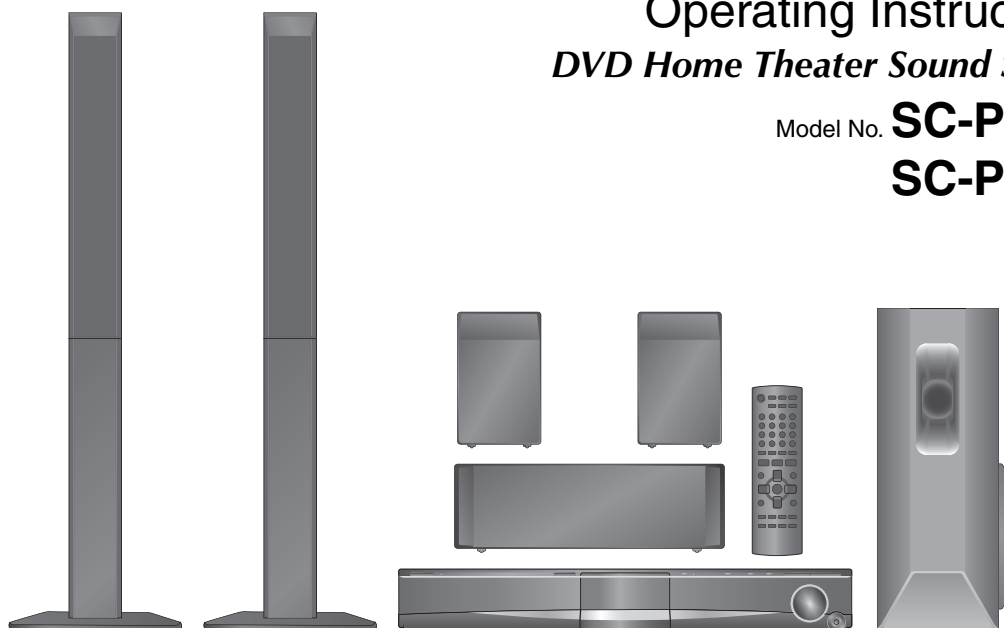


Panasonic®

Operating Instructions DVD Home Theater Sound System

Model No. **SC-PT465**
SC-PT460



The illustration shows SC-PT465.

Region number

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

Region	Number
The Middle East, South Africa, Saudi Arabia and Kuwait	2
Southeast Asia and Thailand	3
Australia and N.Z.	4

Example: The Middle East, South Africa, Saudi Arabia and Kuwait



28

VIERA Link compatible

Enjoy high-quality picture and linked operations with your VIERA TV.

30

Sound enhancement options

Surround Enhancer, Dolby Pro Logic II, and more.

33

iPod connectivity

Enjoy iPod music through the speakers, view iPod photos or videos on the TV.



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

GC GS GCS GCT GN

RQTX0088-B

Confidential until 2008/03/10

Dear customer

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

- These operating instructions are applicable to models SC-PT465 and SC-PT460 for a variety of regions.
- Unless otherwise indicated, illustrations in these operating instructions are of SC-PT465 for the Middle East, South Africa, Saudi Arabia and Kuwait.
- 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.

Indicates features applicable to:

PT465: SC-PT465 only	PT460: SC-PT460 only
-----------------------------	-----------------------------

System	SC-PT465	SC-PT460
Main unit	SA-PT465	SA-PT460
Front speakers	SB-HF465	SB-HF460
Center speaker	SB-HC465	SB-HC460
Surround speakers	SB-HS465	SB-HS460
Subwoofer	SB-HW465	SB-HW460

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.

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.

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.

PT465

THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.

PT460

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

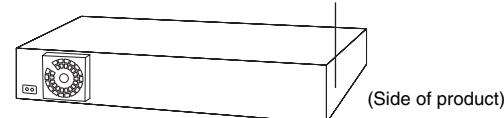
PT465

CAUTION:

The AC voltage is different according to the area.
Be sure to set the proper voltage in your area before use.
(For details, please refer to page 11.)



PT460



CAUTION	- LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.	FDA 21 CFR / Class
CAUTION	- CLASS 1M VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. (EC60825-1 +A2) Class 1M.	
WARNING	- KLASSE 1M SYNLIIG OCH OSYNLIIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN DIREKT GENOM OPTISKT INSTRUMENT.	
FORSIGTIG	- SYNLIIG OG OSYNLIIG LASERSTRÅLING KLASSE 1M. NÄR LÅGET ER ÅBENT, UNDGÅ AT SE UD PÅ MED OPTISKE INSTRUMENTER.	
VARO!	- HUHTAESSA OLET ALTUINKA LUOKAN 1M NÄKYMÄÄ JA NÄKYMÄTÖNÄ. (LASERSÄTELVÄÄ, ÄLÄ KATSO OPTISELLÄ LAITTEELLA SUORAAN SÄTEESEEN.)	
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG KLASSE 1M. WEIN ABDECKUNG GEÖFFNET, NICHT DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN.	
ATTENTION	- 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ー光が出ます。 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见激光辐射。避免光束照射。	GB7245.1-2001/IEC 60825-1 ROLXS0075

(Inside of product)

-If you see this symbol-

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.

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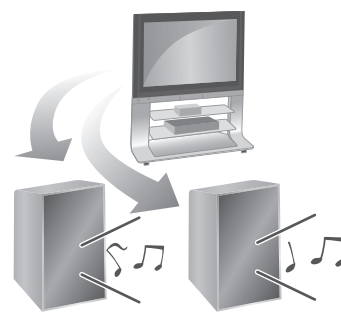
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Surround Sound 30



TV Audio 32



RQTX0088

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.

Check for the ASTA mark  or the BSI mark  on the body 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 follows:

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  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.

Figure A

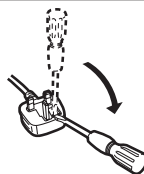
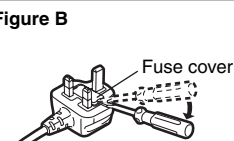


Figure B

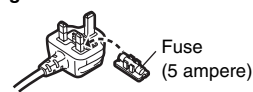


2. Replace the fuse and close or attach the fuse cover.

Figure A



Figure B



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.

Accessories

Please check and identify the supplied accessories.



- ☐ 1 Remote control

PT465 (N2QAYB000205)
PT460 (N2QAYB000255)



- ☐ 2 Remote control batteries



- ☐ 1 FM indoor antenna



- ☐ **PT460**

- 1 AM loop antenna



- ☐ 1 Video cable



- ☐ AC mains lead

**The Middle East, South Africa,
Saudi Arabia, Kuwait,
Southeast Asia and Thailand**



Saudi Arabia and Kuwait



Australia and N.Z.



- ☐ **PT465**

- Speaker cables

1×short cable (for center speaker)
2×long cables (for surround speakers)



- ☐ **PT465**

- 2 Stands



- ☐ **PT465**

- 2 Bases



- ☐ **PT465**

- 8 Screws



- ☐ **PT465**

- 2 Cover plates



- ☐ **PT465**

- 1 Sheet of speaker cable stickers



step 1**PT465 Assembling the front speakers****Preparation**

- To prevent damage or scratches, lay down a soft cloth and perform assembly on it.
- For assembly, use a Phillips-head screwdriver.
- For optional wall mount, refer to page 8.

Make sure you have all the indicated components before starting assembly, setup, and connection.

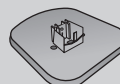
2 Front speakers
(with cover plate)



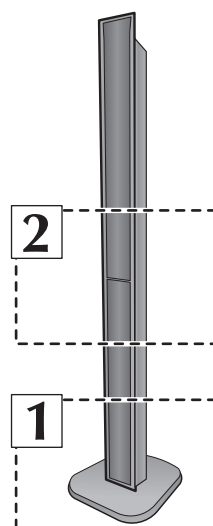
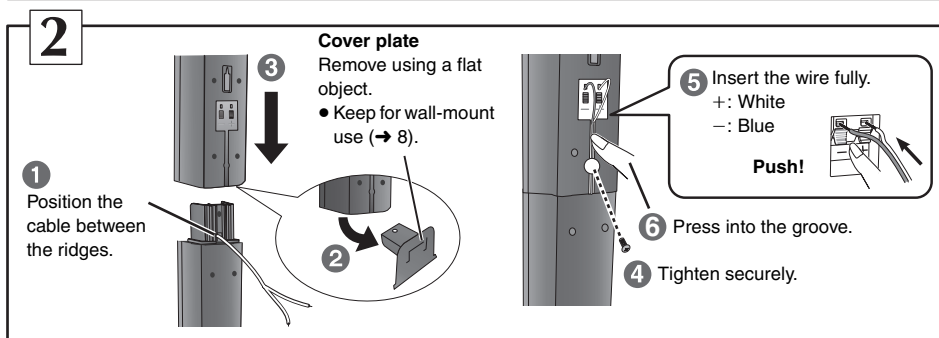
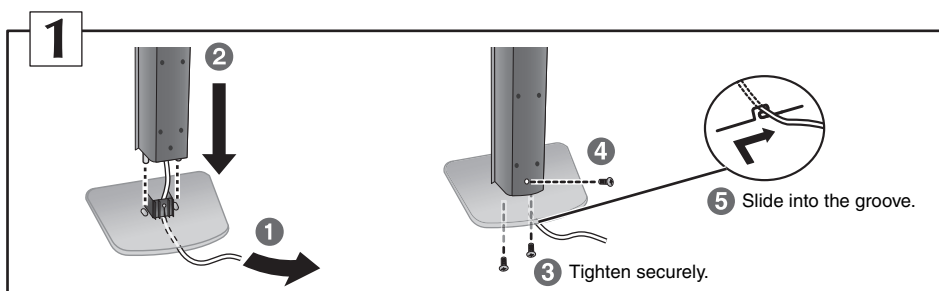
2 Stands
(with cable)



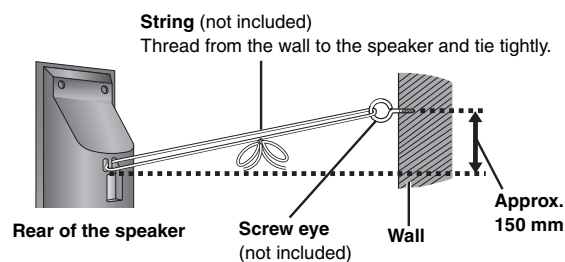
2 Bases



8 Screws

**Preventing the speakers from falling**

- You will need to obtain the appropriate screw eyes to match the walls or pillars to which they are going to be fastened.
- Consult a qualified housing contractor concerning the appropriate procedure when attaching to a concrete wall or a surface that may not have strong enough support. Improper attachment may result in damage to the wall or speakers.



step 2

Positioning

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

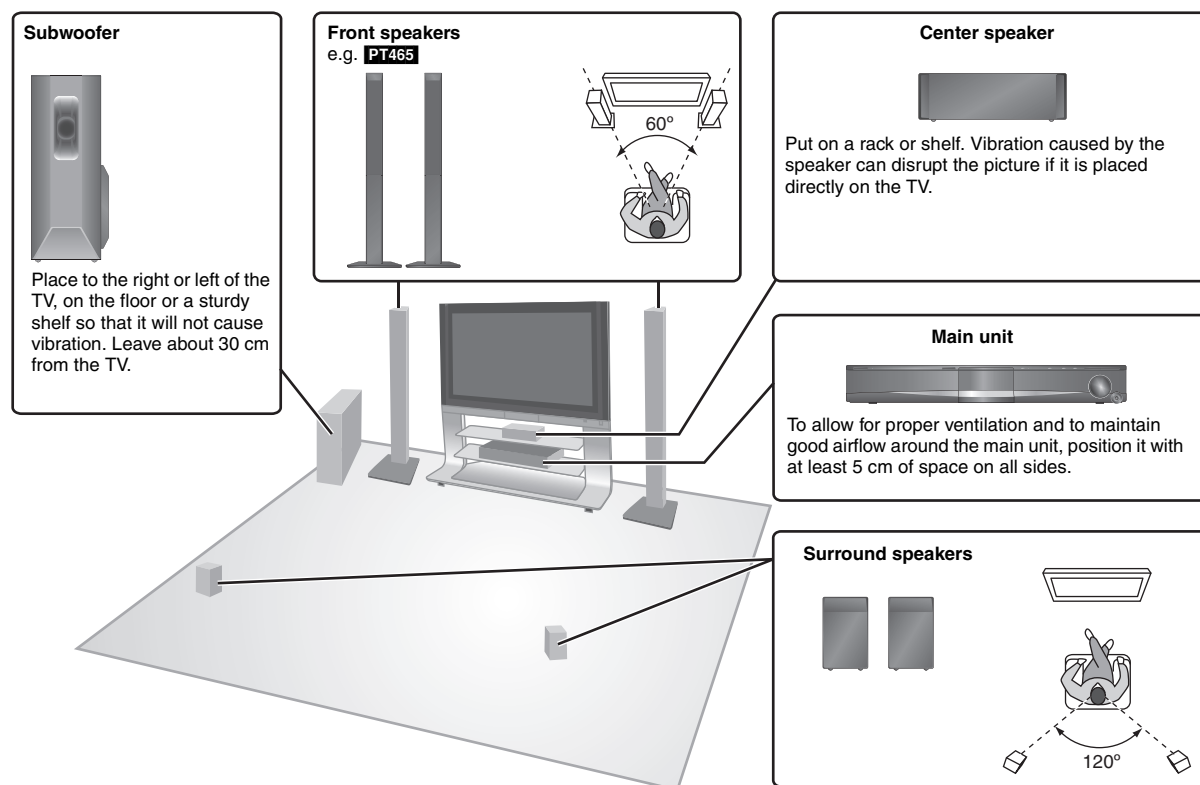
- Place speakers on flat secure bases.
- Placing speakers too close to floors, walls, and corners can result in excessive bass. Cover walls and windows with thick curtains.
- For optional wall mount, refer to page 8.

Note

Keep your speakers at least 10 mm away from the system for proper ventilation.

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.

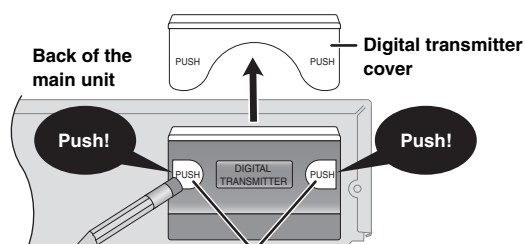


PT460



Set your surround free! Optional Panasonic wireless accessory (example: SH-FX67)

You can enjoy surround speaker sound wirelessly when you use the optional Panasonic wireless accessory (example: SH-FX67). For details, please refer to the operating instructions for the optional Panasonic wireless accessory.



You can use the blunt end of a writing instrument to push here until the cover pops out.

- Remove the digital transmitter cover before installing any optional Panasonic wireless accessory.
- Replace the cover when the digital transmitter is not in use.

Notes on speaker use

• Use only supplied speakers

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

- 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, 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 colouring occurs on your TV

The center speaker is designed to be used close to a TV, but the picture may be affected with some TVs and setup combinations.

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

The demagnetising function of the TV should correct the problem. If it persists, move the speakers further away from the TV.

(Continued on next page)

Caution

- The main unit and supplied speakers are to be used only as indicated in this setup. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.
- Do not attempt to attach these speakers to walls using methods other than those described in this manual.

Caution

- Do not touch the front netted area of the speakers. Hold by the sides. e.g. Center speaker

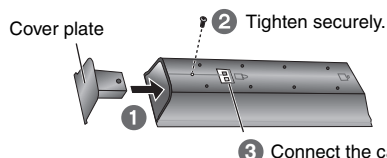
DO NOT**DO**

- **PT465** Do not stand on the base. Be cautious when children are near. e.g. Front speaker

DO NOT**Speaker installation options****■ Attaching to a wall**

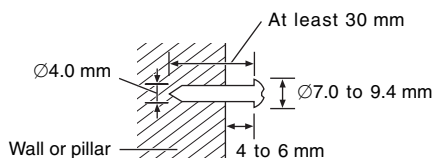
You can attach all of the speakers (except subwoofer) to a wall.

- 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.

PT465 Preparation for front speakers

* Use the cable from the stand by releasing it from the grooves at both ends.

