDEO" tab). Ensure that the unit is connected directly to the television, and is not connected through a video cassette recorder. 	 22 30
	Mobile telephone chargers can cause some disturbance.	_
	 If you are using an indoor television antenna, change to an outdoor antenna. The television antenna wire is too close to the unit. Move it away from the unit. 	
	Change "SOURCE SELECT" in Functions menu. DivX	20
Picture stops DivX	Picture may stop if the DivX files are greater then 2 GB.	_
Picture size does not fit the screen.	Change "TV ASPECT" in the "VIDEO" tab.	22
	Use the television to change the aspect.	_
	Change the zoom setting. ("ZOOM" in Functions menu.)	20
Menu is not displayed correctly.	Restore the zoom ratio to "NORMAL". ("ZOOM" in Functions menu.)	20
Auto zoom function does not work well.	 Turn off television zoom function. Zoom function may not work well, especially in dark scenes and may not work depending on the type of disc. 	_
When playing PAL disc, picture is distorted.	Set "TRANSFER MODE" in Functions menu to "AUTO".	20

■ Progressive video ×3

Pictures not in progressive output.	Select "PROGRESSIVE" in "VIDEO OUT (I/P)" in the "VIDEO" tab.	22
	The unit's VIDEO OUT terminal outputs the interlaced signal even if "PRG" is	9
	displayed.	

■ Unit displays

The display is dark.	Select "BRIGHT" in "FL DIMMER" in the "OTHERS" tab.	23
"NO PLAY"	 You inserted a disc the unit cannot play; insert one it can. You inserted a blank disc. You inserted a disc that has not been finalized. 	12 — —
"NO DISC"	 You have not inserted a disc; insert one. You have not inserted the disc correctly; insert it correctly. 	— 14
"OVER CURRENT ERROR"	The USB device is drawing too much power. Switch to DVD/CD mode, remove the USB and turn the unit off.	_
"F61"	Check and correct the speaker cable connections. If this does not fix the problem, consult the dealer.	8
"F76"	There is a power supply problem. Consult the dealer.	_
"DVD U11"	Disc may be dirty. Wipe it clean.	25
"ERROR"	• Incorrect operation performed. Read the instructions and try again.	_
"DVD H □ □" "DVD F □ □ □" □ stands for a number.	 Trouble may have occurred. The numbers following "H" and "F" depend on the status of the unit. Turn the unit off and then back on. Alternatively, turn the unit off, disconnect the AC mains lead, and then reconnect it. If the service numbers fail to clear, note the service number and contact a qualified service person. 	_

^{*1} For Southeast Asia and Thailand

For the Middle East, South Africa, Saudi Arabia, Kuwait and Continental Europe

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

■ Television displays		Page
"⊘"	The operation is prohibited by the unit or disc.	_
"ERROR"	You are trying to display an incompatible group or content. You are trying to play a protected group or content. You cannot play it.	_
"Check the disc"	This disc may be dirty.	_
"This disc may not be played in your region"	Only DVD-Video discs that include or have the same region number as the one on the rear panel of this unit can be played.	Cover page
"Authorization Error" DivX	You are trying to play the DivX VOD content that was purchased with a different registration code. You cannot play the content on this unit.	24
"RENTAL EXPIRED" DivX	The DivX VOD content has zero remaining plays. You cannot play it.	24

■ USB

The USB drive or its contents cannot be read.	 The USB drive format or its contents is/are not compatible with the system. The USB host function of this product may not work with some USB devices. USB devices with storage capacity of more than 32 GB may not work in some instances. 	
Slow operation of the USB device.	Large file size or high memory USB flash drive takes longer time to read and display on the TV.	_

■ Listening to the radio

Distorted sound or noise is heard. "ST" flickers or does not light.	Adjust the position of the FM antenna.Use an outdoor antenna.	<u> </u>
A beat sound is heard.	Turn the television off or move it away from the unit.	_

