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.

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.

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

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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Printed in Thailand
M0510-0
Operating Instructions
Plasma Television

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.
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.
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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

1. Open

2. Close

Note the correct polarity (+ or -)

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.
Safety Precautions

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.

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

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 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.

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 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 place the TV on sloped or unstable surfaces
- The TV may fall off or tip over.

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 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.
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
If no signal is received and no operation is performed in Analogue TV mode for 30 minutes, the TV will automatically go to standby mode.

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

**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.

### Attaching the pedestal

#### Assembling the pedestal
Use the assembly screws A to fasten the left and right 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.
- "L" or "R" mark is stamped on the bottom of the pole.

#### Securing the TV
Use the assembly screws B to fasten securely.
- Make sure that the screws are securely tightened.
- Carry out the work on a horizontal and level surface.
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 base 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

A Band  B Clamp  C Screw  D Wood screw

Securing to a furniture

Fix pedestal and furniture together with band.

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-WK4P1RW

Rear of the TV

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

Depth of screw: minimum 15 mm, 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 TV 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

AC 220 - 240 V, 50 / 60 Hz

Mains lead (supplied)

Rear of the TV

Aerial

RF cable

Press both tabs and pull on mains connector to release

Make sure that the mains lead is securely fixed.

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  p. 43
- Read the manual of the equipment, too.
- Other equipment connection  p. 48, 49, 56
Connecting DVD Recorder / VCR

TV, DVD Recorder or VCR

Rear of the TV

Mains lead (supplied)

Aerial

AC 220 - 240 V, 50 / 60 Hz

Connecting DVD Recorder / VCR

Adjust the panel to your desired angle

Set the mark at the centre as illustrated, to have the swivel positioned at the centre of the rotation angle.

- Ensure that the pedestal does not hang over the edge of the base even if the TV swivels to the full rotation range.
- Do not place any objects or hands within the full rotation range.

TH-P42S20A
a: 520 mm / b: 355 mm / c: 15°

TH-P50S20A
a: 528 mm / b: 407 mm / c: 10°

[View from the top]
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. 43)
- 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 Stereo / Bilingual Sound Selection (p. 50)
- Changes the sound track when more than two choices are available (Digital TV mode) (p. 14)

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

Example (Sound Menu):

<table>
<thead>
<tr>
<th>Mode</th>
<th>Music</th>
<th>Volume Correction</th>
<th>Speaker Distance to Wall</th>
<th>Standby Mode</th>
<th>HDMI3</th>
<th>AV3 terminais</th>
<th>Headphone jack</th>
<th>SD card slot</th>
<th>USB port</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>Music</td>
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<td>AV3 terminais</td>
<td>Headphone jack</td>
<td>SD card slot</td>
<td>USB port</td>
</tr>
</tbody>
</table>

Operation guide will help you.

How to use remote control:

- **MENU**
  - Open the Main Menu
- **Cursor**
  - Move the cursor / select the menu item
  - Move the cursor / adjust levels / select from a range of options
- **EXIT**
  - Exit the menu system and return to the normal viewing screen
- **RETURN**
  - Return to the previous menu
- **Access**
  - Access the menu / store settings after adjustments have been made or options have been set
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
   - Select State / Territory
     - Northern Territory
     - Queensland
     - Victoria
     - New South Wales / Australian Capital Territory
     - Tasmania

3. Select Auto Scan Type
   - Auto Scan Type
     - All Channels
     - Digital TV Channels only

   - Auto Tuning starts
     - 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”
   - Please select your viewing environment.
     - Home
     - Shop

   - 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).

3. Select a channel
   - To select the two or three-digit channel number, e.g. 39 ➔ 3 ➔ 9 (in a short time)
   - If one or two-digit channel number ➔ ➔ quickly changes the channel
   - To select from the Channel List ➔

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

Select a channel using TV Guide (Digital TV mode) (p. 16)
Possible to confirm the TV Guide (EPG) before selecting channels.
Display TV Guide ➔ Select a channel

Other useful functions

Hold

<table>
<thead>
<tr>
<th>Hold</th>
<th>Display subtitles</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOLD</td>
<td>Freeze / unfreeze picture</td>
</tr>
</tbody>
</table>

Off Timer

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

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

  Channel position and name

  Example (Digital TV mode)
  - Current time
  - Programme status
  - Channel name

  Example (Analogue TV mode)

  Channel status

  - 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)
  - To update the TV software
  - To hide
  - Extra information (press again to hide the banner) (Digital TV mode)
  - To set display timeout

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)
- 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)

  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.

Display Aspect Selection list

To change the mode using the ASPECT button only

Press repeatedly until you reach the desired mode

16:9
Directly displays the image at “16:9” without distortion (anamorphic).

14:9
Displays the image at the standard “14:9” without distortion.

Just
Displays a “4:3” image full-screen. Stretching is only noticeable at the left and right edges.

4:3
Displays the image at the standard “4:3” without distortion.

4:3 Full
Displays a “4:3” image enlarged horizontally to fit the screen.

Zoom1
Displays a “16:9” letterbox (anamorphic) image full-screen without distortion.

Zoom2
Displays a “16:9” letterbox (anamorphic) image full-screen without distortion.

Zoom3
Displays a “2.35:1” letterbox (anamorphic) image full-screen without distortion. At “16:9”, displays the image at its maximum (with slight enlargement).

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.

<table>
<thead>
<tr>
<th>Region</th>
<th>Standard time</th>
<th>Daylight Saving Time: Auto (During Summer Time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW / ACT</td>
<td>+10:00</td>
<td>+11:00</td>
</tr>
<tr>
<td>Victoria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Queensland</td>
<td>+10:00</td>
<td></td>
</tr>
<tr>
<td>South Australia</td>
<td>+9:30</td>
<td>+10:30</td>
</tr>
<tr>
<td>Western Australia</td>
<td>+8:00</td>
<td></td>
</tr>
<tr>
<td>Northern Territory</td>
<td>+9:30</td>
<td></td>
</tr>
<tr>
<td>Tasmania</td>
<td>+10:00</td>
<td>+11:00</td>
</tr>
</tbody>
</table>

(Based on GMT)

- These items can be set from “Other settings” in Setup Menu. (p. 23, 27)
Using TV Guide (Digital TV mode)

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.

