

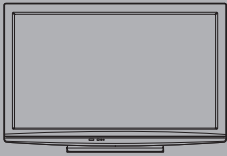
Panasonic®

Model No.

TH-P58S20A
TH-P65S20A

Operating Instructions

Plasma Television



VIERA

VIERA
Link

 **VIERA**
IMAGE VIEWER

AVCHD™

 **DOLBY**
DIGITAL

 **SD**
XC

HDMI

FULL
HD
1920 × 1080p

Thank you for purchasing this Panasonic product. Please read these instructions before operating your set and retain them for future reference. The images shown in this manual are for illustrative purposes only.

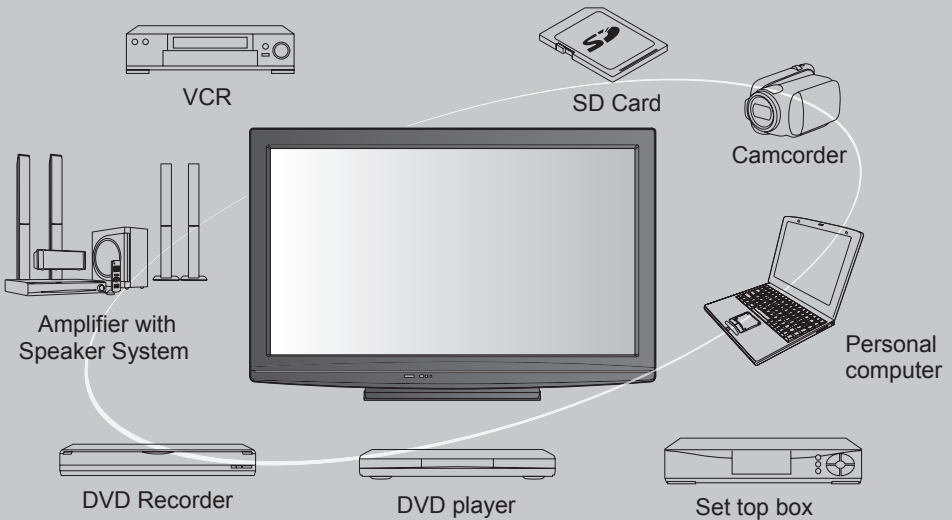
English

TQBC2536

Experience an amazing level of multimedia excitement

Receive digital terrestrial services using an integrated Digital TV tuner
Sharp pictures with HDMI terminal
Create home theatre and DVD recorder link-ups with "VIERA Link"
without complicated settings!

Enjoy rich multimedia



Notice about Digital TV Functions

- The MPEG-4 AVC feature was designed to specifications as we know them today. This specification may be subject to future changes beyond our control that may not guarantee the decoding of such services.

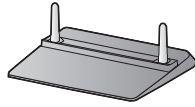
February 2010

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

Standard accessories

Check that you have the accessories and items shown

- Remote Control
- N2QAYB000494
- Pedestal → p. 6



- Batteries for the Remote Control (2)
- R6 (AA)
- Mains Lead → p. 8

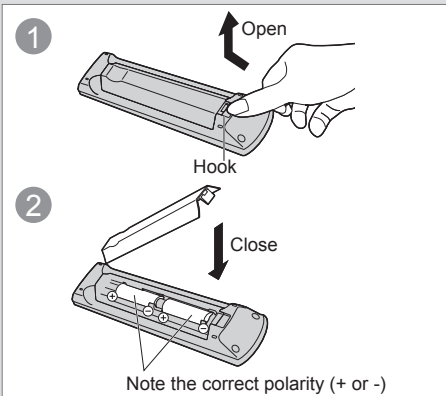


- Operating Instructions with Warranty statement
- Fall-prevention parts → p. 7

Caution

- This product contains possibly dangerous parts (such as plastic bags), which can be breathed in or swallowed by young children accidentally. Keep these parts out of reach of young children.

Inserting and removing remote's batteries



Caution

- Incorrect installation may cause battery leakage and corrosion, resulting in damage to the remote control.
- Do not mix old and new batteries.
- Do not mix different battery types (such as alkaline and manganese batteries).
- Do not use rechargeable (Ni-Cd) batteries.
- Do not burn or breakup batteries. Batteries must not be exposed to excessive heat such as sunshine, fire or the like.
- Do not disassemble or modify the remote control.

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Quick Start Guide

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Technical

Safety Precautions

Warning

Handling the mains plug and lead

- Insert the mains plug fully into the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)
- Ensure that the mains plug is easily accessible.
- Ensure the earth pin on the mains plug is securely connected to prevent electrical shock.
- Do not touch the mains plug with a wet hand. (This may cause electrical shock.)
- Do not use any mains lead other than that provided with this TV. (This may cause fire or electrical shock.)
- Do not damage the mains lead. (A damaged lead may cause fire or electrical shock.)
 - Do not move the TV with the lead plugged in the socket outlet.
 - Do not place a heavy object on the lead or place the lead near a high-temperature object.
 - Do not twist the lead, bend it excessively, or stretch it.
 - Do not pull on the lead. Hold onto the mains plug body when disconnecting lead.
 - Do not use a damaged mains plug or socket outlet.

If you find any abnormality, remove the mains plug immediately!



**AC 220 - 240 V
50 / 60 Hz**



Power source / Installation

- This TV is designed for:
 - AC 220 - 240 V, 50 / 60 Hz
 - Indoor use

Do not insert foreign objects into the TV

- Do not allow any objects to drop into the TV through the air vents. (Fire or electrical shock may result.)

Do not remove covers and NEVER modify the TV yourself

- Do not remove the rear cover as live parts are accessible when it is removed. There are no user serviceable parts inside. (High-voltage components may cause serious electrical shock.)
- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

Do not place the TV on sloped or unstable surfaces

- The TV may fall off or tip over.

Do not expose to rain or excessive moisture

- To prevent damage which might result in electric shock or fire, do not expose this TV to rain or excessive moisture. This TV must not be exposed to dripping or splashing water and objects filled with liquid, such as vases, must not be placed on top of or above the TV.

Use only the dedicated pedestals / mounting equipment

- Using an unapproved pedestal or other fixtures may make the TV unstable, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use approved pedestals (p. 6) / wall-hanging brackets (p. 7).

Do not expose to direct sunlight and other sources of heat

- Avoid exposing the TV to direct sunlight and other sources of heat. To prevent fire never place any type of candle or naked flame on top or near the TV.

Do not allow children to handle SD Card

- As with any small object, SD Cards can be swallowed by young children. Please remove SD Card immediately after use and store out of reach of children.

Important Installation Notices

■ Install TV on a stable surface

If a television is not positioned in a sufficiently stable location, it can be potentially hazardous due to falling. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- Using cabinets or stands recommended by the manufacturer of the television.
- Only using furniture that can safely support the television.
- Ensuring the television is not overhanging the edge of the supporting furniture.
- Not placing the television on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television to a suitable support.
- Not standing the televisions on cloth or other materials placed between the television and supporting furniture.
- Educating children about the dangers of climbing on furniture to reach the television or its controls.

■ When cleaning the TV, remove the mains plug

- Cleaning an energized TV may cause electrical shock.

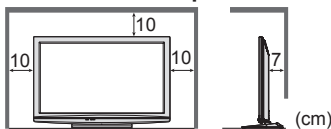
■ When the TV is not going to be used for a long period of time, remove the mains plug

- This TV will still consume some power even in the Off mode, as long as the mains plug is still connected to a live socket outlet.

■ Transport only in upright position

- Transporting the TV with its display panel facing upward or downward may cause damage to the internal circuitry.

■ Allow sufficient space around the TV for radiated heat



- When using the pedestal, keep a space between the bottom of the TV and the surface where the TV is set.
- In case of using Wall-hanging bracket, follow the manual of it.

■ Do not block the rear air vents

- Blocked ventilation by newspapers, table cloths, curtains, etc. may cause overheating, fire or electrical shock.

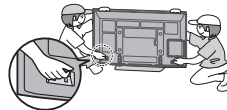
■ Do not apply strong force or impact to the display panel.

- This may cause damage resulting in injury.

■ Do not expose your ears to excessive volume from the headphones

- Irreversible damage can be caused.

■ The TV is heavy. Handle the TV by 2 or more people. Support as shown to avoid injury by the TV tipping or falling.



■ Auto power standby function

- The TV will automatically go to Standby mode in the following conditions:
 - no signal is received and no operation is performed for 30 minutes in Analogue TV mode
 - "Off Timer" is active (p. 13)
 - no operation is performed for the period selected in "Auto Standby" (p. 27)

■ Keep the TV away from these types of equipment

- Electronic equipment
In particular, do not place video equipment near the TV. Electromagnetic interference may distort images / sound.
- Equipment with an infrared sensor
This TV also emits infrared rays. This may affect operation of other equipment.

Do not display a still picture for a long time

This causes the image to remain on the plasma screen ("image retention"). This is not considered a malfunction and is not covered by the warranty.

Typical still images

- Programme number and other logos
- Image displayed in "4:3" mode
- Video game
- Computer image



To prevent image retention, contrast is lowered automatically after a few minutes if no signals are sent or no operations are performed. (p. 55)

Accessories / Options

Attaching the pedestal

Warning

Do not disassemble or modify the pedestal.

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

Caution

Do not use the pedestal for any other TV or displays.

- Otherwise the TV or the display may fall over and become damaged, and personal injury may result.

Do not use the pedestal if it becomes warped or physically damaged.

- If you use the pedestal while it is physically damaged, personal injury may result. Contact your nearest Panasonic dealer immediately.

During set-up, make sure that all screws are securely tightened.

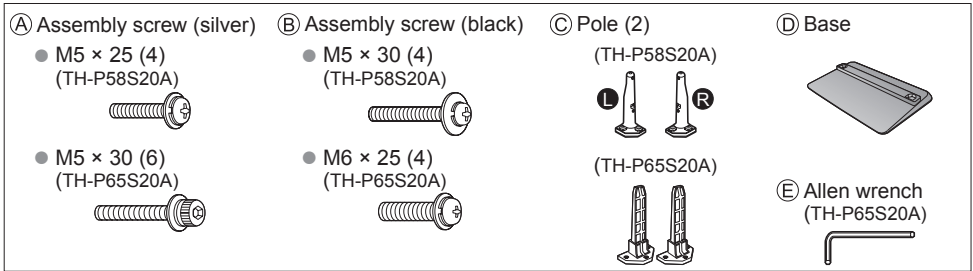
- If insufficient care is taken to ensure screws are properly tightened during assembly, the pedestal will not be strong enough to support the TV, and it might fall over and become damaged, and personal injury may result.

Ensure that the TV does not fall over.

- If the TV is knocked or children climb onto the pedestal with the TV installed, the TV may fall over and personal injury may result.

Two or more people are required to install and remove the TV.

- If two or more people are not present, the TV may be dropped, and personal injury may result.

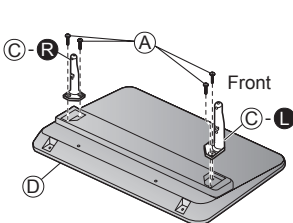


Assembling the pedestal

Use the assembly screws (A) to fasten the poles (C) to the base (D) securely.

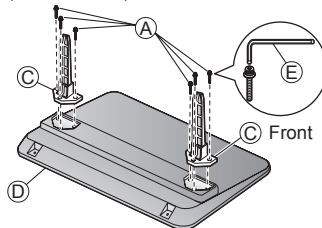
- Make sure that the screws are securely tightened.
- Forcing the assembly screws the wrong way will strip the threads.

(TH-P58S20A)



- "L" or "R" mark is stamped on the bottom of the pole.

(TH-P65S20A)

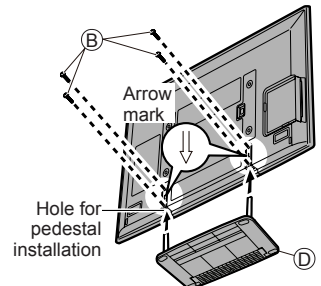


- Use the allen wrench (E) to tighten the screws.

Securing the TV

Insert the pole into the TV, and then fasten securely with the assembly screws (B).

- Tighten the four assembly screws loosely at first, then tighten them firmly to fix securely.
- Carry out the work on a horizontal and level surface.



(View from the bottom)

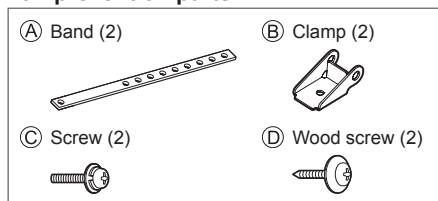
Preventing the TV from falling over

This TV could fall over if it is pushed, pulled or knocked down.

We therefore recommend the TV is secured to the furniture as illustrated.

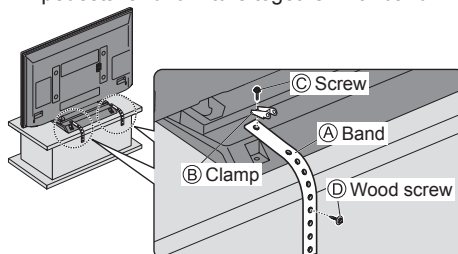
- This measure is designed to reduce the risk of injury from a falling TV. However, it cannot guarantee protection in all cases.

Fall-prevention parts



Securing to a furniture

Fix pedestal and furniture together with band.



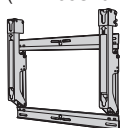
- This image is for illustrative purposes only.

Optional accessories

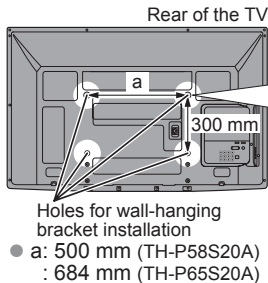
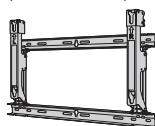
Please contact your nearest Panasonic dealer to purchase the recommended wall-hanging bracket. For additional details, please refer to the wall-hanging bracket installation manual.

Wall-hanging bracket

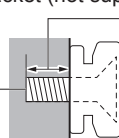
- TY-WK5P1RW (TH-P58S20A)



- TY-WK6P1RW (TH-P65S20A)



Screw for fixing the TV onto the wall-hanging bracket (not supplied with the TV)



Depth of screw:
 minimum 15 mm (TH-P58S20A)
 minimum 14 mm (TH-P65S20A)
 maximum 30 mm

[View from the side]

Warning

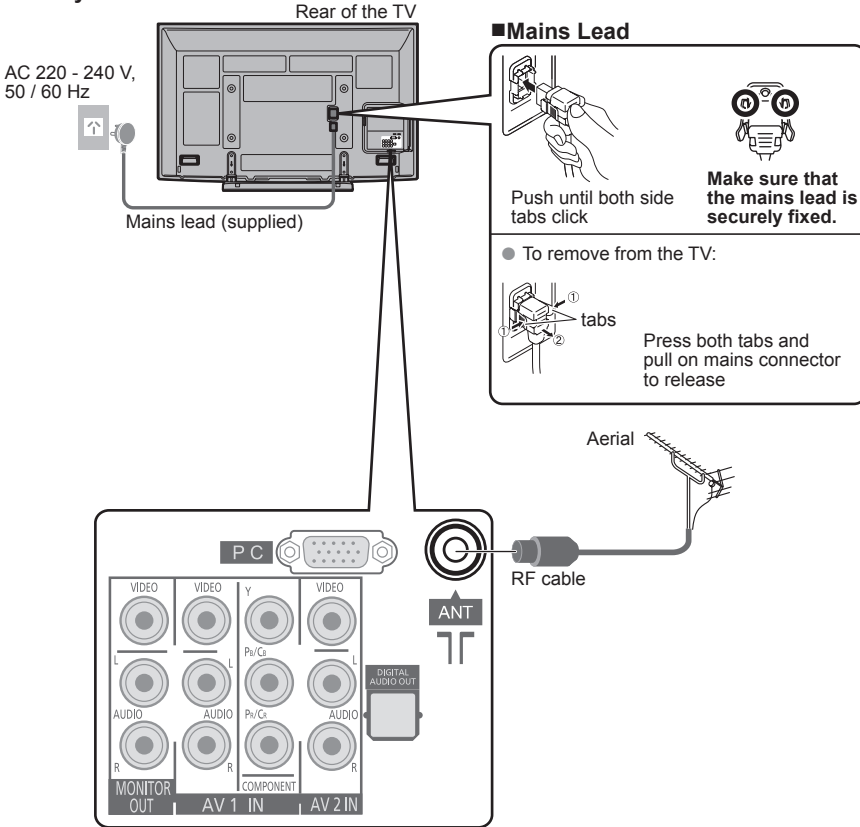
- Using other wall-hanging brackets, or installing a wall-hanging bracket by yourself have the risk of personal injury and product damage. In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licensed contractor to secure the wall-hanging brackets. Any damage caused by installing without a qualified installer will void your warranty.
- Carefully read the instructions accompanying optional accessories, and be absolutely sure to take steps to prevent the TV from falling off.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.
- Take care when fixing wall brackets to the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.
- To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

Basic Connection

External equipment and cables shown are not supplied with this TV.
 Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.
 When disconnecting the mains lead, be absolutely sure to disconnect the mains plug at the socket outlet first.