% Language code list



Abkhazian:	6566	Hausa:	7265	Romanian:	8279
Afar:	6565	Hebrew:	7387	Russian:	8285
Afrikaans:	6570	Hindi:	7273	Samoan:	8377
Albanian:	8381	Hungarian:	7285	Sanskrit:	8365
Ameharic:	6577	Icelandic:	7383	Scots Gaelic:	7168
Arabic:	6582	Indonesian:	7378	Serbian:	8382
Armenian:	7289	Interlingua:	7365	Serbo-Croatian:	8372
Assamese:	6583	Irish:	7165	Shona:	8378
Aymara:	6589	Italian:	7384	Sindhi:	8368
Azerbaijani:	6590	Japanese:	7465	Singhalese:	8373
Bashkir:	6665	Javanese:	7487	Slovak:	8375
Basque:	6985	Kannada:	7578	Slovenian:	8376
Bengali; Bangla:	6678	Kashmiri:	7583	Somali:	8379
Bhutani:	6890	Kazakh:	7575	Spanish:	6983
Bihari:	6672	Kirghiz:	7589	Sundanese:	8385
Breton:	6682	Korean:	7579	Swahili:	8387
Bulgarian:	6671	Kurdish:	7585	Swedish:	8386
Burmese:	7789	Laotian:	7679	Tagalog:	8476
Byelorussian:	6669	Latin:	7665	Tajik:	8471
Cambodian:	7577	Latvian, Lettish:	7686	Tamil:	8465
Catalan:	6765	Lingala:	7678	Tatar:	8484
Chinese:	9072	Lithuanian:	7684	Telugu:	8469
Corsican:	6779	Macedonian:	7775	Thai:	8472
Croatian:	7282	Malagasy:	7771	Tibetan:	6679
Czech:	6783	Malay:	7783	Tigrinya:	8473
Danish:	6865	Malayalam:	7776	Tonga:	8479
Dutch:	7876	Maltese:	7784	Turkish:	8482
English:	6978	Maori:	7773	Turkmen:	8475
Esperanto:	6979	Marathi:	7782	Twi:	8487
Estonian:	6984	Moldavian:	7779	Ukrainian:	8575
Faroese:	7079	Mongolian:	7778	Urdu:	8582
Fiji:	7074	Nauru:	7865	Uzbek:	8590
Finnish:	7073	Nepali:	7869	Vietnamese:	8673
French:	7082	Norwegian:	7879	Volapük:	8679
Frisian:	7089	Oriya:	7982	Welsh:	6789
Galician:	7176	Pashto, Pushto:	8083	Wolof:	8779
Georgian:	7565	Persian:	7065	Xhosa:	8872
acorgian.					
German:	6869	Polish:	8076	Yiddish:	7473
· ·		Polish: Portuguese:	8076 8084	Yiddish: Yoruba:	7473 8979
German:	6869				
German: Greek:	6869 6976	Portuguese:	8084	Yoruba:	8979



Decoder

A decoder restores the coded audio signals on DVDs to normal. This is called decoding.

DivX

DivX is a popular media technology created by DivX, Inc. DivX media files contain highly compressed video with high visual quality that maintains a relatively small file size.

Dolby Digital

This is a method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2-channel) audio, these signals can also be multi-channel audio. A large amount of audio information can be recorded on one disc using this method.

DTS (Digital Theater Systems)

This surround system is used in many movie theaters around the world. There is good separation between the channels, so realistic sound effects are possible.

Dvnamic range

Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs.

Film and video

DVD-Videos are recorded using either film or video. This unit can determine which type has been used, then uses the most suitable method of progressive output.

Recorded at 25 frames per second (PAL discs) or 24 frames per second (NTSC discs). (NTSC discs recorded at 30 frames per second as well). Generally appropriate for motion picture films.

Video: Recorded at 25 frames/50 fields per second (PAL discs) or 30 frames/60 fields per second (NTSC discs). Generally appropriate for TV drama programs or animation.

Frame still and field still

Frames are the still pictures that go together to make a moving picture.

There are about 30 frames shown each second. One frame is made up of two fields. A regular television shows these fields one after the other to create frames. A still is shown when you pause a moving picture. A frame still is made up of two alternating fields, so the picture may appear blurred, but overall quality is high.

A field still is not blurred, but it has only half the information of a frame still so picture quality is lower.

I/P/B

MPEG 2, the video compression standard adopted for use with DVD-Video, codes frames using these 3 picture types.

- Intra coded picture
 - This picture has the best quality and is the best to use when adjusting the picture.
- P: Predictive coded picture
 - This picture is calculated based on past I or P-pictures.
- **B**: Bidirectionally-predictive coded picture This picture is calculated by comparing past and future I and P-pictures so it has the lowest volume of information.

JPEG (Joint Photographic Experts Group)

This is a system used for compressing/decoding color still pictures. If you select JPEG as the storage system on digital cameras, etc., the data will be compressed to 1/10-1/100 of its original size. The benefit of JPEG is less deterioration in picture quality considering the degree of compression.

Linear PCM (Pulse Code Modulation)

These are uncompressed digital signals, similar to those found on CDs.

MP3 (MPEG Audio Layer 3)

An audio compression method that compresses audio to approximately one tenth of its size without any considerable loss of audio quality.

MPEG4

A compression system for use on mobile devices or a network, that allows highly efficient recording at a low bit

Playback control (PBC)

If a Video CD has playback control, you can select scenes and information with menus.

Progressive/Interlaced

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

The PAL video signal standard has 576 interlaced (i) scan lines, whereas progressive scanning, called 576p, uses twice the number of scan lines. For the NTSC standard, these are called 480i and 480p respectively. Using progressive output, you can enjoy the high-resolution video recorded on media such as DVD-Video. Your television must be compatible to enjoy progressive video.