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

To watch the programme
1. select
2. watch

To return to TV
EXIT

To view details of the programme
Select the programme
1. select
2. INFO
Press again to return to TV Guide.

To view a channel list of the selected favourite list
1. select a favourite list
2. view

To list favourite channels p. 29

To view a channel list of the selected type
1. select type
2. 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)

**Functions (Teletext mode)**

<table>
<thead>
<tr>
<th>Hold</th>
<th>Reveal hidden data</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOLD</td>
<td>Stop automatic updating (If you wish to hold the current page without updating)</td>
</tr>
<tr>
<td>➔</td>
<td>➔</td>
</tr>
<tr>
<td>To resume ➔</td>
<td>➔</td>
</tr>
<tr>
<td>➔</td>
<td>➔</td>
</tr>
<tr>
<td>➔</td>
<td>➔</td>
</tr>
<tr>
<td>➔</td>
<td>➔</td>
</tr>
<tr>
<td>➔</td>
<td>➔</td>
</tr>
</tbody>
</table>

**INDEX**

<table>
<thead>
<tr>
<th>INDEX</th>
<th>Call up Subtitle</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDEX</td>
<td>Return to the main index page</td>
</tr>
<tr>
<td>➔</td>
<td>➔</td>
</tr>
</tbody>
</table>

**Functions**

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

- Select the page (up to page 899)
  - ➔ up
  - ➔ down

- To adjust contrast
  - ➔ (press three times)

- To return to TV ➔ or ➔
Viewing Teletext

Functions (Teletext mode)

View in multi window

Watch TV and Teletext in two windows at once

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

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.
Watching External inputs

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

To connect the equipment ⇒ p. 48, 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)

<table>
<thead>
<tr>
<th>Input Selection</th>
<th>Input Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV1</td>
<td>AV1</td>
</tr>
<tr>
<td>AV2</td>
<td>AV2</td>
</tr>
<tr>
<td>AV3</td>
<td>AV3</td>
</tr>
<tr>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>HDMI1</td>
<td>HDMI1</td>
</tr>
<tr>
<td>HDMI2</td>
<td>HDMI2</td>
</tr>
<tr>
<td>HDMI3</td>
<td>HDMI3</td>
</tr>
<tr>
<td>TV</td>
<td>TV</td>
</tr>
</tbody>
</table>

Example (PC)

<table>
<thead>
<tr>
<th>Input Selection</th>
<th>Input Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV1</td>
<td>AV1</td>
</tr>
<tr>
<td>AV2</td>
<td>AV2</td>
</tr>
<tr>
<td>AV3</td>
<td>AV3</td>
</tr>
<tr>
<td>PC</td>
<td>PC</td>
</tr>
<tr>
<td>HDMI1</td>
<td>HDMI1</td>
</tr>
<tr>
<td>HDMI2</td>
<td>HDMI2</td>
</tr>
<tr>
<td>HDMI3</td>
<td>HDMI3</td>
</tr>
<tr>
<td>TV</td>
<td>TV</td>
</tr>
</tbody>
</table>

3. View

The selected mode is displayed on the screen.

Example (AV2)

AV2
16:9

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

Example (PC)

PC
640x480 / 60Hz
16:9

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

<table>
<thead>
<tr>
<th>Button</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER</td>
<td>Standby&lt;br&gt;Set to Standby mode / Turn on</td>
</tr>
<tr>
<td>Play</td>
<td>Playback videocassette / DVD</td>
</tr>
<tr>
<td>Stop</td>
<td>Stop the operation</td>
</tr>
<tr>
<td>Rewind / Skip / Search</td>
<td>VCR: Rewind, view the picture rapidly in reverse&lt;br&gt;DVD: Skip to the previous track or title&lt;br&gt;Press and hold to search backward</td>
</tr>
<tr>
<td>Fast-forward / Skip / Search</td>
<td>VCR: Fast-forward, view the picture rapidly forward&lt;br&gt;DVD: Skip to the next track or title&lt;br&gt;Press and hold to search forward</td>
</tr>
<tr>
<td>Pause</td>
<td>Pause / Resume&lt;br&gt;DVD: Press and hold to play at slow speed</td>
</tr>
<tr>
<td>PROGRAMME</td>
<td>Programme Up / Down&lt;br&gt;Select programme</td>
</tr>
<tr>
<td>REC</td>
<td>Record&lt;br&gt;Start recording</td>
</tr>
</tbody>
</table>

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. 43), select the code “73”.

Press and hold POWER during the following operations

Enter the appropriate code (see table below)

<table>
<thead>
<tr>
<th>Type of equipment</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVD Recorder / DVD Player</td>
<td>70 (default)</td>
</tr>
<tr>
<td>Player theatre / Blu-ray Disc theatre</td>
<td>71</td>
</tr>
<tr>
<td>VCR</td>
<td>72</td>
</tr>
<tr>
<td>The equipment using in VIERA Link &amp; “VIERA Link Control” (p. 46)</td>
<td>73</td>
</tr>
</tbody>
</table>

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)
How to Use Menu Functions

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

1 Display the menu

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

2 Select the menu

Select the menu

(example)

3 Select the item

Select the item

(example)

4 Adjust or select

Adjust or select

(example)

Choose from among alternatives

Adjust using the slide bar

Go to the next screen

Enter characters by free input menu

To reset the settings

To delete a character

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.

<table>
<thead>
<tr>
<th>Numeric buttons</th>
<th>Characters</th>
<th>Numeric buttons</th>
<th>Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1 ! : # + - _ ( )</td>
<td>6</td>
<td>m n o 6 M N O</td>
</tr>
<tr>
<td>2</td>
<td>a b c 2 A B C</td>
<td>7</td>
<td>p q r s 7 P Q R S</td>
</tr>
<tr>
<td>3</td>
<td>d e f 3 D E F</td>
<td>8</td>
<td>t u v 8 T U V</td>
</tr>
<tr>
<td>4</td>
<td>g h i 4 G H I</td>
<td>9</td>
<td>w x y z 9 W X Y Z</td>
</tr>
<tr>
<td>5</td>
<td>j k l 5 J K L</td>
<td>0</td>
<td>Space 0</td>
</tr>
</tbody>
</table>
Depending on the received signals, available items are varied.
## Menu list

