

Owner's Manual Home Theater Audio System

Model No. SC-HTB520



Dear customer

Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully.

Please keep this manual for future reference.

Included Installation Instructions (⇒ 10 to 14)

The installation work should be done by a qualified installation specialist.

Before commencing work, carefully read these installation instructions and the operating instructions to ensure that installation is performed correctly.

(Please keep these instructions. You may need them when maintaining or moving this unit.)

If you have any questions contact

For U.S.A. and Puerto Rico: 1-800-211-PANA (7262)

For Canada: 1-800-561-5505

For U.S.A. and Puerto Rico: The warranty can be found on page 25.

For Canada: The warranty can be found on page 27.

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.

Button-type battery (Lithium battery)

- Insert with poles aligned.
- Do not touch the terminals (+ and –) with metal objects.
- Do not recharge, disassemble, remodel, heat or throw into fire.
- Keep out of reach of children

If any electrolyte should come into contact with your hands or clothes, wash it off thoroughly with water.

If any electrolyte should come into contact with your eyes, never rub the eyes. Rinse eyes thoroughly with water, and then consult a doctor.

Warning

Risk of fire, explosion and burns. Do not disassemble, heat above **60 °C (140 °F)** or incinerate.

The unit should be installed near an accessible AC power outlet, with the power cord connected directly to it.

To completely disconnect power from the unit, unplug the power cord from the AC power outlet.

<For USA-California only>

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material — special handling may apply.

See www.dtsc.ca.gov/hazardouswaste/perchlorate.



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



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



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



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

IMPORTANT SAFETY INSTRUCTIONS

Read these operating instructions carefully before using the unit. Follow the safety instructions on the unit and the applicable safety instructions listed below. Keep these operating instructions handy for future reference.

- 1 Read these instructions.
- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other.
A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience

- receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12 Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Precautions

The model number and serial number of this product can be found on either the back or the bottom of the unit.
Please note them in the space provided below and keep for future reference.

MODEL NUMBER SC-HTB520

SERIAL NUMBER

User memo:

DATE OF PURCHASE

DEALER NAME

DEALER ADDRESS


TELEPHONE NUMBER

THE FOLLOWING APPLIES ONLY IN CANADA.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

-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.

Licenses

Manufactured under license from Dolby Laboratories. Dolby, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories.
Manufactured under license under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,487,535 & other U.S. and worldwide patents issued & pending. DTS and the Symbol are registered trademarks & DTS Digital Surround and the DTS logos are trademarks of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved.
HDMI, the HDMI Logo, and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC in the United States and other countries.
HDAVI Control™ is a trademark of Panasonic Corporation.
VIERA Link™ is a trademark of Panasonic Corporation.
EZ Sync™ is a trademark of Panasonic Corporation.
"x.v.Color" is a trademark.

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Reference





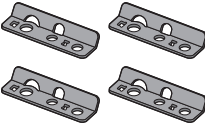



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- Before connecting, operating or adjusting this product, please read the instructions completely.
- The illustrations shown may differ from your unit.
- Operations in these instructions are described mainly with the remote control, but you can perform the operations on this unit if the controls are the same.

System	SC-HTB520
This unit	SU-HTB520
Active subwoofer (With digital transmitter)	SB-HWA520

Accessories

Check the supplied accessories before using this unit.

<input type="checkbox"/> 1 Remote control (Built-in battery) (N2QAYC000043) 	<input type="checkbox"/> 2 AC power supply cord (K2CB2CB00021) 	<input type="checkbox"/> 1 Digital transmitter  <ul style="list-style-type: none">• Supplied with the active subwoofer.
<input type="checkbox"/> 4 Screws (With washer×2: XYN5+J14FJK) (Without washer×2: XSN4+8FJK) 	<input type="checkbox"/> 4 Safety holders (RFA3321-K) 	<input type="checkbox"/> 2 Wall mount brackets (RMQX1082-K) 
<input type="checkbox"/> 2 Stands (RYQ0853-K) 	<input type="checkbox"/> 2 Rear Pads (RMG0850-K) 	(ONLY FOR CANADA) The enclosed French Canadian label sheet corresponds to the English display on the remote control and the top and rear of the unit.



- Product numbers correct as of January 2011. These may be subject to change.
- Only for U.S.A. and Puerto Rico:
To order accessories, refer to "Accessory Purchases (United States and Puerto Rico)" on page 26.
- For Canada: To order accessories, call the dealer from whom you made your purchase.
- The supplied AC power supply cord is for use with this unit and the active subwoofer only.
Do not use it with other equipment. Also, do not use cords for other equipment with this unit or the active subwoofer.

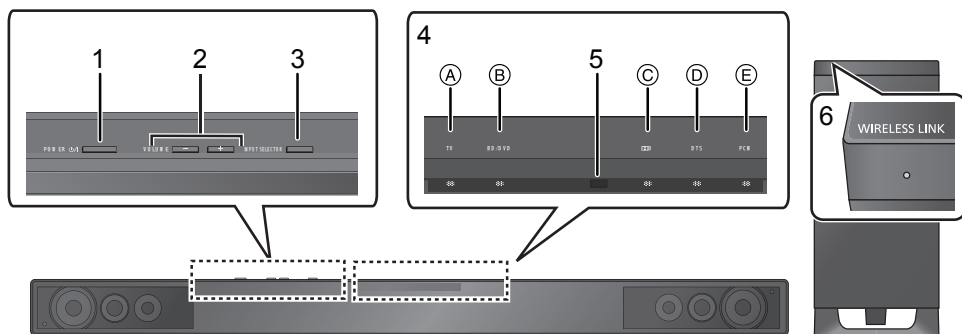
Unit care


■ Clean this unit with a soft, dry cloth

- When dirt is heavy, wring a cloth moistened in water tightly to wipe the dirt, and then wipe it with a dry cloth.
- When cleaning this unit, use a fine cloth. Do not use tissues or other materials (towels, etc.) that can fall apart. Small grains may get stuck inside the speaker cover.
- 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.

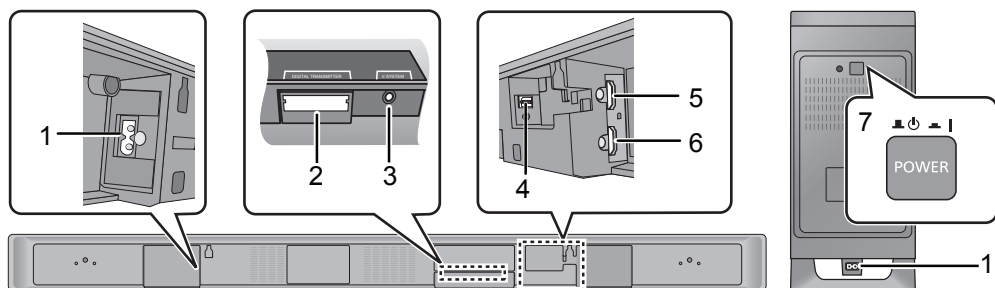
Control reference guide

This unit and active subwoofer (Front)



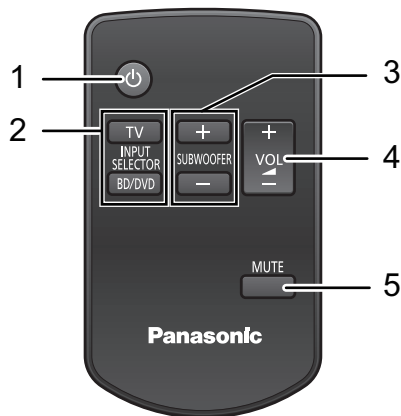
- 1 **Standby/on switch (POWER )**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- 2 Adjust the Volume of this unit
- 3 Select the source
"TV" ↔ "BD/DVD"
 - **TV:** When the TV is the audio source (A lights in green)
 - **BD/DVD:** When the device connected to the HDMI AV IN terminal is the audio source (B lights in amber)
- 4 LED status indicators (⇒ 18)
 - A TV indicator
 - B BD/DVD indicator
 - C Dolby Digital indicator
 - D DTS indicator
 - E PCM or LPCM indicator
- 5 Remote control signal sensor
Remote control operation range
 Distance:
 Within approx. 7 m (23 ft.) directly in front
 Angle:
 Approx. 30° left and right
- 6 WIRELESS LINK indicator (⇒ 17)