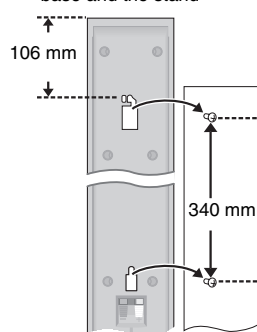
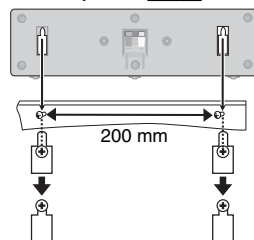
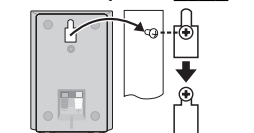
- 1 Drive a screw (not included) into the wall.



- 2 Fit the speaker securely onto the screw(s) with the hole(s).

Front speaker PT465

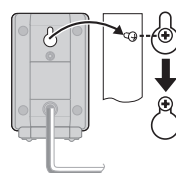
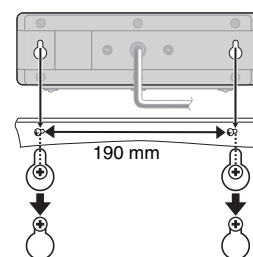
Attach to a wall without the base and the stand

**Center speaker PT465****Surround speaker PT465**e.g. **PT465****DO NOT**

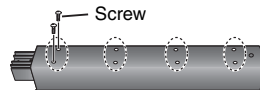
In this position, the speaker will likely fall if moved to the left or right.

DO

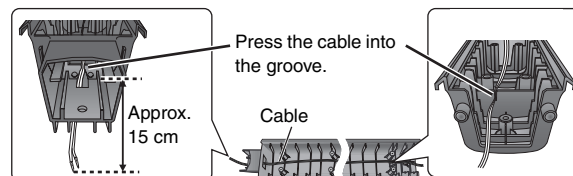
Move the speaker so that the screw is in this position.

Front and surround speaker PT460**Center speaker PT460****PT465 Reattaching the speaker cable to the stand**

- 1 Remove the eight screws from the stand, and remove the speaker net.



- 2 Position the cable.



- 3 Attach the speaker net with the screws.

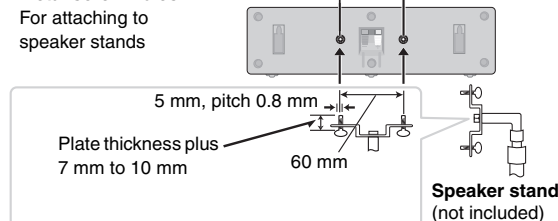
■ Fitting speaker stands (not included)**PT465 (Except front speakers and subwoofer)****PT460 (Except subwoofer)**

Ensure the stands meet these conditions before purchasing them. Note the diameter and length of the screws and the distance between screws as shown in the diagram.

- The stands must be able to support over 10 kg.
- The stands must be stable even if the speakers are in a high position.

e.g. **Center speaker PT465****Metal screw holes**

For attaching to speaker stands



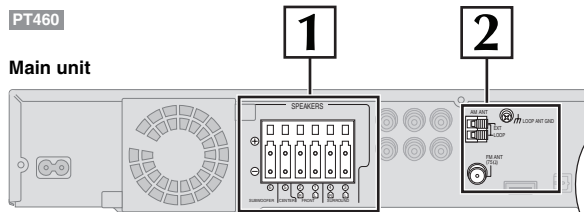
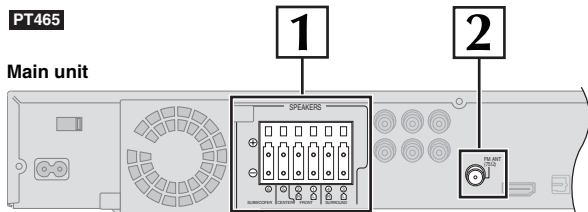
Speaker stand (not included)

step 3

Cable connections

Turn off all equipment before connection and read the appropriate operating instructions.

Do not connect the AC mains lead until all other connections are complete.

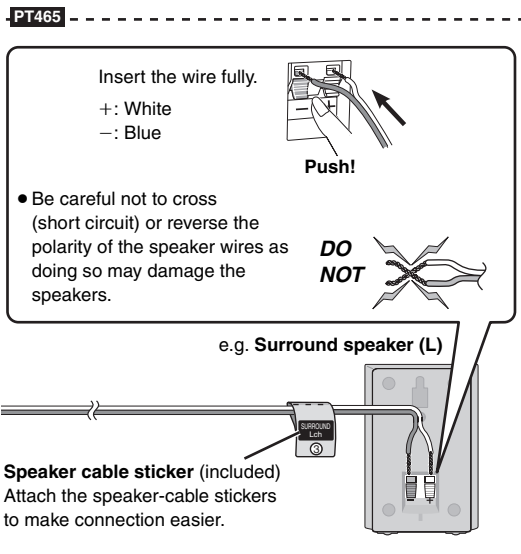
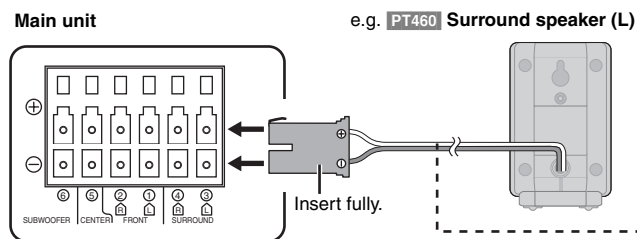


1 Speaker connections

Connecting the speakers to the main unit:

Connect to terminals of the same colour.

Speaker	Terminal/connector colour
① FRONT (L)	White
② FRONT (R)	Red
③ SURROUND (L)	Blue
④ SURROUND (R)	Grey
⑤ CENTER	Green
⑥ SUBWOOFER	Purple



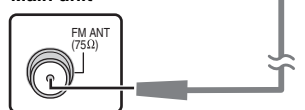
2 Radio antenna connections

FM indoor antenna
(included)

Affix this end of the antenna where reception is best.

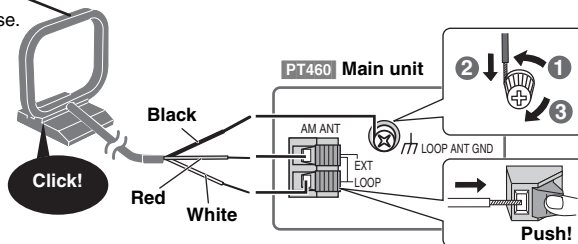
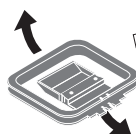
Adhesive tape

Main unit



PT460 AM loop antenna
(included)

Stand the antenna up on its base. Place the antenna where reception is best.



Using an outdoor antenna (optional)

Use outdoor antenna if radio reception is poor.

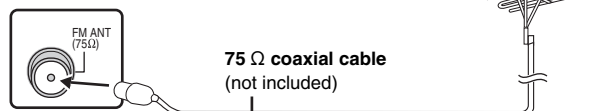
- Disconnect the antenna when the unit is not in use.
- Do not use the outdoor antenna during an electrical storm.

FM outdoor antenna

[Using a TV antenna (not included)]

- The antenna should be installed by a competent technician.

Main unit

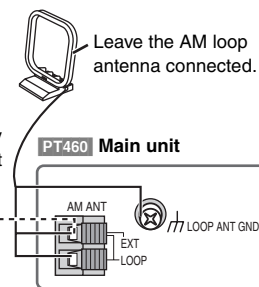


PT460 AM outdoor antenna

[Using a vinyl wire (not included)]

Run a piece of vinyl wire horizontally across a window or other convenient location.

5 to 12 m



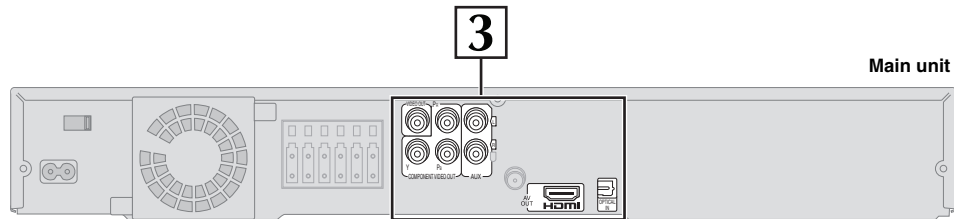
(Continued on next page)

step 3

Cable connections

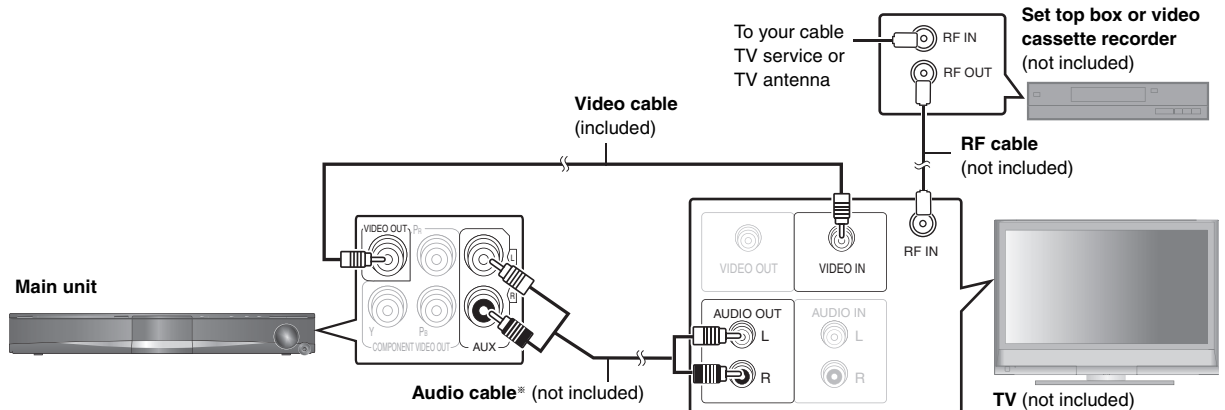
Simple Setup

Cable connections



3 Audio and video connections

Basic setup example



* This connection enables you to play audio from your TV, set top box or video cassette recorder through your home theater system (→ 32, Enjoying TV audio).




Other video connections for improved picture quality

TV terminal	Cable required (not included)	Main unit terminal	Features
	HDMI cable Note <ul style="list-style-type: none"> Non-HDMI-compliant cables cannot be utilized. It is recommended that you use Panasonic's HDMI cable. Recommended part number: RP-CDHG15 (1.5 m), RP-CDHG30 (3.0 m), RP-CDHG50 (5.0 m), etc. 		<p>This connection provides the best picture quality.</p> <ul style="list-style-type: none"> Set "VIDEO PRIORITY" to "ON" (→ 25, "HDMI" menu). Set "VIDEO FORMAT" in Menu 5 (HDMI) (→ 21). <p>VIERA Link "HDAVI Control"</p> <p>If your Panasonic TV is VIERA Link compatible, you can operate it synchronising with home theater operations or vice versa (→ 28, Using the VIERA Link "HDAVI Control"™).</p> <ul style="list-style-type: none"> Make the extra audio connection (→ above) when you use VIERA Link "HDAVI Control" function.
<p>Panasonic TVs with 576/50i-50p, 480/60i-60p input terminals are progressive compatible. Consult the manufacturer if you have another brand of TV.</p>	Video cables 	<ul style="list-style-type: none"> Connect to terminals of the same colour. 	<p>This connection provides a much purer picture than the VIDEO OUT terminal.</p> <p>To enjoy progressive video</p> <ul style="list-style-type: none"> Connect to a progressive output compatible TV. <ul style="list-style-type: none"> Set "VIDEO OUT (I/P)" in "VIDEO" menu to "PROGRESSIVE" and then follow the instructions on the menu screen (→ 24, "VIDEO" menu).

Note

- Do not make the video connections through the video cassette recorder. Due to copy guard protection, the picture may not be displayed properly.
- Only one video connection is required. Choose one of the video connections above depending on your TV.

Other audio connections

TV or external equipment terminal	Cable required (not included)	Main unit terminal	Features
 OPTICAL OUT	Optical digital audio cable  • Do not bend sharply when connecting.	OPTICAL IN  OPTICAL IN	This unit can decode the surround signals received through the set top box, digital broadcasting or satellite broadcasts. Refer to your equipment's operating instructions for details. Only Dolby Digital and PCM can be played with this connection. • After making this connection, make settings to suit the type of audio from your digital equipment (→ 32).

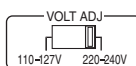
step 4

AC mains lead connection

PT465

Before connecting the AC mains lead

Set the voltage.

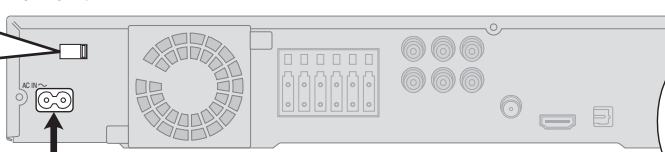


Use a flat-head screwdriver to move the voltage selector to the appropriate position for the area in which this system is used.

Saudi Arabia and Kuwait

BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 4 BEFORE CONNECTION.

Main unit



AC mains lead (included)



Conserving power

The main unit consumes a small amount of power, even when it is in standby mode (approx. 0.4 W). To save power when the unit is not to be used for a long time, unplug it from the household AC mains socket. You will need to reset some memory items after plugging in the main unit.

Note

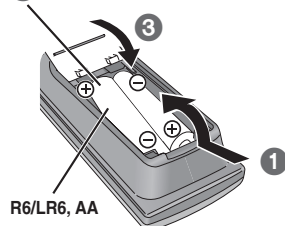
The included AC mains lead is for use with the main unit only. Do not use it with other equipment. Also, do not use cords for other equipment with the main unit.

step 5

Preparing the remote control

Batteries

- 2 Insert so the poles (+ and -) match those in the remote control.



R6/LR6, AA

Do not:

- mix old and new batteries.
- use different types at the same time.
- take apart or short circuit.
- 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.

Use

Aim at the remote control signal sensor (→ 15), avoiding obstacles, at a maximum range of 7 m directly in front of the unit.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

- Do not use rechargeable type batteries.
- Do not heat or expose to flame.
- Do not leave the battery(ies) in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.

step 6

Performing QUICK SETUP

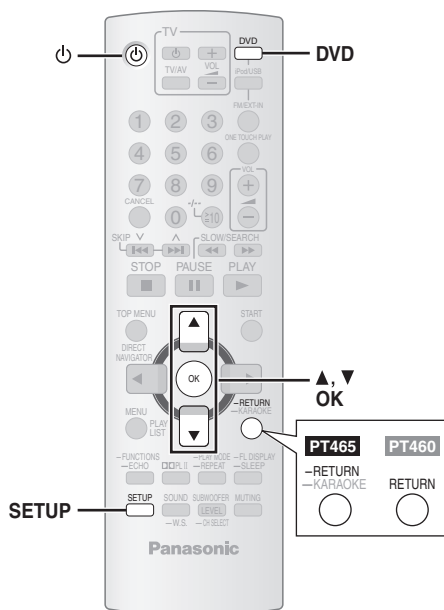
The QUICK SETUP screen assists you to make necessary settings.



Preparation

Turn on your TV and select the appropriate video input mode (e.g. VIDEO 1, AV 1, HDMI, etc.).

- To change your TV's video input mode, refer to its operating instructions.
- This remote control can perform some basic TV operations (→ 14).



1		Turn on the unit.
2		Select "DVD/CD".
3		Show the setup menu.
4		Select "OTHERS".
5		Select "QUICK SETUP".
6		Select "SET".
7		Select "YES". e.g.
8		Follow the messages and make the settings. <ul style="list-style-type: none"> • MENU LANGUAGE • TV TYPE • TV ASPECT To return to the previous screen, press [-RETURN] (PT460: [RETURN]).
9		Finish QUICK SETUP.
10		Exit.