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
</table>
| Viewing Mode  | Basic picture mode *(Dynamic / Normal / Cinema / True Cinema / Game)* | In each Viewing Mode, 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.  
  - Set for each input signal.  
  - Dynamic: Provides enhanced picture contrast and sharpness when viewing in a bright room  
  - Normal: Recommended for viewing under normal ambient room lighting conditions.  
  - Cinema: For watching movies in a darkened room with improving the performance of contrast, black and colour reproduction  
  - True Cinema: Precisely reproduces the original image quality without any revision.  
  - Game: Fast response signal specifically to provide suitable images for playing games  
  - Not valid on TV mode  
  - A continuous record of time spent using Game mode can be displayed in the top right of the screen.  
  - “Playing Time Display” *(p. 26)* |
|               | Contrast, Brightness, Colour, Sharpness | Increases or decreases the levels of these options according to your personal preference |
|               | Tint                                                                 | With an NTSC signal source connected to the TV, the picture hue can be adjusted to suit your taste.  
  - For NTSC or Component / HDMI input signal reception only |
|               | Colour Balance                                                      | Allows you to set the overall colour tone of the picture *(Cool / Normal / Warm)*  
  - Not valid when the viewing mode is set to True Cinema |
|               | Vivid Colour                                                        | Automatically adjusts colours to vivid ones *(Off / On)*  
  - Not valid on PC signal |
|               | Eco Mode                                                            | Automatically adjusts the screen brightness appropriately as the surrounding light level lowers to reduce the power consumption *(Off / On)*  
  - Not available in shop mode (Dynamic picture mode) |
|               | P-NR                                                                | Picture Noise Reduction  
  - Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture *(Off / Min / Mid / Max)*  
  - Not valid on PC signal |
|               | 3D-COMB                                                             | Makes still or slow moving pictures look more vivid *(Off / On)*  
  - 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 SD Card |
| Panel         |                                                                     | Turns the screen off when you select “Off” *(Off / On)*  
  - 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. |
| R-Gain, G-Gain, B-Gain | Adjusts each gain                                               |
| R-Cutoff, G-Cutoff, B-Cutoff | Cuts off each area                                              |
| Gamma         |                                                                     | Changes the gamma curve *(S Curve / 1.8 / 2.0 / 2.2 / 2.4 / 2.6)* |
| Reset PC Settings | Press the OK button to reset to the present Advanced PC Settings to the default. |
| Reset Picture Defaults | Press the OK button to reset the present Picture Menu settings to the default. |
### Menu Item Adjustments / Configurations (alternatives)

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
</table>
| Mode | Sound | Selects basic sound mode (Music / Speech / User)  
● The selected mode affects all input signals.  
Music : Improves sound quality for watching music video, etc.  
Speech : Improves sound quality for watching news, drama, etc.  
● In Music and Speech mode, you can adjust “Bass” and “Treble” settings, and those settings will be stored for each mode.  
User : Adjusts the sounds manually by using the equalizer to suit your favourite sound quality.  
● For the User mode, “Equalizer” will appear on the Sound Menu instead of “Bass” and “Treble”. Select the “Equalizer” and adjust the frequency.  
| 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 | Selects the frequency level to suit your favourite sound quality  
● 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 Sound Defaults” 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 | Selects multiplex sound mode (if available) (p. 50)  
● Normally : Stereo  
● Stereo signal cannot be received: Mono  
● M1 / M2 : Available while mono signal is transmitted  
● Analogue TV mode only |
| Volume Correction | Adjusts the volume of individual channel or input mode |
| Speaker Distance to Wall | Surround sound settings (Off / V-Audio / V-Audio Surround)  
V-Audio : Provides a dynamic enhancer to simulate improved spatial effects  
V-Audio Surround : Provides a dynamic enhancer of width and depth to simulate improved spatial effects  
● Switching is also possible by the Surround button on the remote control (p. 10). |
| MPX | Selects initial setting for Audio tracks (Dolby D / MPEG)  
If programme has both Dolby Digital and MPEG audio tracks, priority is given to what you select  
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.  
MPEG : An audio compression method that compresses audio to small size without any considerable loss of audio quality.  
● Digital TV mode only |
| Digital Audio Preference | Digital Audio OUT terminal (Auto / PCM)  
Auto : Dolby Digital is output as Dolby Digital Bitstream. HE-AAC and MPEG are output as PCM.  
PCM : Digital output signal is fixed to PCM.  
● For Digital TV mode or Video mode (p. 40) |
| SPDIF Selection | SPDIF : A 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. HE-AAC and MPEG are output as PCM.  
PCM : Digital output signal is fixed to PCM.  
● For Digital TV mode or Video mode (p. 40) |
| MPEG Optical Level | Adjusts the audio level of MPEG output from DIGITAL AUDIO OUT terminal as the initial setting (0 / -2 / -4 / -6 / -8 / -10 / -12dB)  
● Normally, MPEG sound is louder comparing with the other types of audio track.  
● Digital TV mode only |
| HDMI1 / 2 / 3 Input | Select to fit the input signal (Digital / Analogue) (p. 51).  
Digital : HDMI cable connection  
Analogue : HDMI-DVI adapter cable connection  
● HDMI input mode only |
| Reset Sound Defaults | Press the OK button to reset the present settings of Mode, Balance, Headphone Volume, and Surround in Sound Menu to the default. |
### Menu Item Adjustments / Configurations (alternatives)

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Adjustments / Configurations</th>
</tr>
</thead>
</table>
| 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 present PC Setup settings to the default. |
| DVI Position Settings | 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 present 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) |
| Favourites | Creates list of favourite channels (Digital TV mode) (p. 29) |
| Edit | Skips the unwanted channels or edits channels (p. 29, 31) |
| Channel List | Sets all Digital TV or Analogue TV channels automatically (p. 30, 31) |
| Auto Tuning | Sets the TV channels manually (p. 30, 31) |
| Manual Tuning | Updates the channel list with keeping your settings (Digital TV mode) (Off / On) (p. 30) |
| Update Channel List | Checks the Digital TV signal condition (p. 30) |
| Signal Condition | Activates the reception of MPEG-2 and MPEG-4 AVC channels:  
- Use this function if MPEG-4 AVC services start in your area.  
- All previous tuning setting are erased.  
- Once activated, this option is removed from the Digital TV Tuning Menu. |
| Add MPEG-4 AVC Channels | Teletext display mode (TOP/FASTEXT) / List (p. 17) |
| Teletext | Increases the brightness of the side panel (Off / Low / Mid / High):  
- The recommended setting is “High” to prevent panel “image retention”. |
| Side Panel | Labels or skips each input terminal (p. 33) |
| Input Labels | Sets how long the information banner stays on screen:  
- 0 (No display) / 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 seconds |
| Banner Display Timeout | 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). |
## How to Use Menu Functions