This unit and active subwoofer (Rear)



- 1 AC IN terminal (⇒ 17)
- 2 Digital transmitter dock (⇒ 16)
- 3 Ir SYSTEM terminal
(Only for use with the optional IR Blaster. (⇒ 8))
- 4 OPTICAL DIGITAL AUDIO IN terminal (⇒ 15)
- 5 HDMI AV OUT terminal (ARC compatible) (⇒ 15)
- 6 HDMI AV IN terminal (⇒ 16)
- 7 Active subwoofer on/off button

Remote control

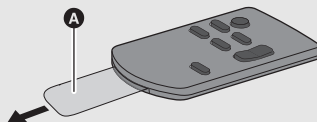


- 1 Turn this unit on or off (⇒ 18)
- 2 Select the source (⇒ 18)
 - [TV]: Select the TV as the source
 - [BD/DVD]: Select the device connected to the HDMI AV IN terminal as the source
- 3 Adjust the output level of the active subwoofer (⇒ 18)
- 4 Adjust the volume of this unit (⇒ 18)
- 5 Mute the sound (⇒ 18)

CAUTION

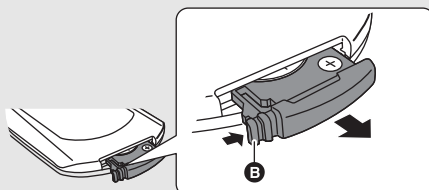
Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Remove the insulation sheet **A** before using.

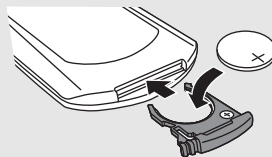


■ To replace a button-type battery

- ① While pressing the stopper **B**, pull out the battery holder.



- ② Set the button-type battery with its (+) mark facing upward and then put the battery holder back in place.



- When the button-type battery runs down, replace it with a new battery (part number: CR2025). The battery should normally last about 1 year, however, this depends on how frequently the unit is used.
- Keep the button-type battery out of reach of children to prevent swallowing.
- 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 1 Placement

Caution

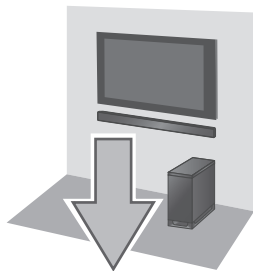


- This unit and the active subwoofer are to be used only as indicated in these instructions. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in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

This unit

E.g.

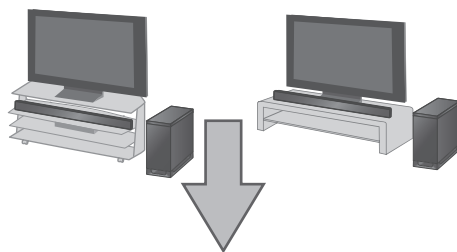
On the wall



Page 10

Refer to "When placing the unit on a wall"

In a rack or on a table



Page 13

Refer to "When placing the unit in a rack or on a table"

■ When placing the unit in front of the TV.

This unit may block or interfere with the TV's various sensors (C.A.T.S.(Contrast Automatic Tracking System) sensor, remote control sensor, etc.) and the 3D Eyewear transmitters on a 3D compatible TV. Depending on how this unit is placed, this unit might block the TV's remote control signal sensor.

If the stands are being used

- Change the height of the stands and/or move this unit farther away from the TV. If the TV still does not function correctly, try removing the stands.

If the stands are not used

- Move this unit farther away from the TV. If the TV still does not function correctly, try using it in a rack or in the wall mount position.



- If irregular coloring occurs on your TV, turn the TV off for about 30 minutes. If it persists, move this unit further away from the TV.
- Do not use this unit in a metal cabinet.

■ If the TV's remote control sensor is blocked by this unit.

Try using the TV's remote control from a different angle. If the problem persists, you can use the optional Panasonic IR Blaster (SH-WR10) to relay the signal to the TV.

- The optional Panasonic IR Blaster (SH-WR10) is only compatible with Panasonic TVs.

Purchase SH-WR10 (Accessory IR Blaster) at selected dealers or online by visiting our website at:

<http://www.panasonic.com>

or in Canada: <http://www.panasonic.ca>

For details, please refer to the operating instructions for the optional Panasonic IR Blaster.

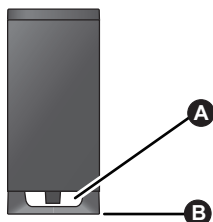
- Do not use the IR Blaster if the TV's remote control sensor is not blocked by this unit.

The active subwoofer

Place the active subwoofer approx. 30 cm (11¹³/₁₆") away from the TV.

- If the TV is Wifi compatible, place the active subwoofer approx. 2 m (6¹/₂ ft) away from the TV.

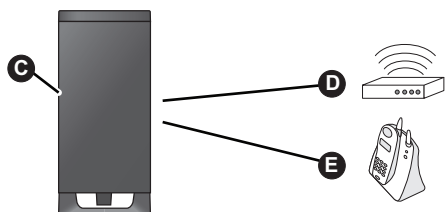
■ When carrying the active subwoofer



- A Do not hold the active subwoofer from this opening.**
The parts inside (speaker system) may be damaged.
- B Always hold the bottom of the active subwoofer when moving it.**

■ Distance with other devices

To avoid interference, maintain the following distances between the active subwoofer and other electronic devices that use the same radio frequency (2.4 GHz band).



- C Active subwoofer**
- D Wireless LAN: approx. 2 m (6¹/₂ ft)**
- E Cordless phone and other electronic devices: approx. 2 m (6¹/₂ ft)**



- Place the active subwoofer within a few meters of this unit, and in a horizontal position with the top panel faced upward.
- To allow for proper ventilation and to maintain good airflow around the active subwoofer, position it with at least 5 cm (2") of space on all sides.
- Do not use the active subwoofer in a metal cabinet.
- Placing the active subwoofer too close to the walls, and corners can result in excessive bass. Cover walls and windows with thick curtains.

When placing the unit on a wall

Safety Precautions

Professional installation is required.

The installation should never be done by any other than a qualified installation specialist.

PANASONIC DISCLAIMS ANY PROPERTY DAMAGE AND/OR SERIOUS INJURY, INCLUDING DEATH RESULTING FROM IMPROPER INSTALLATION OR INCORRECT HANDLING.

- **Be sure to install this unit as indicated within this Owner's Manual.**

WARNING

Ensure that the installation location is strong enough to support long-term use.

- If its strength becomes insufficient over the course of long-term use, the unit may drop, possibly causing injury.

The installation work should be done by a qualified installation specialist.

- Incorrect installation may cause equipment to fall, and personal injury may result.

Include a safety factor when considering the strength of the proposed installation location.

- If strength is not sufficient the equipment may fall, and personal injury may result.

Do not install in a location that cannot bear the load.

- If the installation location lacks sufficient strength, the equipment may fall.

Do not modify the wall mount brackets.

- Otherwise the unit may fall and become damaged, and personal injury may result.

Install the unit by taking only the steps which are specified in these instructions: Do not install it in any other way.

- Otherwise the unit may drop and become damaged, and personal injury may result.

Do not install in a location other than a vertical wall.

- Otherwise the unit may drop and become damaged, and personal injury may result.

CAUTION

Do not install in any locations subject to humidity, dust, smoke, steam or heat or under an air conditioner where water may drip onto the unit.

- This may have an adverse effect on the unit and cause fire or electric shock.

Leave a clearance between the rear panel and the wall.

