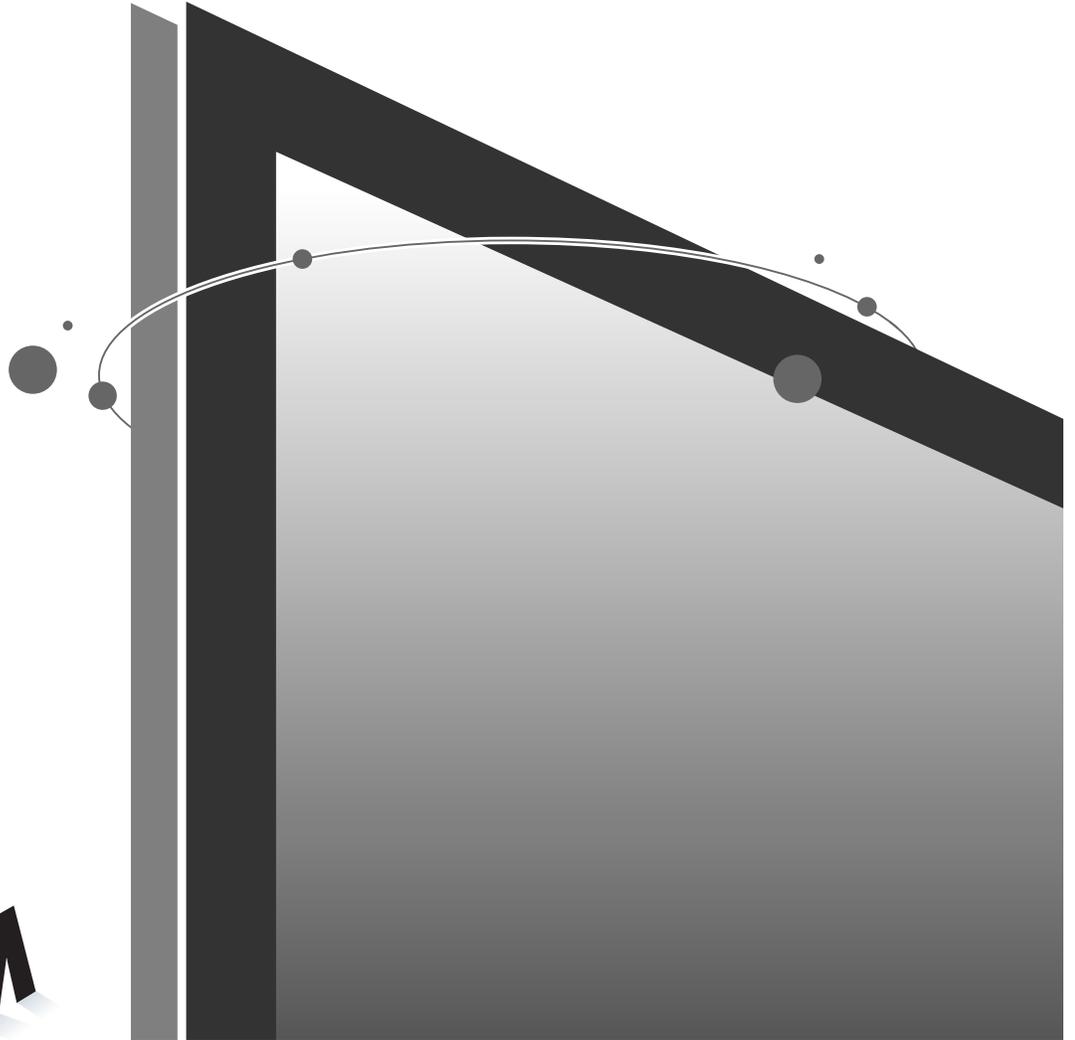




# Panasonic<sup>®</sup>

## Operating Instructions LCD TV

Model No. **TX-37LZD81AZ**



# VIERA

**VIERA**  
Link

**DOLBY**  
DIGITAL

**SD**  
HG