### VIERA Link Settings

<table>
<thead>
<tr>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
</table>
| VIERA Link            | Sets to use VIERA Link functions *(Off / On)*  
  *VIERA Link functions become available when “VIERA Link” is set to “On” (p. 43).* |
| 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

<table>
<thead>
<tr>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipping Condition</td>
<td>Resets all settings to the original condition (p. 34)</td>
</tr>
<tr>
<td>System Update</td>
<td>Downloads new software to TV (p. 35)</td>
</tr>
<tr>
<td>Software Licence</td>
<td>Displays the software licence information</td>
</tr>
<tr>
<td>System Information</td>
<td>Displays the system information of this TV</td>
</tr>
</tbody>
</table>

### Other Settings

<table>
<thead>
<tr>
<th>Item</th>
<th>Adjustments / Configurations (alternatives)</th>
</tr>
</thead>
</table>
| 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, photo or Network service operations.* |
| 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, photo or Network service operations.* |
| Auto Standby          | Sets the time the TV automatically goes to Standby mode when no operation is performed for the selected times *(Off / 2 hours / 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**
   - MENU

3. **Select “Setup”**
   - Access
   - Select

4. **Select “Digital TV Tuning Menu” or “Analogue TV Tuning Menu”**

5. **Select a function**
   - For details p. 31

6. **Set (see next page)**
   - For details p. 29, 30

---

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

EXIT
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

<table>
<thead>
<tr>
<th>Digital TV Favourites Editor</th>
<th>Favourite1</th>
<th>Favourite2</th>
<th>Favourite3</th>
<th>Favourite4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 TEN DIGITAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Ten Guide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 TEN DIGITAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 TEN DIGITAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 TEN DIGITAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- To display another Favourites
- To add all channels to the list

2 Add it to the Favourites list

Digital TV Favourites Editor

- To add all channels
- A channel is added

To edit List

Select the field of Favourites to edit and:

- To name the Favourites

User input

Name

(maximum: ten characters)

- To move the channel
- Select the new position
- To delete the channel
- To delete all channels

3 Store

To name the Favourites

- To display another Favourites
- Store

Channel List  Skip unwanted channels / Edit channels

Select a channel and reveal / hide

Digital TV Channel List

- All Digital channels
- ABC TV Sydney
- SBS DIGITAL
- FTV guide
- NINE DIGITAL
- 7 Digital
- 7 Guide

To edit channels

You can also edit each channel in Channel List.

- To swap the channel position
- Enter the new position number
- Store

Note

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

User input

Name

(maximum: ten characters)

Set characters

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

To move the channel

Select the new position

To delete the channel

- To delete all channels

To reveal all channels

To retune each channel (Manual Tuning) (p. 30)
Digital TV Tuning Menu

**Auto Tuning**  Set all channels automatically

### Start Auto Tuning

- Digital TV Auto Tuning
- All digital TV tuning data will be erased

### 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. Channels received during this process are added to the list (p. 29).
- If tuning has not been done completely ⇒ “Manual Tuning” (see below)

**Manual Tuning**  Set Digital TV channel manually

### Digital TV Manual Tuning

- 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.

- Select physical channel
- Adjust frequency (set where the level of “Signal Quality” becomes the maximum)
- Search

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

**Update Channel List**  Update channels automatically

### Digital TV Update Channel List

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

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

**New Channel Message**  Display a notification message

- New channels found! Press OK to update channel list. Press EXIT to ignore.

- Selecting OK will perform “Update Channel List”.

**Signal Condition**  Check Digital TV signal

- To change the channel ⇒

### Digital TV Signal Condition

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<th>Channel Name</th>
<th>Network Name</th>
<th>Signal Quality</th>
<th>Signal Strength</th>
<th>RF Parameter</th>
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<tr>
<td>Digital TV</td>
<td>101 DZFinfokanal</td>
<td>Green bar</td>
<td>0 2 4 6 8 10</td>
<td>CH02 562.00 MHz</td>
</tr>
</tbody>
</table>

- 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)
Advanced

Tuning and Editing 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

Select a channel to edit and:

To move the channel position

To rename the channel name

Note

If a VCR is connected only with the RF cable, edit “VCR”.

Auto Tuning

Set all Analogue TV channels automatically

Start Auto Tuning

All Analogue TV tuning data will be erased.

Settings are made automatically

 Automatically retune all Analogue TV channels received in the area.

Manual Tuning

Set Analogue TV channel manually

Select a channel position

Select a channel

Search and store

Set Analogue TV channel manually after Auto Tuning.

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

Analogue TV Tuning Menu

Channel List
Skp unwanted channels / Edit channels (Change name, Move)

To edit channels
You can also edit each channel in Channel List.

To move the channel position

To rename the channel name

Note

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

Auto Tuning

Set all Analogue TV channels automatically

Start Auto Tuning

All Analogue TV tuning data will be erased.

Settings are made automatically

Automatically retune all Analogue TV channels received in the area.

Manual Tuning

Set Analogue TV channel manually

Select a channel position

Select a channel

Search and store

Set Analogue TV channel manually after Auto Tuning.

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

All Analogue TV tuning data will be erased.

If 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. Channels received during this process are added to the list (see above).

If tuning has not been done completely ⇒ “Manual Tuning” (see below).
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”

3 Select “Child Lock”

4 Set (see below)

CHILD LOCK

Control channel audience

1 Enter the PIN number (4 digits)

   “0000” has been stored as the default PIN number.

2 Select “Child Lock List” or “Parental Rating”

   To set “Child Lock List”

   Appears when the channel / input is locked
   ● To cancel
     ● Select the locked channel / input  ➔ OK
   ● To lock all  ➔ Y
   ● To cancel all locks  ➔ R
   ● To jump to the top of the next input  ➔ R

   To set “Parental Rating”

   Parental 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.

Note
● Performing “Shipping Condition” (p. 34) erases the PIN number and all settings.
● If you have forgotten the PIN number which you have changed by yourself, input “6969” as the PIN number.
● Keep this Operating Instructions out of reach of children.
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

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).
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.).