- The unit has air ventilation holes at the front and rear. Covering these may result in a fire.

Install the mounting screws and power cable in such a way that they will not make contact with metal objects or wiring inside the wall.

- Electric shocks may result from contact with any metal objects inside the wall.

For installation, use the special-purpose constituent parts.

- Otherwise, the unit may fall off the wall, and personal injury may result.

When removing this unit, remove the wall mounting screws as well.

- Otherwise the mounting screws may get caught and personal injury may result.

To operate this unit safely, install it at an appropriate height.

- Otherwise the unit may fall, and personal injury may result.

Preparation

Commercially available components (not supplied)

- Screws for wall mounting × 6
 - Use commercially available screws with a nominal diameter of 4.0 mm ($\frac{9}{32}$ ") that are suited to the wall material (wood, steel frame, concrete etc.) you are attaching the wall mount brackets to.
- Fall prevention cord × 2
- Screw eyes (to attach the fall prevention cord) × 2
- To prevent damage or scratches, lay down a soft cloth and perform the assembly on it.
- Take sufficient care to ensure safety around you when performing the assembly and installation work or while moving about during the course of the work.
- Attach using techniques suited to the structure and materials of the installation location.
- Ensure that there are no electrical cables or pipes in the wall before hanging this unit.



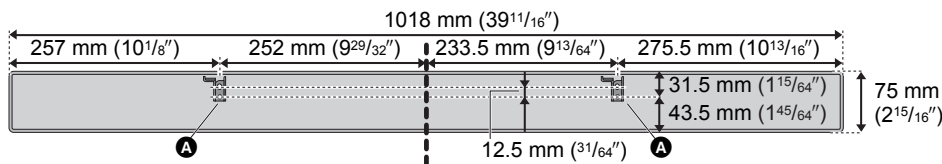
- To ensure correct unit performance and prevent trouble, do not install at any of the following locations:
 - Near sprinklers or fire/smoke detectors
 - Where there is a risk of exposure to vibration or impact
 - Near high-voltage wires or dynamic power supplies
 - Near sources of magnetism, heat, water vapour or soot
 - Locations exposed to air blown from heating equipment

- Where droplets of condensation from an air conditioner or another unit may form.

- Do not hold this unit in one hand to avoid injury by dropping this unit when carrying.
- When screwing down the parts, ensure that the screws are neither insufficiently tightened nor over tightened.
- Improper attachment may result in damage to the wall and this unit.

1 Use the measurements indicated below to identify the screwing positions on the wall.

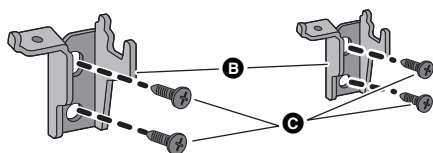
- Position the unit with at least 50 mm (2") of space above the unit. If not, it may not be possible to access the buttons on this unit.



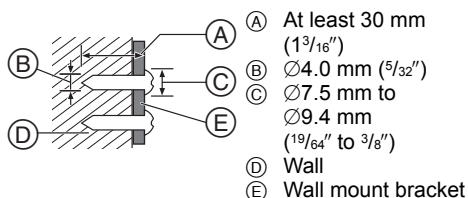
- A** Wall mount bracket

2 Attach the wall mount brackets to the wall.

- The position in the wall where the screw is to be attached as well as the screw should be capable of supporting over 33 kg (72.8 lbs).
- Be sure to use a spirit level to ensure that both screwing positions are horizontal to each other.
- Keep the screws out of reach of children to prevent swallowing.
- Keep the wall mount brackets out of reach of children to prevent swallowing.



- B** Wall mount bracket (supplied)
- C** Screws (not supplied)

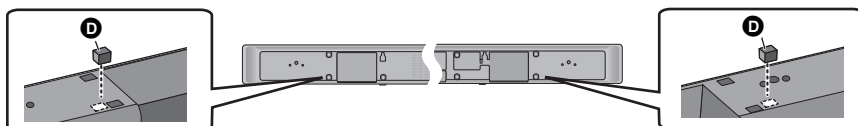


3 Complete all the necessary connections to this unit. (⇒ 15 to 17)

- Connect the AC power supply cord to this unit, but do not connect it to the household AC outlet until the installation is completed.

4 Attach the rear pads to the rear of the unit.

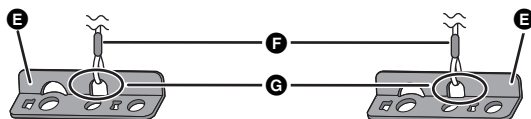
- Keep the rear pads out of reach of children to prevent swallowing.



- D** Rear pads (supplied)

5 Attach a cord (not supplied) to 2 safety holders.

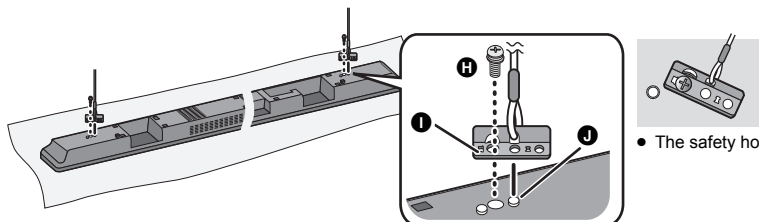
- Use a cord which is capable of supporting over 33 kg (72.8 lbs).
- Keep the safety holders out of reach of children to prevent swallowing.



- E** Safety holder (supplied)
- F** Cord (not supplied)
- G** Thread a cord through the holes. Refer to the Owner's Manual of the cord for details.

6 Adjust the safety holder with the cord attached (⇒ 11), to fit the projecting parts and screw the safety holder firmly into place.

- Screw tightening torque: 80 N•cm (17.98 lbf-ft) to 120 N•cm (26.98 lbf-ft).
- The safety holder is to minimize the possibility of damage and harm, but it does not guarantee this effect.
- Keep the safety holders out of reach of children to prevent swallowing.
- Keep the screws out of reach of children to prevent swallowing.

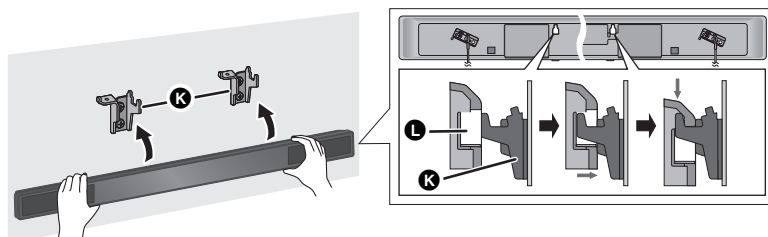


- The safety holder is placed diagonally.

- H** Screw with washer (supplied)
I Safety holder (supplied)

J Projecting part

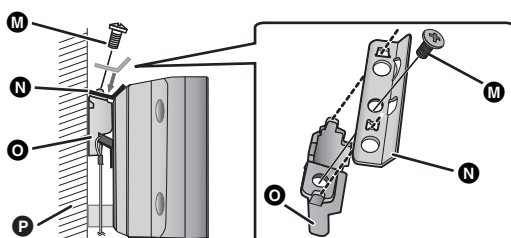
7 Attach this unit to the wall mount bracket.



- K** Wall mount bracket (supplied)
L Wall mount holder

8 Screw the safety holder onto the wall mount brackets.

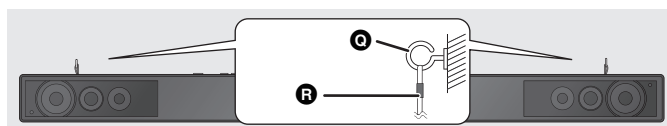
- Screw tightening torque: 80 N•cm (17.98 lbf-ft) to 120 N•cm (26.98 lbf-ft).
- The safety holders are designed to prevent the unit from falling off the wall mount bracket.
- Keep the screws out of reach of children to prevent swallowing.
- Keep the safety holders out of reach of children to prevent swallowing.