Details of settings

MENU LANGUAGE Choose the language for the on-screen messages.	<ul style="list-style-type: none"> • <u>ENGLISH</u> • (Language options)* 		
TV TYPE Select to suit the type of TV.	<ul style="list-style-type: none"> • <u>STANDARD</u> • PROJECTION 	<ul style="list-style-type: none"> • CRT • PLASMA 	<ul style="list-style-type: none"> • LCD
TV ASPECT Choose the setting to suit your TV and preference.	<ul style="list-style-type: none"> • <u>4:3PAN&SCAN</u> • 16:9NORMAL 	<ul style="list-style-type: none"> • 4:3LETTERBOX • 16:9SHRINK 	<ul style="list-style-type: none"> • 4:3ZOOM • 16:9ZOOM

• Underlined items are the factory settings in the above table.

* Language options

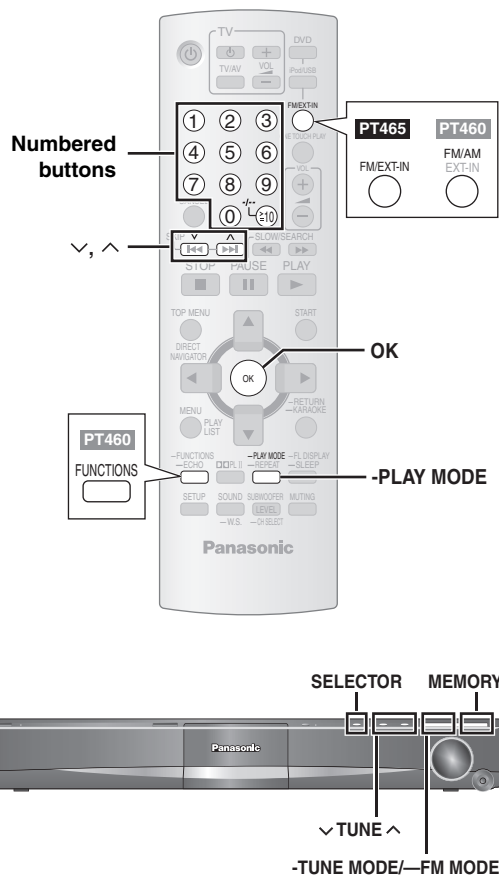
The Middle East, South Africa, Saudi Arabia and Kuwait: FRANÇAIS, ESPAÑOL, DEUTSCH, РУССКИЙ, MAGYAR, ČESKY and POLSKI

Southeast Asia and Thailand: 繁體中文

Australia and N.Z.: FRANÇAIS, ESPAÑOL, DEUTSCH, ITALIANO, SVENSKA, NEDERLANDS and POLSKI

step 7

Presetting the radio stations



Confirming the preset channels

- PT465** Select "FM".
PT460 Select "FM" or "AM".

 - Main unit:
Press [SELECTOR].
- Select the channel.

 - To select a 2-digit number
e.g. 12: [1] → [2]

Alternatively, press [v, ^].

 - Main unit:
Press [-TUNE MODE] to select "PRESET" on the display, and then press [v TUNE ^] to select the channel.

When a stereo FM broadcast is being received, "ST" lights in the display.

• The FM (PT460 : FM/AM) setting is also shown on the TV display.

If noise is excessive

When "FM" is selected

Press and hold [-PLAY MODE] (main unit: [-FM MODE]) to display "MONO".

MONO

Press and hold the button again to cancel the mode.

• The mode is also cancelled when you change the frequency.

PT460 When "AM" is selected

Press [FUNCTIONS] on the remote control.

Each time you press the button: BP 2 ↔ BP 1

Presetting stations automatically

PT465 Up to 30 stations can be set.

PT460 Up to 30 stations can be set in each band, FM and AM.

- PT465** Select "FM".
PT460 Select "FM" or "AM".

 - Main unit:
Press [SELECTOR].
- Release the button when "FM AUTO" or **PT460** "AM AUTO" is displayed.

OK (press and hold)

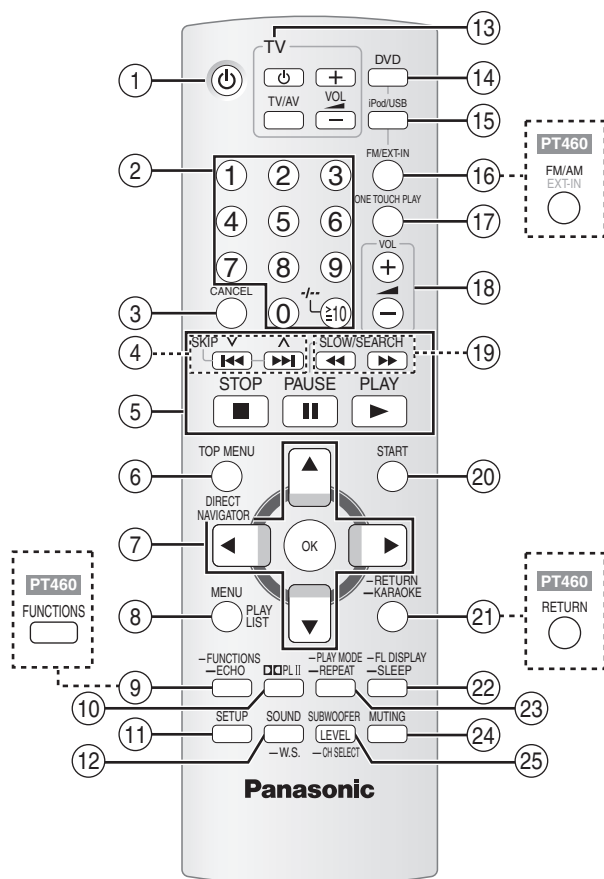
FM AUTO

 - Main unit:
Press and hold [MEMORY].

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 stations manually (→ 26).

Control reference guide



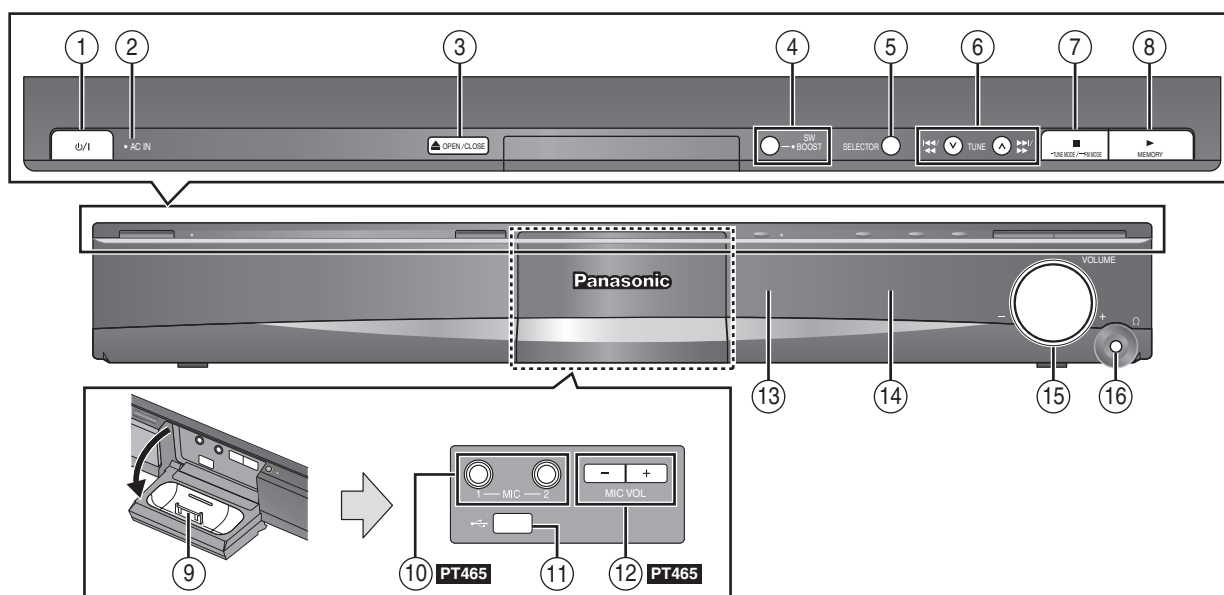
- ① Turn the main unit on/off (→ 12)
- ② Select channels and title numbers etc. / Enter numbers (→ 13, 17)
- ③ Cancel (→ 18)
- ④ Select preset radio stations (→ 13)
- ⑤ Basic operations for play (→ 16, 17)
- ⑥ Show a disc top menu or program list (→ 17, 19)
- ⑦ Select or confirm menu items / Frame-by-frame (→ 17)
- ⑧ Show a disc menu or play list (→ 17, 19)
- ⑨ Show on-screen menu (→ 20) /
PT465 Adjust echo level (→ 27)
- ⑩ Turn Dolby Pro Logic II on/off (→ 30)
- ⑪ Show setup menu (→ 12)
- ⑫ Select sound mode / Turn Whisper-mode Surround on/off (→ 30)
- ⑬ **TV operations**
 Aim the remote control at the Panasonic TV and press the button.
 [⏻]: Turn the TV on/off
 [TV/AV]: Change the TV's video input mode
 [+ , -]: Adjust the TV volume
 This may not work properly with some models.
- ⑭ Select disc as the source (→ 12)
- ⑮ Select USB or iPod as the source (→ 32, 33)
- ⑯ Select FM tuner (**PT460**: FM/AM tuner) or external audio as the source (→ 13, 32)
PT465
 FM → AUX → D-IN
 ↑
PT460
 FM → AM → AUX → D-IN
 ↑
- ⑰ Start up and play a disc automatically (→ 17, 28)
- ⑱ Adjust the volume of the main unit
- ⑲ Select radio stations manually (→ 26)
- ⑳ Show START menu (→ 15)
- ㉑ Return to previous screen (→ 17) /
PT465 Show Karaoke mode on-screen menu (→ 27)
- ㉒ Switch information on the main unit's display (→ 17)
 or
Set the Sleep timer
 Press and hold [—SLEEP].
 While the time is shown on the main unit's display, press [—SLEEP] repeatedly.
 SLEEP 30 → SLEEP 60 → SLEEP 90 → SLEEP 120
 ↑ OFF (Cancel) ←
- To confirm the remaining time, press and hold the button again.
- ㉓ Select the play mode / Set the repeat mode (→ 18)
- ㉔ **Mute the sound**
 • "MUTING" flashes on the main unit's display while the function is on.
 • To cancel, press the button again or adjust the volume.
 • Muting is cancelled when you switch the unit to standby.
- ㉕ Adjust the subwoofer level or select speaker channel (→ 31)

Avoiding interference with other Panasonic equipment

Other Panasonic audio/video equipment may start functioning when you operate the unit using the supplied remote control.
 You can operate this unit in another mode by setting the remote control operating mode to "REMOTE 2".

The main unit and remote control must be set to the same mode.

- 1 Press and hold [▶▶/▶▶] on the main unit and [2] on the remote control until the main unit's display shows "REMOTE 2".
- 2 Press and hold [OK] and [2] on the remote control for at least 2 seconds.
 To change the mode back to "REMOTE 1", repeat both steps above by replacing [2] with [1].



① Standby/on switch [⏻]

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. (→ 16)

② This indicator lights when the unit is connected to the AC mains supply.

③ Open/Close the disc tray (→ 16)

④ Turn Subwoofer Boost on/off (→ 31)

⑤ Select the source

PT465
DVD/CD → USB → FM → AUX → D-IN → IPOD

PT460
DVD/CD → USB → FM → AM → AUX → D-IN → IPOD

⑥ Skip or slow-search play / Select the radio stations (→ 13, 16)

⑦ Stop playing / Select the tuning mode / Adjust the FM reception condition (→ 13, 16)

⑧ Play discs / Memorize the receiving radio stations (→ 16, 26)

⑨ Connect iPod (→ 33)

⑩ **PT465** Connect microphones (→ 27)

⑪ Connect USB device (→ 32)

⑫ **PT465** Adjust microphone volume (→ 27)

⑬ Remote control signal sensor

⑭ Display

⑮ Adjust the volume of the main unit

⑯ **Connect headphones (not included)**

Headphone plug type: Ø3.5 mm stereo mini plug

• Reduce the volume before connecting.

• Audio is automatically switched to 2-channel stereo.

• To prevent hearing damage, avoid listening for prolonged periods of time.

Excessive sound pressure from earphones and headphones can cause hearing loss.

Utilising the START menu

You can select desired source or access playback/menus by using the START menu.

1

Show the START menu.

e.g.

2

Select an item.

• To exit press [START].

When "Input Selection" is selected

You can select a desired source from the menu.

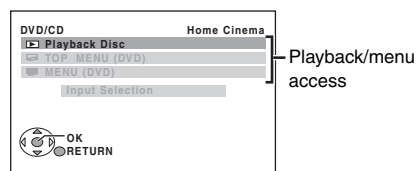
• DVD/CD (→ 12), FM (→ 13), **PT460** AM (→ 13), AUX* (→ 32), DIGITAL IN* (→ 32), USB (→ 32), iPod (→ 33)

* "(TV)" will appear beside "AUX" or "DIGITAL IN", indicating the TV audio setting for VIERA Link "HDAVI Control" (→ 28).

Press [▲, ▼], then press [OK] to make the settings.

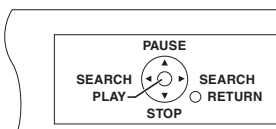
When a disc is loaded or an USB device is connected, you can also access playback or menus from the START menu.

e.g. **DVD-V**



When the on-screen control panel appears

e.g. **DVD-V** (when "Playback Disc" is selected from the START menu)



You can operate the playback with the indicated controls.

Basic play

Preparation

To display the picture, turn on your TV and change its video input mode.

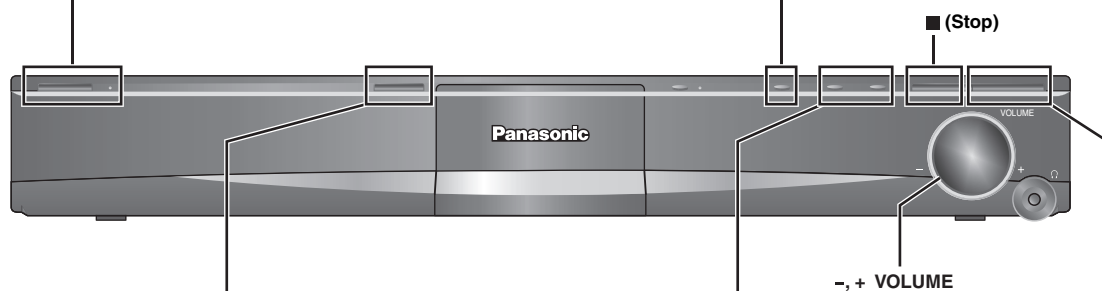
Using the main unit



Turn on the unit.



Select "DVD/CD".

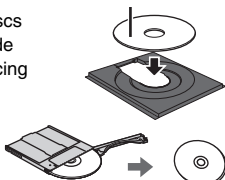


Open the disc tray.



- Load double-sided discs so the label for the side you want to play is facing up.
- For DVD-RAM, remove the disc from its cartridge before use.

Label facing up



Press to skip.

Press and hold to

- search during play
- start slow-motion play during pause
- Press [▶] (Play) to start normal play.



Start play.

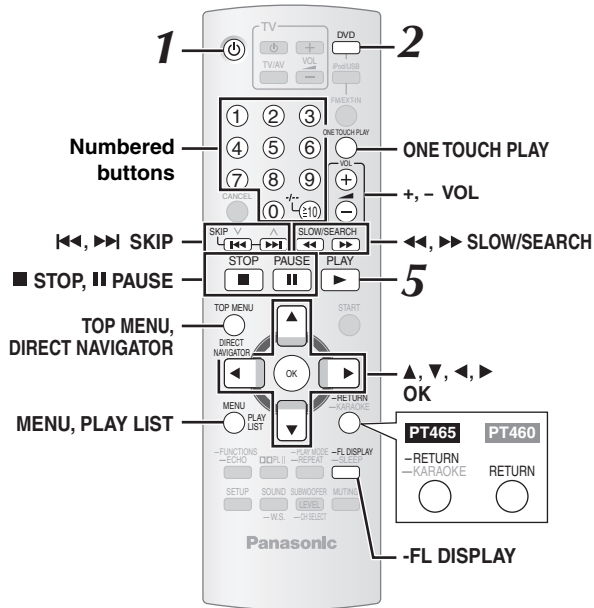
- Turn [–, + VOLUME] to adjust the volume.
- You can enjoy surround sound when you press [DOLBII] on the remote control to turn on Dolby Pro Logic II (→ 30).