**HDMI**  
HIGH-DEFINITION MULTIMEDIA INTERFACE

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

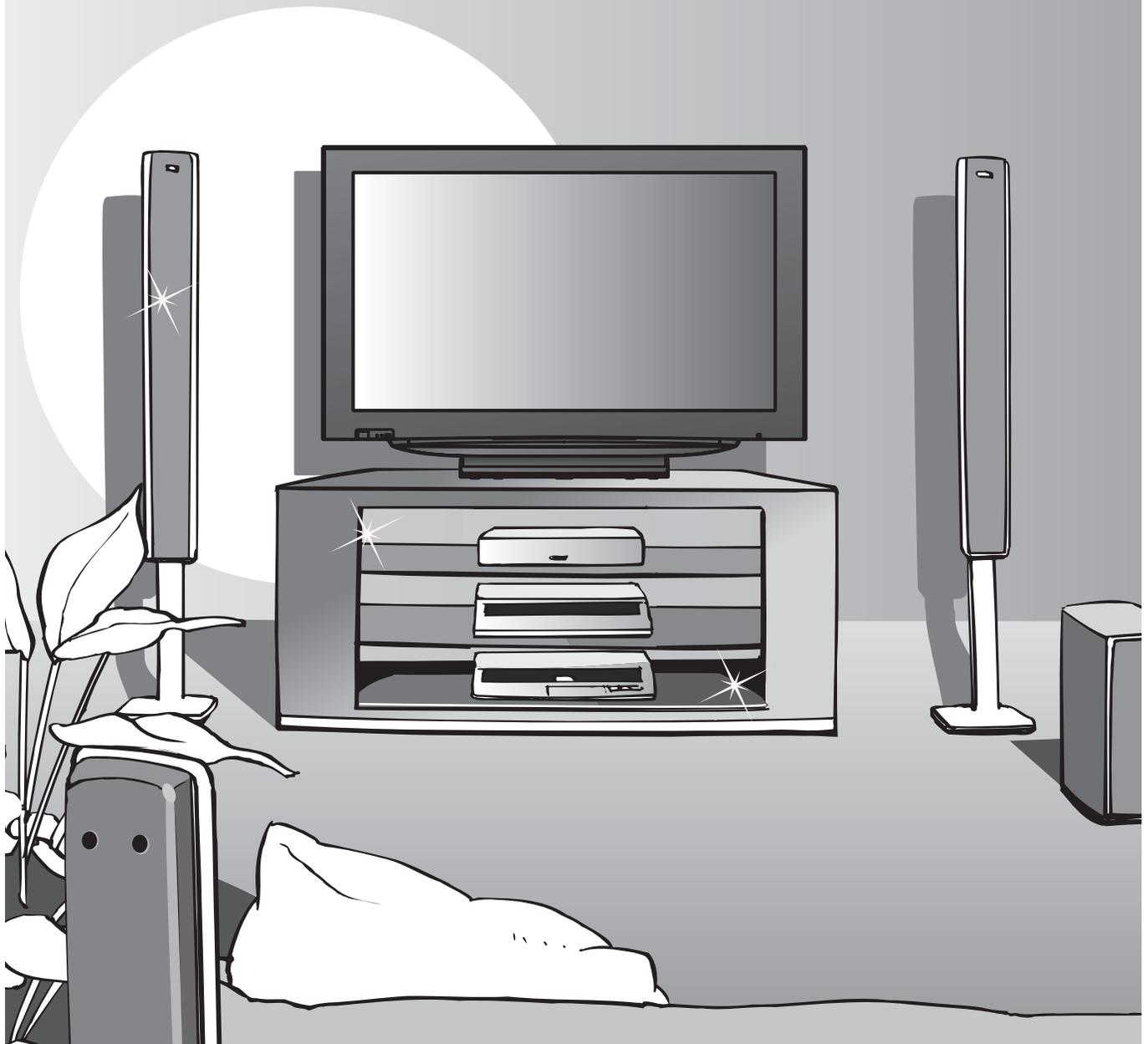
**English**

TQB4GC0085

Turn your own living room into a movie theatre!