Connecting aerial

TV only

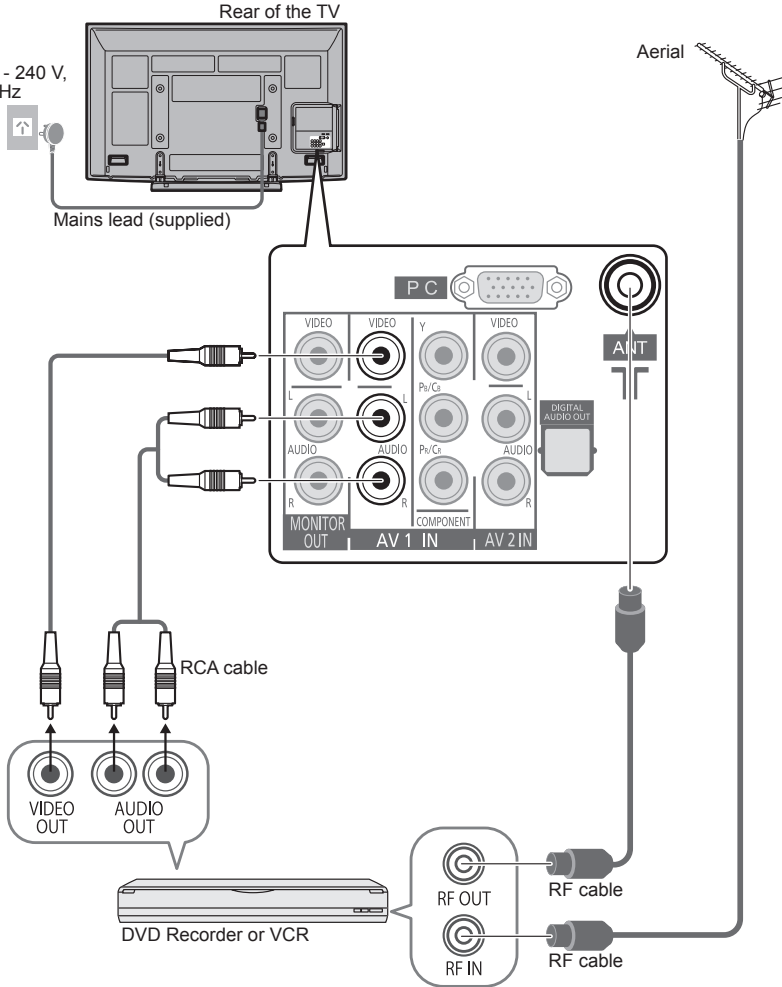


Note

- Do not put the RF cable close to the mains lead to avoid noise.
- Do not place the RF cable under the TV.
- To obtain optimum quality picture and sound, an aerial, the correct cable (75 Ω coaxial) and the correct terminating plug are required.
- If a communal aerial system is used, you may require the correct connection cable and plug between the wall aerial socket and the TV.
- Your local Television Service Centre or dealer may be able to assist you in obtaining the correct aerial system for your particular area and the accessories required.
- Any matters regarding aerial installation, upgrading of existing systems or accessories required, and the costs incurred, are the responsibility of you, the Customer.
- VIERA Link connection \Rightarrow p. 43
- Other equipment connection \Rightarrow p. 48, 49 and p. 56
- Read the manual of the equipment, too.

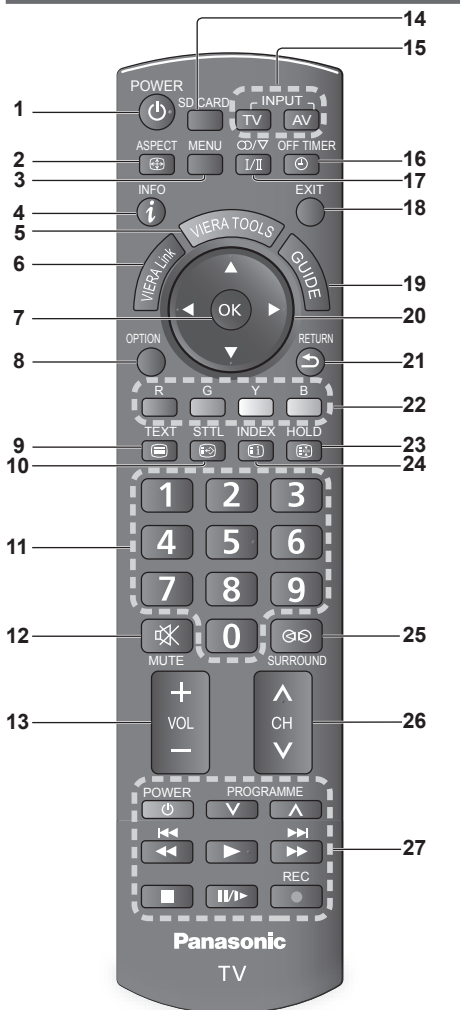
Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR



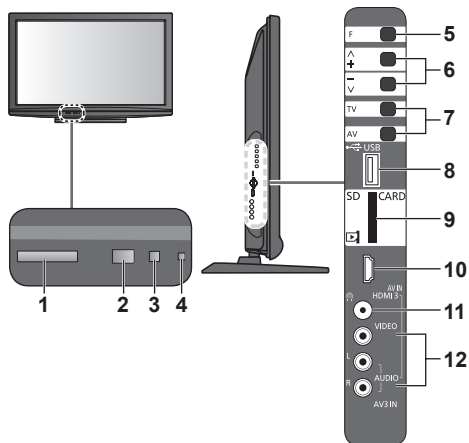
Identifying Controls

Remote control



- 1 **Standby On / Off switch**
 - Switches TV On or Off standby
- 2 **Aspect (p. 15)**
 - Changes aspect ratio from Aspect Selection list
 - Also possible by pressing this button repeatedly until you reach the desired aspect
- 3 **Main Menu (p. 22)**
 - Press to access Picture, Sound and Setup Menus
- 4 **Channel / Programme Information (p. 14)**
 - Displays channel and programme information
- 5 **VIERA TOOLS (p. 21)**
 - Displays some special feature icons and accesses easily
- 6 **VIERA Link (p. 45)**
 - Accesses VIERA Link Menu
- 7 **OK**
 - Confirms selections and choices
 - Press after selecting channel positions to quickly change programme
- 8 **Option Menu (p. 14)**
 - Easy setting for sound options
- 9 **Teletext (p. 17)**
 - Switches to teletext mode
- 10 **Subtitles (p. 13)**
 - Displays subtitles
- 11 **Numeric buttons**
 - Changes channel and teletext pages
 - When in Standby mode, switches TV On
- 12 **Sound Mute**
 - Switches sound mute On or Off
- 13 **Volume Up / Down**
- 14 **Media Player (p. 36)**
 - Switches to SD Card and USB device viewing / listening mode
- 15 **Input mode selection**
 - TV - switches Digital TV / Analogue TV mode (p. 13)
 - AV - switches to AV input mode from Input Selection list (p. 19)
- 16 **Off Timer (p. 13)**
 - Sets the time the TV automatically turns off
- 17 **Sound Selection**
 - Changes the sound track in Digital TV mode (if available)
 - Changes multiplex sound mode in Analogue TV mode (if available) (p. 50)
- 18 **Exit**
 - Returns to the normal viewing screen
- 19 **Guide (p. 16)**
 - Displays TV Guide
- 20 **Cursor buttons**
 - Makes selections and adjustments
- 21 **Return**
 - Returns to the previous menu / page
- 22 **Coloured buttons**
 - Used for the selection, navigation and operation of various functions
- 23 **Hold**
 - Freeze / unfreeze picture (p. 13)
 - Holds the current teletext page (teletext mode) (p. 17)
- 24 **Index (p. 17)**
 - Returns to the teletext index page (teletext mode)
- 25 **Surround (p. 25)**
 - Switches surround sound setting
- 26 **Channel Up / Down**
 - Selects channel in sequence
- 27 **Connected equipment operations (p. 20)**

TV



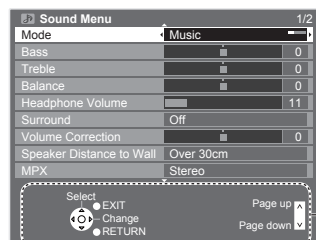
- 1 Mains power On / Off switch
 - Switch On to turn on the TV or turn the TV to Standby mode by the remote control
- 2 Remote control signal receiver
 - Do not place any objects between the TV remote control signal receiver and remote control.

- 3 C.A.T.S. (Contrast Automatic Tracking System) sensor
 - Senses brightness to adjust picture quality when "Eco Mode" in the Picture Menu is set to "On" (p. 24)
- 4 Power LED
 - Standby: red / On: green
 - When using the remote control, indicates the TV has received a command.
- 5 Function Select
 - Volume / Contrast / Brightness / Colour / Sharpness / Tint (NTSC mode) / Bass ("Music" or "Speech" mode in the Sound Menu) / Treble ("Music" or "Speech" mode in the Sound Menu) / Balance / "Digital TV Auto Tuning" or "Analogue TV Auto Tuning" (p. 28)
- 6 Increases or decreases the channel position by one. When a function is already displayed, press to increase or decrease the selected function. When in standby mode, switches TV on.
- 7 Changes the input mode
- 8 USB port
- 9 SD Card slot
- 10 HDMI3 terminal
- 11 Headphones jack
- 12 AV3 terminals

Using the On Screen Displays

Many features available on this TV can be accessed via the On Screen Display menu.

Example (Sound Menu):



Operation guide will help you.

How to use remote control

- Open the Main Menu
- Move the cursor / select the menu item
- Move the cursor / adjust levels / select from a range of options

- Access the menu / store settings after adjustments have been made or options have been set
- Return to the previous menu
- Exit the menu system and return to the normal viewing screen

Auto Tuning

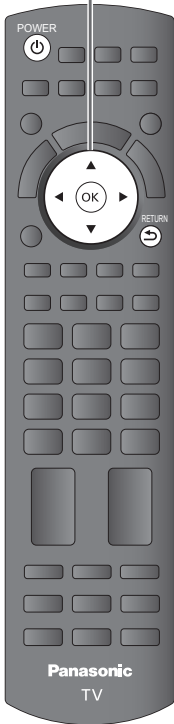
Search and store TV channels automatically.

These steps are not necessary if the setup has been completed by your local dealer.

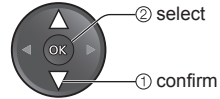
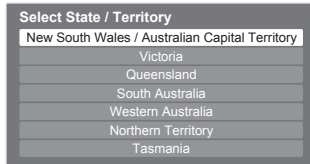


1 Plug the TV into mains socket and switch On

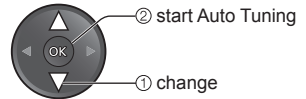
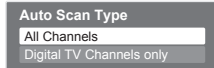
- You can now use the remote control to turn On the TV or switch the TV to standby mode. (Power LED: On)



2 Select your area



3 Select Auto Scan Type



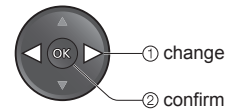
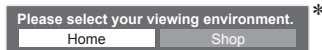
Auto Tuning starts

RF Ch	Channel Name	Type	Quality
62	CBBC Channel	Digital TV	10
62	BBC Radio Wales	Digital TV	10
62	Ek	Digital TV	10
62	Cartoon Nwk	Digital TV	10
29		Analogue TV	-
33		Analogue TV	-

Digital TV: 4 Analogue TV: 2 Searching

- Auto Tuning will start to search for TV channels and store them. The sorted channel order depends upon the TV signal, the broadcasting system and reception conditions.

4 Select "Home"



Auto Tuning is complete

*Viewing environment mode

Home : Recommended mode for viewing at home. Select "Home" for optimal picture / power consumption. "Viewing Mode" is set as "Normal" (p. 24).

Shop : Demonstration mode to explain main features of this TV (for in-store display). "Viewing Mode" is set as "Dynamic" (p. 24).

To return to viewing environment selection mode if you selected "Shop"



- To change viewing environment mode later on, reset all settings by accessing Shipping Condition. ➔ "Shipping Condition" (p. 34)

Watching TV



1 Turn power on

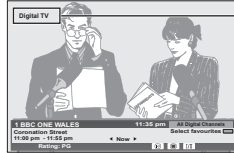


- Mains power On / Off switch should be On (p. 11).

2 Select Digital TV or Analogue TV mode



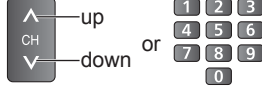
- Also possible to select the mode pressing the TV button repeatedly on the remote control or side panel of the TV. (p. 11)



The selected mode is displayed.

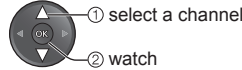
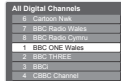
Information banner appears whenever you select a channel
● For details → p. 14

3 Select a channel



- To select the two or three-digit channel number, e.g. 112
→ 1 → 1 → 2 (in a short time)
- If one or two-digit channel number, e.g. 39
→ 3 → 9 → OK (quickly changes the channel)

- To select from the Channel List → OK



Note

- When the TV is switched to standby, there will be a clicking sound after a short delay. This is normal.

Select a channel using information banner (p. 14)

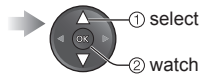
Possible to confirm the programme name before selecting channels.

Display information banner if it is not displayed



Possible to set display timeout in "Banner Display Timeout" (p. 26).

While the banner is displayed, select a channel

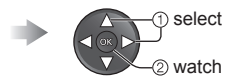


Select a channel using TV Guide (p. 16)

Possible to confirm the TV Guide (EPG) before selecting channels.

Display TV Guide

Select a channel



Other useful functions

Hold



Freeze / unfreeze picture

Display subtitles



Display / hide subtitles (if available)

Off Timer

Turn the TV off automatically after a fixed period of time (0 / 15 / 30 / 45 / 60 / 75 / 90 minutes)

OFF TIMER



Press repeatedly until desired time appears.

- Also possible to set the time from "Off timer" in the Setup Menu (p. 26)
- To cancel → Set to "0" or turn the TV off.
- To display the remaining time → Information banner (p. 14)
- When the remaining time is within 3 minutes, the remaining time will flash on screen.

Watching TV

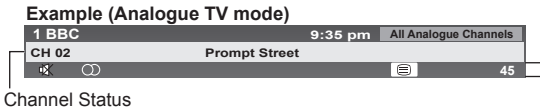
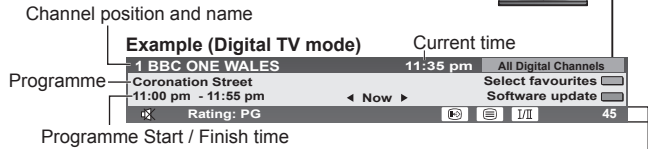
Other useful functions

Display information banner



Display information banner

- Also appears when changing a channel



- To confirm another tuned channel name →
- To watch the programme listed in the banner →
- Information on the next programme (Digital TV mode) →
- To select a favourite list (Digital TV mode) (if the favourite list is created) in "Favourites Edit" → p. 29 →
- To update the TV software (if available) →
- To hide →
- Extra information (press again to hide the banner) (Digital TV mode) →
- To set display timeout → "Banner Display Timeout" (p. 26)

Features available / Message meanings

- Sound mute On
- Rating** Rating information (p. 50) (Digital TV mode)
- Bad signal** Poor TV signal quality (Digital TV mode)
- Encrypted** Scrambled programme (Digital TV mode)
- Subtitle service available (Digital TV mode)
- Multiple image or audio available (Digital TV mode)
- Teletext service available
- Audio mode (p. 50) (Analogue TV mode)
- 1 - 90** Off Timer remaining time
 - For settings → p. 13

Display the selectable settings for the current programme

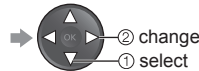
OPTION

Check or change the current programme status instantly

Audio Selection (Digital TV mode)
Allows you to select between alternative language for sound tracks (if available)

Dual Audio (Digital TV mode)
Selects multiplex sound (if available)

- To change



MPX (Analogue TV mode)
Selects multiplex sound (if available)
→ Sound Menu (p. 25)

Volume Correction
Adjusts volume of individual programme or input mode → Sound Menu (p. 25)

Other useful functions

Change aspect ratio

Enjoy viewing the picture at its optimum size and aspect.