Note

- **DISC CONTINUES TO ROTATE WHILE MENUS ARE DISPLAYED.** To preserve the unit's motor and your TV screen, press [■] (Stop) when you are finished with the menus.
- Total title number may not be displayed properly on +R/+RW.

If you are experiencing problems, refer to troubleshooting (→ 36 to 38).

Using the remote control



One touch play



The main unit automatically turns on and starts playing the disc in the tray.

Stop



The position is memorised while "RESUME STOP" is on the screen.

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

Pause



• Press [▶] PLAY to restart play.

Skip



Search (during play)

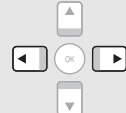


- Up to 5 steps.
- Press [▶] PLAY to start normal play.

Slow-motion (during pause)

- [VCD] Slow-motion: Forward direction only.
- [MPEG4] [DivX] Slow-motion: Does not work.

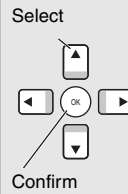
Frame-by-frame (during pause)



[DVD-VR] [DVD-V] [VCD]

- [DVD-VR] [VCD] Forward direction only.

On-screen item select



Enter number



[DVD-VR] [DVD-V] [VCD] [CD]

e.g. To select 12:

[≥10] → [1] → [2]

[VCD] with playback control
Press [■] STOP to cancel the PBC function, and then press the numbered buttons.

Disc menu



[DVD-V]

Shows a disc top menu.



[DVD-V]

Shows a disc menu.



[VCD]

Shows a disc menu.



[VCD]

Shows a disc menu.

Return to previous screen



[DVD-VR]



[DVD-V]

Main unit display



[DVD-VR] [DVD-V] [WMA] [MP3]

[MPEG4] [DivX]

Time display

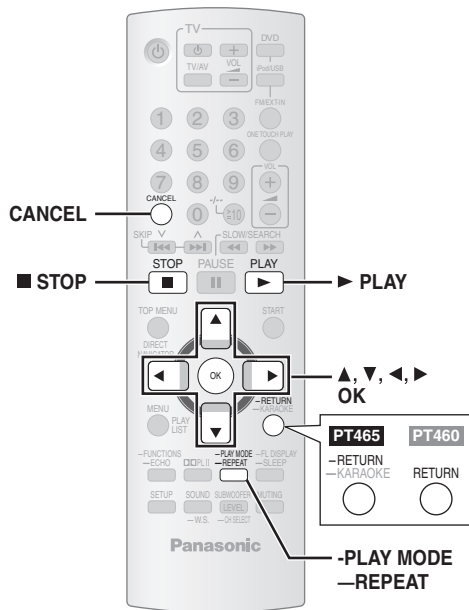
↔ Information display
(e.g. [DVD-VR] Program number)

[JPEG]

SLIDE ↔ Contents number

Basic play

Other playback functions



Repeat play

This works only when the elapsed play time can be displayed. It also works with all JPEG content.

1 During play



Show the repeat mode.

2 While the repeat mode is displayed



Select an item to be repeated.

e.g. [DVD-V]

TITLE → CHAP. → OFF

- To cancel, select "OFF".

Items shown differ depending on the type of disc and playback mode.

Program and Random play

[DVD-V] [VCD] [CD] [WMA] [MP3] [JPEG] [MPEG4] [DivX]

Preparation

While stopped



Select the play mode.

Program and random playback screens appear sequentially.

Program → Random
Exit program and random screens ←

- [DVD-VR] Select "DATA" in "DVD-VR/DATA" (→ 25, "OTHERS" menu) to play WMA, MP3, JPEG, MPEG4 or DivX contents.
- If "PLAYBACK MENU" screen appears, select "AUDIO/PICTURE" or "VIDEO" (→ 19, Using PLAYBACK MENU), then proceed with the above.
- For a disc with both WMA/MP3 and JPEG contents, select either music or picture contents.
WMA/MP3: Select "MUSIC PROGRAM" or "MUSIC RANDOM".
JPEG: Select "PICTURE PROGRAM" or "PICTURE RANDOM"
- [DVD-V] Some items cannot be played even if you have programmed them.

Program play (up to 30 items)

1



Select an item.

e.g. [DVD-V]

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

- Repeat this step to program other items.
- To return to the previous menu, press [-RETURN] ([PT460]: [RETURN]).

2



Start play.

To select all the items

Press [▲, ▼] to select "ALL" and press [OK].

To clear the selected program

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

To clear the whole program

Press [▶] several times to select "CLEAR ALL", and then press [OK].

The whole program is also cleared when the disc tray is opened, the unit is turned off or another source is selected.

Random play

1



(Only when the disc has groups or multiple titles.)

Select a group or title.

e.g. [DVD-V]

DVD-V RANDOM	
SELECT TITLE	
TITLE 1	
* TITLE 2	
TITLE 3	
PRESS PLAY TO START	

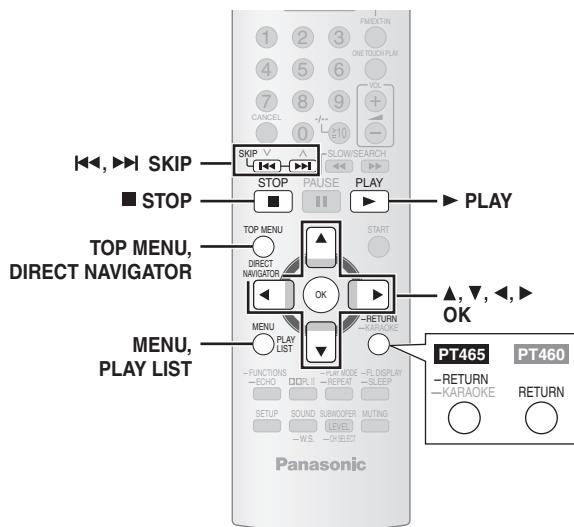
- "*" represents selected. To deselect, press [OK] again.

2



Start play.

Using navigation menus



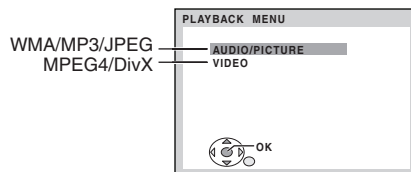
Playing data discs

WMA MP3 JPEG MPEG4 DivX

- **[DVD-VR]** Select "DATA" in "DVD-VR/DATA" (→ 25, "OTHERS" menu) to play WMA, MP3, JPEG, MPEG4 or DivX contents.

Using PLAYBACK MENU

"PLAYBACK MENU" screen appears when the disc contains both video (MPEG4/DivX) and other format (WMA/MP3/JPEG).



- Select "AUDIO/PICTURE" or "VIDEO".**
- To start play, press [▶] PLAY.
 - To select an item to play, refer "Playing from the selected item" (→ below).

Playing from the selected item

You can select to play from your desired item while the "DATA-DISC" screen is displayed.
e.g.

Group (Folder):



Content (File):



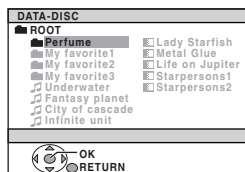
: WMA/MP3



: JPEG



: MPEG4/DivX



- To display/exit the screen, press [MENU].

- Select an item.**
- To return to the previous screen, press [-RETURN] (PT460: [RETURN]).
 - Maximum: 12 characters for file/folder name.

Play starts from the selected content.

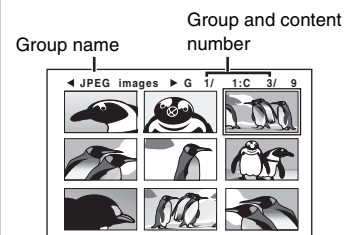
Selecting the picture in Thumbnail menu

JPEG

- 1 While a picture is displayed**



e.g.



- 2**
-

Select a picture.

- Press [◀, ▶] SKIP to skip page by page.

To go to other group

- 1 Press [▲] to select the group name.
- 2 Press [◀, ▶] to select the group and press [OK].

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 While stopped**



e.g.

PG	DATE	LENGTH	TITLE
1	10/11 02:15	0:16:02	LIVE CONCERT
2	12/05 01:30	0:38:25	AUTO ACTION
3	04/03 02:10	1:16:05	CINEMA

- To exit the screen, press [DIRECT NAVIGATOR].

- 2**
-

Select the program.

- Press [◀, ▶] to skip page by page.

Playing a play list

This works only when the disc contains a play list.

- 1 While stopped**



e.g.

PL	DATE	LENGTH	TITLE
1	11/11 00:01	0:00:10	CITY PENGUIN
2	12/01 01:20	0:01:20	FOOTBALL
3	01/02 01:10	1:10:04	SPECIAL

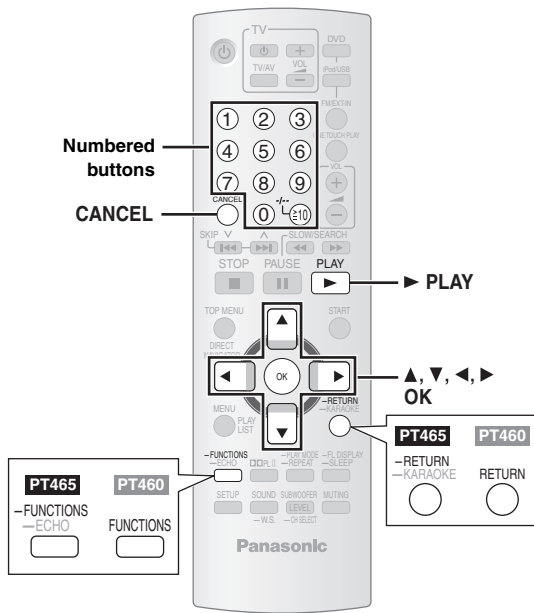
- To exit the screen, press [PLAY LIST].

- 2**
-

Select the play list.

- Press [◀, ▶] to skip page by page.

Using on-screen menus





1 	Show the on-screen menu. Each time you press the button: Menu 1 (Disc/Play) Menu 2 (Video) Menu 3 (Audio) PT465 Menu 4 (Karaoke) Menu 5 (HDMI) Exit e.g. Menu 1 (Disc/Play) DVD-V Current item Item name
2 	Select the item. e.g. Menu 1 (Disc/Play) DVD-V Current setting
3 	Make the settings.
4 	Exit.

Items shown differ depending on the type of disc.





■ Menu 1 (Disc/Play)

TRACK SEARCH TITLE SEARCH CONTENT SEARCH CHAPTER SEARCH PG SEARCH PL SEARCH	To start from a specific item <ul style="list-style-type: none"> ● VCD This does not work when using playback control. e.g. DVD-V : T2 C5 To select numbers for data disc e.g. 123: [≥10] → [1] → [2] → [3] → [OK]
	DVD-V DivX (with multiple soundtracks) To select audio soundtrack DVD-VR VCD To select "L", "R", "L+R" or "L R"
AUDIO	Signal type/data LPCM/PPCM/DDD/DTS/MP3/MPEG: Signal type kHz (Sampling frequency)/bit/ch (Number of channels) e.g. 3/2 1ch .1: Low frequency effect (not displayed if there is no signal) 0: No surround 1: Mono surround 2: Stereo surround (left/right) 1: Center 2: Front left+ Front right 3: Front left+ Front right+ Center <ul style="list-style-type: none"> ● DivX It may take some time for play to start if you change the audio on a DivX video disc.



PLAY SPEED	DVD-VR DVD-V To change play speed – from "×0.6" to "×1.4" (in 0.1-unit steps) <ul style="list-style-type: none"> ● Press ▶ PLAY to return to normal play. ● After you change the speed <ul style="list-style-type: none"> – Dolby Pro Logic II has no effect. – Audio output switches to 2-channel stereo. – Sampling frequency of 96 kHz is converted to 48 kHz. ● This function may not work depending on the disc's recording.
REPEAT MODE	(→ 18, Repeat play) A-B Repeat (To repeat a specified section) Except JPEG MPEG4 DivX DVD-VR (Still picture part) VCD (SVCD) Press [OK] at the starting and ending points. <ul style="list-style-type: none"> ● Select "OFF" to cancel.
SUBTITLE	DVD-V DivX (with multiple subtitles) VCD (SVCD only) To select subtitle language <ul style="list-style-type: none"> ● On +R/+RW, a subtitle number may be shown for subtitles that are not displayed. DVD-VR (with subtitle on/off information) To select "ON" or "OFF" <ul style="list-style-type: none"> ● This may not work depending on the disc.
ANGLE	DVD-V (with multiple angles) To select a video angle

 DATE DISPLAY	JPEG To select "ON" or "OFF" for picture's date display
 ROTATION	To rotate a picture (during pause) JPEG : 0 \longleftrightarrow 90 \longleftrightarrow 180 \longleftrightarrow 270


Menu 2 (Video)

 PICTURE MODE	<p>NORMAL</p> <p>CINEMA1: Mellows images and enhances detail in dark scenes.</p> <p>CINEMA2: Sharpens images and enhances detail in dark scenes.</p> <p>DYNAMIC: Enhances the contrast for powerful images.</p> <p>ANIMATION: Suitable for animation.</p>
 ZOOM	To select zoom sizes NORMAL, AUTO, $\times 2$, $\times 4$
 TRANSFER MODE	<p>If you have chosen "480p"/"576p"/"720p"/"1080p" (progressive) or "1080i" (interlace) ["VIDEO FORMAT" in Menu 5 (HDMI)] or "PROGRESSIVE" under "VIDEO OUT (I/P)" (\rightarrow 24, "VIDEO" menu), select the method of conversion for progressive output to suit the type of material.</p> <ul style="list-style-type: none"> The setting will return to AUTO or AUTO1 when the disc tray is opened, the unit is turned off or another source is selected. <p>When playing PAL discs</p> <p>AUTO: Automatically detects the film and video content, and appropriately converts it.</p> <p>VIDEO: Select when using AUTO, and the content is distorted.</p> <p>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.</p> <p>When playing NTSC discs</p> <p>AUTO1: Automatically detects the film and video content, and appropriately converts it.</p> <p>AUTO2: In addition to AUTO1, automatically detects film contents with different frame rates and appropriately converts it.</p> <p>VIDEO: Select when using AUTO1 and AUTO2, and the content is distorted.</p>
 SOURCE SELECT DivX	<p>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.</p> <p>AUTO, INTERLACE, PROGRESSIVE</p>




Menu 3 (Audio)

 DIALOGUE ENHANCER	<p>To make the dialogue in movies easier to hear</p> <p>[DVD-V] (Dolby Digital, DTS, MPEG, 3-channel or higher, with the dialogue recorded in the center channel)</p> <p>[DivX] (Dolby Digital, 3-channel or higher, with the dialogue recorded in the center channel)</p> <p>OFF, ON</p>
 PLII Dolby PL II	<p>OFF, MOVIE, MUSIC</p> <p>(\rightarrow 30, Using Dolby Pro Logic II)</p>

PT465 Menu 4 (Karaoke)

 KARAOKE MODE	<p>To select "ON" or "OFF" for Karaoke mode (\rightarrow 27, PT465 Enjoying Karaoke)</p> <ul style="list-style-type: none"> When you select "ON", "PLAY SPEED" (\rightarrow 20) and "Dolby PL II" (\rightarrow above) do not work.
--	---

Menu 5 (HDMI)

HDMI HDMI STATUS	To show HDMI information. (\rightarrow 22, Confirming HDMI information)
 HD ENHANCER	<p>This works when the HDMI connection is being used with "VIDEO PRIORITY" (\rightarrow 25, "HDMI" menu) set to "ON".</p> <p>To sharpen the "720p", "1080i" and "1080p" picture quality OFF, 1 (weakest) to 3 (strongest)</p>
 VIDEO FORMAT	<p>This works when the HDMI connection is being used with "VIDEO PRIORITY" (\rightarrow 25, "HDMI" menu) set to "ON".</p> <p>To select suitable picture quality with your TV (Video recordings will be converted to, and output as, high-definition video.)</p> <p>*480p/576p/720p/1080p (progressive) *480i/576i/1080i (interlaced)</p> <ul style="list-style-type: none"> If the picture is distorted, press and hold [CANCEL] until the picture is displayed correctly. (The output will return to "480p/576p".) <p>* The numbers displayed depend on the disc being played. One of the above numbers is displayed.</p>
 COLOR SPACE (or COLOUR SPACE)	<p>This works when the HDMI connection is being used with "VIDEO PRIORITY" (\rightarrow 25, "HDMI" menu) set to "ON".</p> <p>To select suitable picture colour with your TV YCbCr (4:2:2), YCbCr (4:4:4), RGB</p> <ul style="list-style-type: none"> If the setting above is not compatible with your TV, it will not be displayed.