Sampling frequency

Sampling is the process of converting the heights of sound wave (analog signal) samples taken at set periods into digits (digital encoding).

Sampling frequency is the number of samples taken per second, so larger numbers mean more faithful reproduction of the original sound.

WMA (Windows Media[™] Audio)

WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.



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AMPLIFIER SECTION

For Continental Europe

RMS Output Power: Dolby Digital Mode

Front Ch

55 W per channel (5 Ω), 1 kHz, 10 % THD

Surround Ch

55 W per channel (5 Ω), 1 kHz, 10 % THD

Center Ch

55 W per channel (5 Ω), 1 kHz, 10 % THD

Subwoofer Ch

 $\,$ 55 W per channel (5 $\Omega),\,100$ Hz, 10 % THD Total RMS Dolby Digital mode power $\,$ 330 W $\,$

DIN Output Power: Dolby Digital Mode

Front Ch

25 W per channel (5 Ω), 1 kHz, 1 % THD

Surround Ch

Center Ch

25 W per channel (5 Ω), 1 kHz, 1 % THD

25 W per channel (5 Ω), 1 kHz, 1 % THD

Subwoofer Ch

25 W per channel (5 Ω), 100 Hz, 1 % THD

Total DIN Dolby Digital mode power 150 W

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

RMS Output Power: Dolby Digital Mode

Front Ch

55 W per channel (5 Ω), 1 kHz, 10 % THD

Surround Ch

55 W per channel (5 Ω), 1 kHz, 10 % THD

Center Ch

55 W per channel (5 Ω), 1 kHz, 10 % THD

Subwoofer Ch

55 W per channel (5 Ω), 100 Hz, 10 % THD

Total RMS Dolby Digital mode power 330 W PMPO output power 2800 W

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DIN Output Power: Dolby Digital Mode Front Ch

25 W per channel (5 Ω), 1 kHz, 1 % THD

Surround Ch

25 W per channel (5 Ω), 1 kHz, 1 % THD

Center Ch

25 W per channel (5 Ω), 1 kHz, 1 % THD

Subwoofer Ch

25 W per channel (5 Ω), 100 Hz, 1 % THD

Total DIN Dolby Digital mode power 150 W

FM TUNER, TERMINALS SECTION

Preset Memory FM 30 stations Frequency Modulation (FM)

Frequency range

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Sensitivity

87.50 to 108.00 MHz (50-kHz step) 1.8 µV (IHF)

S/N 26 dB 1.4 µV

Antenna terminals 75Ω (unbalanced)

Mic jack

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia and Kuwait

Sensitivity 0.7 mV, 1.2 k Ω Terminal Mono, 6.3 mm jack (1 system)

DISC SECTION

Discs played (8 cm or 12 cm)

(1) DVD (DVD-Video, DivX^{×1, ×2})

- (2) DVD-RAM (DVD-VR, MP3^{%2, %6}, JPEG^{%2, %3}, MPEG4^{%2, %4}, DivX^{%1, %2})
- (3) DVD-R (ĎVD-Video, DVD-VR, MP3*2, *6, JPEG*2, *3, MPEG4*2, *4, DivX*1, *2)
- (4) DVD-R DL (DVD-Video, DVD-VR)
- (5) DVD-RW (DVD-Video, DVD-VR, MP3^{×2, ×6}, JPEG^{×2, ×3}, MPEG4^{×2, ×4}, DivX^{×1, ×2})
- (6) +R/+RW (Video)
- (7) +R DL (Video)
- (8) CD, CD-R/RW (CD-DA, Video CD, SVCD*5, MP3*2, *6, WMA*2, *7, JPEG*2, *3, MPEG4*2, *4, DivX*1, *2)
- Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files. Certified to the DivX Home Theater Profile.
- GMC (Global Motion Compensation) is not supported.

 The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 400 groups.
- Exif Ver 2.1 JPEG Baseline files
 Picture resolution: between 160 x 120 and 6144 x 4096
 pixels (Sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4).
 Extremely long and narrow pictures may not be
 displayed.
- MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders Conforming to SD VIDEO specifications (ASF standard)/ MPEG4 (Simple Profile) video system/G.726 audio system
- ⁵ Conforming to IEC62107
- *6 MPEG-1 Layer 3, MPEG-2 Layer 3
- *7 Windows Media Audio Ver.9.0 L3

Not compatible with Multiple Bit Rate (MBR)

Pick up

Wavelength (DVD/CD) 662/785 nm Laser power (DVD/CD) CLASS 1/CLASS 1M

NODOK

Bølgelengde (DVD/CD) 662/785 nm Laserstyrke Ingen farlig stråling sendes ut

Audio output (Disc)