ASPECT Display Aspect Selection list










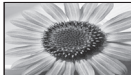
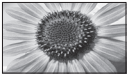
Aspect Selection
16:9
14:9
Just
4:3
4:3 Full
Zoom1
Zoom2
Zoom3



While the list is displayed, select the mode

To change the mode using the ASPECT button only

ASPECT  Press repeatedly until you reach the desired mode

<p>16:9</p> 	<p>Directly displays the image at "16:9" without distortion (anamorphic).</p>	<p>14:9</p> 	<p>Displays the image at the standard "14:9" without distortion.</p>	<p>Just</p> 	<p>Displays a "4:3" image full-screen. Stretching is only noticeable at the left and right edges.</p>
<p>4:3</p> 	<p>Displays the image at the standard "4:3" without distortion.</p>	<p>4:3 Full</p> 	<p>Displays a "4:3" image enlarged horizontally to fit the screen. ● Digital TV mode or HD signal</p>	<p>Zoom1</p> 	<p>Displays a "16:9" letterbox or "4:3" image without distortion.</p>
<p>Zoom2</p> 	<p>Displays a "16:9" letterbox (anamorphic) image full-screen without distortion.</p>	<p>Zoom3</p> 	<p>Displays a "2.35:1" letterbox (anamorphic) image full-screen without distortion. At "16:9", displays the image at its maximum (with slight enlargement).</p>		

Note

- Only "16:9" and "4:3 Full" are available in Digital TV mode.
- Only "16:9" and "4:3" are available in PC input mode.
- Aspect is fixed to "16:9" when "Viewing Mode" is set to "Game" in the Picture Menu.
- Not available in teletext mode.
- Aspect mode can be memorized separately for each SD (Standard definition) and HD (High definition) signals except in Digital TV mode.

Region Select Adjust the standard time

Select the region where you live to adjust the standard time.

- The time contained in the broadcast signal is UTC (Universal Time coordinated) formally known as GMT (Greenwich Mean Time).

Daylight Saving Time Adjust for Summer Time

Select time offset from the standard time for Summer Time.

- Normally select "Auto".
- If there is a gap between displayed time and actual time, set this function.

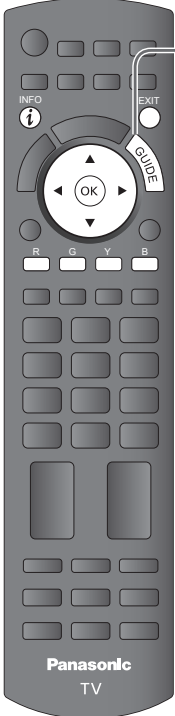
Region	Standard time	Daylight Saving Time: Auto (During Summer Time)
NSW / ACT	+10:00	+11:00
Victoria		
Queensland	+10:00	
South Australia	+9:30	+10:30
Western Australia	+8:00	
Northern Territory	+9:30	
Tasmania	+10:00	+11:00

(Based on GMT)

- These items can be set from "Other settings" in the Setup Menu. (p. 27)

Using TV Guide

Using TV Guide enables you to select a programme easily, view programme information, etc. TV Guide—Electronic Programme Guide (EPG) provides an on screen listing of the current and future programmes over the next seven days depending on broadcasters. Digital TV and Analogue TV channels are displayed on the same TV Guide screen. “D” means Digital TV channel and “A” means Analogue TV channel. There will be no programme listings for Analogue TV channels.



View TV Guide

Each time pressed, the layout will be changed. (Landscape / Portrait)

Example:

TV Guide time: Wed 10 Mar 2010 10:27 am

TV Guide date: Wed 10 Mar 2010

Current date and time: Wed 10 Mar 2010 10:27 am

Programme: D: Home East ender DIV 50S The Bill Red Cap Sports

Landscape (Displays by channel)

Example:

D: Digital TV
A: Analogue TV

TV Guide: Portrait

Wed 10 Mar 2010

11:00 am - 12:30 pm East ender

12:30 pm - 2:00 pm DIV 50S

2:00 pm - 2:30 pm The Bill

3:00 pm - 3:30 pm Live Junction

3:30 pm - 4:30 pm POP 100

4:30 pm - 6:00 pm Rugby

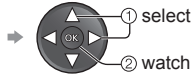
6:00 pm - 6:30 pm News

Portrait (Displays by time)

Channel position and name

To watch the programme

Select the current programme or channel



To view a channel list of the selected favourite list

➔ B

(favourite list)

Favourites

All Channels

All Digital Channels

All Analogue Channels

Favourites1

Favourites2

Favourites3

Favourites4

Only Analogue TV channels are listed

➔ select a favourite list

➔ view

To list favourite channels ➔ p. 29

To return to TV



To view details of the programme (Digital TV mode)

Select the programme



To the previous day (Digital TV mode)



To the next day (Digital TV mode)



To view a channel list of the selected type

➔ Y

(Type list)

Prog. Type

All Types

All Types

Movie

News

Entertainment

Sport

Children's

Music

⋮

➔ select type

➔ view

Note

- When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before the TV Guide is completely shown.

Viewing Teletext

Teletext services are the text information provided by the broadcasters. The features may vary depending on the broadcasters.

What is FASTEXT mode?

In FASTEXT mode, four differently coloured subjects are situated at the bottom of the screen. To access more information about one of these subjects, press the appropriately coloured button. This facility enables fast access to information on the subjects shown.

What is TOP mode? (In case of TOP text broadcasting)

TOP is a particular improvement of the standard teletext service that results in an easier search and effective guide.

- Fast overview of the teletext information available
- Easy to use step-by-step selection of the topical subject
- Page status information at the bottom of the screen

Available page up / down →

To select among subject blocks →

To select next subject within the subject block

(After the last subject, it moves to the next subject block.) →

What is List mode?

In List mode, four differently coloured page numbers are situated at the bottom of the screen. Each of these numbers can be altered and stored in the TV's memory. ("Store frequently viewed pages" → p. 18)

To change mode → "Teletext" in the Setup Menu (p. 26)

1 Switch to Teletext
 ● Displays Index (content varies depending on the broadcasters)

2 Select the page (up to page 899)
 or or or
 (Corresponds to the colour bar)

To adjust contrast
 → (press three times) → As the blue bar is displayed

To return to TV → or

Sub page number
 Current page number **P100** 17:51 28 Feb Time / date
TELETEXT INFORMATION
 Colour bar

Functions (Teletext mode)

Hold Stop automatic updating (If you wish to hold the current page without updating) To resume →	Reveal hidden data → Reveal hidden words e.g. quiz page answers To hide →
INDEX Return to the main index page	Call up Subtitle Display subtitles ● Call up P801 (subtitle page) if available. ● If you press this button during P801 is displayed, teletext mode will be cancelled and return to TV.

Viewing Teletext

Functions (Teletext mode)

View in multi window

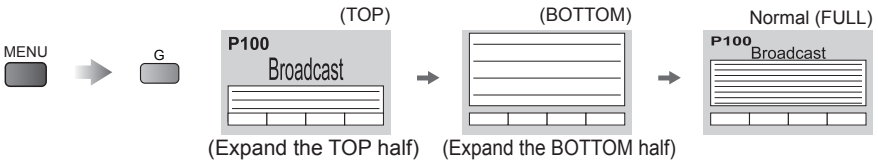
Watch TV and Teletext in two windows at once

MENU (press twice) →  Select teletext only or picture / teletext



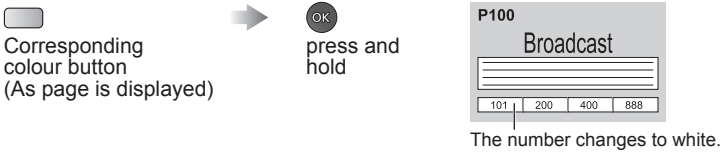
- Operations can be made only in Teletext screen.

FULL / TOP / BOTTOM

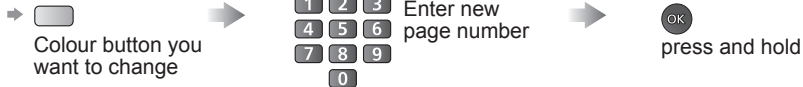


Store frequently viewed pages

Store frequently viewed pages in the colour bar (List mode only)

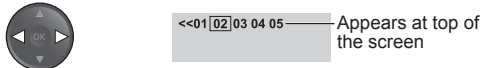


To change stored pages

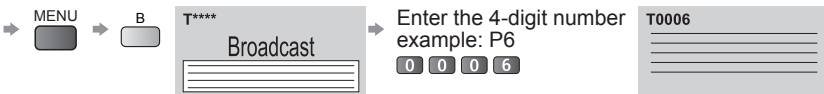


View sub page

View sub page (Only when teletext is more than one page)



To view specific sub page



- Sub pages:
The number of sub pages varies depending on the broadcasters.
It may take some time for searching, during which time you can watch TV.

Watch TV while waiting for update

View the TV picture while searching for a teletext page

Teletext automatically updates itself when new information becomes available.



Changes to TV screen temporarily (You cannot change the programme.)

- The news page provides a function that indicates arrival of latest news ("News Flash").

Watching External inputs

Connect the external equipment (VCRs, DVD equipment, PC, etc.) and you can watch through the input.

- To connect the equipment → p. 9, 48 and p. 49

The Remote Control is capable of operating some functions of selected external equipment.

For details, see the manual of the equipment or ask your local dealer.



1 Display the input selection menu



2 Select the input mode of the connected equipment

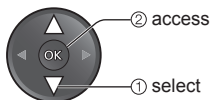
- You can also select the input using the AV button on the remote control or the side panel of the TV (p. 11). Press the button repeatedly until the desired input is selected.
- You can label or skip each input mode → “Input Labels” (p. 33). Skipped inputs will not be displayed when the AV button is pressed.

Example (AV2)

Input Selection
AV1
AV2
AV3
PC
HDMI1
HDMI2
HDMI3
TV

Example (PC)

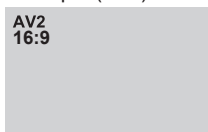
Input Selection
AV1
AV2
AV3
PC
HDMI1
HDMI2
HDMI3
TV



3 View

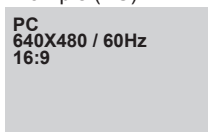
The selected mode is displayed on the screen.

Example (AV2)



- If the external equipment has an aspect adjustment function, set to “16:9”.

Example (PC)



- You can also listen to PC sound with the audio cable connected. (To connect → p. 48 and p. 49)
- You can setup some functions → Advanced PC Settings (p. 24) in the Picture Menu and PC Setup (p. 26) in the Setup Menu
- For HDMI-compatible PC (p. 51 and p. 52), possible to connect to HDMI terminals (HDMI1 / HDMI2 / HDMI3) by using HDMI cable.









To return to TV



Watching External inputs

Operating the equipment with the TV remote control

The equipment connected to the TV can be directly operated with the below buttons of this TV remote control.


	Standby Set to Standby mode / Turn on
	Play Playback videocassette / DVD
	Stop Stop the operation
	Rewind / Skip / Search VCR: Rewind, view the picture rapidly in reverse DVD: Skip to the previous track or title Press and hold to search backward
	Fast-forward / Skip / Search VCR: Fast-forward, view the picture rapidly forward DVD: Skip to the next track or title Press and hold to search forward
	Pause Pause / Resume DVD: Press and hold to play at slow speed
	Programme Up / Down Select programme
	Record Start recording

How to change the code for each equipment

Each type of Panasonic equipment has its own remote control code.

Please change the code for each equipment you want to operate.

If you operate the connected equipment in VIERA Link (p. 46), select the code "73".

Press and hold  during the following operations

Enter the appropriate code
(see table below)



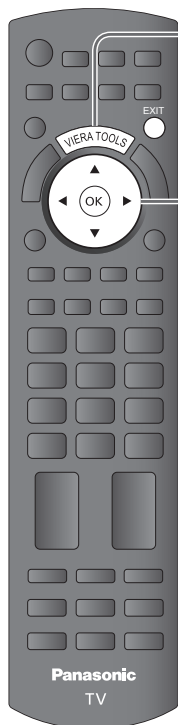
Type of equipment	Code
DVD Recorder / DVD Player	70 (default)
Player theatre / Blu-ray Disc theatre	71
VCR	72
The equipment using in VIERA Link → "VIERA Link Control" (p. 46)	73

Note

- Confirm if the remote control works correctly after changing the code.
- The codes may be reset to default values if batteries are replaced.
- Some operations may not be possible on some equipment models.

How to Use VIERA TOOLS

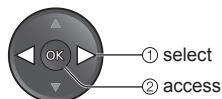
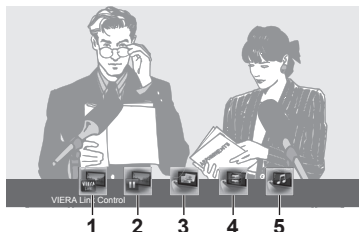
You can access some special features easily by using the VIERA TOOLS function.



1 Display icons of the feature



2 Select a feature



3 Follow the operation of each feature

- 1 VIERA Link Control → "VIERA Link Control" (p. 46)



When two or more compatible equipments are connected, a selection screen will be displayed.
Please select the correct description and access.

- 2 Pause Live TV → "Pause Live TV" (p. 45)



- 3 Photo → "Photo mode" (p. 38)



- 4 Video → "Video mode" (p. 40)



- 5 Music → "Music mode" (p. 42)



To return to TV

EXIT



How to Use Menu Functions

Various menus allow you to make settings for the picture, sound, and other functions.

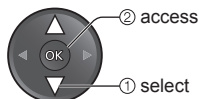


1 Display the menu

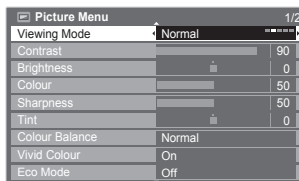


- Displays the functions that can be set (varies according to the input signal)

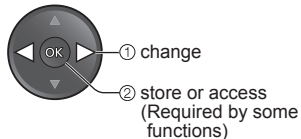
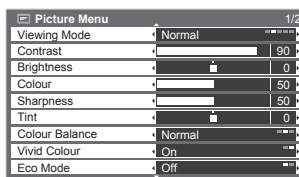
2 Select the menu



3 Select the item



4 Adjust or select



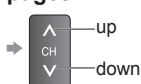
To return to TV at any time



To return to the previous screen



To change menu pages



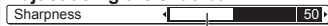
Choose from among alternatives

Number and positions of alternatives



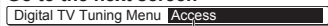
Changed

Adjust using the slide bar



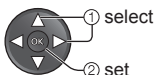
Moved

Go to the next screen



Displays the next screen

Enter characters by free input menu



- To delete a character → R

- To delete all characters → B

Every press changes the character by one. Leave it for a second to set the character, or press OK or any numeric button within a second.

See the table below for the corresponding characters for each numeric button.

Numeric buttons	Characters	Numeric buttons	Characters
1	. ! : # + - * _ ()	6	m n o 6 M N O
2	a b c 2 A B C	7	p q r s 7 P Q R S
3	d e f 3 D E F	8	t u v 8 T U V
4	g h i 4 G H I	9	w x y z 9 W X Y Z
5	j k l 5 J K L	0	Space 0

Overview

VIERA Main Menu

- Picture
- Sound
- Setup

Picture (p. 24)

Picture Menu 1/2

- Viewing Mode: Normal
- Contrast: 90
- Brightness: 0
- Colour: 50
- Sharpness: 50
- Tint: 0
- Colour Balance: Normal
- Vivid Colour: On
- Eco Mode: Off

Picture Menu 2/2

- P-NR: Off
- 3D-COMB: On
- Panel: On
- Advanced PC Settings: Access
- Reset Picture Defaults: Reset

Sound (p. 25)

Sound Menu 1/2

- Mode: Music
- Bass: 0
- Treble: 0
- Equalizer: Access
- Balance: 0
- Headphone Volume: 12
- Surround: Off
- Volume Correction: 0
- Speaker Distance to Wall: Over 30cm

Sound Menu 2/2

- MPX: Stereo
- Digital Audio Preference: Dolby D
- SPDIF Selection: Auto
- MPEG Optical Level: 0 dB
- HDMI1 Input: Digital
- Reset Sound Defaults: Reset

Setup (p. 26 and p. 27)

Setup Menu

- PC Setup: Access
- DVI Position Settings: Access
- Off Timer: Off
- Child Lock: Access
- Digital TV Tuning Menu: Access
- Analogue TV Tuning Menu: Access
- Display Settings: Access
- VIERA Link Settings: Access
- System Menu: Access
- Other Settings: Access

Digital TV Tuning Menu

- Favourites Edit: Access
- Channel List: Access
- Auto Tuning: Access
- Manual Tuning: Access
- Update Channel List: Access
- New Channel Message: On
- Signal Condition: Access
- Add MPEG-4 AVC Channels: Access

(p. 26)

Analogue TV Tuning Menu

- Channel List: Access
- Auto Tuning: Access
- Manual Tuning: Access

(p. 26)

Display Settings

- Teletext: TOP
- Side Panel: High
- Input Labels: Access
- Banner Display Timeout: 3 seconds
- Playing Time Display: On

(p. 26)

VIERA Link Settings

- VIERA Link: On
- Power on Link: Off
- Power off Link: On
- Standby Power Save: Off
- Intelligent Auto Standby: Off

(p. 27)

System Menu

- Shipping Condition: Access
- System Update: Access
- Software Licence: Access
- System Information: Access

(p. 27)

Other Settings

- Intelligent Frame Creation: Off
- 24p Smooth Film: Off
- Auto Standby: Off
- Power Save: Off
- 16:9 Overscan: On
- Region Select: NSW / ACT
- Daylight Saving Time: Auto
- DVI Input Setting: Normal



(p. 27)

● Depending on the received signals, available items are varied.