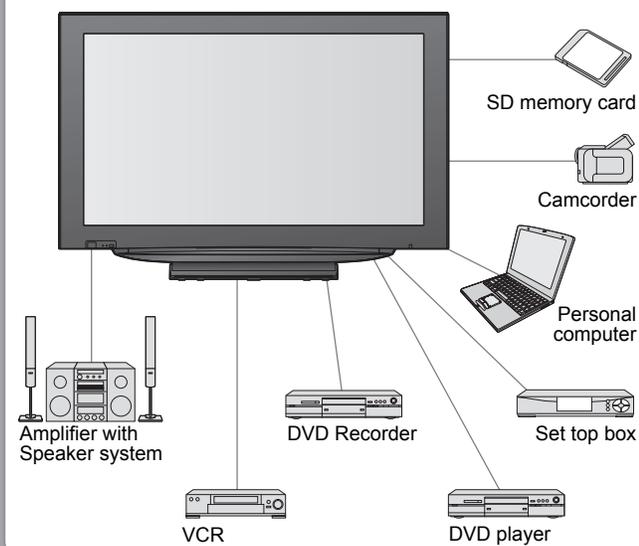
# Experience an amazing level of multi-

- 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!



# media excitement

## Enjoy rich multi-media



# Contents

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(Warning / Important Installation Notices)

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## Enjoy your TV!

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Quick Start Guide

Viewing

Advanced

FAQs, etc.



# Safety Precautions

## Warning

### Handling the mains plug and lead

- Insert the mains plug fully into the socket outlet. (If the mains plug is loose, it could generate heat and cause fire.)
- Ensure that the mains plug is easily accessible.
- Do not touch the mains plug with a wet hand. (This may cause 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.



AC 220-240 V,  
50 / 60 Hz



### Power source

- This TV is designed to operate on 220-240 V, 50 / 60 Hz AC.

### Do not remove covers NEVER modify the TV yourself

(High-voltage components may cause serious electrical shock.)

- Have the TV checked, adjusted, or repaired at your local Panasonic dealer.

### Keep liquids away from the TV

- To prevent damage which may result in fire or shock hazard, do not expose this appliance to dripping or splashing.
- Do not place containers with water (flower vase, cups, cosmetics, etc.) above the TV. (including on shelves above, etc.)

### 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 place foreign objects inside the TV

- Do not let metal or flammable objects 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 stands / mounting equipment

- Using an unauthorized stand or other fixtures may make the TV shaky, risking injury. Be sure to ask your local Panasonic dealer to perform setup.
- Use optional stands / mounts (p. 8).

### Do not allow children to handle SD card

- As with a small object, SD Card can be swallowed by young children. Please remove SD Card immediately after use.

## Important Installation Notices

### ■ Install TV on a stable surface

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

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

### ■ When cleaning the TV, remove the mains plug

- Cleaning an energized TV may cause electrical shock.

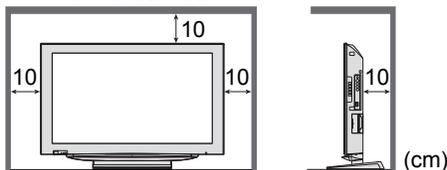
### ■ When the TV is not going to be used for a long period of time, remove the mains plug

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

### ■ Transport only in upright position

### ■ Allow sufficient space around the TV for radiated heat

Minimum distance



- When using the pedestal, keep the space between the bottom of the TV and the floor surface.
- 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 expose your ears to excessive volume from the headphones

- Irreversible damage can be caused.

### ■ Auto power standby function

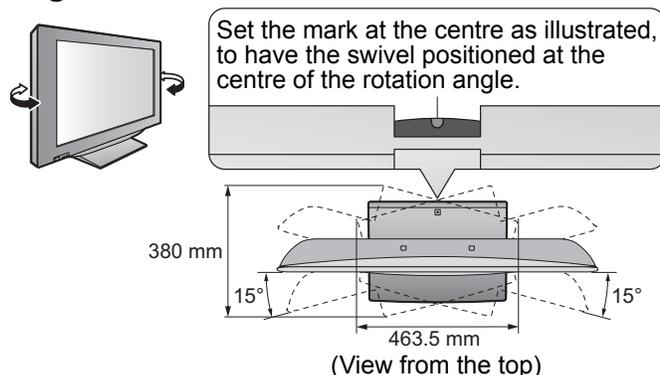
- If no signal is received and no operation is performed in Analogue TV mode for 30 minutes, the TV will automatically go to standby mode.