(Continued on next page)

Using on-screen menus

Confirming HDMI information

e.g.

HDMI - INFORMATION		
①	CONNECTED STATE	CONNECTED
②	AUDIO STREAM	PCM
③	MAX CHANNEL	2ch
④	VIDEO FORMAT	720p
⑤	COLOR SPACE	YCbCr 4:4:4

- ① Connection status
- ② Shows the output signal type.
- ③ Shows the number of audio channels.
- ④ (→ 21, VIDEO FORMAT)
- ⑤ (→ 21, COLOR SPACE (or COLOUR SPACE))

Note

When "OFF" is selected in "AUDIO OUT" (→ 25, "HDMI" menu), "-- --" will be displayed in "AUDIO STREAM".

About DivX VOD contents

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

(→ 25, "REGISTRATION" in "OTHERS" menu)



8 alphanumeric characters

- 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.)

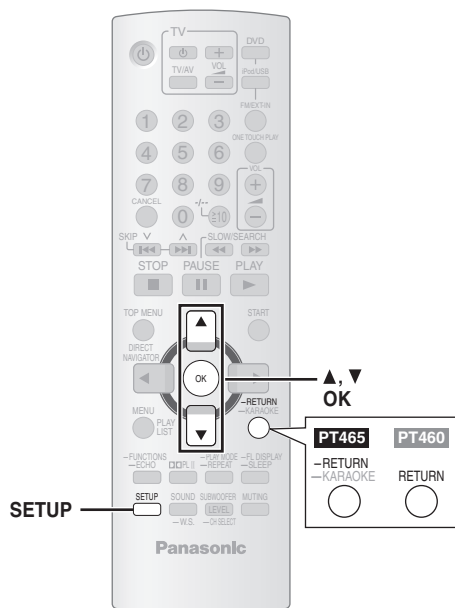
Regarding DivX content that can only be played a set number of times

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 [⏮] or [SETUP].
 - you press [■ STOP].
 - you press [⏮, ⏭] SKIP or [⏮, ⏭] SLOW/SEARCH] etc. and arrive at another content.
- Resume function (→ 17, Stop) does not work.

Changing the player settings



- 1** **Show the setup menu.**
- 2** **Select the menu.**
 Display the current setting of the items below
- 3** **Select the item.**
- 4** **Make the settings.**
- 5** **Exit.**

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.

■ “DISC” menu

AUDIO Choose the audio language.	• <u>ENGLISH</u> • (Language options) ^{*1} • ORIGINAL ^{*2} • OTHER --- ^{*3}
SUBTITLE Choose the subtitle language.	• <u>AUTO</u> ^{*4} • ENGLISH • (Language options) ^{*1} • OTHER --- ^{*3}
MENUS Choose the language for disc menus. Changing the menu language in QUICK SETUP also changes this setting.	• <u>ENGLISH</u> • (Language options) ^{*1} • OTHER --- ^{*3}
RATINGS Set a rating 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 • <u>8 NO LIMIT</u> When you select your ratings level, a password screen is shown. Follow the on-screen instructions. Do not forget your password. A message screen will be shown if a DVD-Video disc exceeding the rating level is inserted in the unit. Follow the on-screen instructions.
PASSWORD Change the password for “RATINGS”.	• <u>SETTING</u> To change ratings (When level 0 to 7 is selected) • CHANGE: Follow the on-screen instructions.

^{*1} Language options

The Middle East, South Africa, Saudi Arabia and Kuwait: FRENCH, SPANISH, GERMAN, RUSSIAN, HUNGARIAN, CZECH and POLISH
Southeast Asia and Thailand: CHINESE TRAD.

Australia and N.Z.: FRENCH, SPANISH, GERMAN, ITALIAN, SWEDISH, DUTCH and POLISH

^{*2} The original language designated on the disc is selected.

^{*3} Input the appropriate code from the language code list (→ 25).

^{*4} If the language selected for “AUDIO” is not available, subtitles appear in that language (if available on the disc).



(Continued on next page)

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Changing the player settings

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

■ “VIDEO” menu

TV ASPECT Choose the setting to suit your TV and preference.	4:3PAN&SCAN: Regular aspect TV (4:3) The sides of the widescreen picture are cut off so it fills the screen (unless prohibited by the disc).		
	4:3LETTERBOX: Regular aspect TV (4:3) Widescreen picture is shown in the letterbox style.		
	4:3ZOOM: Regular aspect TV (4:3) The picture zooms in and out.		
	16:9NORMAL: Widescreen TV (16:9) Laterally stretches image.		
	16:9SHRINK: Widescreen TV (16:9) Images appear at the center of the screen.		
	16:9ZOOM: Widescreen TV (16:9) Expands to 4:3 aspect ratio.		
TV TYPE Select to suit the type of TV.	STANDARD PROJECTION	CRT PLASMA	LCD
TIME DELAY When connected with a Plasma display, adjust if you notice the audio is out of sync with the video.	0 ms/AUTO • 20 ms • 40 ms • 60 ms • 80 ms • 100 ms When using VIERA Link “HDMI Control” with “HDMI Control 3” compatible TV (→ 28), select “0 ms/AUTO”. Audio and video will automatically be set in sync.		
NTSC DISC OUT Choose PAL 60 or NTSC output when playing NTSC discs (→ 34, Video systems).	NTSC: When connected to an NTSC TV. PAL60: When connected to a PAL TV. South East Asia and Thailand: “NTSC” is the factory preset.		
STILL MODE Specify the type of picture shown when paused.	AUTO FIELD ^{#5} : The picture is not blurred, but picture quality is lower. FRAME ^{#5} : Overall quality is high, but the picture may appear blurred.		
VIDEO OUT (I/P) Select “PROGRESSIVE” only if connecting to a progressive output compatible TV.	INTERLACE PROGRESSIVE: A message screen will appear. Follow the on-screen instructions.		

■ “AUDIO” menu

DOLBY DIGITAL ^{#6}	<ul style="list-style-type: none">● <u>BITSTREAM</u>● PCM	Select to suit the type of equipment you connected to the HDMI AV OUT terminal. Select “BITSTREAM” when the equipment can decode the bitstream (digital form of 5.1 channel data). Otherwise, select “PCM”. (If the bitstream is output to the equipment without a decoder, high levels of noise can be output and may damage your speakers and hearing.)
DTS ^{#6}	<ul style="list-style-type: none">● <u>BITSTREAM</u>● PCM	
<div>Except Southeast Asia and Thailand</div> MPEG ^{#6}	<ul style="list-style-type: none">● <u>BITSTREAM</u>● PCM	
DYNAMIC RANGE	<ul style="list-style-type: none">● ON: Adjusts for clarity even when the volume is low. Convenient for late night viewing. (Only works with Dolby Digital)● OFF	
<div>SPEAKER SETTINGS</div> <div>Make settings for your speakers.</div>	<ul style="list-style-type: none">● SETTINGS:<ul style="list-style-type: none">● C DELAY: <u>0ms</u>, 1ms, 2ms, 3ms, 4ms, 5ms Select the delay time for your center speaker (→ 26, Selecting the delay time of the speakers).● SL/SR DELAY: <u>0ms</u>, 5ms, 10ms, 15ms Select the delay time for your surround speakers (→ 26, Selecting the delay time of the speakers).● TEST TONE: SETTING Use the test tone for speaker level adjustments (→ 31, Adjusting the speaker level).<ul style="list-style-type: none">● CENTER, SURROUND RIGHT, SURROUND LEFT: -6 dB to +6 dB (Factory preset: <u>0 dB</u>)	

^{#5} Refer to “Frame still and field still” (→ 39, Glossary).

^{#6} When audio is output from HDMI AV OUT terminal, and the connected equipment does not support the item selected, the actual output will depend on the performance of this connected equipment.

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

■ “DISPLAY” menu

LANGUAGE Choose the language for the on-screen messages.	The Middle East, South Africa, Saudi Arabia and Kuwait			
	• ENGLISH	• FRANÇAIS	• ESPAÑOL	• DEUTSCH
	• РУССКИЙ	• MAGYAR	• ČESKY	• POLSKI
	Southeast Asia and Thailand			
	• ENGLISH	• 繁體中文		
	Australia and N.Z.			
	• ENGLISH	• FRANÇAIS	• ESPAÑOL	• DEUTSCH
	• ITALIANO	• SVENSKA	• NEDERLANDS	• POLSKI

■ “HDMI” menu

VIDEO PRIORITY	<ul style="list-style-type: none"> • ON: When using the HDMI AV OUT terminal for video output. The resolution of the video output from the HDMI AV OUT terminal is optimized according to the capability of the connected equipment (e.g. TV). • OFF: When not using the HDMI AV OUT terminal for video output. Video output will not depend on the connected equipment, but on this unit.
AUDIO OUT	<ul style="list-style-type: none"> • ON: When audio output is from the HDMI AV OUT terminal. (Depending on the capabilities of the connected equipment, audio output may differ from the audio settings of the main unit.) • OFF: When audio output is not from the HDMI AV OUT terminal. (The audio is output using the settings of the main unit.)
RGB RANGE This works only when “COLOR SPACE” (or “COLOUR SPACE”) in Menu 5 (HDMI) is set to RGB (→ 21).	<ul style="list-style-type: none"> • STANDARD • ENHANCED: When the black and white images are not distinct.
VIERA Link	<ul style="list-style-type: none"> • ON: The VIERA Link “HDAVI Control™” function is available (→ 28). • OFF

■ “OTHERS” menu

REGISTRATION DivX Display the unit's registration code.	<ul style="list-style-type: none"> • SHOW CODE You need this registration code to purchase and play DivX Video-on-Demand (VOD) content (→ 22).
JPEG TIME Set the speed of the slideshow. Factory preset: 3 SEC	<ul style="list-style-type: none"> • 1 SEC to 15 SEC (in 1-unit steps) • 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.	<ul style="list-style-type: none"> • BRIGHT • DIM • AUTO: The display is dimmed, but brightens when you perform some operations.
QUICK SETUP	<ul style="list-style-type: none"> • SET Follow the on-screen instructions.
DVD-VR/DATA Select to play only DVD-VR or DATA format.	<ul style="list-style-type: none"> • DVD-VR: To play the video programs on DVD-RAM or DVD-R/-RW. • DATA: To play the data files on DVD-RAM or DVD-R/-RW.
DEFAULTS This returns all values in the MAIN menu to the default settings.	<ul style="list-style-type: none"> • RESET The password screen is shown if “RATINGS” (→ 23) is set. Please enter the same password, then turn the unit off and on again.

Language code list

Abkhazian: 6566	Danish: 6865	Italian: 7384	Norwegian: 7879	Swedish: 8386
Afar: 6565	Dutch: 7876	Japanese: 7465	Oriya: 7982	Tagalog: 8476
Afrikaans: 6570	English: 6978	Javanese: 7487	Pashto, Pushto: 8083	Tajik: 8471
Albanian: 8381	Esperanto: 6979	Kannada: 7578	Persian: 7065	Tamil: 8465
Ameharic: 6577	Estonian: 6984	Kashmiri: 7583	Polish: 8076	Tatar: 8484
Arabic: 6582	Faroese: 7079	Kazakh: 7575	Portuguese: 8084	Telugu: 8469
Armenian: 7289	Fiji: 7074	Kirghiz: 7589	Punjabi: 8065	Thai: 8472
Assamese: 6583	Finnish: 7073	Korean: 7579	Quechua: 8185	Tibetan: 6679
Aymara: 6589	French: 7082	Kurdish: 7585	Rhaeto-Romance: 8277	Tigrinya: 8473
Azerbaijani: 6590	Frisian: 7089	Laotian: 7679	Romanian: 8279	Tonga: 8479
Bashkir: 6665	Galician: 7176	Latin: 7665	Russian: 8285	Turkish: 8482
Basque: 6985	Georgian: 7565	Latvian, Lettish: 7686	Samoan: 8377	Turkmen: 8475
Bengali, Bangla: 6678	German: 6869	Lingala: 7678	Sanskrit: 8365	Twi: 8487
Bhutani: 6890	Greek: 6976	Lithuanian: 7684	Scots Gaelic: 7168	Ukrainian: 8575
Bihari: 6672	Greenlandic: 7576	Macedonian: 7775	Serbian: 8382	Urdu: 8582
Breton: 6682	Guarani: 7178	Malagasy: 7771	Serbo-Croatian: 8372	Uzbek: 8590
Bulgarian: 6671	Gujarati: 7185	Malay: 7783	Shona: 8378	Vietnamese: 8673
Burmese: 7789	Hausa: 7265	Malayalam: 7776	Sindhi: 8368	Volapük: 8679
Byelorussian: 6669	Hebrew: 7387	Maltese: 7784	Singhalese: 8373	Welsh: 6789
Cambodian: 7577	Hindi: 7273	Maori: 7773	Slovak: 8375	Wolof: 8779
Catalan: 6765	Hungarian: 7285	Marathi: 7782	Slovenian: 8376	Xhosa: 8872
Chinese: 9072	Icelandic: 7383	Moldavian: 7779	Somali: 8379	Yiddish: 7473
Corsican: 6779	Indonesian: 7378	Mongolian: 7778	Spanish: 6983	Yoruba: 8979
Croatian: 7282	Interlingua: 7365	Nauru: 7865	Sundanese: 8385	Zulu: 9085
Czech: 6783	Irish: 7165	Nepali: 7869	Swahili: 8387	

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Changing the player settings

(Continued on next page)

Changing the player settings

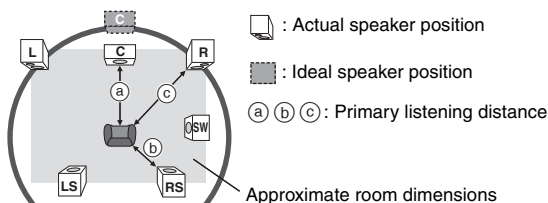
Selecting the delay time of the speakers

(Effective when playing 5.1-channel sound)

(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 difference.



Circle of constant primary listening distance

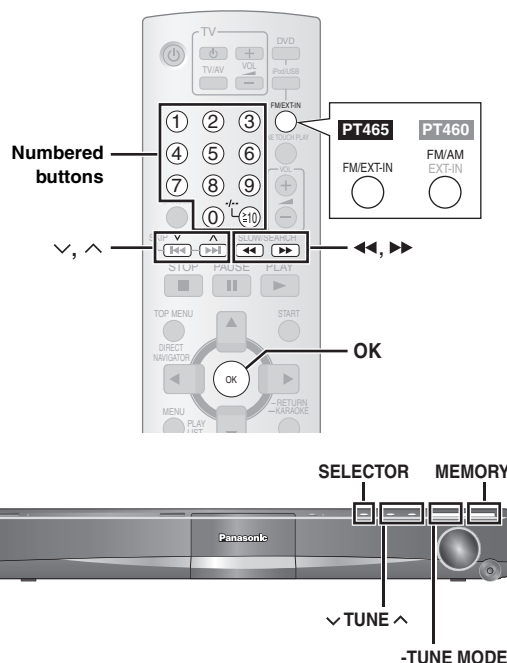
If either distance (a) or (b) is less than (c), find the difference in the table and change to the recommended setting.

a Center speaker		b Surround speaker	
Difference (Approx.)	Setting	Difference (Approx.)	Setting
30 cm	1ms	150 cm	5ms
60 cm	2ms	300 cm	10ms
90 cm	3ms	450 cm	15ms
120 cm	4ms		
150 cm	5ms		

To make the delay time settings

Select "C DELAY" or "SL/SR DELAY" from "SPEAKER SETTINGS" in "AUDIO" menu (→ 24).