- M** Screw without washer (supplied)
N Safety holder (supplied)
O Wall mount bracket (supplied)
P Wall

9 Attach the cord to a wall with a screw (not supplied).

- Make sure that the slack is minimal.
- Keep the screws out of reach of children to prevent swallowing.
- Check the strength of the installation location. The position in the wall where the screw is to be attached should be capable of supporting over 33 kg (72.8 lbs). If the strength at any of these positions is lacking, provide sufficient reinforcement.



- Q** Screw eye (not supplied)
R Cord (not supplied)

When placing the unit in a rack or on a table

Follow the safety measure to prevent the unit from falling.

The installation should never be done by any other than a qualified installation specialist.

Preparation

Commercially available components (not supplied)

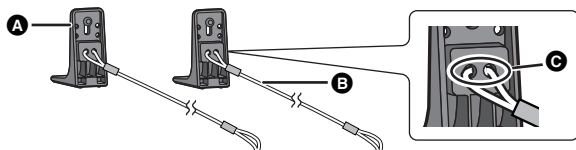
- Fall prevention cord × 2
- Screws to attach fall prevention cord to wall × 2
- To prevent damage or scratches, lay down a soft cloth and perform the assembly on it.



- Do not hold this unit in one hand to avoid injury by dropping this unit when carrying.

When the supplied leg stands are used

1 Attach a cord (not supplied) to the stand.

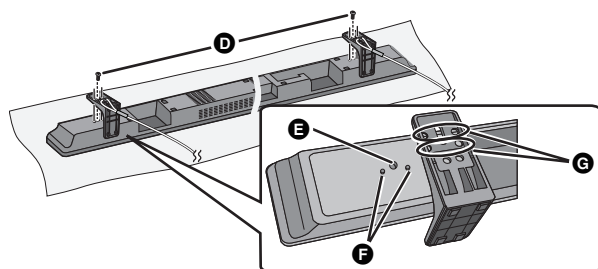


- **A** Stand (supplied)
- **B** Cord (not supplied)
- **C** Thread a cord through the holes.

Refer to the Owner's Manual of the cord for details.

2 Place the stand by aligning the holes in the stand with the projecting parts **F**.

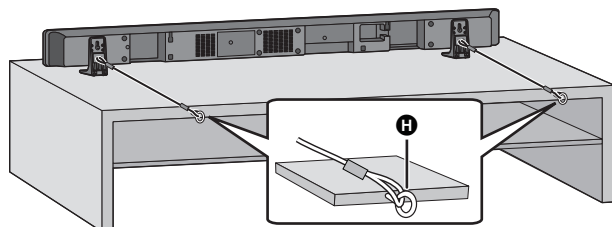
- Screw tightening torque: 80 N·cm (17.98 lbf-ft) to 120 N·cm (26.98 lbf-ft).
- Keep the screws out of reach of children to prevent swallowing.



- **D** Screw with washer (supplied)
- **E** Screw hole
- **F** Projecting part
- **G** Height adjustment holes
 - By changing the position that the stand is attached to the projecting parts, the height can be adjusted by 10 mm ($13/32$ ").

3 Place the unit in the desired position and attach each cord onto the rack or table.

- Make sure that the slack is minimal.
- Keep the screws out of reach of children to prevent swallowing.

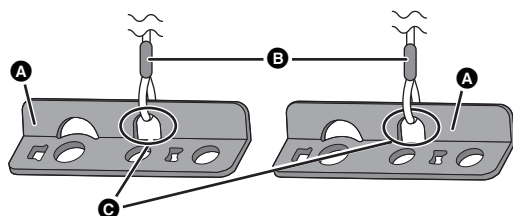


- **H** Screw eye (not supplied)
 - Depending on the placement of the unit, the screwing position of the screw eye may differ.

When the supplied leg stands are not used

1 Attach a cord (not supplied) to 2 safety holders.

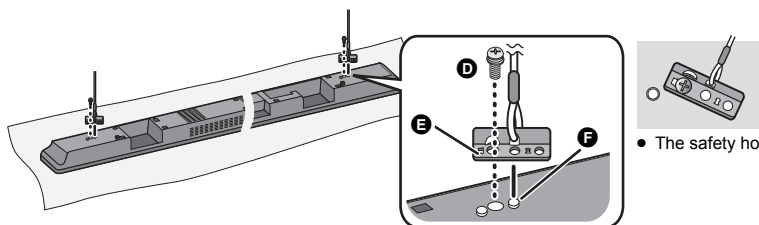
- Keep the safety holders out of reach of children to prevent swallowing.
- Keep the remaining 2 safety holders for later use.



- A** Safety holder (supplied)
- B** Cord (not supplied)
- C** Thread a cord through the holes. Refer to the Owner's Manual of the cord for details.

2 Adjust the safety holder with the cord attached (⇒ above), to fit the projecting parts and screw the safety holder firmly into place.

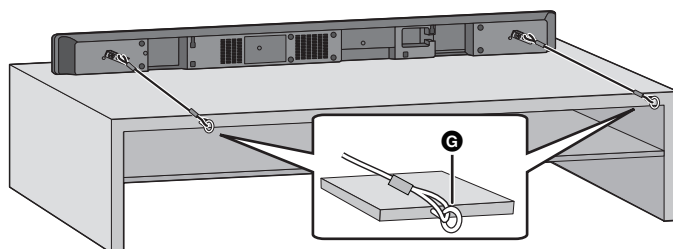
- Screw tightening torque: 80 N•cm (17.98 lbf-ft) to 120 N•cm (26.98 lbf-ft).
- The safety holder is to minimize the possibility of damage and harm, but it does not guarantee this effect.
- Keep the safety holders out of reach of children to prevent swallowing.
- Keep the screws out of reach of children to prevent swallowing.



- D** Screw with washer (supplied)
- E** Safety holder (supplied)
- F** Projecting part

3 Place the unit in the desired position and attach each cord onto the rack or table.

- Make sure that the slack is minimal.
- Keep the screws out of reach of children to prevent swallowing.



- G** Screw eye (not supplied)
 - Attach at a position capable of supporting over 33 kg (72.8 lbs).
 - Depending on the placement of the unit, the screwing position of the screw eye may differ.

Step 2 Connections

- Turn off all equipment before connection and read the appropriate Owner's Manuals.
- Do not connect the AC power supply cord until all other connections are complete.**

■ HDMI

The HDMI connection supports VIERA Link "HDAVI Control" (⇒ 20) when used with a compatible Panasonic TV.

- Use High Speed HDMI Cables that have the HDMI logo (as shown on the back cover). It is recommended that you use Panasonic's HDMI cable.

Recommended part number:

RP-CDHS15 (1.5 m/4.9 ft), RP-CDHS30 (3.0 m/ 9.8 ft), RP-CDHS50 (5.0 m/16.4 ft), etc.

- Non-HDMI-compliant cables cannot be utilized.

Connection to a TV

■ Verify if the TV's HDMI terminal is labeled "HDMI (ARC)".

The connection method will differ when the terminal is labeled "HDMI (ARC)" and when it is not.

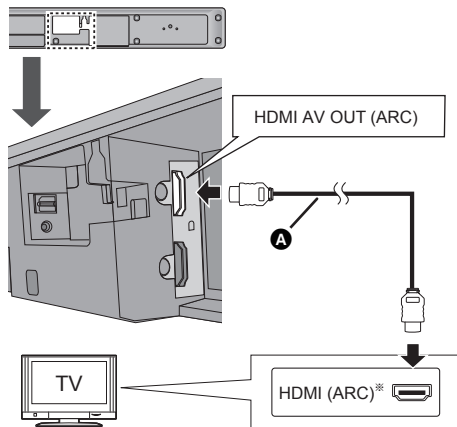
Labeled "HDMI (ARC)": Method ①

Not labeled "HDMI (ARC)": Method ②

■ What is ARC?