To return to TV

1. Display the menu

2. Select “Setup”

3. Select “System Menu”

4. Select “Shipping Condition”

5. Set (see below)

Shipping Condition | Reset Settings

1. Check the message and reset

2. Follow the on screen instructions

Shipping Condition
All tuning data will be erased
Are you sure?
Are you sure?

Confirm
EXIT
RETURN

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, 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)

**System Update | Update TV’s software system**

- To update automatically
- To update immediately

**Note**
- 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.
- The message might be the notification beforehand. In this case, the schedule information (the date that the new version can be used) will appear. You can set the reservation for update. The update will not start when the TV is set to Off.
- 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.

**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”**.
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)

- **USB Flash Memory format**:
  - FAT16, FAT32 or exFAT
  - (A USB HDD formatted by PC is not supported in Media Player.)

*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
  - Label surface

- **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

4 Select the content

To switch to the other mode
Display the contents selection screen
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

To return to TV
EXIT or
To return to the previous screen
RETURN
Using Media Player

Photo mode

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

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

Thumbnail images of all photos on the SD Card are displayed.

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

In case of all photos
In case of folder view

Display the view selection

Select the sort type

Displays thumbnails of photos grouped by folder
Displays thumbnails of photos grouped by date
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 “/” or “Unknown”.

To return to the thumbnail (All photos)

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

Slideshow - Slideshow ends with the same thumbnail from which it started.
Select the photo that you want to start the slideshow from

To sort by folder, date recorded or month recorded

Display the view selection

Select the sort type

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

To return to the thumbnail (All photos)
### Using Media Player

**Advanced**

#### Photo Setup | Setup for Photo mode

- **Display the menu**
  - MENU
  - Photo Setup

#### Main Menu
- Picture
- Sound
- Photo Setup
- Video Setup
- Music Setup
- Direct Select

#### Photo Setup Menu
- **Background Music**
  - Selects the background music played during Photo mode
  - **(Off / Type1 / Type2 / Type3 / Auto / User)**
  - **Type1 / 2 / 3**: Pre-installed music tracks
  - **Auto**: Music data stored in the root folder of the SD Card or USB Flash Memory will be played back randomly.
  - **User**: Plays music set by you

#### Photo Setup Menu
- **Frame**
  - Selects the display frame for the slideshow
  - **(Off / Multi / Collage)**
  - **Multi**: Display is divided into 9 sections in a tiled design
  - **Collage**: Photos are displayed in random positions and random scale

#### Photo Setup Menu
- **Colour Effect**
  - Selects the colour effect of photos
  - **(Off / Sepia / Gray scale)**

#### Photo Setup Menu
- **Transition Effect**
  - Selects the transition effect used when switching between photos during the slideshow
  - **(Off / Fade / Slide / Dissolve / Motion / Random)**
  - **Fade**: The next photo fades in gradually.
  - **Slide**: The next photo slides and appears from the left side.
  - **Dissolve**: The photo is replaced by an indefinite block unit.
  - **Motion**: The photo is replaced with enlarged, reduced, moved up or moved down.
  - **Random**: Each transition is selected at random.

#### Photo Setup Menu
- **Screen Mode**
  - Selects whether to display photos in normal or enlarged size during Single view and Slideshow
  - **(Normal / Zoom)**
  - **Normal**: Depending on the photo size, the photo may not be enlarged.

#### Photo Setup Menu
- **Interval**
  - Selects slideshow interval
  - **(Short / Normal / Long)**

#### Photo Setup Menu
- **Repeat**
  - Slideshow repeat
  - **(Off / On)**
Using Media Player

Video mode

Video mode supports AVCHD and MPEG2 file formats.
Access to "Video" mode (p. 37)

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

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

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

To display the information of the highlighted title

Video mode supports AVCHD and MPEG2 file formats.
Access to "Video" mode (p. 37)

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

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

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

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

To turn preview off
  "Video Setup" (p. 41)
Operations during playback

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

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

Audio output settings

Select “Sound”

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)

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:

Rewind
Pause / Playback
Playback
Fast forward
Stop

To the previous music
To the next music

The information banner is displayed as shown below.

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.

To set the music as the background music during Photo mode

While playing music
Display the menu
Select “File” or “Folder”
**Summary of features**

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<th>HD Video Camera / LUMIX Camera</th>
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<th>Blu-ray Disc theatre</th>
<th>Amplifier</th>
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<td>Control the menu of the connected equipment by VIERA remote control</td>
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</tr>
</tbody>
</table>

1: HDMI Connection only  
2: HDMI and Audio out connections  
3: available with the equipment which has "HDAVI Control 2 or later" function  
4: available with the equipment which has "HDAVI Control 3 or later" function  
5: available with the equipment which has "HDAVI Control 4 or later" function  
6: available with DIGA Recorder which has HDD  
7: while playing a disc  
8: except for watching a disc  
9: if the connected equipment has "HDAVI Control 5" function, you do not have to use this audio cable (Optical digital audio cable or RCA cable). In this case, connect the equipment to the TV's HDMI2 terminal via an HDMI cable.

**Connection**

- To use DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera:
  - HDMI cable
  - DIGA Recorder / DVD Player / Blu-ray Disc Player / HD Video Camera / LUMIX Camera with VIERA Link function

- To use Player theatre / Blu-ray Disc theatre:
  - Speaker system
  - HDMI cable
  - Player theatre / Blu-ray Disc theatre with VIERA Link function

- To use Amplifier:
  - Speaker system
  - Amplifier with VIERA Link function
  - HDMI cable
  - HD Video Camera / LUMIX Camera with VIERA Link function

- Optical digital audio cable or RCA cable

Enjoy additional HDMI interoperability with Panasonic products which have "HDAVI Control" function. This TV supports "HDAVI Control 5" function.

Connections to the equipment with HDMI cable such as DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc., allow you to interface them automatically.

These features are limited to models incorporating "HDAVI Control" and "VIERA Link".

- Some functions are not available depending on the equipment's version of HDAVI Control. Please confirm the connected equipment's version of HDAVI Control.
- VIERA Link “HDAVI Control”, based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added. As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.
- Please refer to individual manuals for the equipment. About applicable Panasonic equipment, consult your local Panasonic dealer.