Menu list

Menu	Item	Adjustments / Configurations (alternatives)
Picture	Viewing Mode	<p>Basic picture mode (Dynamic / Normal / Cinema / True Cinema / Game) In each Viewing Mode and input, Contrast, Brightness, Colour, Sharpness, Tint, Colour Balance, Vivid Colour, Eco Mode, P-NR and 3D-COMB can be adjusted and stored to suit your particular viewing requirement.</p> <ul style="list-style-type: none"> ● Set for each input signal. <p>Dynamic : Provides enhanced picture contrast and sharpness when viewing in a bright room</p> <p>Normal : Recommended for viewing under normal ambient room lighting conditions.</p> <p>Cinema : For watching movies in a darkened room with improving the performance of contrast, black and colour reproduction</p> <p>True Cinema : Precisely reproduces the original image quality without any revision.</p> <p>Game : Fast response signal specifically to provide suitable images for playing games</p> <ul style="list-style-type: none"> ● Not valid on TV mode ● A continuous record of time spent using Game mode can be displayed in the top right of the screen. <p>➔ "Playing Time Display" (p. 26)</p>
	Contrast, Brightness, Colour, Sharpness	Increases or decreases the levels of these options according to your personal preference
	Tint	<p>The picture hue can be adjusted to suit your taste.</p> <ul style="list-style-type: none"> ● For NTSC signal, Component or HDMI input
	Colour Balance	<p>Allows you to set the overall colour tone of the picture (Cool / Normal / Warm)</p> <ul style="list-style-type: none"> ● Not valid when the viewing mode is set to "True Cinema"
	Vivid Colour	<p>Automatically adjusts colours to vivid ones (Off / On)</p> <ul style="list-style-type: none"> ● Not valid on PC signal
	Eco Mode	<p>Automatically adjusts the screen brightness appropriately as the surrounding light level lowers to reduce the power consumption (Off / On)</p> <ul style="list-style-type: none"> ● Not available in shop mode (Dynamic picture mode)
	P-NR	<p>Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture (Off / Min / Mid / Max)</p> <ul style="list-style-type: none"> ● Not valid on PC signal
	3D-COMB	<p>Makes still or slow moving pictures look more vivid (Off / On)</p> <ul style="list-style-type: none"> ● Occasionally, while viewing still or slow moving pictures, colour patterning may be seen. Set to "On" to display sharper and more accurate colours. ● For PAL or NTSC signal reception only ● Not valid on Component, PC, HDMI and Media Player
	Panel	<p>Turns the screen off when you select "Off" (Off / On)</p> <ul style="list-style-type: none"> ● The sound is active even if the screen turns off. ● Press any buttons to turn the screen on. ● This function is effective in reducing power consumption when listening to a sound without watching the TV screen.
	Advanced PC Settings	R-Gain, G-Gain, B-Gain
R-Cutoff, G-Cutoff, B-Cutoff		Cuts off each area
Gamma		<p>Changes the gamma curve (S Curve / 1.8 / 2.0 / 2.2 / 2.4 / 2.6)</p> <ul style="list-style-type: none"> ● Please note the numerical values are reference for the adjustment.
Reset PC Settings		Press the OK button to reset the Advanced PC Settings to the default.
	Reset Picture Defaults	Press the OK button to reset settings of Picture Viewing Mode to the default.

Menu	Item	Adjustments / Configurations (alternatives)
Sound	Mode	<p>Selects basic sound mode (Music / Speech / User)</p> <ul style="list-style-type: none"> ● The selected mode affects all input signals. <p>Music : Improves sound quality for watching music videos, etc. Speech : Improves sound quality for watching news, drama, etc.</p> <ul style="list-style-type: none"> ● In Music and Speech modes, you can adjust "Bass" and "Treble" settings, and those settings will be stored for each mode. <p>User : Adjusts the sounds manually by using the equalizer to suit your favourite sound quality.</p> <ul style="list-style-type: none"> ● For the User mode, "Equalizer" will appear on the Sound Menu instead of "Bass" and "Treble". Select the "Equalizer" and adjust the frequency. ➔ "Equalizer" (below)
	Bass	Increases or decreases level to enhance or minimise lower, deeper sound output
	Treble	Increases or decreases level to enhance or minimise sharper, higher sound output
	Equalizer	<p>Adjusts the frequency level to suit your favourite sound quality</p> <ul style="list-style-type: none"> ● This function is available when "Mode" is set to "User". ● Select the frequency and change the frequency level by using the cursor button. ● If you want to enhance the bass sound, raise the level of the lower frequency. If you want to enhance the treble sound, raise the level of the higher frequency. ● To reset the levels of each frequency to the default settings, select the "Reset Equalizer Settings" by using cursor button, and then press the OK button.
	Balance	Adjusts the volume level of right and left speakers
	Headphone Volume	Adjusts the volume of the headphones
	Surround	<p>Surround sound settings (Off / V-Audio / V-Audio Surround)</p> <p>V-Audio : Provides a dynamic enhancer to simulate improved spatial effects</p> <p>V-Audio Surround : Provides a dynamic enhancer of width and depth to simulate improved spatial effects</p> <ul style="list-style-type: none"> ● Switching is also possible by the Surround button on the remote control (p. 10).
	Volume Correction	Adjusts the volume of individual channel or input mode
	Speaker Distance to Wall	<p>Adjusts the low frequency sound (Over 30cm / Up to 30cm)</p> <ul style="list-style-type: none"> ● If the back space between the TV and wall is over 30 cm, "Over 30cm" is recommended. ● If the back space between the TV and wall is within 30 cm, "Up to 30cm" is recommended.
	MPX	<p>Selects multiplex sound mode (if available) (p. 50)</p> <ul style="list-style-type: none"> ● Normally : Stereo ● Stereo signal cannot be received: Mono ● M1 / M2 : Available while mono signal is transmitted ● Analogue TV mode only
	Digital Audio Preference	<p>Selects the initial setting for Audio tracks (Dolby D / MPEG)</p> <p>If programme has both Dolby Digital and MPEG audio tracks, priority is given to what you select</p> <p>Dolby D : A method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can also be multi-channel audio.</p> <p>MPEG : An audio compression method that compresses audio to small size without any considerable loss of audio quality.</p> <ul style="list-style-type: none"> ● Digital TV mode only
	SPDIF Selection	<p>SPDIF : A standard audio transfer file format</p> <p>Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal (Auto / PCM)</p> <p>Auto : Dolby Digital is output as Dolby Digital Bitstream. HE-AAC and MPEG are output as PCM.</p> <p>PCM : Digital output signal is fixed to PCM.</p> <ul style="list-style-type: none"> ● For Digital TV mode or Video mode (p. 40)
	MPEG Optical Level	<p>Adjusts the audio level of MPEG output from DIGITAL AUDIO OUT terminal as the initial setting (0 / -2 / -4 / -6 / -8 / -10 / -12dB)</p> <ul style="list-style-type: none"> ● Normally, MPEG sound is louder comparing with the other types of audio track. ● Digital TV mode only
	HDMI1 / 2 / 3 Input	<p>Select to fit the input signal (Digital / Analogue) (p. 51).</p> <p>Digital : HDMI cable connection</p> <p>Analogue : HDMI-DVI adapter cable connection</p> <ul style="list-style-type: none"> ● HDMI input mode only
	Reset Sound Defaults	Press the OK button to reset settings of the present Mode, Balance, Headphone Volume and Surround in the Sound Menu to the default.

Menu	Item	Adjustments / Configurations (alternatives)	
Setup	PC Setup	Input Resolution Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,280 × 768 pixels), 1,366 × 768 pixels ● Options change depending on signals	
		Clock Set to the minimum level if noise occurs.	
		H-pos Adjusts horizontal position	
		V-pos Adjusts vertical position	
		Clock Phase Eliminates flicker and distortion ● Adjust after Clock adjustment ● Set to the minimum level if noise occurs	
		Sync PC sync signal type (H & V / SOG) H & V : by the horizontal and vertical signals from your PC SOG : Sync on Green sync from your PC	
		Reset PC Settings Press the OK button to reset the PC Setup settings to the default.	
	DVI Position Settings	H-pos Adjusts horizontal position settings of DVI	
		V-pos Adjusts vertical position settings of DVI	
		Reset DVI Position Settings Press the OK button to reset the DVI Position Settings to the default.	
	Off Timer Sets the time the TV automatically goes to Standby mode (Off / 15 / 30 / 45 / 60 / 75 / 90 minutes) (p. 13)		
	Child Lock Locks a channel / AV input to prevent access to it (p. 32)		
	Tuning Menu	Favourites Edit Creates list of favourite channels (Digital TV mode) (p. 29)	
		Channel List Skips the unwanted channels or edits channels (p. 29 and p. 31)	
		Auto Tuning Sets all Digital TV or Analogue TV channels automatically (p. 30 and p. 31)	
		Manual Tuning Sets the TV channels manually (p. 30 and p. 31)	
		Update Channel List Updates the channel list while keeping your settings (Digital TV mode) (p. 30)	
		New Channel Message Selects whether to give a notification message when a new channel is found (Digital TV mode) (Off / On) (p. 30)	
		Signal Condition Checks the Digital TV signal condition (p. 30)	
	Add MPEG-4 AVC Channels Activates the reception of MPEG-2 and MPEG-4 AVC channels ● Use this function if MPEG-4 AVC services start in your area. ● All the previous tuning settings are erased. ● Once activated, this option is removed from the Digital TV Tuning Menu.		
	Display Settings	Teletext Teletext display mode (TOP(FASTTEXT) / List) (p. 17)	
Side Panel Increases the brightness of the side panel (Off / Low / Mid / High) ● The recommended setting is "High" to prevent panel "image retention".			
Input Labels Labels or skips each input terminal (p. 33)			
Banner Display Timeout Sets how long the information banner stays on screen (p. 14) (0 (No display) / 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 seconds)			
Playing Time Display Set to "On" to display a continuous record of time spent using Game mode every 30 mins (Off / On) ● This function is available when "Game" is selected in "Viewing Mode" (p. 24).			

Menu	Item	Adjustments / Configurations (alternatives)
Setup	VIERA Link Settings	VIERA Link Sets to use VIERA Link functions (Off / On) ● VIERA Link functions become available when "VIERA Link" is set to "On" (p. 44).
		Power on Link Sets to use Power on Link functions (Off / On) (p. 44)
		Power off Link Sets to use Power off Link functions (Off / On) (p. 44)
		Standby Power Save Controls the power consumption in Standby mode of the connected equipment to reduce the power consumption (Off / On) (p. 44) ● This function is available when "VIERA Link" is set to "On" and "Power off Link" is set to "On".
		Intelligent Auto Standby Makes non-watched or non-used connected equipment go into Standby mode to reduce the power consumption (Off / On (With reminder) / On (No reminder)) (p. 44) ● This function is available when "VIERA Link" is set to "On".
	System Menu	Shipping Condition Resets all settings to the original condition (p. 34)
		System Update Downloads new software to TV (p. 35)
		Software Licence Displays the software licence information
		System Information Displays the system information of this TV
	Other Settings	Intelligent Frame Creation Automatically compensates the picture frame rate and removes juddering movements to make the images smooth and clear (Off / On) ● Set to "Off" if noise is generated on the screen. ● This function is not available for selection (default to "Off") when "Viewing Mode" is set to "Game" or in the mode of PC input or photo.
		24p Smooth Film Automatically compensates the picture frame rate to make the 24p source movie images smooth (Off / On) ● This is available only for 24p signal input and displayed instead of "Intelligent Frame Creation". ● This function is not available for selection (default to "Off") when "Viewing Mode" is set to "Game" or in the mode of PC input or photo.
		Auto Standby Sets the time the TV automatically goes to Standby mode when no operation is performed for the selected times (Off / 2 / 4 hours) ● Automatic input switching with the connected equipment affects this function and time-count will be reset. ● The notification message will appear 3 minutes before going to Standby mode.
		Power Save Reduces brightness of picture to economise on power consumption (Off / On)
		16:9 Overscan Selects the screen area for displaying the image (Off / On) On: Enlarges the image to hide the edge of the image Off: Displays the image in the original size ● Set to "On" if noise is generated on the edges of the screen. ● This function is available when aspect is set to "16:9". ● This function can be memorized separately for SD (Standard Definition) and HD (High Definition) signals.
		Region Select Selects the region where you live to adjust the standard time (NSW / ACT / Victoria / Queensland / South Australia / Western Australia / Northern Territory / Tasmania) (p. 15)
Daylight Saving Time Select time offset from the standard time for Summer Time (Auto / Off / +1/2 hour / +1 hour) (p. 15) ● Set to "Auto" normally.		
DVI Input Setting Changes the black level in the image for HDMI input mode with DVI input signal manually (Normal / Full) ● When the DVI input signal from the external equipment, especially from PC, is displayed, the black level may not be suitable. In this case, select "Full". ● The black level for HDMI input signal will be adjusted automatically.		

- A different menu will be displayed in the mode of Media Player (p. 36 - 42).
- Only available items can be selected.

Tuning and Editing Channels

You can make Auto Tuning, listing your favourite channels, skipping unwanted channels, etc.



1 Select Digital TV or Analogue TV

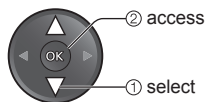
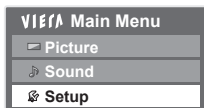


- The selected mode is displayed on the screen (p. 13).

2 Display the menu

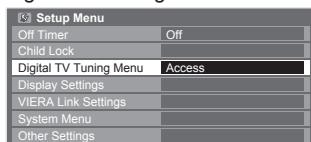


3 Select "Setup"

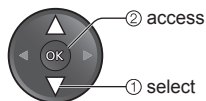
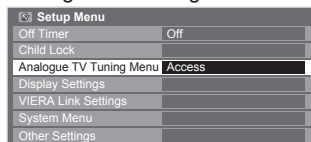


4 Select "Digital TV Tuning Menu" or "Analogue TV Tuning Menu"

Digital TV Tuning Menu



Analogue TV Tuning Menu

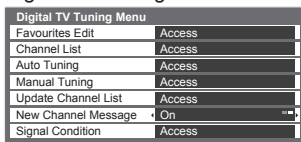


To return to TV

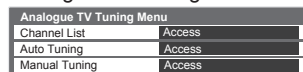


5 Select a function

Digital TV Tuning Menu

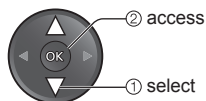


Analogue TV Tuning Menu



- For details → p. 31

- For details → p. 29 and p. 30



6 Set (see p. 29 - 31)

For Auto Tuning, using the buttons on the side panel of the TV (p. 11)

① Press repeatedly until "Auto Tuning" appears



② Access "Auto Tuning"



③ Start "Auto Tuning"



• To return to TV

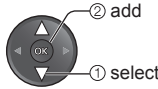
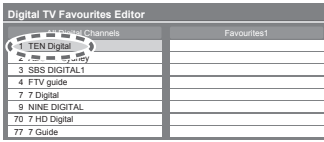


Digital TV Tuning Menu

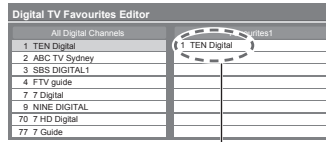
Favourites Edit List favourite channels

Create your favourite channel lists (Favourites) from various broadcasters (up to 4: Favourites1 to 4). The Favourites lists are available from the Information banner (p. 14) and the TV Guide (p. 16).

① Select a channel to list



② Add it to the Favourites list



● To display another Favourites
→ **G**

● To add all channels to the list → **Y**

A channel is added

To edit List



Select the field of Favourites to edit and:

● To name the Favourites → **R**



(maximum: ten characters)



Set characters

● You can set characters by using numeric buttons (p. 22).

RETURN

Store

● To move the channel → **G** → Select the new position



G
Confirm

● To delete the channel → **OK**

● To delete all channels → **Y**

③ Store

RETURN



Note

- Channel numbers are defined by the broadcaster and cannot be changed.
- Hidden channels (see below) can be selected but not viewed.

Channel List Skip unwanted channels / Edit channels

Select a channel and reveal / hide



② reveal / hide

- :reveal
- :hide (skip)

① select

You can hide unwanted channels. The hidden channels cannot be displayed except in this function. Use this function to skip unwanted channels.