ARC is an abbreviation of Audio Return Channel, also known as HDMI ARC. It refers to one of the HDMI functions. When you connect the unit to the terminal labeled "HDMI (ARC)", the optical digital audio cable that is usually required in order to listen to sound from a TV is no longer required, and TV pictures and sound can be enjoyed with a single HDMI cable.

① Labeled "HDMI (ARC)"



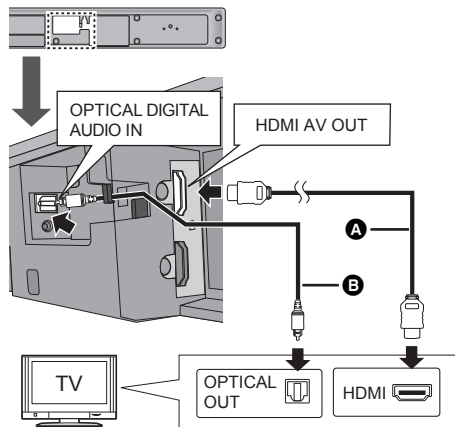
① HDMI cable (not supplied)

* Be sure to connect to the TV's ARC compatible terminal. (Refer to the Owner's Manual for the TV.)



- If the connected TV is ARC compatible, but audio is not output to this unit, connect using the optical digital audio cable. (⇒ right, "② Not labeled "HDMI (ARC)"")

② Not labeled "HDMI (ARC)"



② HDMI cable (not supplied)

② Optical digital audio cable (not supplied)

- Be sure to place the cable under the projecting part.



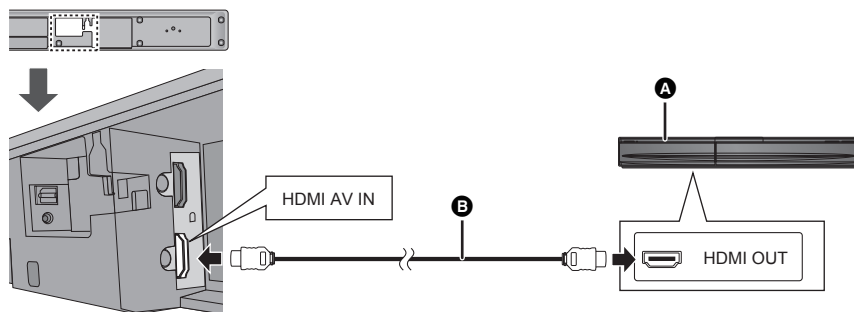
- The optical digital audio cable connection is needed when the HDMI cable is connected to a terminal that is not labeled "HDMI (ARC)".

Connection from an HDMI compatible device

You can output the audio signal from the connected HDMI compatible Blu-ray player, DVD player, etc. with this unit and pass the signal through to your TV.

Preparation

- Connect this unit to the TV. (⇒ 15)



A E.g., Blu-ray Disc Player

B HDMI cable (not supplied)



- Refer to the Owner's Manual of the connected HDMI compatible device for the necessary setting, to output the video and audio signals.

■ 3D compatibility

Compatible with FULL HD 3D TV and Blu-ray Player

- This unit can pass through the 3D signal from a 3D compatible Blu-ray Player to a FULL HD 3D TV.

■ x.v.Color™ compatibility

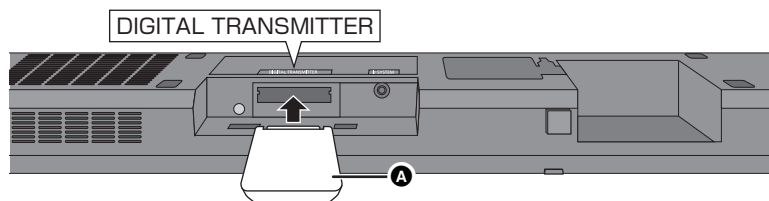
You can enjoy vivid color of a wider color ranges for a more realistic picture when this unit is connected to a player and TV that support x.v.Color™ with an HDMI cable.

■ Deep Color compatibility

When this unit is connected to a compatible player, this unit can pass through the reproduced greater color gradation (4096 steps) when connected to a compatible TV. You can enjoy exceptionally rich, natural-looking colors, with smooth, detailed gradation and minimal color banding.

Digital transmitter connection

Do not insert or remove while this unit is on.



A Digital transmitter (supplied)

Insert the digital transmitter, with the label facing down, until you hear a click.

Getting started

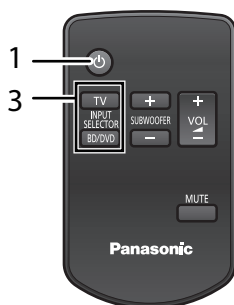
-

- This unit will automatically turn to standby mode after 30 minutes if it is inactive.

Using this unit

Preparation

- Turn on the TV.

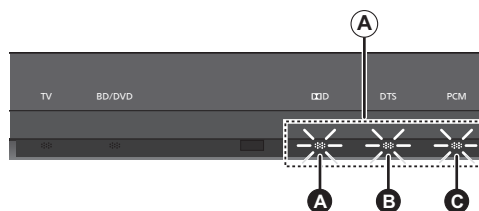


- 1 Press [POWER] to turn on this unit.**
- 2 Press [TV/BD/DVD] or [POWER] on the active subwoofer to turn it on.**
 - Make sure the wireless link indicator lights green. (⇒ 17)
- 3 Press [TV] or [BD/DVD] to select the audio source. (⇒ 6)**
 - If you have selected [BD/DVD], make sure to select the TV's input channel for this unit and start the playback.



- If there is sound coming out of the TV's speakers, reduce the volume of the TV to its minimum.
- The maximum volume of the TV and this unit may be different.
- If this unit is turned off with the volume setting in the greater half (above 50), this unit will automatically lower the volume to the middle (50) when the unit is turned on. (Refer to page 22 to turn this function off.)
- Even if this unit is turned off or the TV is selected as the input source, this unit will continue to output audio or/and video from the device connected to the HDMI AV IN terminal through the HDMI AV OUT terminal.
- The volume or the subwoofer level of this unit is not displayed. The volume may be displayed on the TV if this unit is connected to a Panasonic TV capable of displaying this unit's volume setting. (⇒ 20)

If this unit does not operate as expected, return the settings to the factory preset. (⇒ 21)



To adjust the volume/ subwoofer level

Press [+ VOL -] to adjust the volume of the speakers.

- Volume range: 1 to 100

Press [+ SUBWOOFER -] to adjust the subwoofer level.

- Subwoofer levels: 1 to 4
- Ⓐ The indicators blink from left to right (+) or from right to left (-).
- The indicators will not blink when it has reached the maximum or minimum.

To mute the sound

Press [MUTE].

- Ⓐ The indicators blink simultaneously while muting.
- To cancel, press the button again or adjust the volume.
- Muting is canceled if this unit is turned off.

Audio format indicator

To display the current audio format,
Press the button for the current audio source ([TV] or [BD/DVD]).

- The current audio format is indicated for 4 sec.
- Ⓐ Lights when Dolby Digital is the audio format
- Ⓑ Lights when DTS is the audio format
- Ⓒ Lights when PCM or LPCM is the audio format



- The audio format status is also indicated for 4 sec if the audio format on the selected source (TV, Blu-ray Disc/DVD Player, etc.) is changed.

3D sound

This unit provides a feeling that the sound and the image are as one.

■ 3D Surround

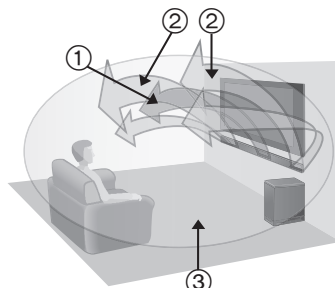
Even though there are no surround speakers, a surround effect is obtained by the use of Dolby Virtual Speaker. Adding to this effect, Panasonic has applied its own sound field controlling technology to expand the sound field forwards, backwards, upwards and downwards providing a sound with depth and force that better matches 3D images.