Enjoying the radio



For presetting stations automatically, refer to page 13.

Manual tuning

- PT465** Select "FM".
PT460 Select "FM" or "AM".

 - Main unit:
Press [SELECTOR].
- Select the frequency.

 - Main unit:
Press [-TUNE MODE] to select "MANUAL" on the display, and then press [v TUNE ^] to select the frequency.
 - To start automatic tuning, press and hold [◀▶] (main unit: [v TUNE ^]) until the frequency starts scrolling. Tuning stops when a station is found.

■ Presetting stations manually

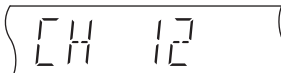
PT465 Up to 30 stations can be set.

PT460 Up to 30 stations can be set in each band, FM and AM.

- While listening to the radio broadcast
Press [OK].
- While the frequency is flashing on the display
Press the numbered buttons to select a channel.

• To select a 2-digit number
e.g. 12: [≥10] → [1] → [2]

Alternatively, press [v, ^], and then press [OK].

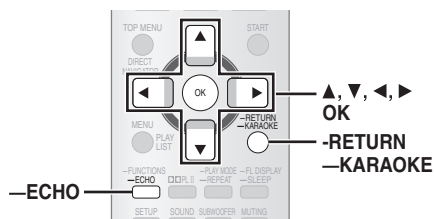


Main unit:

- While listening to the radio broadcast
Press [MEMORY] twice.
- While a channel is flashing on the display
Press [v TUNE ^], and then press [MEMORY].

A station previously stored is overwritten when another station is stored in the same channel preset.

PT465 Enjoying Karaoke



Note

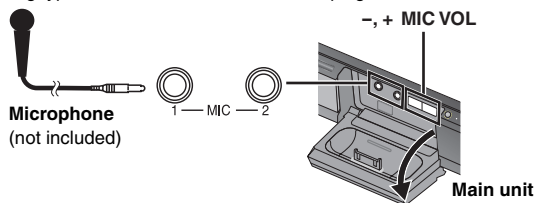
Before connecting/disconnecting the microphone(s), reduce the volume of the main unit to its minimum.

Preparation

- 1 Select "DVD/CD" as the source.
- 2 Press [–, MIC VOL] on the main unit to select "MIC LVL1".

Connect the microphone(s).

Plug type: Ø6.3 mm monaural standard plug



1 Start playback and adjust the volume of the main unit.

- 5.1-channel sound will be down-mixed to 2-channel.

2 Main unit:



Adjust the microphone volume and start singing.

MIC LVL1 (lowest) to MIC LVL4 (highest)

- When connecting the microphone, ensure the iPod has been disconnected.
- If a strange noise (howling) is emitted during use, move the microphone away from the speakers, or lower the microphone volume.
- When you are not using the microphone, disconnect it from the microphone jack, and lower the microphone volume to "MIC LVL1".

Using Karaoke mode

1

–RETURN
–KARAOKE

(press and hold)

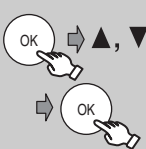
Show the Karaoke mode on-screen menu.

e.g.



- Alternatively, select "KARAOKE MODE" in PT465 Menu 4 (Karaoke) (→ 21).

2



Select "ON".

3



Select the item.

4



Make the settings.

- To exit the screen, press [–RETURN].

- Karaoke mode will automatically turn off when you turn this unit off, open the disc tray, or select another source.

Items shown differ depending on the type of disc.



AUDIO CHANGE

To change the audio mode (when using Karaoke formatted discs)

DVD-V

Solo disc

- OFF: Vocals off
- ON: Vocals on

Duet disc

- OFF: Vocals off
- V1+V2: Vocal 1 and 2
- V1: Vocal 1
- V2: Vocal 2

DVD-VR | VCD

- L R: Left channel sound is heard from the left speaker and right channel sound is heard from the right speaker (Accompaniment and vocals)
- L: Only left channel sound (Accompaniment only)
- R: Only right channel sound (Vocals only)
- L+R: Left and right channel sounds are mixed and heard from both speakers

"L" and "R" may be reversed on some discs.



KEY CONTROL

Except [MPEG4] [DivX]

To change the key of a song

▶ 6 (lowest) to #6 (highest)

OFF: Normal



VOCAL CANCEL

Except [MPEG4] [DivX]

To reduce the vocal level (when using stereo source not formatted for Karaoke)

ON: Reduces vocal level

OFF: Cancel

- This may not work depending on the type of song.

Adding echo effect

You can add echo to your voice when using the microphone.

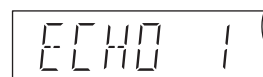
1

–FUNCTIONS
–ECHO

(press and hold)

Show the echo mode.

e.g.



2

While the echo mode is displayed

–FUNCTIONS
–ECHO



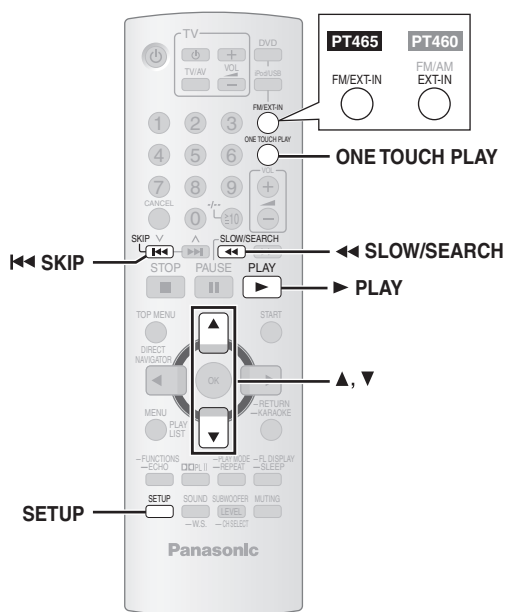
ECHO 1→ECHO 2→ECHO 3→ECHO 4
↑ ECHO OFF ↓

The effect increases with the level.

- To cancel, select "ECHO OFF".

Using the VIERA Link "HDAVI Control™"

Using the VIERA Link "HDAVI Control™"



VIERA Link "HDAVI Control"

VIERA Link "HDAVI Control" is a convenient function that offers linked operations of this unit, and a Panasonic TV (VIERA) under "HDAVI Control". You can use this function by connecting the equipment with the HDMI cable. See the operating instructions for connected equipment for operational details.

- VIERA Link "HDAVI Control", based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.
- This unit supports "HDAVI Control 3" function. "HDAVI Control 3" is the newest standard (current as of December, 2007) for Panasonic's HDAVI Control compatible equipment. This standard is compatible with Panasonic's conventional HDAVI equipment.
- Please refer to individual manuals for other manufacturers' equipment supporting VIERA Link function.

The TV with "HDAVI Control 2 (or later)" function enables the following operation: VIERA Link Control only with TV's remote control [for "HDAVI Control 2 (or later)"] (→ 29).

Preparation

- Confirm that the HDMI connection has been made (→ 10).
- Set "VIERA Link" to "ON" (→ 25, "HDMI" menu).
- To complete and activate the connection correctly, turn on all VIERA Link "HDAVI Control" compatible equipment and set the TV to the corresponding HDMI input mode for this unit.

Setting the TV audio for VIERA Link "HDAVI Control"

Select between "AUX" and "D-IN" to work with the linked operations. Confirm the audio connection to the AUX terminal (for "AUX") (→ 10) or OPTICAL IN terminal (for "D-IN") (→ 11).

- 1 Press [FM/EXT-IN] (PT460: [EXT-IN]) to select "AUX" or "D-IN".
- 2 Press [SETUP] to select "TV AUDIO", then press [▲] or [▼] to switch to "AUX" or "D-IN".

Whenever the connection or settings are changed, reconfirm the points above.

* "AUX" or "D-IN" ("DIGITAL IN") works depending on the "TV AUDIO" setting (→ above, Setting the TV audio for VIERA Link "HDAVI Control").

Automatic setup

The settings for "TV ASPECT"※¹ (→ 24, "VIDEO" menu) and "LANGUAGE"※² (→ 25, "DISPLAY" menu) will automatically follow to the settings of the TV.

(This may not work if the corresponding setting you have made for your TV is not available on this unit.)

※¹ When using VIERA Link "HDAVI Control" with "HDAVI Control 3" compatible TV

※² When using VIERA Link "HDAVI Control" with "HDAVI Control 2 (or later)" compatible TV

One touch play

You can turn on this unit and the TV, and start playing the disc with a single press of a button.

ONE TOUCH PLAY



Start disc playback.

This unit's speakers will be automatically activated (→ 29).

This function also works if you press [▶ PLAY] on this unit's remote control when this unit is in standby mode.

Note

Playback may not be immediately displayed on the TV. If you miss the beginning portion of playback, press [◀◀] or [◀] to go back to where playback started.

Auto input switching

- When you switch the TV input to TV tuner mode, this unit will automatically switch to "AUX"※ or "D-IN"※. (This does not work when this unit is in "IPOD" mode.)
- When you start disc play, the TV will automatically switch its input mode for this unit.

Power off link

When the TV is turned off, this unit goes into standby mode automatically.

- This function works only when "DVD/CD", "USB", "AUX"※ or "D-IN"※ is selected as the source on this unit.
- When the TV is turned on, this unit does not turn on automatically. (Power on link is not available.)

Note

When you press [⏻], only this unit turns off. Other connected equipment compatible with VIERA Link "HDAVI Control" stays on.

Speaker control

You can select whether audio is output from this unit's speakers or the TV speakers by using the TV menu settings. For details, refer to the operating instructions of your TV.

Home Cinema

This unit's speakers are active.

- When this unit is in standby mode, changing the TV speakers to this unit's speakers in the TV menu will automatically turn this unit on and select "AUX" or "D-IN" as the source.
- The TV speakers are automatically muted.
- You can control the volume setting using the volume or mute button on the TV's remote control. (The volume level is displayed on the main unit's FL display.)
- To cancel muting, you can also use this unit's remote control (→ 14).
- If you turn off this unit, TV speakers will be automatically activated.

TV

TV speakers are active.

- The volume of this unit is set to "0".
 - This function works only when "DVD/CD", "USB", "AUX" or "D-IN" is selected as the source on this unit.
- Audio output is 2-channel audio.

When switching between this unit's speakers and TV speakers, the TV screen may be blank for several seconds.

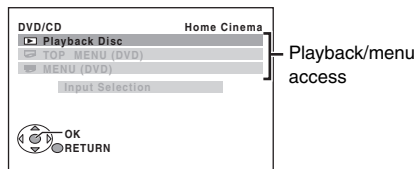
VIERA Link Control only with TV's remote control [for "HDAVI Control 2 (or later)"]

You can control the playback menus of this unit with the TV's remote control. When operating the TV's remote control, refer to the below illustration for operation buttons.

- 1 Select this unit's operation menu by using the TV menu settings. (For details, refer to the operating instructions of your TV.)

The START menu will be shown.

e.g. **[DVD-V]**

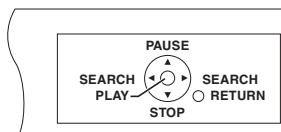


- The START menu can also be shown by using a button on the TV's remote control (e.g. [OPTION]).
 - When "DVD/CD" or "USB" is selected as the source, this works only during stop mode.
 - This does not work while iPod music playback screen is displayed on the TV.

- 2 Select the desired item on the START menu (→ 15).

When the on-screen control panel appears

e.g. **[DVD-V]** (when "Playback Disc" is selected from the START menu.)



You can operate the playback with the indicated controls.

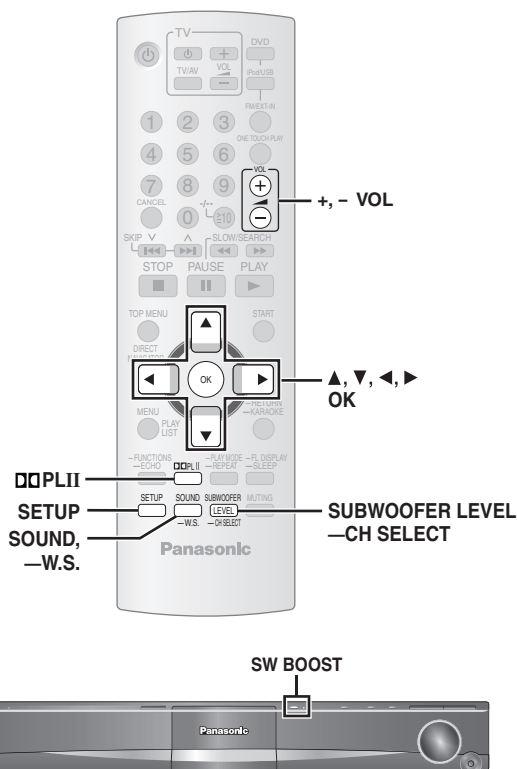
- The on-screen control panel can also be shown by using a button on the TV's remote control (e.g. [OPTION]).
 - This works only during "DVD/CD" or "USB" playback and resume modes or, while iPod music playback screen is displayed on the TV.

Note

- Depending on the menu, some button operations cannot be performed from the TV's remote control.
- You cannot input numbers with the numbered buttons on the TV's remote control ([0] to [9]). Use this unit's remote control to select the play list etc.

Using sound effects

Using sound effects



Note

- The following sound effects may not be available or have no effect with some sources, or when headphones are used (→ 15).
- 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.

Preparation

To display the picture, turn on the TV and select the appropriate video input mode.

Setting the sound effects

1



Select a sound mode.

Each time you press the button:
EQ: Equalizer
R.C. FCS: Real Center Focus
SRD ENH: Surround Enhancer

2

While the selected mode is displayed



Make settings.

Refer to the followings for setting details of each sound effect.

Equalizer

You can select sound quality settings.

Each time you press [▲, ▼]:

HEAVY: Adds punch to rock.

CLEAR: Clarifies higher sounds.

SOFT: For background music.

FLAT: Cancel (no effect is added).

Real Center Focus

(Effective when playing audio containing center channel sound or when Dolby Pro Logic II is on.)

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

R.C.FCS ON ← → R.C.FCS OFF

Surround Enhancer

Automatically adjusts each speaker to enhance the surround sound effect of 5.1-channel audio. When playing two-channel audio, the audio of the L/R front speakers is also output through the rest of the speakers creating a surround sound effect.

SRD ENH ON ← → SRD ENH OFF

Using Dolby Pro Logic II

Except **DivX**

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



Each time you press the button:

MOVIE: Movie software

MUSIC: Stereo sources

OFF: Cancel



- "DOLBY II" lights when there is effect.
- This does not work when audio is output from HDMI AV OUT terminal.
- You can adjust the volume of the surround speakers to get the best surround effect (→ 31, Adjusting the speaker level).

Using Whisper-mode Surround

Except **DivX**

You can enhance the surround effect for low volume 5.1-channel sound. (Convenient for late night viewing.)



(press and hold)



- "(())" lights when there is effect.

Each time you press and hold the button:
WHISPER-MODE SRD ON



WHISPER-MODE SRD OFF

Adjusting the subwoofer level

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



SUB W 1 → SUB W 2 → SUB W 3

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

Using Subwoofer Boost

Main unit only

You can enhance the subwoofer effect with strong bass.



BST ON ↔ BST OFF
The SW BOOST indicator lights when Subwoofer Boost is turned on.

Adjusting the speaker level

You can adjust the surround sound levels.

Preparation

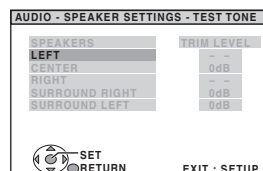
- Press [+ , - VOL] to adjust the volume to normal listening level.
- Select "TEST TONE" from "SPEAKER SETTINGS" in "AUDIO" menu (→ 24).

1



Enter test tone mode.

e.g.



Test tone will be output to each channel in the following order.

LEFT, CENTER, RIGHT, SURROUND RIGHT, SURROUND LEFT

2



Adjust the speaker level for each speaker. (CENTER, SURROUND RIGHT, SURROUND LEFT)

–6 dB to +6 dB

- To exit the screen, press [SETUP].