● To reveal all channels → **Y**

● To retune each channel (Manual Tuning) → **R** (p. 30)

To edit channels

You can also edit each channel in Channel List.

Channel position



or



Select a channel to edit and:

● To swap the channel position → **G** → Enter the new position number

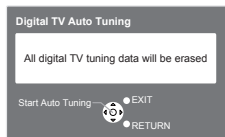


G
Store

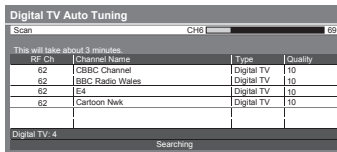
Digital TV Tuning Menu

Auto Tuning Set all Digital TV channels automatically

Start Auto Tuning



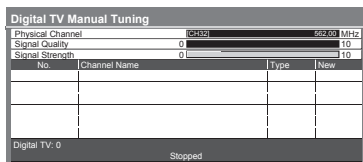
Settings are made automatically



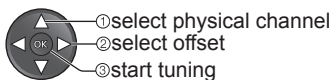
Automatically retune all Digital TV channels received in the area.

- All the previous tuning settings are erased.
- When the operation is completed, the channel at channel position "1" will be displayed.
- Search begins in the order from the lower channels to the higher channels.
- If tuning has not been done completely → "Manual Tuning" (see below)

Manual Tuning Set Digital TV channel manually

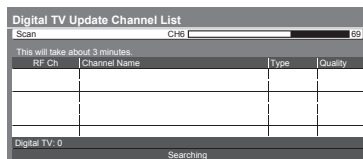


Normally use "Auto Tuning" or "Update Channel List" to update Digital TV channels on your channel list. If tuning has not been done completely or for adjusting the direction of the aerial, use this function.



- All channels found will be added to the Digital TV Channel List.

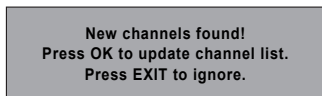
Update Channel List Update channels automatically



You can add new channels, delete duplicated channels, update channel name and position automatically to Channel List.

- Channel List is updated while keeping your settings in Favourites Edit, Channel List, Child Lock, etc.

New Channel Message Display a notification message



Selects whether to give a message when new Digital TV channel is found. (Off / On)

- Selecting OK will perform "Update Channel List".

Signal Condition Check Digital TV signal

- To change the channel →

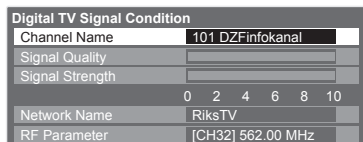


Selects a channel and checks the Digital TV signal condition.

A good Signal Strength is not an indication of suitable signal for Digital TV reception. Please use the Signal Quality indicator as follows:

Signal Quality:

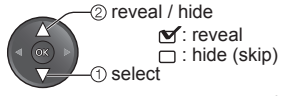
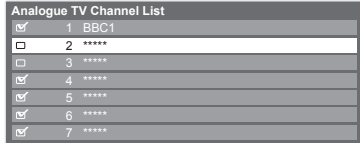
- Green bar → Good
- Yellow bar → Poor
- Red bar → Bad (Check the aerial)



Analogue TV Tuning Menu

Channel List Skip unwanted channels / Edit channels

Select a channel and reveal / hide

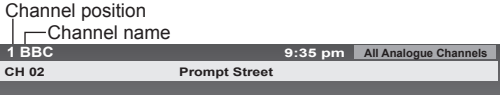


You can hide unwanted channels. The hidden channels cannot be displayed except in this function. Use this function to skip unwanted channels.

- To reveal all channels →
- To retune each channel (Manual Tuning) → (see below)

To edit channels

You can also edit each channel in Channel List.

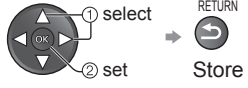


Select a channel to edit and:

- To move the channel position → → Select the new position → Store
- To rename the channel name →



(maximum: five characters)



Set characters

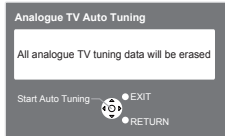
- You can set characters by using numeric buttons (p. 22).

Note

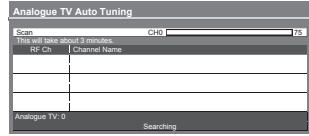
- If a VCR is connected only with the RF cable, edit "VCR".

Auto Tuning Set all Analogue TV channels automatically

Start Auto Tuning



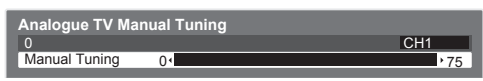
Settings are made automatically



Automatically retune all Analogue TV channels received in the area.

- All the previous tuning settings are erased.
- When the operation is completed, the channel at channel position "1" will be displayed.
- Search begins in the order from the lower channels to the higher channels.
- If tuning has not been done completely → "Manual Tuning" (see below)

Manual Tuning Set Analogue TV channel manually



Set Analogue TV channel manually after Auto Tuning.

- If a VCR is connected only with the RF cable, select channel position "0".

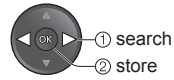
Select a channel position



Select a channel



Search and store



Child Lock

You can lock specific channels / AV input terminals and control who watches them. When the locked channel / input is selected, a message appears; by entering the PIN number, you can watch it.

- 1 Display the menu**
MENU
- 2 Select "Setup"**

VIERA Main Menu	
Picture	
Sound	
Setup	
- 3 Select "Child Lock"**

Setup Menu	
Off Timer	Off
Child Lock	Access
Digital TV Tuning Menu	
Display Settings	
VIERA Link Settings	
System Menu	
Other Settings	
- 4 Set (see below)**

To return to TV
EXIT

Child Lock Control channel audience

- 1 Enter the PIN number (4 digits)**

Child Lock-PIN Entry	
Please enter PIN for access	
PIN	••••

 - "0000" has been stored as the default PIN number.
- 2 Select "Child Lock List" or "Parental Rating"**

Child Lock	
Change PIN	
Child Lock List	Access
Parental Rating	No Block

To set "Child Lock List"

Child Lock List - TV and AV				
Name	Input	Type	Lock	
1 BBC1	Digital TV	Digital TV	Lock	
2 BBC2	Digital TV	Digital TV	Lock	
7 BBC THREE	Digital TV	Digital TV	Lock	
14 E4	Digital TV	Digital TV	Lock	
101 BBC-1 Wales	Digital TV	Digital TV	Lock	
AV1	External	AV	Lock	
AV2	External	AV	Lock	

To set "Parental Rating"

- Rating → p. 50

To change the PIN number

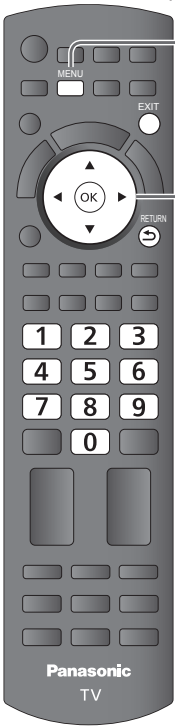
Select "Change PIN" in "Child Lock" and enter a new PIN number twice.

- Make a note of the PIN number in case you forget it.

Input Labels

For easier identification and selection of the input mode, you can label each input terminals or skip terminal that is not connected to any equipment.

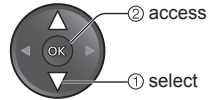
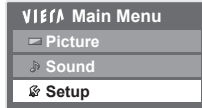
- To select the input mode → p. 19



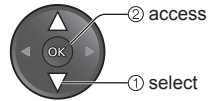
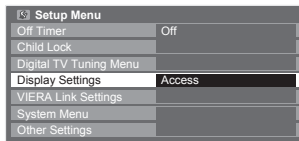
1 Display the menu



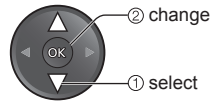
2 Select "Setup"



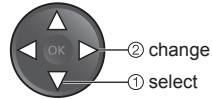
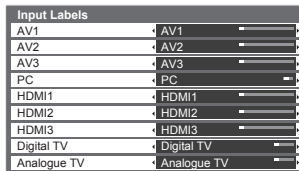
3 Select "Display Settings"



4 Select "Input Labels"



5 Select an input terminal and set



To return to TV

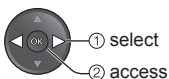


The labels you set will be displayed in "Input Selection" menu (p. 19) or banner.

- If "Skip" is selected, you cannot select the mode.

User input

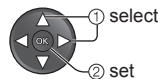
You can name each input terminals freely.



Select "User input"



(maximum: ten characters)



Set characters

- You can set characters by using numeric buttons (p. 22).

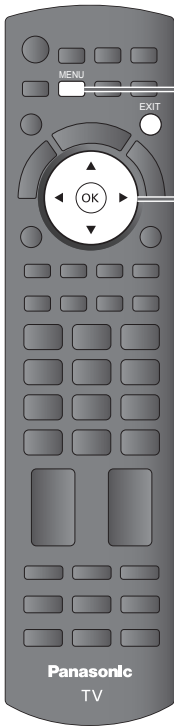
RETURN



Store

Shipping Condition (Reset settings)

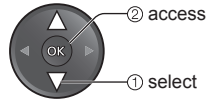
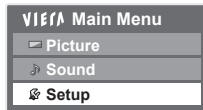
Resets the TV to its original condition, i.e. no channels tuned in. All settings are reset (channels, picture, sound settings, etc.).



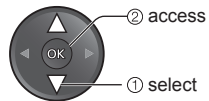
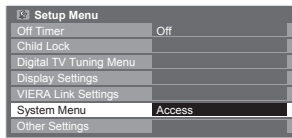
1 Display the menu



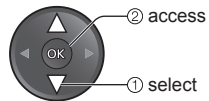
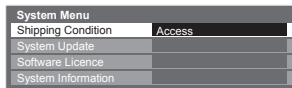
2 Select "Setup"



3 Select "System Menu"



4 Select "Shipping Condition"



To return to TV



5 Set (see below)

Shipping Condition Reset settings

① Check the message and reset

OK (confirm)

OK (confirm)

OK (start Shipping Condition)

② Follow the on screen instructions



Reset to Factory Shipping Condition Completed.
Please switch off TV.

• "Auto Tuning" will automatically start when Mains power On / Off switch is next turned On (p. 12).

To retune TV channels only, e.g. after moving house
 ➔ "Auto Tuning" in "Tuning and Editing Channels" (p. 30 and p. 31)

Updating the TV Software

From time to time, a new version of software may become available for download to enhance the performance or operations of the TV. If there is an update available, a notification banner is displayed when the channel has the update information.

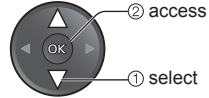
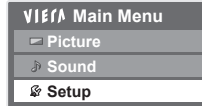
- To download → 
 - If you choose not to download → 
- You can update any new software automatically or manually.



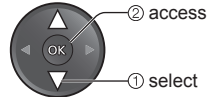
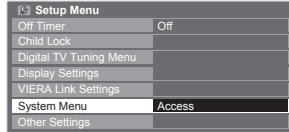
1 Display the menu



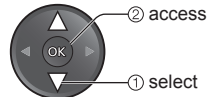
2 Select "Setup"



3 Select "System Menu"



4 Select "System Update"



5 Set (see below)

To return to TV



Shipping Condition (Reset settings)
Updating the TV Software

System Update Update TV's software system

To update automatically	To update immediately						
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: left;">System Update</td> </tr> <tr> <td style="width: 80%;">Auto Update Search in Standby</td> <td style="text-align: right;">On</td> </tr> <tr> <td>System Update Search Now</td> <td style="text-align: right;">Start</td> </tr> </table> </div> <div style="margin-bottom: 10px;"> <p>Set "Auto Update Search in Standby" to "On"</p> </div> <ul style="list-style-type: none"> ● Automatically performs a search in standby and downloads an update, if any software updates are available. ● The automatic updating is performed at 3:00 AM and 5:00 AM every morning under the following conditions: <ul style="list-style-type: none"> • Standby (TV turned Off with the remote control) 	System Update		Auto Update Search in Standby	On	System Update Search Now	Start	<div style="margin-bottom: 10px;"> <p>Select "System Update Search Now"</p> </div> <p>Searches for an update (for several mins.) and displays a corresponding message if any</p> <p>Download</p>
System Update							
Auto Update Search in Standby	On						
System Update Search Now	Start						
<p>If System Update is performed, the software will be updated (it may change TV functions). If you do not wish to do so, set "Auto Update Search in Standby" to "Off".</p>							
<p>Note</p> <ul style="list-style-type: none"> ● Download may take about 60 mins. ● During software download and update, DO NOT switch Off the TV or press any buttons. The TV will automatically be activated after downloading is completed. ● A clicking sound will occur at 3:00 AM and 5:00 AM when "Auto Update Search in Standby" is set to "On". This sound is normal. ● During downloading, the TV will display a blank screen for 40 to 50 seconds. Do not interrupt the TV during this procedure. 							

Advanced

Using Media Player

Media Player allows you to enjoy photo, video or music recorded on an SD Card and a USB Flash Memory.

VIERA IMAGE VIEWER is the function of the easy viewing for photos or videos recorded on an SD Card on the TV screen by simply inserting into the SD Card slot.

Photo mode : Still pictures recorded by digital cameras will be displayed.

Video mode : Moving pictures recorded by digital video cameras will be played back.

Music mode : Digital music data will be played back.

When these functions are used, the audio signal is output from audio output terminals, but video signals are not output.

- "Date" shows the date on which the recording was made by the recording equipment. The file without record of the date is shown "***/**/*****".

Data format for SD Card / USB Flash Memory browsing

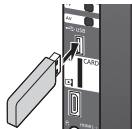
- Photo : Still images recorded with digital still cameras compatible with JPEG files of DCF* and EXIF standards
Data format - Baseline JPEG (Sub-sampling 4:4:4, 4:2:2 or 4:2:0)
Image resolution - 8 × 8 to 30,719 × 17,279 pixels
- Video : SD-Video Standard Ver. 1.2 [MPEG-2 (PS format)] and AVCHD Standard compatible files with an audio format that is either MPEG-1/Layer-2 format or Dolby Digital format
(A modified data with a PC may not be displayed correctly.)
- Music : Data format - MP3 (.mp3)
- SD Card format : SDXC Card - exFAT
SDHC Card / SD Card - FAT16 or FAT32
- Compliant card type (maximum capacity): SDXC Card (64 GB), SDHC Card (32 GB), SD Card (2 GB), miniSD Card (2 GB) (requiring miniSD adapter)
- If miniSD Card is used, insert / remove it together with the adapter.
- Check the latest information on the card type at the following website. (English only)
<http://panasonic.jp/support/global/cs/tv/>
- USB Flash Memory format : FAT16, FAT32 or exFAT
*DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

Note

- Format the device with the recording equipment.
- The picture may not appear correctly on this TV depending on the recording equipment used.
- Display may take some time when there are many files and folders.
- This function cannot display Motion JPEG and still image not JPEG formatted (i.e. TIFF, BMP).
- A data modified with a PC may not be displayed.
- Images imported from a PC must be compatible with EXIF (Exchangeable Image File) 2.0, 2.1, and 2.2.
- Partly degraded files might be displayed at a reduced resolution.
- The folder and file names may be different depending on the digital camera or digital video camera used.
- Do not use two-byte characters or other special codes.
- The device may become unusable with this TV if the file or folder names are changed.

To insert or remove the SD Card / USB Flash Memory


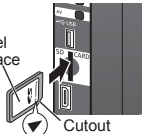
USB Flash Memory



- Insert or remove straightly and completely.

SD Card

- To insert SD Card
Gently insert the SD Card label surface facing front.
Push until a click is heard
- To remove SD Card
Push the centre of the card



● For more information of the SD Card ➔ p. 53



Starting Media Player



1 Insert the SD Card or USB Flash Memory

When the SD Card is inserted, switching to Media Player (Photo mode) will be done automatically. ➔ p. 38

- It is assumed the SD Card contains photos. If not, press the blue button to activate the "Contents Select" screen and select the other mode.
 - ➔ "To switch to the other mode" (see below)

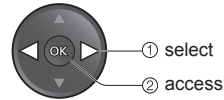
2 Switch to Media Player



3 Select the icon you want to access to

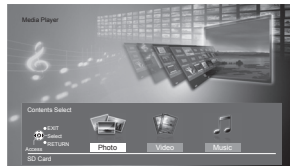


selected device name

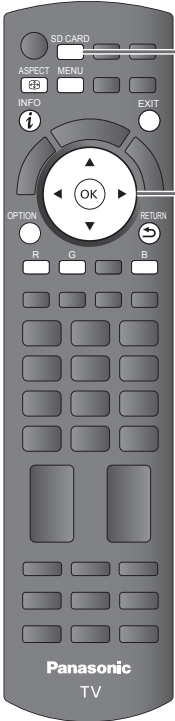
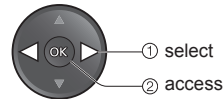


- If two or more devices are not connected, this step will be skipped.