^1: HDMI Connection only  
^2: HDMI and Audio out connections  
^3: available with the equipment which has "HDAVI Control 2 or later" function  
^4: available with the equipment which has "HDAVI Control 3 or later" function  
^5: available with the equipment which has "HDAVI Control 4 or later" function  
^6: available with DIGA Recorder which has HDD  
^7: while playing a disc  
^8: except for watching a disc  
^9: If the connected equipment has "HDAVI Control 5" function, you do not have to use this audio cable (Optical digital audio cable or RCA cable). In this case, connect the equipment to the TV's HDMI2 terminal via an HDMI cable.
VIERA Link Functions

Note:
- This function may not work properly depending on the connected equipment.
- 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 or terminal via
  an HDMI cable and/or 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 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 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 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 Off Timer function or
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”.


**VIERA Link Functions**

**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.

**Display “VIERA Link Menu”**

1. Select “Pause Live TV” and pause

   - 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.

**To return to Live TV**

1. Select “Pause Live TV” and 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.

**Display “VIERA Link Menu”**

1. Select “Direct TV Rec” and start recording

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

**To stop recording**

1. Select “Stop” in “Direct TV Rec” and stop recording

   - Select “Stop” in “Direct TV Rec” and stop recording.
VIERA Link “HDAVI Control™”

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, 44)
- You can control some functions of the connected equipment with this TV remote control by pointing at the TV’s signal receiver.

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.

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 ➤ OPTO
      Store / set / access ➤ SET
      Move the cursor / select the menu ➤ CURSOR
      Move the cursor / adjust / access ➤ CURSOR
      Return to the previous menu ➤ EXIT
      Exit the menu ➤ EXIT

      Type of the connected equipment is displayed.

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

If multiple recorders or players are connected
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
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, 44)

1. Display “VIERA Link Menu”
2. Select “Speaker Selection”
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).

Types of connectable equipment to each terminal

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

(1): Recommended Connection
(1): applicable if your amplifier has ARC (Audio Return Channel) function
To watch satellite broadcasts

Set top box

Fully wired HDMI compliant cable

To record / playback

RF cable

DVD Recorder / VCR

To watch DVDs

DVD player

To watch DVDs

DVD Recorder / VCR

To watch satellite broadcasts

Set top box

Fully wired HDMI compliant cable

HDMI equipment

"HDMI connection" (p. 43, 51)

HDMI equipment

DVD Recorder

Fully wired HDMI compliant cable

Satellite dish

HDMI terminal

+5V Power 18
SDA 16
Reserved 14
SCL 15
CEC 13
TMDS Clock Shield 11
TMDS Data0− 9
TMDS Data0+ 7
TMDS Data0 Shield 6
TMDS Data1− 5
TMDS Data1+ 3
TMDS Data1 Shield 2
TMDS Data2− 1
TMDS Data2+ 0

* HDMI 2 only: ARC

To watch DVDs

DVD player

HDMI connection

(p. 43, 51)

Fully wired HDMI compliant cable

Satellite dish

Satellite cable

Aerial

External Equipment

Advanced
Technical Information

Channel Allocation (Analogue TV mode)

<table>
<thead>
<tr>
<th>CH Display / Receive Channel</th>
<th>CH 0 - CH 5</th>
<th>S 2 - S 10</th>
<th>CH 5A</th>
<th>CH 6 - CH 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 9A</td>
<td>CH 10 - CH 12</td>
<td>S 11 - S 44</td>
<td></td>
<td>CH 20 - CH 75</td>
</tr>
</tbody>
</table>

Rating (Digital TV mode)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Meaning</th>
<th>Rating</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Block</td>
<td>Not classified</td>
<td>M</td>
<td>Mature</td>
</tr>
<tr>
<td>P</td>
<td>Pre school</td>
<td>MA 15+</td>
<td>Mature Adult 15+</td>
</tr>
<tr>
<td>C</td>
<td>Children</td>
<td>AV 15+</td>
<td>Adult strong Violence 15+</td>
</tr>
<tr>
<td>G</td>
<td>General</td>
<td>R</td>
<td>Restricted 18+</td>
</tr>
<tr>
<td>PG</td>
<td>Parental Guidance recommended</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stereo / Bilingual Sound Selection (Analogue TV mode)

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

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
- SUB II
- MONO

NICAM ......Used in New Zealand, Singapore, Hong Kong etc.

A2 (German) ......Used in Australia, Malaysia etc.

Channel Allocation (Analogue TV mode)

CH Display / Receive Channel

<table>
<thead>
<tr>
<th>CH Display / Receive Channel</th>
<th>CH 0 - CH 5</th>
<th>S 2 - S 10</th>
<th>CH 5A</th>
<th>CH 6 - CH 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH 9A</td>
<td>CH 10 - CH 12</td>
<td>S 11 - S 44</td>
<td></td>
<td>CH 20 - CH 75</td>
</tr>
</tbody>
</table>

Rating (Digital TV mode)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Meaning</th>
<th>Rating</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Block</td>
<td>Not classified</td>
<td>M</td>
<td>Mature</td>
</tr>
<tr>
<td>P</td>
<td>Pre school</td>
<td>MA 15+</td>
<td>Mature Adult 15+</td>
</tr>
<tr>
<td>C</td>
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<td>G</td>
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<td>Restricted 18+</td>
</tr>
<tr>
<td>PG</td>
<td>Parental Guidance recommended</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stereo / Bilingual Sound Selection (Analogue TV mode)

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

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
- SUB II
- MONO

NICAM ......Used in New Zealand, Singapore, Hong Kong etc.

A2 (German) ......Used in Australia, Malaysia etc.