■ Clear-mode Dialog

Sports commentary and dialogs from TV dramas are heard as if the sound is coming from the TV, giving the feeling that the sound and the image is as one.

Also, the dialog will stand out from the other sounds during normal volume playback and when the volume is lowered for night time viewing.

E.g., Image of 3D sound



- ① A clear dialog
- ② The sound and the image are as one
- ③ The feeling of being surrounded by the sound field

Playback modes

With this setting it is possible to choose between listening to the audio in 2 ch mode or with a surround effect.

The surround effect can be added to 2 ch audio source as well as multi-channel sources.

Playback mode	Audio source	Surround effect
Surround output mode A *1	2 ch/Multi-channel	○
Auto output mode B *2	2 ch	—
	Multi-channel	○
2 ch output mode C	2 ch/Multi-channel	—

*1 A surround effect is added when the audio source is multi-channel audio.

*2 The surround output mode indicator also blinks when the audio source is multi-channel during Auto Output Mode.

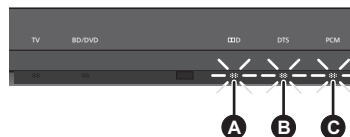
■ To change the playback mode

1 Press and hold [MUTE] for more than 2 sec.

- The indicator for the current setting blinks for 10 sec.

2 While the indicator is blinking, press [MUTE] again to change the setting.

- The setting changes each time [MUTE] is pressed.



It is possible to turn off the 3D sound and only use the Dolby Virtual Speaker effect.

1 Press and hold [TV] for more than 2 sec.

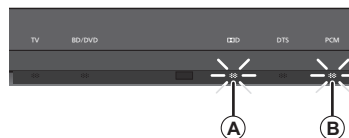
- The indicator for the current setting blinks for 10 sec.

(A): 3D sound is "On"

(B): 3D sound is "Off"

2 While the indicator is blinking press [TV] to change the setting.

- The setting changes each time [TV] is pressed.
- The setting will be reset to "On" when this unit is turned off.



- When using the optical digital audio cable, the surround effect and Dolby Virtual Speaker will be automatically canceled if the audio signal's sampling frequency is greater than 48 kHz.

Linked operations with the TV

(VIERA Link™ “HDAVI Control™”)

What is VIERA Link “HDAVI Control”?

VIERA Link™ is a new name for EZ Sync™. 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 an HDMI cable. See the Owner's Manual for connected equipment for operational details.

Preparation

- ① Confirm that the HDMI connection has been made. (⇒ 15, 16)
- ② Set the “HDAVI Control” operations on the connected equipment (e.g., TV).
- ③ For the optimal “HDAVI Control” operations change the following settings on the connected TV*1.
 - Set the default speaker settings to this unit.*2
 - Set the speaker selection settings to this unit.
- ④ Turn on all “HDAVI Control” compatible equipment and select this unit's input channel on the connected TV so that the “HDAVI Control” function works properly.
- ⑤ If a device is connected to the HDMI AV IN terminal, start play to check that the image is displayed correctly.

When the connection or settings are changed, repeat this procedure.

※1 The availability and function of the settings may vary depending on the TV. Refer to the Owner's Manual for the TV for details.

※2 If the TV has a default speaker setting within the VIERA Link setting items, choosing this unit as the default speaker will automatically change the speaker selection to this unit.



- 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 5” function. “HDAVI Control 5” is the newest standard (current as of December, 2010) 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.
- Be sure to set the digital audio output settings to be compatible with this unit. (⇒ 23)

What you can do with “HDAVI Control”

- To make sure that the audio is output from this unit's speakers, select “Home theater” using the TV's remote control to turn this unit on.
- The availability and function of the settings may vary depending on the TV. Refer to the Owner's Manual for the TV for details.

■ Speaker control

You can select whether audio output is from this unit or the TV speakers by using the TV menu settings.

Home theater

This unit's speakers are active.

- When this unit is in standby mode, changing the TV speakers to this unit in the TV menu will automatically turn this unit on and select “TV” as the source.
- You can control the volume setting using the Volume or Mute button on the TV remote control.
- 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 its minimum.



- If the TV is compatible to VIERA Link “HDAVI Control 4 or later” the audio will automatically be output from this unit.

■ Automatic input switching

When the following operations are performed, this unit will automatically turn on* and change the input channel to the corresponding source.

- When play starts on an HDMI connected device.
- When the input channel on the TV is changed.

※ Only when speaker output is set to this unit.



- If “Power off link” is activated on the TV, this unit will turn off when the TV is turned off.

■ Automatic lip-sync function

(for HDAVI Control 3 or later)

Delay between audio and video is automatically adjusted, enabling you to enjoy smooth audio for the picture.




- The delay information is automatically set if the TV is compatible to VIERA Link “HDAVI Control 3 or later” and the VIERA Link is set to “On”. When the delay information cannot be retrieved, the audio delay is set to 40 ms.

Troubleshooting

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 following guide do not solve the problem, refer to "Customer Services Directory (United States and Puerto Rico)" on page 26 if you reside in the U.S.A. or Puerto Rico, or refer to "WARRANTY SERVICE" on page 27 if you reside in Canada.

To return to the factory preset.

While this unit is on, press [POWER /I] on this unit for more than 4 sec.

(All the indicators will blink twice when the unit is reset.)

If this unit does not operate as expected, return the settings to the factory preset.

General operation

No power.

- Insert the AC power supply cord securely. (⇒ 17)
- After turning this unit on, if the indicators blink and this unit immediately turns off, unplug the AC power supply cord and consult your dealer.

The remote control does not work properly.

- The battery is depleted. Replace it with a new one. (⇒ 7)
- It is possible that the insulation sheet has not been removed. Remove the insulation sheet. (⇒ 7)
- It may be necessary to set the code of the remote control again after changing the battery of the remote control. (⇒ 23)

The "TV" indicator blinks, but there is no sound.

Remove the AC power supply cord and consult your dealer. If there are any other indicators blinking, be sure to inform the blinking indicators to your dealer.

The D, DTS, PCM indicators blink for 10 sec and then turn off.

- Are you changing the playback mode settings? (⇒ 19)
- Are you changing the 3D sound settings? (⇒ 19)
- Are you changing the audio output settings? (⇒ 22)

The unit is automatically switched to standby mode.

This unit will automatically turn to standby mode after 30 minutes if it is inactive. (⇒ 17)

Power of this unit is turned off when the input for the TV is changed.

This is a normal feature when using VIERA Link (HDAVI Control 4 or later). For details please read the Owner's Manual for the TV.

HDMI

This unit does not operate correctly.

If the HDMI cable is connected to the wrong terminal (HDMI AV IN or HDMI AV OUT), this unit will not operate correctly. Turn this unit off, disconnect the AC power supply cord and reconnect the HDMI cable(s). (⇒ 15, 16)

VIERA Link related operations no longer function properly.

- Check the "VIERA Link" setting on the connected devices.
- Have you turned the VIERA Link settings off?
- When the HDMI connections are changed, after a power failure or after the AC power supply cord has been removed, VIERA Link operations may not function properly.
 - Turn on all the devices that are connected to the TV with an HDMI cable and then turn the TV on.
 - Turn off the VIERA Link settings and turn it on again. For details refer to the Owner's Manual for the TV.
 - While this unit and the TV are connected with the HDMI cable, turn on the TV and then remove this unit's AC power supply cord and reconnect it again.

The first few seconds of audio cannot be heard when using the HDMI connection.

This may occur during DVD-Video chapter playback. Change the digital audio output setting on the connected device from "Bitstream" to "PCM".

If operations become unstable when connected to a non-Panasonic HDMI compatible device, connect using an optical digital audio cable. (⇒ 15)

Turn VIERA Link off.