Number of channels 5.1ch (FL, FR, C, SL, SR, SW)

USB SECTION

USB Port

USB Standard USB2.0 full speed 2.0

Supported media file format

MP3 (*.mp3) WMA (*.wma)

JPEG (*.Jpg, *.JPEG) MPEG4 (*.asf)

USB device file system

FAT16 FAT32

USB port power 500 mA (Max)

VIDEO SECTION

Video system PAL625/50, PAL525/60, NTSC

Composite video output

Output level 1 Vp-p (75 Ω) Terminal

For Continental Europe

Scart jack (1 system)

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia, Kuwait

Pin jack (1 system)

For Continental Europe

S-video output

Y output level 1 Vp-p (75 Ω) C output level PAL; 0.3 Vp-p (75 Ω) NTSC; 0.286 Vp-p (75 Ω) Terminal Scart jack (1 system)

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia, Kuwait

Component video output

(NTSC: 480p/480i, PAL: 576p/576i)

1 Vp-p (75 Ω) Y output level 0.525 Vp-p (75 Ω) P_B output level PR output level 0.525 Vp-p (75 Ω) Terminal

Pin jack (Y: green, PB: blue, PR: red) (1 system)

For Continental Europe

RGB video output

0.7 Vp-p (75 Ω) R output level 0.7 Vp-p (75 Ω) G output level B output level $0.7 \text{ Vp-p} (75 \Omega)$ Terminal Scart jack (1 system)

SPEAKER SECTION

Front speakers SB-HF150

Type 1 way, 1 speaker system (Bass reflex) Speaker unit(s) Impedance 5 Ω 6.5 cm Cone type Full range Input power (IEC) 55 W* (Max) **Output sound pressure** 80 dB/W (1.0 m) 96 Hz to 25 kHz (-16 dB) Frequency range 120 Hz to 22 kHz (-10 dB) Dimensions (W x H x D) 92 mm x 135 mm x 95.4 mm Mass 0.6 kg

Surround speakers SB-HS151

1 way, 1 speaker system (Bass reflex) Type Speaker unit(s) Impedance 5 Ω Full range 6.5 cm Cone type Input power (IEC) 55 W* (Max) 80 dB/W (1.0 m) **Output sound pressure** 96 Hz to 25 kHz (-16 dB) Frequency range 120 Hz to 22 kHz (-10 dB) Dimensions (W x H x D) 92 mm x 135 mm x 95.4 mm Mass 0.6 kg

Center speaker SB-HC150

Type 1 way, 1 speaker system (Bass reflex) Speaker unit(s) Impedance 5 Ω 6.5 cm Cone type Full range 55 W* (Max) Input power (IEC) 80 dB/W (1.0 m) **Output sound pressure** 91 Hz to 25 kHz (-16 dB) Frequency range 120 Hz to 22 kHz (-10 dB) Dimensions (W x H x D) 135 mm x 92 mm x 95.4 mm Mass $0.6 \, \text{kg}$

For Continental Europe

Subwoofer SB-W340 or SB-HW150

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia, Kuwait

Subwoofer SB-W340

Type 1 way, 1 speaker system (Bass reflex) Speaker unit(s) Impedance 5 Ω . Woofer 12 cm Cone type Input power (IEC) 55 W (Max) **Output sound pressure** 80 dB/W (1.0 m) 31 Hz to 173 Hz (-16 dB) Frequency range 40 Hz to 148 Hz (-10 dB) Dimensions (W x H x D) 152 mm x 339 mm x 258 mm Mass 3 kg

GENERAL

Power supply

For Continental Europe

AC 230 V, 50 Hz

For Southeast Asia, Thailand, the Middle East, South Africa, Saudi Arabia, Kuwait

AC 110 to 240 V, 50/60 Hz

Power consumption

Main unit 105 W

Dimensions (W x H x D)

430 mm x 60 mm x 342 mm

Mass

Main unit 3 kg

Operating temperature range

+5 °C to +35 °C

Operating humidity range

5 % to 90 % RH (no condensation)

Power consumption in standby mode approx. 1 W

* Rating with low-cut filter equipped amplifier

Note

- Specifications are subject to change without notice. Weight and dimensions are approximate.
- 2. Total harmonic distortion is measured by the digital spectrum analyzer.





Clean this unit with a soft, dry cloth.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, carefully read the instructions that came with the cloth.
- Do not use commercially available lens cleaners as they may cause malfunction. (Cleaning the lens is generally not necessary although this depends on the operating environment.)

Before moving the unit, ensure the disc tray is empty.

Failure to do so will risk severely damaging the disc and the unit.

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Plays all versions of DivX® video (including DivX®6) with standard playback of DivX® media files.



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