### ■ 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).

### ■ Adjust the LCD panel to your desired 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.



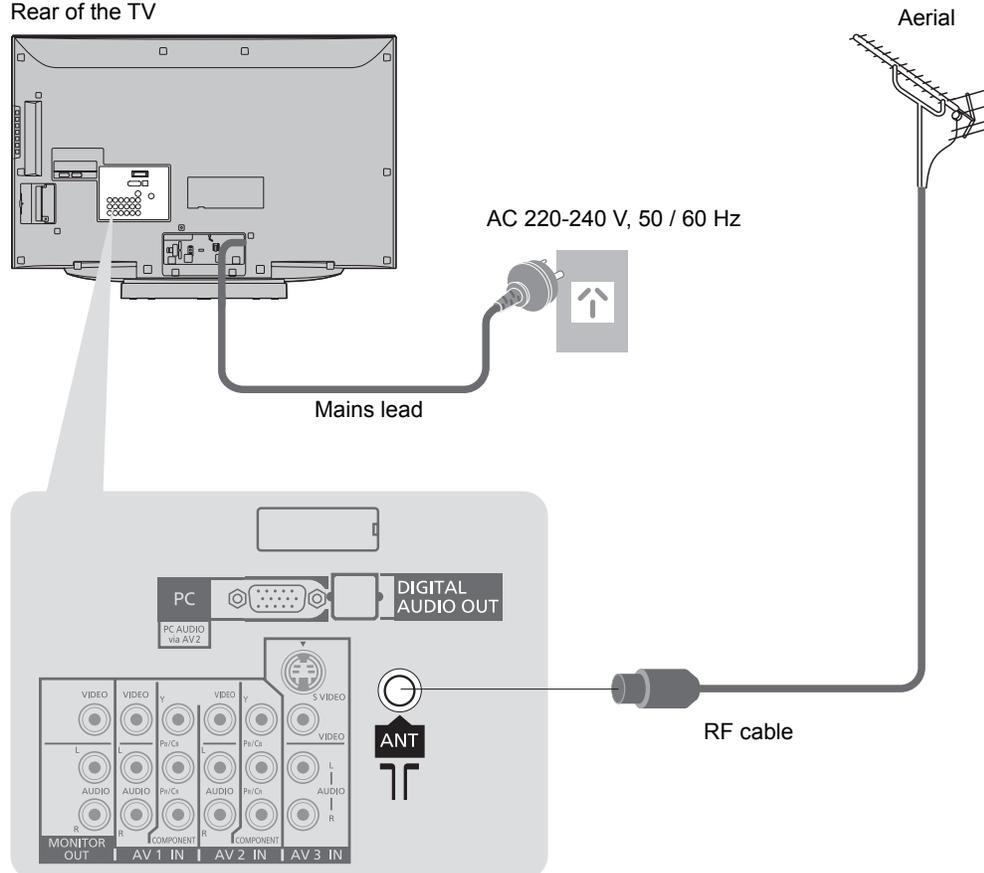
# Basic Connection

External equipment and cables shown are not supplied with this TV.  
Please ensure that the unit is disconnected from the mains socket before attaching or disconnecting any leads.