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 stereo / bilingual 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, 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 PC signal: “Input signal that can be displayed” (p. 52)
- VIERA Link (HDAVI Control 5): “VIERA Link” (p. 43)
- Content Type
- 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 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
  - 4:3: 1,440 × 1,080 pixels
  - 16:9: 1,920 × 1,080 pixels

- D-sub 15-pin connector signal

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Signal Name</th>
<th>Pin No.</th>
<th>Signal Name</th>
<th>Pin No.</th>
<th>Signal Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>R</td>
<td>6</td>
<td>GND (Ground)</td>
<td>11</td>
<td>NC (not connected)</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>7</td>
<td>GND (Ground)</td>
<td>12</td>
<td>NC (not connected)</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>8</td>
<td>GND (Ground)</td>
<td>13</td>
<td>HD</td>
</tr>
<tr>
<td>4</td>
<td>NC (not connected)</td>
<td>9</td>
<td>NC (not connected)</td>
<td>14</td>
<td>VD</td>
</tr>
<tr>
<td>5</td>
<td>GND (Ground)</td>
<td>15</td>
<td>GND (Ground)</td>
<td>15</td>
<td>NC (not connected)</td>
</tr>
</tbody>
</table>
Technical Information

Input signal that can be displayed

COMPONENT (Y, Pb/Cb, Pr/Cr), HDMI
* Mark: Applicable input signal

<table>
<thead>
<tr>
<th>Signal name</th>
<th>COMPONENT</th>
<th>HDMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>525 (480) / 60p</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>525 (480) / 60p</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>625 (576) / 50i</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>625 (576) / 50p</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>750 (720) / 60p</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>750 (720) / 50p</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>1,125 (1,080) / 60i</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>1,125 (1,080) / 60p</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>1,125 (1,080) / 50i</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>1,125 (1,080) / 50p</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>1,125 (1,080) / 24p</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

PC (from D-sub 15P)
Applicable input signal for PC is basically compatible to VESA standard timing.

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Horizontal frequency (kHz)</th>
<th>Vertical frequency (Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>640 × 400 @70 Hz</td>
<td>31.47</td>
<td>70.07</td>
</tr>
<tr>
<td>640 × 480 @60 Hz</td>
<td>31.47</td>
<td>59.94</td>
</tr>
<tr>
<td>640 × 480 @75 Hz</td>
<td>37.50</td>
<td>75.00</td>
</tr>
<tr>
<td>800 × 600 @60 Hz</td>
<td>37.88</td>
<td>60.32</td>
</tr>
<tr>
<td>800 × 600 @75 Hz</td>
<td>46.88</td>
<td>75.00</td>
</tr>
<tr>
<td>800 × 600 @85 Hz</td>
<td>53.87</td>
<td>85.06</td>
</tr>
<tr>
<td>952 × 480 @60 Hz</td>
<td>31.44</td>
<td>59.89</td>
</tr>
<tr>
<td>1,024 × 768 @60 Hz</td>
<td>48.36</td>
<td>60.00</td>
</tr>
<tr>
<td>1,024 × 768 @75 Hz</td>
<td>56.48</td>
<td>70.07</td>
</tr>
<tr>
<td>1,024 × 768 @85 Hz</td>
<td>60.02</td>
<td>75.03</td>
</tr>
<tr>
<td>1,024 × 768 @90 Hz</td>
<td>68.68</td>
<td>85.00</td>
</tr>
<tr>
<td>1,280 × 1,024 @60 Hz</td>
<td>63.98</td>
<td>60.02</td>
</tr>
<tr>
<td>1,280 × 768 @60 Hz</td>
<td>47.70</td>
<td>60.00</td>
</tr>
<tr>
<td>1,366 × 768 @60 Hz</td>
<td>48.39</td>
<td>60.04</td>
</tr>
<tr>
<td>Macintosh13&quot; (640 × 480)</td>
<td>35.00</td>
<td>66.67</td>
</tr>
<tr>
<td>Macintosh16&quot; (832 × 624)</td>
<td>49.73</td>
<td>74.55</td>
</tr>
<tr>
<td>Macintosh21&quot; (1,152 × 870)</td>
<td>68.68</td>
<td>75.06</td>
</tr>
</tbody>
</table>

PC (from HDMI terminal)
Applicable input signal for PC is basically compatible to HDMI standard timing.

<table>
<thead>
<tr>
<th>Signal name</th>
<th>Horizontal frequency (kHz)</th>
<th>Vertical frequency (Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>640 × 480 @60 Hz</td>
<td>31.47</td>
<td>60.00</td>
</tr>
<tr>
<td>750 (720) / 60p</td>
<td>45.00</td>
<td>60.00</td>
</tr>
<tr>
<td>1,125 (1,080) / 60p</td>
<td>67.50</td>
<td>60.00</td>
</tr>
</tbody>
</table>

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.
Cautions in handling SD Card
- 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

<table>
<thead>
<tr>
<th>Message</th>
<th>Meaning / Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot read file</td>
<td>- The file is broken or unreadable.</td>
</tr>
<tr>
<td></td>
<td>- The TV does not support the format.</td>
</tr>
<tr>
<td>Please confirm the SD card is OK</td>
<td>- The inserted SD Card has a problem.</td>
</tr>
<tr>
<td>No SD card inserted</td>
<td>- Confirm SD Card is inserted correctly.</td>
</tr>
<tr>
<td>No valid file to play</td>
<td>- The card has no data.</td>
</tr>
<tr>
<td>This operation is not possible</td>
<td>- Your operation is not available.</td>
</tr>
</tbody>
</table>
Maintenance

First, remove the mains plug from the socket outlet.

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.
- 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 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.
- 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 invalid programme
  - selected radio service
  - 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

<table>
<thead>
<tr>
<th>Problem</th>
<th>Actions</th>
</tr>
</thead>
</table>
| Chaotic image, noisy | ● 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 | ● Is “Colour” or “Contrast” in the Picture Menu set to the minimum? (p. 24) |
| Blurry or distorted image (no sound or low volume) | ● Reset channels (p. 30, 31). |
| Unusual image is displayed | ● Turn off the TV with Mains power On / Off switch, then turn it on again. |
| “Shop” appears on screen at switch on | ● “Shop” was selected in “Auto Tuning” (p. 12)  
| | Reset settings in “Shipping Condition” (p. 34), then select “Home” in “Auto Tuning” (p. 12) |
| No sound is produced | ● Is “Sound Mute” active? (p. 10)  
| | ● Is the volume set to the minimum? |
| Sound level is low or sound is distorted | ● Sound signal reception may be deteriorated.  
| | ● Set “MPX” in the Sound Menu to “Mono” (p. 25). |
| Unusual sound from the display unit | ● When power is on, drive noise may be heard from inside the display unit (not a sign of faulty operation). |
| Sound is unusual | ● 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. 50) |
| Pictures from external equipment are unusual when the equipment is connected via HDMI | ● Is the HDMI cable connected properly? (p. 43, 48, 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

**Connecting devices such as DTV recorder / PVR / VCR etc that also require an antenna connection to the digital television**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>● 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.</td>
</tr>
</tbody>
</table>

**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.

- 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.