- ① Press and hold [MUTE] on the remote control and [VOLUME -] on this unit for more than 2 sec.
- The setting is changed when the **D**, DTS and PCM indicators blink.
- ② After the setting has changed, turn off and then on all the connected devices.
- To reset the setting, return to the factory preset. (⇒ 21)
- When VIERA Link is turned off the ARC function is not available. Be sure to connect the optical digital audio cable. (⇒ 15)

Sound

No sound (or image).

- Turn muting off. (⇒ 18)
- Check the connections to the other devices. (⇒ 15, 16)
- Make sure that the received audio signal is compatible with this unit. (⇒ 23)
- Turn this unit off and then on again.
- If this unit is connected to the TV with an HDMI cable. Make sure that the TV's HDMI terminal is labeled "HDMI (ARC)". If not, connect using the optical digital audio cable. (⇒ 15)
- If this unit is connected to a Panasonic TV and this unit is turned on using the button on this unit or the remote control, sound might not be output from this unit's speakers. In this case, turn this unit on using the TV's remote control. (⇒ 20)
- If the connections are correct, there might be a problem with the cables. Reconnect the unit with different cables.
- Check the audio output settings on the connected device.
- When the **D**, DTS and PCM indicators blink and there is no audio output from this unit, turn the unit off, remove the AC power supply cord and consult your dealer.
- If the BD/DVD indicator flashes and there is no audio output, try the following.
 - ① Turn the connected device off and then on.
 - ② Turn off this unit, remove the HDMI cable, then reconnect the HDMI cable and turn this unit back on.

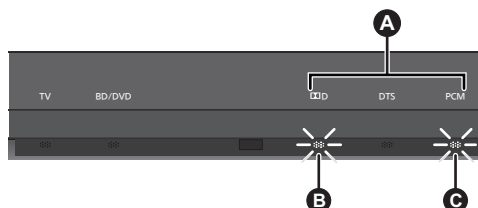
DTS audio cannot be output from this unit.

Make sure that the digital audio output setting on the connected device is set to "Bitstream".

The audio output cannot be changed from main to secondary.

If the digital output setting of TV or player is set to "Bitstream" change the audio output on this unit.

- ① Press and hold [BD/DVD] for more than 2 sec.



- ② While the indicator of the current setting is flashing, press [BD/DVD] to change the setting.
- A** Main and secondary
 - B** Main
 - C** Secondary (SAP: Secondary Audio Program)
 - The setting is maintained until it is changed again.

The volume is lowered when the unit is turned on.

If this unit is turned off with the volume setting in the greater half (above 50), this unit will automatically lower the volume to the middle (50) when the unit is turned on.

To turn off this function:

- ① Press and hold [MUTE] on the remote control and [VOLUME +] on this unit for more than 2 sec.
- The setting is changed when the **D**, DTS and PCM indicators blink.
 - To reset the setting, return to the factory preset. (⇒ 21)

The audio from the TV is distorted.

Change the TV's digital audio output settings to "Bitstream".

The dialog is too persistent or the dialog does not sound natural.

This unit has a function to make the dialog stand out when the volume is low.

To turn off this function:

- ① Press and hold [TV] on the remote control and [VOLUME -] on this unit for more than 2 sec.
- The setting is changed when the **D**, DTS and PCM indicators blink.
 - To reset the setting, return to the factory preset. (⇒ 21)

There is no audio.

The power of the unit turns off automatically.

(When this unit detects a problem, a safety measure is activated and this unit automatically switches to standby mode.)

- There is a problem with the amplifier.
- Is the volume extremely high?
If so, lower the volume.
- Is this unit placed in an extremely hot place?
If so, move the unit to a cooler place and wait a few moments and then try to turn it on again.

If the problem persists, turn the unit off and remove the AC power supply cord and consult your dealer. Please be sure to remember the indicators that were blinking and inform the dealer.

Active Subwoofer

No power.

Ensure the AC power supply cord of the active subwoofer is connected properly.

After turning the subwoofer on, it immediately turns off.

Unplug the AC power supply cord and consult your dealer.

No sound from the subwoofer.

- Check that the active subwoofer is turned on.
- Check that the wireless link indicator lights green. (⇒ 17)

The wireless link indicator lights red.

- There is no link between this unit and the active subwoofer.
 - Check that this unit is turned on.
 - Ensure that the digital transmitter is fully inserted into the digital transmitter dock on this unit. (⇒ 16)
 - Turn the active subwoofer off and then back on. Alternatively, turn the active subwoofer off, disconnect the AC power supply cord and then reconnect it.
- Consult your dealer if the problem persists.

The audio from the subwoofer is interrupted.

The active subwoofer is automatically seeking a clear channel. If the interference persists, try moving the other wireless devices to another location outside the range of the active subwoofer or move the active subwoofer nearer to this unit. (⇒ 9)

The wireless link indicator lights red and green alternately.

Turn the subwoofer off, disconnect the AC supply cord and then reconnect it. Consult your dealer if the problem persists.

Remote control code

When other Panasonic products respond to this unit's remote control, change the remote control code on this unit and the remote control.

Preparation

- Turn off all other Panasonic products.
- Turn on this unit.

Change the remote control to code 2:

- ① Aim the remote control at this unit's remote control sensor.
- ② Press and hold [MUTE] and [BD/DVD] on the remote control for more than 4 sec.



A will blink for 10 sec when the code of this unit is changed.



- If the unit does not operate after changing the code, repeat steps ① and ②.
- To change the remote control to code 1, repeat the steps above, but replace [BD/DVD] with [TV].

Audio information

■ **Compatible audio formats**

This unit is compatible with the following formats:

Dolby Digital, DTS Digital Surround, 2-channel LPCM and multi-channel LPCM.

Specifications

GENERAL

Power consumption:	This unit: 25 W Active Subwoofer: 21 W Digital transmitter: 1.2 W
Power consumption in standby mode:	This unit: Approx. 0.18 W Active Subwoofer: Approx. 0.07 W
Power supply:	AC 120 V, 60 Hz

Dimensions (W×H×D):

This unit (Excluding projecting parts)	1018 mm×75 mm×44 mm (39 ¹¹ / ₁₆ "×2 ¹⁵ / ₁₆ "×1 ²³ / ₃₂ "
(With safety holder)	1018 mm×77 mm×52 mm (39 ¹¹ / ₁₆ "×3 ¹ / ₃₂ "×2 ¹ / ₁₆ "
(With stands (Low))	1018 mm×95 mm×75 mm (39 ¹¹ / ₁₆ "×3 ³ / ₄ "×2 ¹⁵ / ₁₆ "
(With stands (High))	1018 mm×105 mm×75 mm (39 ¹¹ / ₁₆ "×4 ¹ / ₈ "×2 ¹⁵ / ₁₆ "
Active Subwoofer	180 mm×408 mm×306 mm (7 ³ / ₃₂ "×16 ¹ / ₁₆ "×12 ¹ / ₁₆ "
Digital transmitter	43.5 mm×37.3 mm×8.2 mm (1 ²³ / ₃₂ "×1 ¹⁵ / ₃₂ "×5 ¹ / ₁₆ "

Mass (Weight):

This unit (Without accessories)	Approx. 2.5 kg (5.5 lbs)
(With safety holder)	Approx. 2.6 kg (5.7 lbs)
(With stands)	Approx. 2.6 kg (5.7 lbs)
Active Subwoofer	Approx. 5.2 kg (11.5 lbs)
Digital transmitter	Approx. 0.0095 kg (0.0209 lbs)
Operating temperature range:	0 °C to +40 °C (+32 °F to +104 °F)
Operating humidity range:	20 % to 80 % RH (no condensation)

SPEAKER SECTION

FRONT SPEAKERS (BUILT-IN)

Type:	2 way, 2 speaker system (Bass Reflex)
Woofers:	6.5 cm (2 ¹ / ₂ ") Cone type×2
Tweeter:	2.5 cm (1") Semi-dome type×2

ACTIVE SUBWOOFER

Type:	1 way, 1 speaker system (Bass Reflex)
Woofers:	16 cm (6 ¹ / ₂ ") Cone type
Frequency range:	30 Hz to 180 Hz (−16 dB) 35 Hz to 160 Hz (−10 dB)

AMPLIFIER SECTION

RMS Output Power: Dolby Digital Mode

Front ch:	60 W per channel (4 Ω), 1 kHz, 10 % THD
Subwoofer ch:	120 W per channel (8 Ω), 100 Hz, 10 % THD
Total RMS Dolby Digital mode power:	240 W

FTC Output Power: Dolby Digital Mode

Front ch:	25 W per channel (4 Ω), 140 Hz to 20 kHz, 1 % THD
Subwoofer ch:	37 W per channel (8 Ω), 40 Hz to 150 Hz, 1 % THD
Total FTC Dolby Digital mode power:	87 W

WIRELESS SECTION

Wireless module

Frequency Range:	2.4 GHz to 2.4835 GHz
Number of channels:	3

TERMINAL SECTION

HDAVI Control

This unit supports "HDAVI Control 5" function.