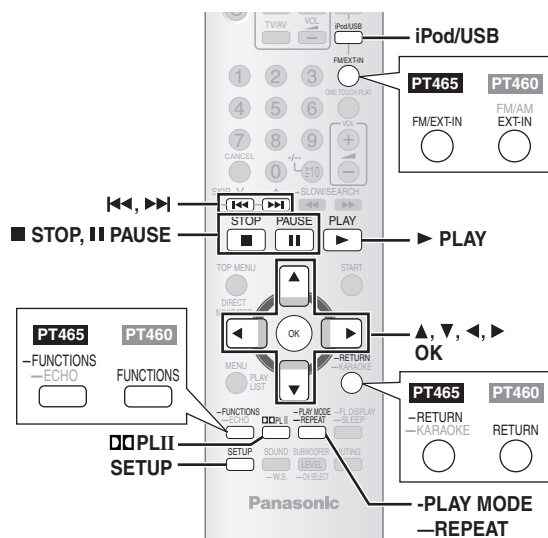
■ To adjust speaker level during play

(Effective when playing 5.1-channel sound or when Dolby Pro Logic II is on.)

- ① **Press and hold [—CH SELECT] to select the speaker.**
While the speaker channel is displayed, press [—CH SELECT].
L → C → R → RS → LS → SW
↑
• You can adjust SW (Subwoofer) only if the disc includes a subwoofer channel and "DOLBY PLII" is not lit.
- 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 [◀, ▶].

Operating other equipment

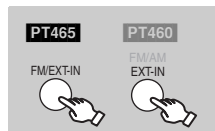


You can play an external source through your home theater system.

Enjoying TV audio

Preparation

Confirm the audio connection to the AUX terminal on the main unit (→ 10).



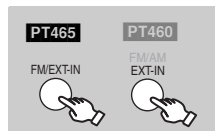
Select "AUX".

- Reduce the volume on the TV to its minimum, and then adjust the volume of the main unit.
- You can enjoy surround sound effect when you press [DOLBII] to turn on Dolby Pro Logic II (→ 30).

Enjoying digital audio

Preparation

Confirm the audio connection to the OPTICAL IN terminal on the main unit (→ 11).



Select "D-IN" (Digital In).

Making settings for digital audio input

Select to suit the type of audio from the OPTICAL IN terminal on the main unit.

- While in "D-IN" mode
Press [SETUP] to select "MAIN/SAP", "DRC" or "PCM FIX".
- While the selected mode is displayed
Press [▲, ▼] to make the setting.

MAIN/SAP mode (Only works with Dolby Dual Mono)

MAIN, SAP*, MAIN+SAP* (stereo audio)

* "SAP" = Secondary Audio Program

Dynamic Range Compression

DRC ON: Adjust for clarity even when the volume is low by compressing the range of the lowest sound level and the highest sound level. Convenient for late night viewing. (Only works with Dolby Digital)

DRC OFF

PCM FIX mode

PCM ON: Select when receiving only PCM signals.

PCM OFF: Select when receiving Dolby Digital and PCM signals.

Note

Audio that is input through the OPTICAL IN terminal cannot be output through the HDMI terminal.

Playing from an USB device

You can connect and play tracks or files from USB mass storage class devices.

Devices which are defined as USB mass storage class:

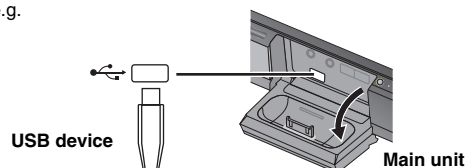
- USB devices that support bulk only transfer.
- USB devices that support USB 2.0 full speed.

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 connected using the cable will not be recognised by this unit.

Connect the USB device (not included).

e.g.



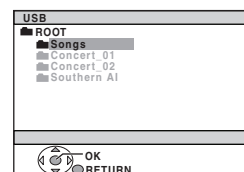
1



Select "USB".

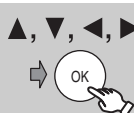
The menu screen appears.

e.g.



- If "PLAYBACK MENU" screen appears, select "AUDIO/PICTURE" or "VIDEO" by pressing [▲, ▼] and then [OK].

2



Select an item.

- To return to the previous screen, press [-RETURN] (PT460: [RETURN]).

Play starts from the selected content.

- You can enjoy surround sound effect when you press [DOLBII] to turn on Dolby Pro Logic II (→ 30).
- For other operating functions, they are similar to those described in "Playing Discs" (→ 16 to 26).

Supported Formats

Still pictures	JPEG (Extension: ".jpg", ".JPG", ".jpeg", ".JPEG")
Music	MP3 (Extension: ".mp3", ".MP3") WMA (Extension: ".wma", ".WMA")
Video	MPEG4* (Extension: ".asf", ".ASF")

* For Panasonic D-Snap/DIGA

Note

- Maximum: 256 folders, 4000 files, 12 characters for file/folder name
- Only one memory card will be selected when connecting a multiport USB card reader. Typically the first memory card inserted.
- When connecting the USB mass storage device, ensure the iPod has been disconnected.

Using the iPod

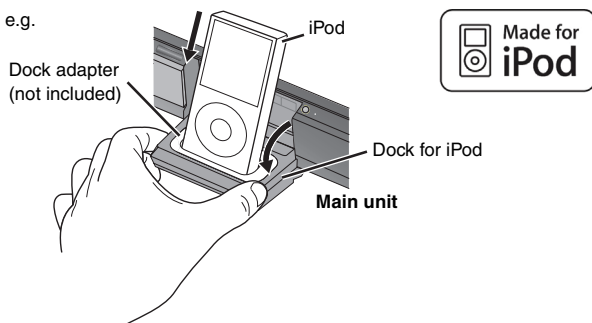
Preparation

- To view photos/videos from the iPod
 - Ensure the video connection to the VIDEO OUT terminal on this unit (→ 10).
 - Operate the iPod menu to make the appropriate photo/video output settings for your TV. (Refer to the operating instructions of your iPod.)
- To display the picture, turn on the TV and select the appropriate video input mode.
- Before connecting/disconnecting the iPod, turn the main unit off or reduce the volume of the main unit to its minimum.

Connect the iPod (not included) firmly.

Recharging starts when the iPod is inserted.

e.g.



- Hold the dock when connecting/disconnecting the iPod.
 - Attach the dock adapter which should be supplied with your iPod to the dock for the stable use of the iPod.
- If you need an adapter, consult your iPod dealer.

Select "IPOD".
The iPod automatically switches to this unit's display mode.
Music menu appears on the TV.
e.g.

To operate through display of iPod, press [-FUNCTIONS] (PT460: [FUNCTIONS]).

Enjoying music

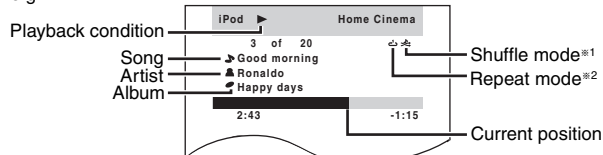


Select an item.

- Press [◀, ▶] to skip page by page.
- To return to the previous screen, press [-RETURN] (PT460: [RETURN]).

Play starts from the selected song.

e.g.



*1 To select shuffle modes

Press [-PLAY MODE].

Each time you press the button:



Song shuffle



Album shuffle

Off: Cancel

*2 To select repeat modes

Press and hold [—REPEAT] and then press the button repeatedly within 3 seconds.

Each time you press the button:



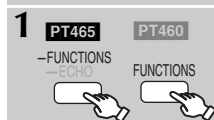
Repeat 1 song



Repeat all

Off: Cancel

Enjoying photos/videos



Switch the iPod to its own display mode.

Proceed operations through display of iPod.

2 Play a slideshow or video on your iPod.

The picture will be displayed on your TV.

You can also use the remote control to operate iPod menu.

[▲, ▼]: To navigate menu items

[OK]: To go to the next menu

[-RETURN] (PT460: [RETURN]): To return to the previous menu

Basic controls (For music and videos only)

Button	Function
[▶ PLAY]	Play
[■ STOP], [PAUSE]	Pause
[◀◀, ▶▶]	Skip
(press and hold) [◀◀, ▶▶]	Search

- You can enjoy surround sound effect when you press [DOLBY II] to turn on Dolby Pro Logic II (→ 30).

When using the START menu in "IPOD" mode

Select "Music" or "Photos/Videos".

Music: Shows the music menu.

Photos/Videos: Switches to display of iPod.

About recharging the battery

- iPod will start recharging regardless of whether this unit is on or off.
- "IPOD *" will be shown on the main unit's display during iPod charging in main unit standby mode.
- Check iPod to see if the battery is fully recharged.
- If you are not using iPod for an extended period of time after recharging has completed, disconnect it from main unit, as the battery will be depleted naturally. (Once fully recharged, additional recharging will not occur.)

Note

When connecting the iPod, ensure the USB device and PT465 microphones have been disconnected.




Compatible iPod

- iPod touch (8GB, 16GB)
- iPod nano 3rd generation (video) (4GB, 8GB)
- iPod classic (80GB, 160GB)
- iPod nano 2nd generation (aluminum) (2GB, 4GB, 8GB)
- iPod 5th generation (video) (60GB, 80GB)
- iPod 5th generation (video) (30GB)
- iPod nano 1st generation (1GB, 2GB, 4GB)
- iPod 4th generation (color display) (40GB, 60GB)
- iPod 4th generation (color display) (20GB, 30GB)
- iPod 4th generation (40GB)
- iPod 4th generation (20GB)
- iPod mini (4GB, 6GB)




Compatibility depends on the software version of your iPod.

Discs that can be played

Commercial discs

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

Recorded discs (○: Playable, —: 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	
DVD-RAM		○	—	—	○	○	○	○	Not necessary
DVD-R/RW		○	○	—	○	○	○	○	Necessary
DVD-R DL		○ ^{※3}	○	—	—	—	—	—	Necessary
+R/+RW	—	—	○ ^{※5}	—	—	—	—	—	Necessary
+R DL	—	—	○ ^{※5}	—	—	—	—	—	Necessary
CD-R/RW ^{※1}	—	—	—	○	○	○	○	○	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 (→ 35, Tips for making data discs).

^{※1} This unit can play CD-R/RW recorded with CD-DA or Video CD format.

^{※2} Discs recorded on DVD recorders or DVD video cameras, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).

^{※3} Discs recorded on DVD recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).

^{※4} Discs recorded on DVD recorders or DVD video cameras using DVD-Video Format.

^{※5} Recorded using a format different from DVD-Video Format, therefore some functions cannot be used.

^{※6} A process that allows play on compatible equipment. To play a disc that is indicated as "Necessary", the disc must first be finalized on the device it was recorded on.

^{※7} Closing the session will also work.

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

Blu-ray, HD DVD, AVCHD discs, DVD-RW version 1.0, DVD-Audio, DVD-ROM, CD-ROM, CDV, CD-G, SACD and 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 TV must match the system used on the disc.
- PAL discs cannot be correctly viewed on an NTSC TV.
- This unit can convert NTSC signals to PAL 60 for viewing on a PAL TV (→ 24, "NTSC DISC OUT" in "VIDEO" menu).

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, liquids which prevent static electricity, 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.

■ Tips for making data discs

Format	Disc	Extension	Reference
WMA	CD-R/RW	“.WMA” “.wma”	<ul style="list-style-type: none"> 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: an encoding process for audio content that produces an audio file encoded at several different bit rates).
MP3	DVD-RAM DVD-R/RW CD-R/RW	“.MP3” “.mp3”	<ul style="list-style-type: none"> This unit does not support ID3 tags. Sampling frequency and compression rate: <ul style="list-style-type: none"> – DVD-RAM, DVD-R/RW: 11.02, 12, 22.05, 24 kHz (8 to 160 kbps), 44.1 and 48 kHz (32 to 320 kbps) – CD-R/RW: 8, 11.02, 12, 16, 22.05, 24 kHz (8 to 160 kbps), 32, 44.1 and 48 kHz (32 to 320 kbps)
JPEG	DVD-RAM DVD-R/RW CD-R/RW	“.JPG” “.jpg” “.JPEG” “.jpeg”	<ul style="list-style-type: none"> JPEG files taken on a digital camera that conform to DCF Standard (Design rule for Camera File system) Version 1.0 are displayed. <ul style="list-style-type: none"> – 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, still pictures other than JPEG (e.g. TIFF), or play pictures with attached audio.
MPEG4	DVD-RAM DVD-R/RW CD-R/RW	“.ASF” “.asf”	<ul style="list-style-type: none"> 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 recorders with this unit. The recording date may differ from that of the actual date.
DivX	DVD-RAM DVD-R/RW CD-R/RW	“.DIVX” “.divx” “.AVI” “.avi”	<ul style="list-style-type: none"> Plays 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. 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 720×480 (NTSC)/720×576 (PAL). You can select up to 8 types of audio and subtitles on this unit.

- There may be differences in the display order on the menu screen and computer screen.
- This unit cannot play files recorded using packet write.

DVD-RAM

- Discs must conform to UDF 2.0.

DVD-R/RW

- 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.

Discs that can be played



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

No power.	• Insert the AC mains lead securely.	11
The unit is automatically switched to standby mode.	• The Sleep timer was working and had reached the set time limit.	14

Unit displays

The display is dark.	• Select "BRIGHT" in "FL DIMMER" in the "OTHERS" menu.	25
"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.	34 — —
"NO DISC"	• You have not inserted a disc; insert one. • You have not inserted the disc correctly; insert it correctly.	— 16
"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.	9
"F76"	• There is a power supply problem. Consult the dealer.	—
"DVD U11"	• Disc may be dirty. Wipe it clean.	39
"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.	— —
"U70□" □ stands for a number. The actual number following "U70" will depend on the state of the main unit.	• The HDMI connection acts unusually. – The connected equipment is not HDMI-compatible. – Please use HDMI cables that have the HDMI logo (as shown on the cover). – The HDMI cable is too long. – The HDMI cable is damaged.	— — — —
"REMOTE 1" or "REMOTE 2"	• Match the modes on the main unit and remote control. Depending on the number being displayed ("1" or "2"), press and hold [OK] and the corresponding numbered button ([1] or [2]) for at least 2 seconds.	14

General operation

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 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.	34 — —
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 remote control signal sensor and operate.	11 11 15
Other products respond to the remote control.	• Change the remote control operating mode.	14
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.	9, 10 — —
You have forgotten your ratings password. Reset all the settings to Factory Preset.	• While stopped and "DVD/CD" is the source, press and hold [■] (Stop) on the main unit and [≥10] on the remote control until "INITIALIZED" disappears from the TV. Turn the unit off and on again. All settings will return to the default values. (This does not work during program and random modes, or when setup menu or START menu is displayed.)	—
The VIERA Link "HDAVI Control" function does not respond.	• Depending on the condition of this unit or the connected equipment, it may be necessary to repeat the same operation so that the function can work correctly.	28
The setting you made in "TV ASPECT" (→ 24, "VIDEO" menu) or "LANGUAGE" (→ 25, "DISPLAY" menu) does not work.	• The settings for "TV ASPECT" ^{#1} and "LANGUAGE" ^{#2} will automatically follow to the settings of the TV. Select using TV settings. ^{#1} When using VIERA Link "HDAVI Control" with "HDAVI Control 3" compatible TV ^{#2} When using VIERA Link "HDAVI Control" with "HDAVI Control 2 (or later)" compatible TV	—

Disc operation

It takes time before play starts.	<ul style="list-style-type: none"> 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] 	—
A menu screen appears during skip or search. [VCD]	<ul style="list-style-type: none"> This is normal for Video CDs. 	—
Playback control menu does not appear. [VCD] with playback control	<ul style="list-style-type: none"> Press [■ STOP] twice and then press [▶ PLAY]. 	—
Program and Random play do not work. [DVD-V]	<ul style="list-style-type: none"> These functions do not work with some DVD-Videos. 	—
Play does not start.	<ul style="list-style-type: none"> 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. 	— — —
No subtitles.	<ul style="list-style-type: none"> Display the subtitles. ("SUBTITLE" in Menu 1) Subtitles may not be displayed depending on the disc. [DivX] 	20 —
Point B is automatically set.	<ul style="list-style-type: none"> The end of an item becomes point B when it is reached. 	—
The Setup menu cannot be accessed.	<ul style="list-style-type: none"> Select "DVD/CD" as the source. Cancel Program and Random play. 	— 18