**Connecting devices such as DTV recorder / PVR / VCR etc that also require an antenna connection to the digital television**

<table>
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<td>● 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.</td>
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</table>

**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.
<table>
<thead>
<tr>
<th>Problem</th>
<th>Actions</th>
</tr>
</thead>
</table>
| **After digital TV tuning, (or re-tuning) some or all DTV channels are missing** | • 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. |
| **Digital TV** | **Picture regularly pixelates on some channels, or ‘No Signal’ message** | • Check “Signal Condition” via TV Setup menu. If “Signal Quality” or “Signal Strength” are 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** | • 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. |
| **TV goes into Standby mode** | • Off Timer function is activated.  
• Auto power standby function is activated.  
• The TV enters Standby mode about 30 mins. after analogue broadcasting ends. |
| **Other** | **The remote control does not work or is intermittent** | • 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** | • 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

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  Dolby and the double-D symbol are trademarks of Dolby Laboratories.
- Macintosh is a trademark of Apple Inc.
# Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>TH-P42S20A</th>
<th>TH-P50S20A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power rating</td>
<td>AC 220 - 240 V, 50 / 60 Hz 1.5 A</td>
<td>AC 220 - 240 V, 50 / 60 Hz 1.7 A</td>
</tr>
<tr>
<td>Normal (Home) mode</td>
<td>138 W</td>
<td>153 W</td>
</tr>
<tr>
<td>Standby condition</td>
<td>0.4 W</td>
<td>0.4 W</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Display</th>
<th>TH-P42S20A</th>
<th>TH-P50S20A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspect Ratio</td>
<td>16:9</td>
<td>16:9</td>
</tr>
<tr>
<td>Visible screen size</td>
<td>106 cm (diagonal) 921 mm (W) × 518 mm (H)</td>
<td>127 cm (diagonal) 1,105 mm (W) × 622 mm (H)</td>
</tr>
<tr>
<td>Number of pixels</td>
<td>2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]</td>
<td>2,073,600 (1,920 (W) × 1,080 (H)) [5,760 × 1,080 dots]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sound</th>
<th>TH-P42S20A</th>
<th>TH-P50S20A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaker</td>
<td>160 mm × 40 mm × 2 pcs, 6 Ω</td>
<td>160 mm × 40 mm × 2 pcs, 6 Ω</td>
</tr>
<tr>
<td>Audio Output</td>
<td>20 W (10 W + 10 W)</td>
<td>20 W (10 W + 10 W)</td>
</tr>
<tr>
<td>Headphones</td>
<td>M3 (3.5 mm) stereo mini Jack × 1</td>
<td>M3 (3.5 mm) stereo mini Jack × 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PC signals</th>
<th>TH-P42S20A</th>
<th>TH-P50S20A</th>
</tr>
</thead>
<tbody>
<tr>
<td>VGA, SVGA, WVGA, XGA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SXGA, WXGA (compressed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal scanning frequency 31 - 69 kHz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical scanning frequency 59 - 86 Hz</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Receiving Systems / Band name</th>
<th>PAL B/G</th>
<th>Digital TV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception of Off air broadcasts</td>
<td>7 MHz VHF / UHF (Australia) free-to-air TV broadcast reception</td>
<td></td>
</tr>
<tr>
<td>PAL 60 Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M. NTSC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NTSC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playback from M. NTSC Video recorders (VCR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playback from NTSC Video recorders (VCR)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aerial - Rear</th>
<th>Standard Belling &amp; Lee connector</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Operating Conditions</th>
<th>Temperature</th>
<th>Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 °C - 35 °C</td>
<td>20 % - 80 % RH (non-condensing)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connection Terminals</th>
<th>AV1 Input</th>
<th>AV2 Input</th>
<th>AV3 Input</th>
<th>Monitor Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIO L - R</td>
<td>RCA PIN Type × 2</td>
<td>0.5 Vrms</td>
<td>RCA PIN Type × 2</td>
<td>0.5 Vrms</td>
</tr>
<tr>
<td>VIDEO</td>
<td>RCA PIN Type × 1</td>
<td>1.0 V[p-p] (75 Ω)</td>
<td>RCA PIN Type × 1</td>
<td>1.0 V[p-p] (75 Ω)</td>
</tr>
<tr>
<td>COMPONENT</td>
<td>Y Pb/Cb, Pr/CR</td>
<td>1.0 V[p-p] (including synchronization) ±0.35 V[p-p]</td>
<td>Y Pb/Cb, Pr/CR</td>
<td>1.0 V[p-p] (including synchronization) ±0.35 V[p-p]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Others</th>
<th>TH-P42S20A</th>
<th>TH-P50S20A</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI1 - 3 Input</td>
<td>TYPE A Connectors</td>
<td>TYPE A Connectors</td>
</tr>
<tr>
<td>PC Input</td>
<td>HIGH-DENSITY D-SUB 15PIN</td>
<td>D-SUB 15PIN</td>
</tr>
<tr>
<td>DIGITAL AUDIO OUT</td>
<td>PCM / Dolby Digital, Fiber optic</td>
<td>PCM / Dolby Digital, Fiber optic</td>
</tr>
<tr>
<td>Card slot</td>
<td>SD Card slot × 1</td>
<td>SD Card slot × 1</td>
</tr>
<tr>
<td>USB</td>
<td>USB 2.0 Type A connector</td>
<td>USB 2.0 Type A connector</td>
</tr>
<tr>
<td></td>
<td>DC 5V, Max 500 mA</td>
<td>DC 5V, Max 500 mA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions (W × H × D)</th>
<th>TH-P42S20A</th>
<th>TH-P50S20A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,029 mm × 704 mm × 334 mm (With Pedestal)</td>
<td>1,218 mm × 814 mm × 401 mm (With Pedestal)</td>
<td></td>
</tr>
<tr>
<td>1,029 mm × 661 mm × 93 mm (TV only)</td>
<td>1,218 mm × 769 mm × 93 mm (TV only)</td>
<td></td>
</tr>
<tr>
<td>Mass</td>
<td>25.5 kg Net (With Pedestal)</td>
<td>32.0 kg Net (With Pedestal)</td>
</tr>
<tr>
<td></td>
<td>23.0 kg Net (TV only)</td>
<td>29.0 kg Net (TV only)</td>
</tr>
</tbody>
</table>

**Note**

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