4 Select the content



- Photo ➔ "Photo mode" (p. 38)
- Video ➔ "Video mode" (p. 40)
- Music ➔ "Music mode" (p. 42)



To return to TV



To return to the previous screen

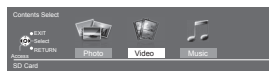


To switch to the other mode

While the thumbnail is displayed, display the contents selection.



Select the contents



Change the device

You can change to the other device directly in the same mode if two devices are connected.

Display the menu



Select "Drive Select"



Select the icon you want to access to



selected device name

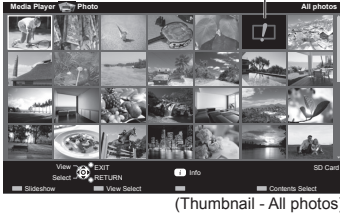


Using Media Player

Photo mode

Photo mode will read all “.jpg” extension files in the SD Card or USB Flash Memory. Insert the SD Card or access to “Photo” mode (p. 37)

Error display (images that could not be loaded, etc.)



(Thumbnail - All photos)

Thumbnail images of all photos in the SD Card or USB Flash Memory are displayed.

- To change the background music
→ “Photo Setup” (p. 39)
- To display the information of the highlighted photo



In case of all photos

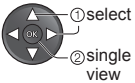


File name	1/48	file number / total file number
Date	p1010001.JPG	
Pixel	23/10/2009	
	1600X1200	

In case of the sorted group view (see below)

Folder name	1/12	group number / total group number
	23/10/2009	folder name, date or month
Number of files	3	

Single view - Display one photo at a time. Select the photo that you want to view



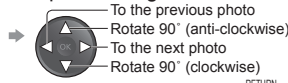
Operation guide

(Single view)

- To display / hide the operation guide



- To operate Single view



- To return to thumbnail → RETURN

Slideshow - Slideshow ends with the same thumbnail from which it started.

Select the photo that you want to start the slideshow from

Start Slideshow



- To display / hide the operation guide



- To pause (returns to Single view) → OK

- To return to thumbnail → RETURN

To sort by folder, date recorded or month recorded

Display the view selection

Select the sort type



Folder view	Displays thumbnails of photos grouped by folder
Sort by Date	Displays thumbnails of photos grouped by date
Sort by Month	Displays thumbnails of photos grouped by month



- Files that are not stored in a folder are grouped in a folder named “/”.
- Photos without a recorded date are displayed as “Unknown”.

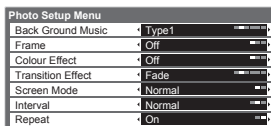
- To return to the thumbnail (All photos)



select “All photos”

Photo Setup Setup for Photo mode

Display the menu



Menu	Item	Adjustments / Configurations (alternatives)
Photo Setup	Back Ground Music	<p>Selects the background music played during Photo mode (Off / Type1 / Type2 / Type3 / Auto / User)</p> <p>Type1 / 2 / 3 : Pre-installed music tracks</p> <p>Auto : Music data stored in the root folder of the current device will be played back randomly.</p> <ul style="list-style-type: none"> ● If there is no available music data, no sound will be produced. <p>User : Plays music set by you ● For setting ➔ p. 42</p>
	Frame	<p>Selects the display frame for the slideshow (Off / Multi / Collage)</p> <p>Multi : Display is divided into 9 sections in a tiled design</p> <p>Collage : Photos are displayed in random positions and random scale</p>
	Colour Effect	<p>Selects the colour effect of photos (Off / Sepia / Gray scale)</p>
	Transition Effect	<p>Selects the transition effect used when switching between photos during the slideshow</p> <p>(Off / Fade / Slide / Dissolve / Motion / Random)</p> <p>Fade : The next photo fades in gradually.</p> <p>Slide : The next photo slides and appears from the left side.</p> <p>Dissolve : The photo is replaced by an indefinite block unit.</p> <p>Motion : The photo is replaced with enlarged, reduced, moved up or moved down.</p> <p>Random : Each transition is selected at random.</p> <ul style="list-style-type: none"> ● This function is only available when "Frame" is set to "Off".
	Screen Mode	<p>Selects whether to display photos in normal or enlarged size during Single view and Slideshow (Normal / Zoom)</p> <ul style="list-style-type: none"> ● Depending on the photo size, the photo may not be enlarged.
	Interval	<p>Selects slideshow interval (Short / Normal / Long)</p>
	Repeat	<p>Slideshow repeat (Off / On)</p>

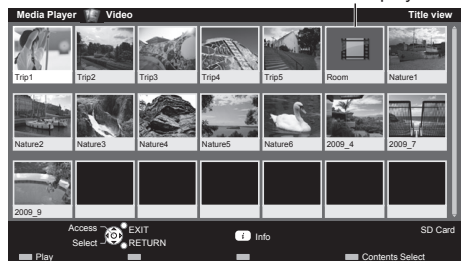
Using Media Player

Video mode

Video mode supports AVCHD and MPEG2 file formats.

Access to "Video" mode (p. 37)

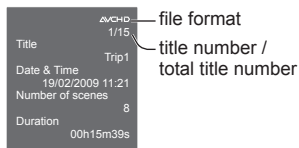
Film icon will be displayed if the file does not support thumbnail view.



(Thumbnail - Title view)

Thumbnails of video titles in the SD Card or USB Flash Memory are displayed. When a title is highlighted, preview starts (if the title supports previewing).

- To turn preview off
 - ➔ "Video Setup" (p. 41)
- To display the information of the highlighted title



Playback from Title view

Playback of the selected title starts.

Select the title Start playback



Playback from the selected scene in the title

Playback starts from the selected scene, and runs to the end of the title.

Select the title Select the scene to start playback



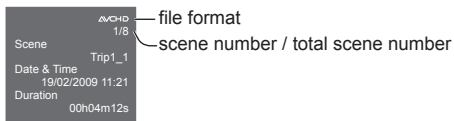
(Thumbnail - Scene view)



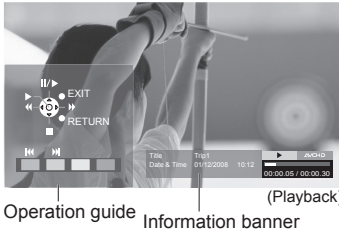
When a scene is highlighted, preview starts (if the scene supports previewing).

- To turn preview off
 - ➔ "Video Setup" (p. 41)

- To repeat playback
 - ➔ "Video Setup" (p. 41)
- To display the information of the highlighted scene



Operations during playback



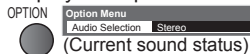
- To display / hide the operation guide and information banner
 - ➔ INFO
- To operate the playback
 - ◀◀ Rewind
 - ⏸ Pause / Playback
 - ▶▶ Playback
 - ▶ Fast forward
 - Stop
- To change the aspect ratio (only for the 4:3 video content)
 - ➔ ASPECT
 - ➔
- To return to thumbnail
 - ➔
- To the previous scene
 - ➔
- To the next scene
 - ➔

Sound Settings

You can enjoy multi-channel sound by connecting an amplifier to the DIGITAL AUDIO OUT terminal.

To confirm or change the current sound status (during playback)

Display the Option menu



Change the sound (if the video has multiple audio signals)

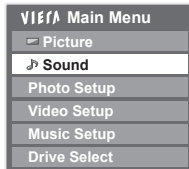


- It may take several seconds for the changes to take effect

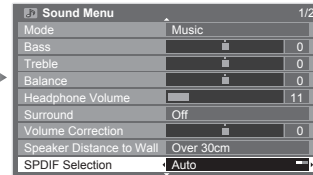
Audio output settings

Display the menu

Select "Sound"



Select "SPDIF Selection" and set



Menu	Item	Adjustments / Configurations (alternatives)
Sound	SPDIF Selection	SPDIF : Standard audio transfer file format Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal (Auto / PCM) Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Digital output signal is fixed to PCM.

Video Setup Setup for Video mode

Display the menu

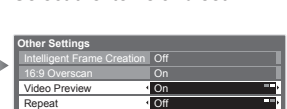
Select "Video Setup"



Select "Other Settings"



Select the items and set



Menu	Item	Adjustments / Configurations (alternatives)
Video Setup	Other Settings	Video Preview Sets whether to start previewing the title or scene in a thumbnail screen (Off / On) ● Images may not be displayed for a short time in the thumbnail screen. To resolve this problem, set preview to "Off".
	Repeat	Playback repeat within the title (Off / On)

Note

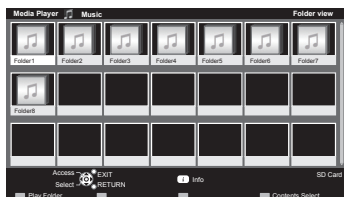
- The structure of titles and scenes may vary depending on the digital video camera used. In this case, titles and scenes may not be displayed correctly.

Using Media Player

Music mode

Music mode supports MP3 file format.

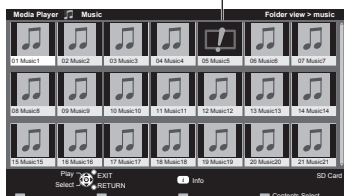
Access to "Music" mode (p. 37)



(Thumbnail - Folder view)



Error display (images that could not be loaded, etc.)



(Thumbnail - File view)



Playback starts

- To display the information of the highlighted folder or music



- To playback from folder view

Select the folder

Start playback



Operation during playback

- To display/ hide the operation guide



- To operate the playback



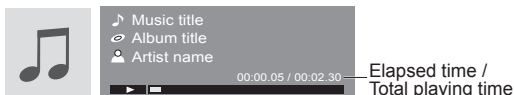
- To the previous music



- To the next music



- The information banner is displayed as shown below.



Elapsed time / Total playing time

Music Setup Setup for Music mode

Display the menu



Select "Music Setup"



Set



Menu	Item	Adjustments / Configurations (alternatives)
Music Setup	Repeat	Selects the repeated mode (Off / Folder / One) Folder: All music in the selected folder are played back repeatedly. One: The selected music is played back repeatedly.

Set background music for Photo mode

You can register your favourite music as background music for Photo mode.

- Select "User" in "Back Ground Music" → "Photo Setup" (p. 39)

While playing music, display the selection screen



Select "File" or "Folder" and set



File : The current music will be registered as back ground music.
Folder : All the music in the current folder will be registered as back ground music.

VIERA Link Functions

Note

- For DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera with VIERA Link function, connect to HDMI1, HDMI2 or HDMI3 terminal via an HDMI cable.
- For Player theatre / Blu-ray Disc theatre / Amplifier, connect to HDMI1, HDMI2 or HDMI3 terminal via an HDMI cable, and also connect either the optical digital audio cable or RCA cable for audio output from the TV.
- Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized.
Recommended Panasonic's HDMI cable part number:
 - RP-CDHS15 (1.5 m)
 - RP-CDHS30 (3.0 m)
 - RP-CDHS50 (5.0 m)

Preparations

- Connect the equipment supporting VIERA Link.
- Set up the connected equipment. Read the manual of the equipment.
- For optimal recording, the settings of the recorder might be required. For details, read the manual of the recorder.
- Set VIERA Link On in the Setup Menu ➔ "VIERA Link" (p. 27)
- Set up the TV ➔ **After connection, turn the equipment on and then switch the TV on. Set the input mode to HDMI1, HDMI2 or HDMI3 (p. 19), and make sure that an image is displayed correctly.**
This setup should be done each time when the following conditions occur:
 - for the first time
 - when adding or reconnecting equipment
 - when changing setup

Features available

Channel download

Channel setting can be downloaded to the recorder.

Easy playback

Automatic input switching - When the connected equipment is operated, input mode is switched automatically.

Power on link

Set Power on Link "On" in the Setup Menu to use this function ➔ "Power on Link" (p. 27)
When the connected equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when the TV is in Standby mode.)

Power off link

Set Power off Link "On" in the Setup Menu to use this function ➔ "Power off Link" (p. 27)
When the TV is set to Standby mode, the connected equipment is also automatically set to Standby.

- This function will work even if the TV enters standby mode automatically by auto power standby function.

Standby Power Save Reduce unnecessary power consumption in standby

Set Standby Power Save "On" in the Setup Menu to use this function

➔ "Standby Power Save" (p. 27)

The power consumption in Standby mode of the connected equipment is controlled higher or lower in synchronization with the TV On / Off state to reduce the consumption.

When the TV is set to Standby mode, the connected equipment is automatically set to Standby and the power consumption in Standby mode of the connected equipment is automatically minimized.

When the TV is turned on, the connected equipment is still in Standby mode, but the power consumption is increased to make startup time early.

- This function is effective if the connected equipment can change the power consumption in Standby mode and is set to higher consumption.
- This function will work when "Power off Link" is set to "On".

Intelligent Auto Standby Auto standby for unnecessary equipment

Set Intelligent Auto Standby "On (With reminder)" or "On (No reminder)" in the Setup Menu to use this function ➔ "Intelligent Auto Standby" (p. 27)

When the TV is On, non-watched or non-used connected equipment goes into Standby mode automatically to reduce the power consumption. For example, when the input mode is switched from HDMI, when Speaker Selection is changed to "TV" (except for watching a disc).

- If you select "On (With reminder)", the on screen message will be displayed to be noticed before working this function.
- This function may not work properly depending on the connected equipment. If required, set to "Off".

Features available (Using VIERA Link Menu)

Pause Live TV Pause Live TV programme

Access and pause the live TV programme

You can pause the live TV programme and resume later.

Live TV programme will be recorded on HDD of the connected DIGA Recorder.

- This function is available with DIGA Recorder which has HDD.
- If you connect several recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder which has HDD to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder which has HDD to HDMI1.
- If you cannot operate, check the settings and the equipment
 ➔ "Summary of features", "Connection", "Preparations" (p. 43 and p. 44)

① Display "VIERA Link Menu"

② Select "Pause Live TV" and pause

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

② pause
① select ➔ TV picture will be paused.

- You can also access Pause Live TV by using VIERA TOOLS. ➔ p. 21
- Live TV programme is recorded on HDD from where it was paused.
- If the paused TV picture disappears after a few minutes
 ➔ (the paused picture will be restored)

To operate Pause Live TV

- Operations may be different depending on the recorder. In this case, follow the operation guide or read the manual of the recorder.

- search backward
- pause
- search forward
- playback
- stop

To return to Live TV (stop playback of Pause Live TV / cancel pause)

➔ TV ➔

Pause Live TV	
Stop Pause Live TV?	
Yes	No

Select "Yes"

① select
② stop

- If you stop playback or cancel pause, the recorded programme will be deleted from HDD.

Direct TV Rec Direct TV Recording - What you see is What you record

Recording the current programme in DIGA Recorder immediately.

- If you connect a variety of recorders including other manufacturers' recorders at the same time, please connect DIGA Recorder to the TV's lower HDMI terminal number. For example, if you use HDMI1 and HDMI2 for two recorders, in this case connect DIGA Recorder to HDMI1.
- If you cannot operate, check the settings and the equipment
 ➔ "Summary of features", "Connection", "Preparations" (p. 43 and p. 44)

① Display "VIERA Link Menu"

② Select "Direct TV Rec" and start recording

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

② start
① select

To stop recording
 Select "Stop" in "Direct TV Rec" and stop recording

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Stop
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

① select
② stop

VIERA Link Functions

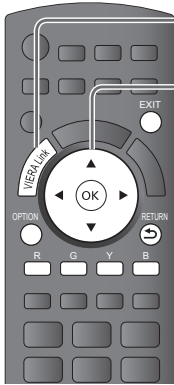
Features available (Using VIERA Link Menu)

VIERA Link Control Operate the connected equipment with VIERA remote control

Access and operate the menu of the equipment

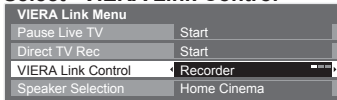
You can control some functions of the connected equipment with this TV remote control by pointing at the TV's signal receiver.

- If you cannot operate, check the settings and the equipment
 - ➔ "Summary of features", "Connection", "Preparations" (p. 43 and p. 44)
- For details of the operation of the connected equipment, read the manual of the equipment.



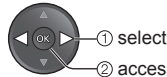
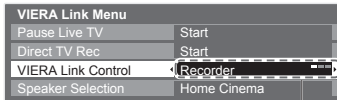
① Display "VIERA Link Menu"

② Select "VIERA Link Control"



③ Select the equipment you want to access

The type of the connected equipment is displayed. Select the type of the equipment and access.



Recorder / Player / Home Cinema / Video Camera / LUMIX / Digital Camera / Other

- You can also access VIERA Link control by using VIERA TOOLS. ➔ p. 21
- The displayed item may vary depending on the connected equipment.
- "Home Cinema" means Player theatre, Blu-ray Disc theatre or Recorder theatre.
- "Other" means Tuner set top box.