Sound

Sound is distorted.	<ul style="list-style-type: none"> Noise may occur when playing WMA. When using the HDMI output, audio may not be output from other terminals. 	— —
Effects do not work.	<ul style="list-style-type: none"> Some audio effects do not work or have less effect with some discs. 	—
Humming is heard during play.	<ul style="list-style-type: none"> An AC mains lead or fluorescent light is near the main unit. Keep other appliances and cables away from the main unit. 	—
No sound.	<ul style="list-style-type: none"> 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] Audio may not be heard when more than 4 devices are connected with HDMI cables. Reduce the number of connected devices. When using the HDMI connection, ensure that "AUDIO OUT" in the "HDMI" menu is set to "ON". 	— — — 25
No sound from the TV.	<ul style="list-style-type: none"> Confirm the audio connection. Press [FM/EXT-IN] ([PT460]: [EXT-IN]) to select the corresponding source. 	10, 32
No surround sound.	<ul style="list-style-type: none"> Press [DOLBII] to turn on Dolby Pro Logic II or turn on Surround Enhancer. 	30

Picture

The picture on the TV is not displayed correctly or disappears.	<ul style="list-style-type: none"> The unit and TV are using different video systems. [Southeast Asia and Thailand] Use a multi-system or NTSC TV. [Others] Use a multi-system or PAL TV. The system used on the disc does not match your TV. – PAL discs cannot be correctly viewed on an NTSC TV. – This unit can convert NTSC signals to PAL 60 for viewing on a PAL TV ("NTSC DISC OUT" in "VIDEO" menu). Ensure that the unit is connected directly to the TV, and is not connected through a video cassette recorder. Mobile telephone chargers can cause some disturbance. If you are using an indoor TV antenna, change to an outdoor antenna. The TV antenna wire is too close to the unit. Move it away from the unit. Change "SOURCE SELECT" in Menu 2. [DivX] Picture may not be seen when more than 4 devices are connected with HDMI cables. Reduce the number of connected devices. When using the COMPONENT VIDEO OUT terminal, ensure that progressive output is not selected when the connected TV is not progressive compatible. Press and hold [CANCEL] until "PRG" disappears from the main unit display and the picture is displayed correctly. When using the HDMI AV OUT terminal, ensure that video output unacceptable with the connected TV is not selected. Press and hold [CANCEL] until the picture is displayed correctly. (The output will return to "480p" or "576p".) Video images converted to 1920×1080 resolution may look different from the true, native 1080p full-HD sources. This is not malfunction of the main unit. 	— — 24 10 — — — 21 — 24 21 —
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(Continued on next page)



Troubleshooting guide

Picture (Continued)

Picture stops. DivX	<ul style="list-style-type: none"> Picture may stop if the DivX files are greater than 2 GB. 	—
Picture size does not fit the screen.	<ul style="list-style-type: none"> Change "TV ASPECT" in the "VIDEO" menu. Use the TV to change the aspect. Change the zoom setting. ("ZOOM" in Menu 2) 	24 — 21
Menu is not displayed correctly.	<ul style="list-style-type: none"> Restore the zoom ratio to "NORMAL". ("ZOOM" in Menu 2) 	21
Auto zoom function does not work well.	<ul style="list-style-type: none"> Turn off TV's 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 distorted.	<ul style="list-style-type: none"> Set "TRANSFER MODE" in Menu 2 to "AUTO". 	21

iPod operation

Cannot charge or operate.	<ul style="list-style-type: none"> Check that the iPod is connected firmly. The battery of the iPod is depleted. Charge the iPod, and then operate again. 	33 —
Cannot display iPod photos/videos on the TV.	<ul style="list-style-type: none"> Ensure the video connection to the VIDEO OUT terminal on this unit. Operate the iPod menu to make the appropriate photo/video output settings for your TV. (Refer to operating instructions of your iPod.) 	10 —

HDMI or progressive video

There is ghosting when HDMI or progressive output is on.	<ul style="list-style-type: none"> This problem is caused by the editing method or material used on DVD-Video, but should be corrected if you use interlaced output. When using the HDMI AV OUT terminal, set "VIDEO FORMAT" in Menu 5 to "480i" or "576i". Or, disable the HDMI AV OUT connection and use other video connections. When using the COMPONENT VIDEO OUT terminal, set "VIDEO OUT (I/P)" in "VIDEO" menu to "INTERLACE". (Alternatively, press and hold [CANCEL] until "PRG" disappears from the main unit display.) 	21 24
Pictures not in progressive output.	<ul style="list-style-type: none"> Select "PROGRESSIVE" in "VIDEO OUT (I/P)" in "VIDEO" menu. The unit's VIDEO OUT terminal outputs an interlaced signal even if "PRG" is displayed. 	24 —

Radio

Distorted sound or noise is heard. "ST" flickers or does not light.	<ul style="list-style-type: none"> PT465 Adjust the position of the FM antenna. PT460 Adjust the position of the FM or AM antenna. Use an outdoor antenna. 	— — 9
A beat sound is heard.	<ul style="list-style-type: none"> Turn the TV off or move it away from the unit. 	—
PT460 A low hum is heard during AM broadcasts.	<ul style="list-style-type: none"> Separate the antenna from other cables. 	—

USB

The USB drive or its contents cannot be read.	<ul style="list-style-type: none"> 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. 	32 — —
Slow operation of the USB device.	<ul style="list-style-type: none"> Large file size or high memory USB device takes longer time to read and display on the TV. 	—

TV displays

"⊙"	<ul style="list-style-type: none"> The operation is prohibited by the unit or disc. 	—
"THIS DISC MAY NOT BE PLAYED IN YOUR REGION."	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 	22
"RENTAL EXPIRED" DivX	<ul style="list-style-type: none"> The DivX VOD content has zero remaining plays. You cannot play it. 	22



Glossary

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 5.1-channel sound.

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.

Dynamic 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.

Film: 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 TV 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.

HDMI (High-Definition Multimedia Interface)

HDMI is a next-generation digital interface for consumer electronic products. Unlike conventional connections, it transmits uncompressed digital video and audio signals on a single cable. This unit supports high-definition video output (720p, 1080i, 1080p) from the HDMI AV OUT terminal. To enjoy high-definition video, a high-definition compatible TV is required.

I/P/B

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

I: 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 colour still pictures. 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 rate.

Playback control (PBC)

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

Progressive/Interlaced

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 TV 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.

Maintenance

■ To clean discs

Wipe with a damp cloth and then wipe dry.

DO



DO NOT



■ 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 of 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.



Specifications

AMPLIFIER SECTION

PT465

RMS Output Power: Dolby Digital Mode

Front Ch	125 W per channel (3 Ω), 1 kHz, 10 % THD
Surround Ch	125 W per channel (3 Ω), 1 kHz, 10 % THD
Center Ch	125 W per channel (3 Ω), 1 kHz, 10 % THD
Subwoofer Ch	125 W per channel (3 Ω), 100 Hz, 10 % THD
Total RMS Dolby Digital mode power	750 W

PMPO

5600 W

DIN Output Power: Dolby Digital Mode

Front Ch	75 W per channel (3 Ω), 1 kHz, 1 % THD
Surround Ch	75 W per channel (3 Ω), 1 kHz, 1 % THD
Center Ch	75 W per channel (3 Ω), 1 kHz, 1 % THD
Subwoofer Ch	75 W per channel (3 Ω), 100 Hz, 1 % THD
Total DIN Dolby Digital mode power	450 W

PT460

RMS Output Power: Dolby Digital Mode

Front Ch	125 W per channel (3 Ω), 1 kHz, 10 % THD
Surround Ch	125 W per channel (3 Ω), 1 kHz, 10 % THD
Center Ch	250 W per channel (6 Ω), 1 kHz, 10 % THD
Subwoofer Ch	250 W per channel (6 Ω), 100 Hz, 10 % THD
Total RMS Dolby Digital mode power	1000 W

DIN Output Power: Dolby Digital Mode

Front Ch	75 W per channel (3 Ω), 1 kHz, 1 % THD
Surround Ch	75 W per channel (3 Ω), 1 kHz, 1 % THD
Center Ch	145 W per channel (6 Ω), 1 kHz, 1 % THD
Subwoofer Ch	145 W per channel (6 Ω), 100 Hz, 1 % THD
Total DIN Dolby Digital mode power	590 W

TUNER, TERMINALS SECTION

Preset Memory

FM 30 stations

PT460 AM 30 stations

Frequency Modulation (FM)

Frequency range	87.50 to 108.00 MHz (50-kHz step)
Antenna terminals	75 Ω (unbalanced)

PT460 Amplitude Modulation (AM/MW)

Frequency range	522 to 1629 kHz (9-kHz step)
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Digital audio input

Optical digital input	Optical terminal
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz

Phone jack

Terminal	Stereo, 3.5 mm jack
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PT465 Mic jack

Sensitivity	0.7 mV, 1.2 kΩ
Terminal	Mono, 6.3 mm jack (2 systems)

USB Port

USB standard	USB 2.0 full speed
Media file format support	MP3 (*.mp3), WMA (*.wma), JPEG (*.jpg) (*.jpeg), MPEG4 (*.asf)
USB device file system	FAT12, FAT16, FAT32
USB Port power	Max. 500 mA

DISC SECTION

Discs played (8 cm or 12 cm)

- (1) DVD (DVD-Video, DivX[®]5.6)
 - (2) DVD-RAM (DVD-VR, MP3[®]2.5, JPEG[®]4.5, MPEG4[®]5.7, DivX[®]5.6)
 - (3) DVD-R (DVD-Video, DVD-VR, MP3[®]2.5, JPEG[®]4.5, MPEG4[®]5.7, DivX[®]5.6)
 - (4) DVD-R DL (DVD-Video, DVD-VR)
 - (5) DVD-RW (DVD-Video, DVD-VR, MP3[®]2.5, JPEG[®]4.5, MPEG4[®]5.7, DivX[®]5.6)
 - (6) +R/+RW (Video)
 - (7) +R DL (Video)
 - (8) CD, CD-R/RW (CD-DA, Video CD, SVCD[®]1, MP3[®]2.5, WMA[®]3.5, JPEG[®]4.5, MPEG4[®]5.7, DivX[®]5.6)
 - [®]1 Conforming to IEC62107
 - [®]2 MPEG-1 Layer 3, MPEG-2 Layer 3
 - [®]3 Windows Media Audio Ver.9.0 L3
 - Not compatible with Multiple Bit Rate (MBR)
 - [®]4 Exif Ver 2.1 JPEG Baseline files
 - Picture resolution: between 160×120 and 6144×4096 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.
 - [®]5 The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 400 groups.
 - [®]6 Plays all versions of DivX[®] video (including DivX[®]6) with standard playback of DivX[®] media files. Certified to the DivX Home Theater Profile.
 - [®]7 MPEG4 data recorded with Panasonic SD multi cameras or DVD video recorders
- Conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system

Pick up

Wavelength (DVD/CD)	655/785 nm
Laser power (DVD/CD)	CLASS 1/CLASS 1M

Audio output (Disc)

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

Video system PAL625/50, PAL525/60, NTSC

Composite video output

Output level	1 Vp-p (75 Ω)
Terminal	Pin jack (1 system)

Component video output

Y output level	1 Vp-p (75 Ω)
P _B output level	0.7 Vp-p (75 Ω)
P _R output level	0.7 Vp-p (75 Ω)
Terminal	Pin jack (Y: green, P _B : blue, P _R : red) (1 system)

HDMI AV output

Terminal	19-pin type A connector
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HDAVI Control

This unit supports "HDAVI Control 3" function.



SPEAKER SECTION PT465**Front speaker SB-HF465**

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Input power (IEC)	125 W ^{≠8} (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	87 Hz to 25 kHz (–16 dB) 98 Hz to 22 kHz (–10 dB)
Dimensions (W×H×D)	252 mm×1123 mm×234 mm
Mass	3.7 kg

Surround speaker SB-HS465

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Input power (IEC)	125 W ^{≠8} (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	96 Hz to 25 kHz (–16 dB) 120 Hz to 22 kHz (–10 dB)
Dimensions (W×H×D)	92 mm×135 mm×95.4 mm
Mass	0.75 kg

Center speaker SB-HC465

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Input power (IEC)	125 W ^{≠8} (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	95 Hz to 25 kHz (–16 dB) 110 Hz to 22 kHz (–10 dB)
Dimensions (W×H×D)	270 mm×92 mm×95.4 mm
Mass	0.9 kg

Subwoofer SB-HW465

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Woofer	16 cm Cone type
Input power (IEC)	125 W (Max)
Output sound pressure	82 dB/W (1.0 m)
Frequency range	32 Hz to 220 Hz (–16 dB) 39 Hz to 180 Hz (–10 dB)
Dimensions (W×H×D)	153 mm×415 mm×257 mm
Mass	3.6 kg

SPEAKER SECTION PT460**Front speaker SB-HF460**

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Input power (IEC)	125 W ^{≠8} (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	95 Hz to 25 kHz (–16 dB) 120 Hz to 22 kHz (–10 dB)
Dimensions (W×H×D)	92 mm×142 mm×95 mm
Mass	0.6 kg

Surround speaker SB-HS460

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 3 Ω
Full range	6.5 cm Cone type
Input power (IEC)	125 W ^{≠8} (Max)
Output sound pressure	80 dB/W (1.0 m)
Frequency range	95 Hz to 25 kHz (–16 dB) 120 Hz to 22 kHz (–10 dB)
Dimensions (W×H×D)	92 mm×142 mm×95 mm
Mass	0.6 kg

Center speaker SB-HC460

Type	1 way, 2 speaker system (Bass reflex)
Speaker unit(s)	Impedance 6 Ω
1. Full range	6.5 cm Cone type
2. Full range	6.5 cm Cone type
Input power (IEC)	250 W ^{≠8} (Max)
Output sound pressure	82 dB/W (1.0 m)
Frequency range	80 Hz to 25 kHz (–16 dB) 96 Hz to 22 kHz (–10 dB)
Dimensions (W×H×D)	270 mm×94 mm×95 mm
Mass	1.3 kg

Subwoofer SB-HW460

Type	1 way, 1 speaker system (Bass reflex)
Speaker unit(s)	Impedance 6 Ω
Woofer	16 cm Cone type
Input power (IEC)	250 W (Max)
Output sound pressure	81 dB/W (1.0 m)
Frequency range	31 Hz to 220 Hz (–16 dB) 37 Hz to 180 Hz (–10 dB)
Dimensions (W×H×D)	153 mm×415 mm×257 mm
Mass	3.6 kg

GENERAL

Power supply	PT465 AC 110 to 127 V/220 to 240 V, 50/60 Hz
	PT460 AC 230 to 240 V, 50 Hz
Power consumption	Main unit 135 W
Dimensions (W×H×D)	430 mm×63 mm×327 mm
Mass	Main unit 3.4 kg
Operating temperature range	0 °C to +40 °C
Operating humidity range	35 % to 80 % RH (no condensation)

Power consumption in standby mode	approx. 0.4 W
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^{≠8} Rating with low-cut filter equipped amplifier

Note

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

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

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

U.S. Patent Nos. 6,836,549; 6,381,747; 7,050,698; 6,516,132; and 5,583,936.

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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.

This product is licensed under the MPEG-4 Visual patent portfolio license for the personal and non-commercial use of a consumer for (i) encoding video in compliance with the MPEG-4 Visual Standard ("MPEG-4 Video") and/or (ii) decoding MPEG-4 Video that was encoded by a consumer engaged in a personal and non-commercial activity and/or was obtained from a video provider licensed by MPEG LA to provide MPEG-4 Video. No license is granted or shall be implied for any other use. Additional information including that relating to promotional, internal and commercial uses and licensing may be obtained from MPEG LA, LLC. See <http://www.mpegla.com>.

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MEMO



Matsushita Electric Industrial Co., Ltd.

Web Site: <http://panasonic.net>

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