HDMI AV input

Terminal:	19-pin type A connector
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HDMI AV output

Terminal:	19-pin type A connector
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Digital audio input (TV only)

Optical digital input:	Optical terminal
Sampling frequency:	32 kHz, 44.1 kHz, 48 kHz
Audio Format:	LPCM, Dolby Digital, DTS Digital Surround

IR Blaster

Terminal Type:	3.5 mm (1/8") jack
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- Specifications are subject to change without notice.
Mass and dimensions are approximate.
- Total harmonic distortion is measured by a digital spectrum analyzer.

Limited Warranty

(ONLY FOR U.S.A. AND PUERTO RICO)

Panasonic Consumer Electronics Company,
Division of Panasonic Corporation of North America
One Panasonic Way, Secaucus, New Jersey 07094

Panasonic Home Audio Products Limited Warranty

Limited Warranty Coverage (For USA and Puerto Rico Only)

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company (referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by the warrantor.

Product or Part Name	Parts	Labor
Audio Products (except items below)	1 year	1 year
DVD Home Theater System	1 year	1 year
Home Theater Audio System	1 year	1 year
USB Reader-writer, PC Card Adapters (defective exchange)	1 year	Not Applicable
Accessories: Headphones, cartridges, Microphones, Adapters	90 days	90 days
Rechargeable Batteries, DVD-RAM Disc (defective exchange)	10 days	Not Applicable
SD Memory Cards, Rechargeable Battery Packs (defective exchange)	90 days	Not Applicable

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. This Limited Warranty excludes both parts and labor for non-rechargeable batteries, antennas, and cosmetic parts (cabinet). This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is".

Carry-In or Mail-In Service

To find a service center please visit <http://www.panasonic.com/help> or call 1-800-211-PANA (7262).

When shipping the unit, carefully pack, include all accessories, and send it prepaid, adequately insured and preferably in the original carton. When shipping Lithium Ion batteries please visit our Web Site at www.panasonic.com/BatteryHandling as Panasonic is committed to providing the most up to date information. Include a letter detailing the complaint, a return address and provide a daytime phone number where you can be reached. A valid registered receipt is required under the Limited Warranty.

IF REPAIR IS NEEDED DURING THE WARRANTY PERIOD, THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID, AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.

(As examples, this excludes damages for lost time, travel to and from the servicer, loss of or damage to media or images, data or other memory or recorded content. The items listed are not exclusive, but for illustration only.)

ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Service Center. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

Customer Services Directory (United States and Puerto Rico)

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Service Center; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

<http://www.panasonic.com/help>

or, contact us via the web at:

<http://www.panasonic.com/contactinfo>

You may also contact us directly at:

1-800-211-PANA (7262)

Monday-Friday 9am-9pm,

Saturday-Sunday 10am-7pm EST

For hearing or speech impaired TTY users, TTY: 1-877-833-8855

Accessory Purchases (United States and Puerto Rico)

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:

<http://www.pstc.panasonic.com>

Or, send your request by E-mail to:

npcparts@us.panasonic.com

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only)

(Monday-Friday 9am-9pm EST)

Panasonic Service and Technology Company

20421 84th Avenue South, Kent, WA 98032

(We accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY: 1-866-605-1277

As of December 2010

Limited Warranty (ONLY FOR CANADA)

Panasonic Canada Inc.

5770 Ambler Drive, Mississauga, Ontario L4W 2T3

PANASONIC PRODUCT - LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship under normal use and for a period as stated below from the date of original purchase agrees to, at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by Panasonic Canada Inc.

Technics Audio Product - One (1) year, parts and labour
Panasonic BD/DVD Product - One (1) year, parts and labour
Panasonic Audio Receivers - One (1) year, parts and labour
Home Theater Systems Product - One (1) year, parts and labour

This warranty is given only to the original purchaser, or the person for whom it was purchased as a gift, of a Panasonic brand product mentioned above sold by an authorized Panasonic dealer in Canada and purchased and used in Canada, which product was not sold "as is", and which product was delivered to you in new condition in the original packaging.

IN ORDER TO BE ELIGIBLE TO RECEIVE WARRANTY SERVICE HEREUNDER, A PURCHASE RECEIPT OR OTHER PROOF OF DATE OF ORIGINAL PURCHASE, SHOWING AMOUNT PAID AND PLACE OF PURCHASE IS REQUIRED

LIMITATIONS AND EXCLUSIONS

This warranty **ONLY COVERS** failures due to defects in materials or workmanship, and **DOES NOT COVER** normal wear and tear or cosmetic damage. The warranty **ALSO DOES NOT COVER** damages which occurred in shipment, or failures which are caused by products not supplied by Panasonic Canada Inc., or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than an Authorized Servicer, or damage that is attributable to acts of God.

Dry cell batteries are also excluded from coverage under this warranty.

THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT OR ARISING OUT OF ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY. (As examples, this warranty excludes damages for lost time, travel to and from the Authorized Servicer, loss of or damage to media or images, data or other memory or recorded content. This list of items is not exhaustive, but for illustration only.)

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable. This warranty gives you specific legal rights and you may have other rights which vary depending on your province or territory.

WARRANTY SERVICE

For product operation and information assistance, please contact:

PRODUCT OPERATION ASSISTANCE

Customer Care Centre: Telephone #: 1-800-561-5505
Fax #: (905) 238-2360
Email link: "Support → contact us → email" on www.panasonic.ca

PRODUCT REPAIRS

Please locate your nearest Authorized Servicentre.

Link: "Support → Panasonic Servicentre® locator" on www.panasonic.ca

IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton.
Include details of the defect claimed, and proof of date of original purchase.

THE FOLLOWING APPLIES ONLY IN THE U.S.A.

FCC Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC caution: To maintain compliance with FCC regulations, shielded interface cables must be used with this equipment. Operation with non-approved equipment or unshielded cables may result in interference to radio and TV reception. Any changes or modifications not approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party:

Panasonic Corporation of North America
One Panasonic Way
Secaucus, NJ 07094

Support Contact:

Panasonic Consumer Electronics Company
Telephone No.: 1-800-211-PANA (7262)



WARNING:

To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm (7⁷/₈") or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.



As an ENERGY STAR® Partner*,
Panasonic has determined that
this product meets the ENERGY STAR®
guidelines for energy efficiency.

* For Canada only: The word "Participant" is
used in place of the word "Partner".

HDMI
VIERA Link™

For U.S.A. and Puerto Rico

Panasonic Consumer Electronics Company,
Division of Panasonic Corporation of North America
One Panasonic Way, Secaucus,
New Jersey 07094
<http://www.panasonic.com>

For Canada

Panasonic Canada Inc.
5770 Ambler Drive
Mississauga, Ontario
L4W 2T3
www.panasonic.ca