The menu of the accessed equipment
(Input mode will be changed automatically)

④ Operate the connected equipment

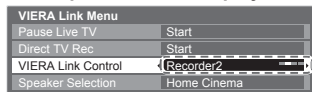
1. Set the remote control code to "73" (p. 20)
2. Follow the operation guide

To display the operation guide ➔		Store / set / access ➔	
Move the cursor / select the menu ➔		Return to the previous menu ➔	
Move the cursor / access / adjust ➔		Exit the menu ➔	
When the key words are displayed on colour bar ➔			

Note

- Some operations may not be available depending on the equipment. If so, use its own remote control.

If multiple recorders or players are connected



Recorder1-3 /
Player1-3

The number is given from the TV's lower HDMI terminal number connected to the same type equipment. For example, two recorders to HDMI2 and HDMI3, in this case the recorder connected to HDMI2 is displayed as "Recorder1", and the recorder connected to HDMI3 is displayed as "Recorder2".

If you access non-VIERA Link equipment



Type of the connected equipment is displayed.

You can access the menu of the equipment. But you cannot operate it. Use its own remote control to operate the equipment.

Features available (Using VIERA Link Menu)

Speaker Selection Speaker control

Access and control the speaker volume

You can control the theatre speaker with this TV remote control by pointing at the TV's signal receiver.

- If you cannot operate, check the settings and the equipment
➔ "Summary of features", "Connection", "Preparations" (p. 43 and p. 44)

① Display "VIERA Link Menu"

② Select "Speaker Selection"

VIERA Link Menu	
Pause Live TV	Start
Direct TV Rec	Start
VIERA Link Control	Recorder
Speaker Selection	Home Cinema

③ Set to "Home Cinema" or "TV"

Home Cinema
Player theatre, Blu-ray Disc theatre or Amplifier will be automatically turned on if it is in Standby mode and the sound is from theatre speakers connected to the equipment.

- Volume up / down ➔
- Mute ➔
- The sound of TV speakers is mute.
- When the equipment is turned off, TV speakers will be active.

TV
TV speakers are active.

Note

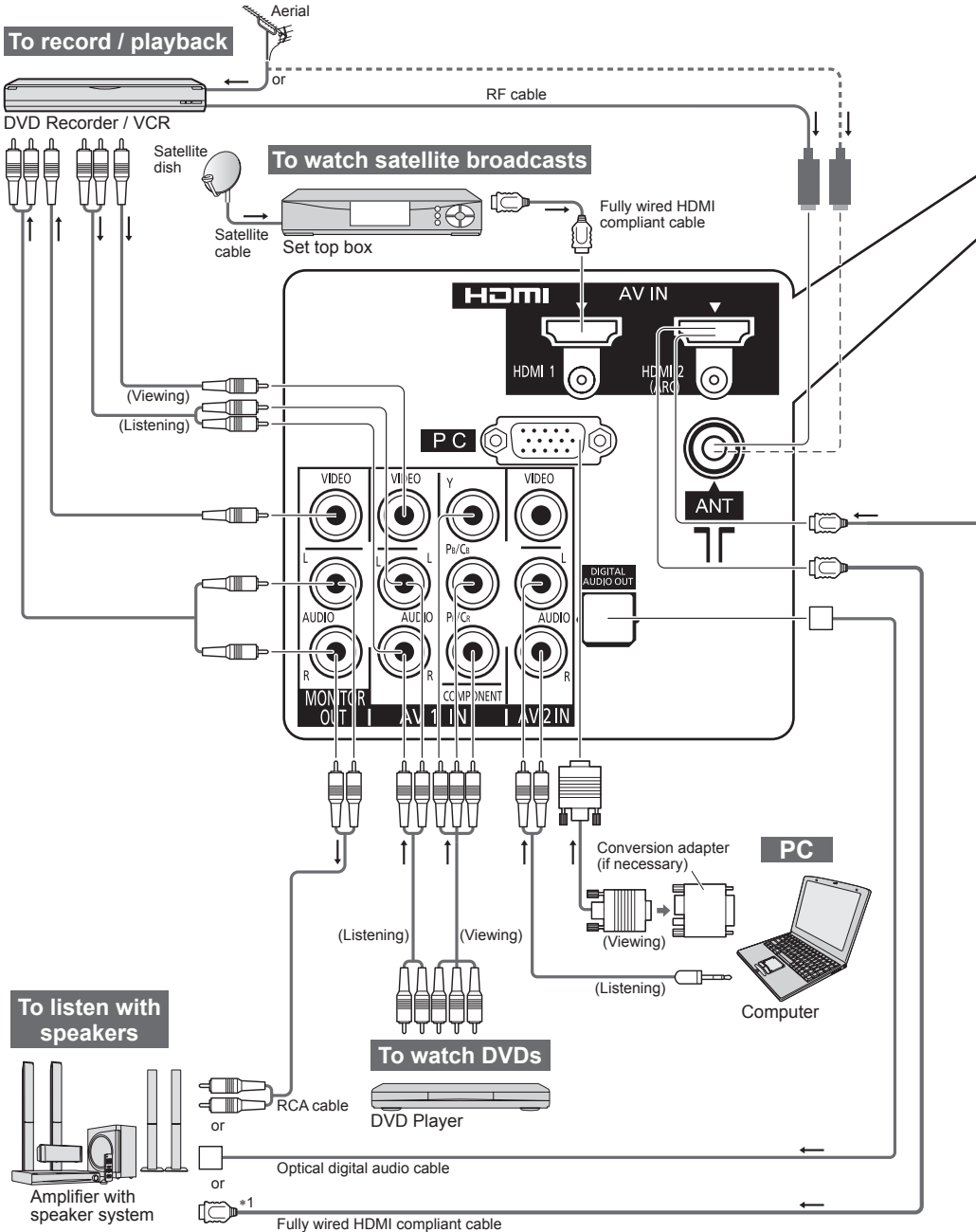
- If you wish to enjoy the multi-channel sound (e.g. Dolby Digital 5.1ch) via an Amplifier, connect with HDMI cable and Optical digital audio cable (p. 43), and then select "Home Cinema". If your Amplifier has "HDAVI Control 5" function, you can connect only with HDMI cable. In this case, connect your Amplifier to the TV's HDMI2 terminal.
- To enjoy the sound from the DIGA Recorder in multi-channel sound, connect an HDMI cable from the DIGA Recorder to the Amplifier (p. 43).

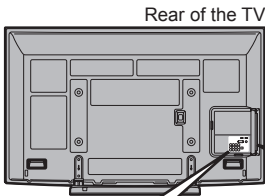
Note

- These functions may not work properly depending on the connected equipment.
- Image or sound may not be available for the first few seconds when input mode is switched.
- Easy playback may be available by using the remote control for Player theatre, Blu-ray Disc theatre or Amplifier. Read the manual of the equipment.
- "HDAVI Control 5" is the newest standard (current as of December, 2009) for HDAVI Control compatible equipment. This standard is compatible with conventional HDAVI equipment.
- To confirm this TV's version of HDAVI Control ➔ "System Information" (p. 27)

External Equipment

These diagrams show our recommendations for how to connect the TV to your various equipment. For other connections, consult the instructions for each piece of equipment, the table below, and the specifications (p. 59).





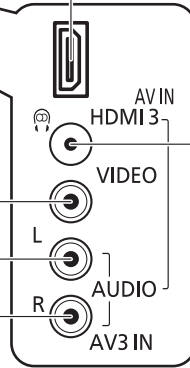
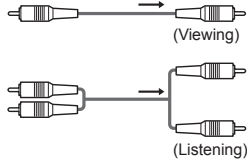
Rear of the TV

**Camcorder /
HDMI equipment**

Fully wired HDMI compliant cable



**Camcorder /
Game equipment**



(M3 stereo mini plug)

HDMI equipment

→ "HDMI connection"
(p. 43 and p. 51)

Fully wired HDMI compliant cable



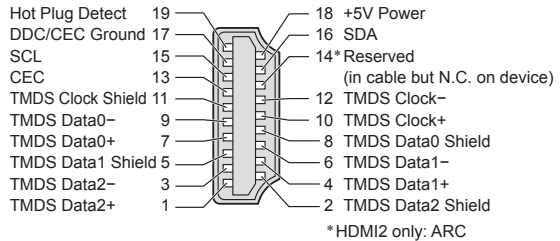
Headphones

To adjust volume
→ "Headphone Volume" in
the Sound Menu (p. 25)



External Equipment

HDMI terminal



Advanced

Types of connectable equipment to each terminal

Terminal	AV1 IN AV2 IN AV3 IN (Side panel of the TV)	MONITOR OUT	DIGITAL AUDIO OUT	HDMI		
				1	2	3
Recording / Playback (equipment)						
To record / playback videocassettes / DVDs (VCR / DVD recorder)	○	○				
To watch DVDs (DVD player)	○			○	○	○
To watch camcorder images (Video camera)	○			○	○	○
To watch satellite broadcasts (Set top box)	○			○	○	○
To play games (Game equipment)	○			○	○	○
To use amplifier with speaker system		○	○		○*	
VIERA Link				○	○	○

○: Recommended Connection

*1: applicable if your amplifier has ARC (Audio Return Channel) function

Technical Information

Channel Allocation (Analogue TV mode)

CH Display / Receive Channel			
CH 0 - CH 5	S 2 - S 10	CH 5A	CH 6 - CH 9
CH 9A	CH 10 - CH 12	S 11 - S 44	CH 20 - CH 75

Rating (Digital TV mode)

Rating	Meaning	Rating	Meaning
No Block	Not classified	M	Mature
P	Pre school	MA 15+	Mature Adult 15+
C	Children	AV 15+	Adult strong Violence 15+
G	General	R	Restricted 18+
PG	Parental Guidance recommended		

Stereo / Bilingual Sound Selection (Analogue TV mode)



When you receive the stereo / bilingual sound system, sound output modes can be selected by pressing the **Sound Selection** button.

Audio Signal	STEREO	MAIN I	SUB II	MONO
Mode Indicator	⊙	I	II	▽

NICAMUsed in New Zealand, Singapore, Hong Kong etc.

Type of broadcast	Regular broadcast (Standard Audio)	Regular + NICAM MONO I (MAIN I)	NICAM STEREO	NICAM DUAL MONO (MAIN I / SUB II)
Mode Indicator	No Indicator ← ▽	I ↔ ▽	⊙ ↔ ▽	I ↔ II ↓ ▽ ↑

A2 (German)Used in Australia, Malaysia etc.

Type of broadcast	Regular broadcast (Standard Audio)	BILINGUAL or DUAL MONO: MAIN I / SUB II	STEREO
Mode Indicator	No Indicator ← ▽	I ↔ II	⊙ ↔ ▽

- If the stereo signal is poor or the receiving conditions are not optimum or if STEREO:MONO automatic switching occurs, it is recommended you switch from STEREO to MONO.
- Even when the contents of the receiving signal undergo changes, selection mode is kept intact.
- When the receiving conditions deteriorate, listening will be easier if the mode is set to the MONO position, using the Sound Selection button.
- DUAL, also known as DUAL MONO or as BILINGUAL is not currently transmitted in some countries.

HDMI connection

HDMI (high-definition multimedia interface) is the world's first complete digital consumer AV interface complying with a non-compression standard.

HDMI allows you to enjoy high-definition digital images and high-quality sound by connecting the TV and the equipment.

HDMI-compatible equipment (*1) with an HDMI or DVI output terminal, such as a DVD player, a set top box or a game equipment, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable. About connections, see "External Equipment" (p. 48 and p. 49).

Applicable HDMI features

- Input audio signal : 2ch Linear PCM (sampling frequencies - 48 kHz, 44.1 kHz, 32 kHz)
- Input video signal : 480i, 480p, 576i, 576p, 720p, 1080i and 1080p
 - ➔ "Input signal that can be displayed" (p. 52)
 - Match the output setting of the digital equipment.
- Input PC signal : ➔ "Input signal that can be displayed" (p. 52)
 - Match the output setting of the PC.
- VIERA Link (HDAVI Control 5) : ➔ "VIERA Link" (p. 43)
- Audio Return Channel (*2) (HDMI2 terminal only)

DVI connection

If the external equipment has only a DVI output, connect to the HDMI terminal via a DVI to HDMI adapter cable (*3).

When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal (HDMI1 / 2: use AV2 audio terminals / HDMI3: use AV3 audio terminals).

If the picture position is not fit to the screen during the DVI connection, adjust the position on "DVI Position Settings" in the Setup Menu (p. 26). The settings are memorized for each HDMI terminals and input signals.

Note

- Audio settings can be made on the "HDMI1 / 2 / 3 Input" in the Sound Menu. (p. 25)
- If the connected equipment has an aspect adjustment function, set the aspect ratio to "16:9".
- These HDMI connectors are "type A".
- These HDMI connectors are compatible with HDCP (High-Bandwidth Digital Content Protection) copyright protection.
- An equipment having no digital output terminal may be connected to the input terminal of either "COMPONENT" or "VIDEO" to receive analogue signals.
- This TV incorporates HDMI™ technology.

(*1): The HDMI logo is displayed on HDMI-compliant equipment.

(*2): Audio Return Channel (ARC) is a function to be able to send digital sound signals via an HDMI cable.

(*3): Enquire at your local digital equipment retailer shop.

PC connection

A PC may be connected to this TV so that the PC screen is displayed and sound is heard from the TV.

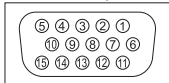
- PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz. More than 1,024 signal lines could result in incorrect display of the image.
- A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

Note

- Some PC models cannot be connected to this TV.
- When using PC, set the colour display quality of PC to the highest position.
- For details of the applicable PC signals, see p. 52.
- Max. display resolution

Aspect	4:3	1,440 × 1,080 pixels
	16:9	1,920 × 1,080 pixels

- D-sub 15-pin connector signal



Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	NC (not connected)
②	G	⑦	GND (Ground)	⑫	NC (not connected)
③	B	⑧	GND (Ground)	⑬	HD
④	NC (not connected)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	NC (not connected)

Technical Information

Input signal that can be displayed

COMPONENT (Y, P_B/C_B, P_R/C_R), HDMI

* Mark: Applicable input signal

Signal name	COMPONENT	HDMI
525 (480) / 60i	*	*
525 (480) / 60p	*	*
625 (576) / 50i	*	*
625 (576) / 50p	*	*
750 (720) / 60p	*	*
750 (720) / 50p	*	*
1,125 (1,080) / 60i	*	*
1,125 (1,080) / 50i	*	*
1,125 (1,080) / 60p		*
1,125 (1,080) / 50p		*
1,125 (1,080) / 24p		*

PC (from D-sub 15P)

Applicable input signal for PC is basically compatible to VESA standard timing.

Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 400 @70 Hz	31.47	70.07
640 × 480 @60 Hz	31.47	59.94
640 × 480 @75 Hz	37.50	75.00
800 × 600 @60 Hz	37.88	60.32
800 × 600 @75 Hz	46.88	75.00
800 × 600 @85 Hz	53.67	85.06
852 × 480 @60 Hz	31.44	59.89
1,024 × 768 @60 Hz	48.36	60.00
1,024 × 768 @70 Hz	56.48	70.07
1,024 × 768 @75 Hz	60.02	75.03
1,024 × 768 @85 Hz	68.68	85.00
1,280 × 1,024 @60 Hz	63.98	60.02
1,280 × 768 @60 Hz	47.70	60.00
1,366 × 768 @60 Hz	48.39	60.04
Macintosh13" (640 × 480)	35.00	66.67
Macintosh16" (832 × 624)	49.73	74.55
Macintosh21" (1,152 × 870)	68.68	75.06

PC (from HDMI terminal)

Applicable input signal for PC is basically compatible to HDMI standard timing.

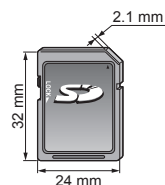
Signal name	Horizontal frequency (kHz)	Vertical frequency (Hz)
640 × 480 @60 Hz	31.47	60.00
750 (720) / 60p	45.00	60.00
1,125 (1,080) / 60p	67.50	60.00

Note

- Signals other than above may not be displayed properly.
- The above signals are reformatted for optimal viewing on your display.
- PC signal is magnified or compressed for display, so that it may not be possible to show fine detail with sufficient clarity.

SD Card

- Use an SD Card which meets SD standards. If not, it may cause the TV to malfunction.
- Do not remove the card while the TV is accessing data (this can damage card or TV).
- Do not touch the pins on the back of the card.
- Do not subject the card to a high pressure or impact.
- Insert the card in the correct direction (otherwise, card may be damaged).
- Electrical interference, static electricity, or erroneous operation may damage the data or card.
- Back up the recorded data at regular intervals in case of deteriorated or damaged data or erratic operation of the TV. (Panasonic is not liable for any deterioration or damage of recorded data.)
- About SD Card format and maximum capacity → p. 36



On screen messages

Message	Meaning / Action
Cannot read file	<ul style="list-style-type: none"> ● The file is broken or unreadable. ● The TV does not support the format.
No Device Inserted	<ul style="list-style-type: none"> ● Confirm SD Card or USB device is inserted correctly.
No valid file to play	<ul style="list-style-type: none"> ● The card has no data.
This operation is not possible	<ul style="list-style-type: none"> ● Your operation is not available.

Maintenance

First, remove the mains plug from the socket outlet.

Display panel, Cabinet, Pedestal

For regular care:

Gently wipe the surface of the display panel, cabinet, or pedestal by using a soft cloth to clean the dirt or fingerprints.

For stubborn dirt:

Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water). Then wring the cloth and wipe the surface. Finally, wipe away all the moisture.

Caution

- Do not use a hard cloth or rub the surface too hard. This may cause scratches on the surface.
- Take care not to subject the TV's surfaces to water or detergent. A liquid inside the TV could lead to product failure.
- Take care not to subject the surfaces to insect repellent, solvent, thinner, or other volatile substances. This may degrade surface quality or cause peeling of the paint.
- The surface of the display panel is specially treated and may be easily damaged. Take care not to tap or scratch the surface with your fingernail or other hard objects.
- Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

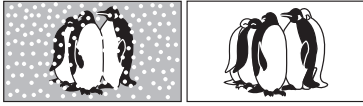
Mains plug

Wipe the mains plug with a dry cloth at regular intervals. Moisture and dust may lead to fire or electrical shock.

FAQs

Before requesting service or assistance, please follow these simple guides to resolve the problem. If the problem still persists, please contact your local Panasonic dealer for assistance.

White spots or shadow images (noise)



- Check the position, direction, and connection of the aerial.

Neither image nor sound is produced

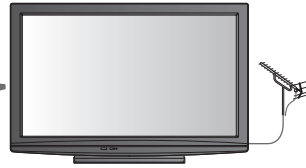
- Is the TV in "AV mode"?
- Is the mains lead plugged into the socket outlet?
- Is the TV turned On?
- Check the Picture Menu (p. 24) and volume.
- Check all required cables and connections are firmly in place.

An error message appears

- Follow the message's instructions.
- If the problem persists, contact your local Panasonic dealer.

"VIERA Link" function does not work and an error message appears

- Confirm the connection. (p. 43)
- Turn the connected equipment on and then switch the TV on. (p. 44)



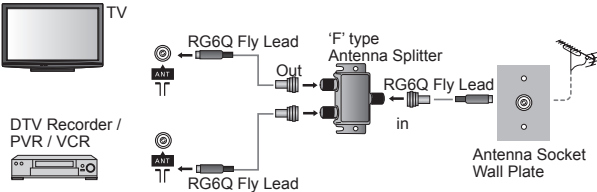
Contrast is reduced

- Contrast is lowered in the following conditions without any user operation for a few minutes:
 - no signal in Digital TV mode or AV mode
 - selected locked channel
 - selected invalid channel
 - selected radio channel
 - displayed menu
 - Thumbnail or still picture

Pixel Statement

- An image on a LCD or Plasma TV screen is created by many small groups of dots known as pixels (which is similar to the image in a newspaper). It also naturally follows that higher panel resolutions contain more pixels. To create a colour image, each pixel consists of three tiny coloured dots (known as sub-pixels), one each of red, green and blue. Each one of these dots is precisely controlled by the electronics of the TV to produce the picture. Whilst Panasonic maintains the highest standards in manufacturing technology and processes in the construction of these panels, there are a number of allowable pixel/subpixel failures that still allow the panel to be defined as a good panel. It is not possible to guarantee absolutely no pixel loss.

FAQs

	Problem	Actions
Screen	Chaotic image, noisy	<ul style="list-style-type: none"> ● Change the setting of “P-NR” in the Picture Menu (to remove noise). (p. 24) ● Check nearby electrical products (car, motorcycle, fluorescent lamp).
	No image can be displayed	<ul style="list-style-type: none"> ● Is “Colour” or “Contrast” in the Picture Menu set to the minimum? (p. 24)
	Blurry or distorted image (no sound or low volume)	<ul style="list-style-type: none"> ● Reset channels (p. 30 and p. 31).
	Unusual image is displayed	<ul style="list-style-type: none"> ● Turn off the TV with Mains power On / Off switch, then turn it on again.
	“Shop” appears on screen at switch on	<ul style="list-style-type: none"> ● “Shop” was selected in “Auto Tuning” (p. 12) ● Reset settings in “Shipping Condition” (p. 34), then select “Home” in “Auto Tuning” (p. 12)
Sound	No sound is produced	<ul style="list-style-type: none"> ● Is “Sound Mute” active? (p. 10) ● Is the volume set to the minimum?
	Sound level is low or sound is distorted	<ul style="list-style-type: none"> ● Sound signal reception may be deteriorated. ● Set “MPX” in the Sound Menu to “Mono” (p. 25).
	Unusual sound from the display unit	<ul style="list-style-type: none"> ● When power is on, drive noise may be heard from inside the display unit (not a sign of faulty operation).
HDMI	Sound is unusual	<ul style="list-style-type: none"> ● Set the sound setting of the connected equipment to “2ch L.PCM”. ● Check the “HDMI1 / 2 / 3 Input” setting in the Sound Menu. (p. 25) ● If digital sound connection has a problem, select analogue sound connection. (p. 51)
	Pictures from external equipment are unusual when the equipment is connected via HDMI	<ul style="list-style-type: none"> ● Is the HDMI cable connected properly? (p. 43, 48 and p. 49) ● Turn Off the TV and equipment, then turn them On again. ● Check an input signal from the equipment. (p. 52) ● Use an equipment compliant with EIA/CEA-861/861B.
Digital TV	<p>Note: Digital TV reception is only as good as the antenna and the antenna cabling delivering the DTV signals to the television. Reliable digital TV reception requires high quality, robust DTV signals which can only be achieved when using a TV antenna and cabling designed for digital TV reception.</p> <ul style="list-style-type: none"> ● Further reading please visit: http://www.digitalready.gov.au/publications.aspx where you can download ‘The Digital TV Antenna Systems for Homes Handbook’ information pdf file. ● For your safety, the antenna and cabling should be inspected / installed by a licenced installer that should comply with Australian Standard AS1417.1 for Domestic installations or AS1367 for MATV installations. 	
	<p>Connecting devices such as DTV recorder / PVR / VCR etc that also require an antenna connection to the digital television</p>	<ul style="list-style-type: none"> ● To maintain optimum antenna signal quality, use an ‘F’ type TV signal splitter (as illustrated) when connecting two or more devices to the same antenna socket.  <ul style="list-style-type: none"> ● Hint: Some degradation of the DTV signal may occur if you are connecting the aerial through an external device (e.g. DVD Recorder or Set Top Box). In this case it is better to use a splitter and connect the aerial directly to both devices.

	Problem	Actions
Digital TV	After digital TV tuning, (or re-tuning) some or all DTV channels are missing	<ul style="list-style-type: none"> ● Check to ensure your area is covered by DTV transmissions. ● Check that the aerial and antenna cable are designed for DTV reception. If you live within 5-10 Km of DTV transmission towers, a combined VHF / UHF Digital TV aerial should be adequate. Outside this area, separate VHF and UHF aerials provide superior reception performance. ● If you live in a unit or apartment, check to ensure the Master Antenna TV (MATV) system is designed for analogue and DTV reception. Please consult your body corporate.
	Picture regularly pixelates on some channels, or 'No Signal' message	<ul style="list-style-type: none"> ● Check "Signal Condition" via TV Setup menu. If "Signal Quality" is red/orange or constantly changing, check aerial/cable/connections. If problem persists consult your local TV antenna installer. ● Too much signal; is "Signal Strength" always at full strength? If yes, try attenuating (reducing) the signal strength ● Check that the aerial and antenna cable are designed for DTV reception. ● The received signal may be too weak to allow the TV to reliably lock to the selected channel to generate a viewable picture. If problem persists consult your local TV aerial installer. ● Interference from household appliances (known as impulse noise) such as light switches, fridges etc may cause picture break up and / or audio distortion. Use high quality quad shielded coaxial cable (RG6Q) fly lead between TV and antenna wall socket to minimise impulse noise pickup. If problem persists consult your local TV aerial installer. ● Antenna installation may be using an aerial amplifier that is faulty or an older style aerial amplifier that was not designed for digital TV. ● Older style antenna cabling, loose fitting/corroded wall socket connections/terminals etc.
	Picture infrequently pixelates on some or all channels	<ul style="list-style-type: none"> ● Electrical interference caused by local or distant lighting storms, heavy rain, high wind etc may cause picture to break up and or audio to mute/distort momentarily. ● Impulse noise interference from an infrequently used electrical appliance, or a passing vehicle or lawn mower with a "noisy" ignition system. ● Older style antenna cabling, loose fitting/corroded wall socket connections/terminals etc.
Other	TV goes into Standby mode	<ul style="list-style-type: none"> ● Auto power standby function is activated. ● The TV enters Standby mode about 30 mins. after analogue broadcasting ends.
	The remote control does not work or is intermittent	<ul style="list-style-type: none"> ● Are the batteries installed correctly? (p. 3) ● Has the TV been switched On? ● Point the remote control directly at the front of the TV (within about 7 m and a 30 degree angle of the front of the TV). ● Situate the TV away from sunshine or other sources of bright light not to shine on the TV's remote control signal receiver.
	Parts of the TV become hot	<ul style="list-style-type: none"> ● Even when the temperature of parts of the front, top and rear panels has risen, these temperature rises will not pose any problems in terms of performance or quality.

Licence

Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

- VGA is a trademark of International Business Machines Corporation.
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Specifications

		TH-P58S20A	TH-P65S20A	
Power	Power rating	AC 220 - 240 V, 50 / 60 Hz 3.0 A	AC 220 - 240 V, 50 / 60 Hz 3.2 A	
	Normal (Home) mode	202 W	249 W	
	Standby condition	0.4 W		
Display panel	Aspect Ratio	16:9		
	Visible screen size	147 cm (diagonal) 1,284 mm (W) × 722 mm (H)	165 cm (diagonal) 1,434 mm (W) × 806 mm (H)	
	Number of pixels	2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]		
Sound	Speaker	160 mm × 40 mm × 2 pcs, 6 Ω		
	Audio Output	20 W (10 W + 10 W)		
	Headphones	M3 (3.5 mm) stereo mini Jack × 1		
PC signals	VGA, SVGA, WVGA, XGA SXGA, WXGA (compressed) Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz			
Receiving Systems / Band name	PAL B/G	Reception of Off air broadcasts		
	Digital TV	7 MHz VHF / UHF (Australia) free-to-air TV broadcast reception		
	PAL 60 Hz M.NTSC NTSC	Playback of NTSC tape from some PAL Video recorders (VCR) Playback from M. NTSC Video recorders (VCR) Playback from NTSC Video recorders (VCR)		
Aerial - Rear	Standard Belling & Lee connector			
Operating Conditions	Temperature : 0 °C - 35 °C Humidity : 20 % - 80 % RH (non-condensing)			
Connection Terminals	AV1 Input	AUDIO L - R	RCA PIN Type × 2 0.5 V[rms]	
		VIDEO	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)	
		COMPONENT	Y P _B /C _B , P _R /C _R 1.0 V[p-p] (including synchronization) ±0.35 V[p-p]	
	AV2 Input	AUDIO L - R	RCA PIN Type × 2 0.5 V[rms]	
		VIDEO	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)	
	AV3 Input	AUDIO L - R	RCA PIN Type × 2 0.5 V[rms]	
		VIDEO	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)	
	Monitor Output	AUDIO L - R	RCA PIN Type × 2 0.5 V[rms] (high impedance)	
		VIDEO	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)	
	Others	HDMI1 - 3 Input	TYPE A Connectors	● This TV supports "HDAVI control 5" function.
		PC Input	HIGH-DENSITY D-SUB 15PIN	R / G / B: 0.7 V[p-p] (75 Ω) HD / VD: TTL Level 2.0 - 5.0 V[p-p] (high impedance)
		DIGITAL AUDIO OUT	PCM / Dolby Digital, Fiber optic	
		Card slot	SD Card slot × 1	
USB		USB 2.0 TYPE A Connector	DC 5V, Max. 500 mA	
Dimensions (W × H × D)	1,424 mm × 933 mm × 387 mm (With Pedestal) 1,424 mm × 882 mm × 104 mm (TV only)	1,574 mm × 1,016 mm × 415 mm (With Pedestal) 1,574 mm × 965 mm × 105 mm (TV only)		
Mass	48.5 kg Net (With Pedestal) 46.0 kg Net (TV only)	62.0 kg Net (With Pedestal) 56.0 kg Net (TV only)		

Note

- Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.

Panasonic Warranty

1. The product is warranted for 12 months from the date of purchase. Subject to the conditions of this warranty Panasonic or its Authorised Service Centre will perform necessary service on the product without charge for parts or labour if, in the opinion of Panasonic, the product is found to be faulty within the warranty period.
2. This warranty only applies to Panasonic products purchased in Australia and sold by Panasonic Australia or its Authorised Distributors or Dealers and only where the products are used and serviced within Australia or its territories. Warranty cover only applies to service carried out by a Panasonic Authorised Service Centre and only if valid proof of purchase is presented when warranty service is requested.
3. This warranty only applies if the product has been installed and used in accordance with the manufacturer's recommendations (as noted in the operating instructions) under normal use and reasonable care (in the opinion of Panasonic). The warranty covers normal domestic use only and does not cover damage, malfunction or failure resulting from use of incorrect voltages, incorrect installation, accident, misuse, neglect, build-up of dirt or dust, abuse, maladjustment of customer controls, mains supply problems, thunderstorm activity, infestation by insects or vermin, tampering or repair by unauthorised persons (including unauthorised alterations), introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, exposure to abnormally corrosive conditions or any foreign object or matter having entered the product.
4. This warranty does not cover the following items unless the fault or defect existed at the time of purchase:
 - (a) Cabinet Part(s)
 - (b) Video or Audio Tapes
 - (c) SD cards or USB devices
 - (d) User replaceable Batteries
 - (e) DVD Video, Blu-ray, or Recordable Discs
 - (f) Video / Audio Heads from wear and tear in normal use
 - (g) Information stored on Hard Disk Drive, USB stick or SD card
 - (h) DTV reception issues caused by TV Aerial / Cabling / Wall socket(s) etc
5. Some products may be supplied with Ethernet connection hardware. The warranty is limited on such products and will not cover
 - (a) Internet and or DLNA connection / setup related problems
 - (b) Access fees and or charges incurred for internet connection
 - (c) The use of incompatible software or software not specifically stipulated in the product operations manual; and
 - (d) Any indirect or consequential costs associated with the incorrect use or misuse of the hardware, its connection to the internet or any other device.
6. If warranty service is required you should:
 - Telephone Panasonic's Customer Care Centre on 132600 or visit our website and use the Service Centre Locator for the name/address of the nearest Authorised Service Centre.
 - Send or bring the product to a Panasonic Authorised Service Centre together with your proof of purchase receipt as a proof of purchase date. Please note that freight and insurance to and / or from your nearest Authorised Service Centre must be arranged by you.
7. The warranties hereby conferred do not extend to, and exclude, any costs associated with the installation, de-installation or re-installation of a product, including costs related to the mounting, de-mounting or remounting of any screen, (and any other ancillary activities), delivery, handling, freighting, transportation or insurance of the product or any part thereof or replacement of and do not extend to, and exclude, any damage or loss occurring by reason of, during, associated with, or related to such installation, de-installation, re-installation or transit.

Panasonic Authorised Service Centres are located in major metropolitan areas and most regional centres of Australia, however, coverage will vary dependant on product. For advice on exact Authorised Service Centre locations for your product, please telephone our Customer Care Centre on 132600 or visit our website and use the Service Centre Locator.

Unless otherwise specified to the consumer the benefits conferred by this express warranty are additional to all other conditions, warranties, guarantees, rights and remedies expressed or implied by the Trade Practices Act 1974 and similar consumer protection provisions contained in legislation of the States and Territories and all other obligations and liabilities on the part of the manufacturer or supplier and nothing contained herein shall restrict or modify such rights, remedies, obligations or liabilities. **Feb 2010**

THIS WARRANTY CARD AND THE PURCHASE DOCKET (OR SIMILAR PROOF OF PURCHASE) SHOULD BE RETAINED BY THE CUSTOMER AT ALL TIMES

If you require assistance regarding warranty conditions or any other enquiries, please contact our Customer Care Centre via the Panasonic website www.panasonic.com.au or by phone on 132 600. If phoning in, please ensure you have your operating instructions available.

Panasonic Australia Pty. Limited

ACN 001 592 187 ABN 83 001 592 187

Locked Bag 505, Frenchs Forest, NSW 2086

PRO-031-F11 Issue: 2.0

18-02-2010

RQA0245

Customer's Record

The model number and serial number of this product may be found on its rear panel. You should note the model number and the serial number in the space provided below and retain this book, plus your purchase receipt, as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number

Serial Number

Panasonic Corporation

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

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