## Example 1 Connecting aerial

### TV only

Rear of the TV



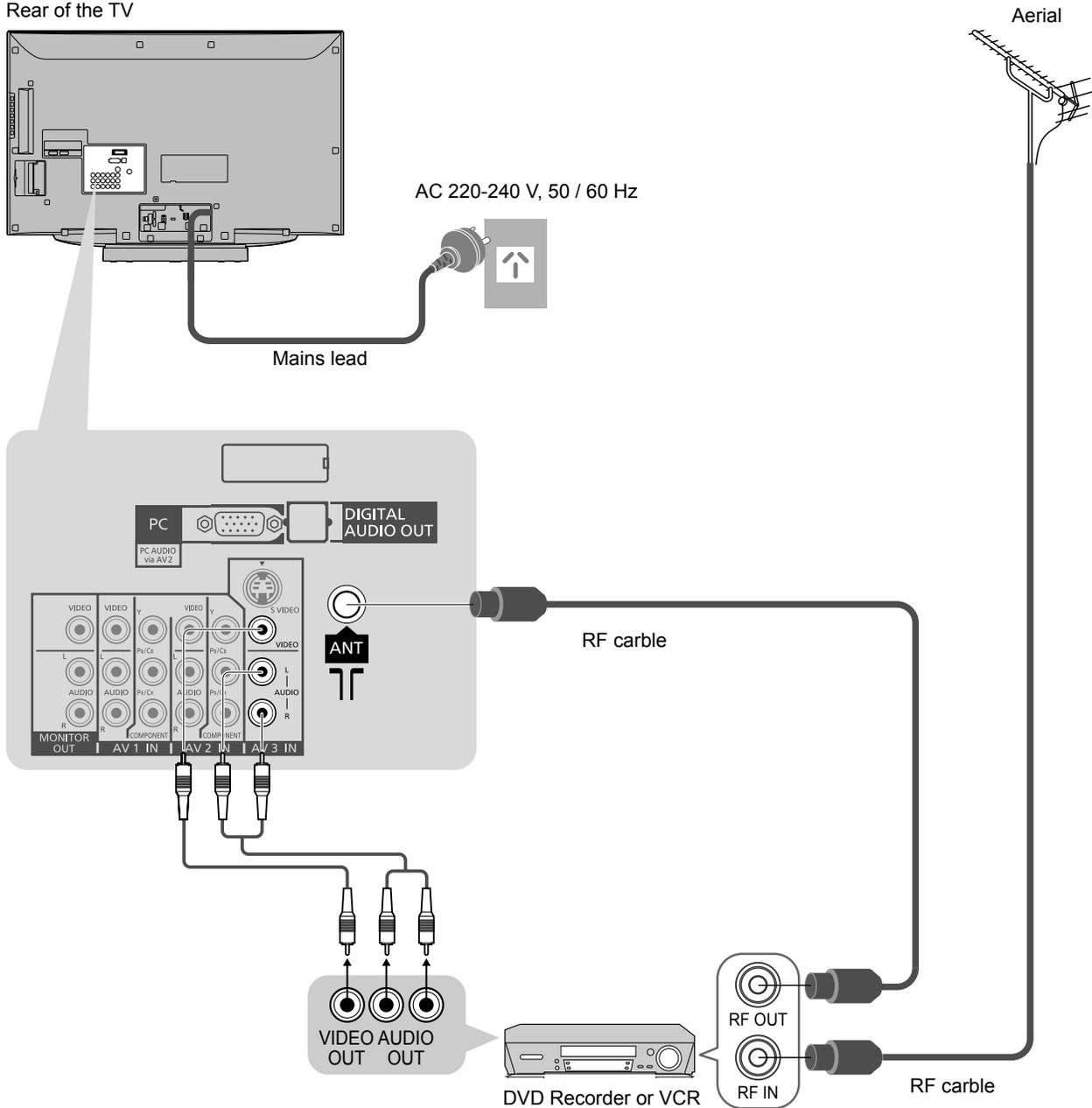
### Note

- 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  $\Omega$  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.

## Example 2 Connecting DVD Recorder / VCR

### TV, DVD Recorder or VCR

Rear of the TV



#### Note

- VIERA Link connection → p. 38
- If your recorder is not available for Digital TV → p. 48
- Read the manual of the equipment too.

# Accessories / Options

## Standard accessories

Check that you have the accessories and items shown

- Remote Control Transmitter  
● N2QAKB000066 or  
N2QAYB000228



- Batteries for the Remote Control Transmitter (2)  
● R6 (AA)

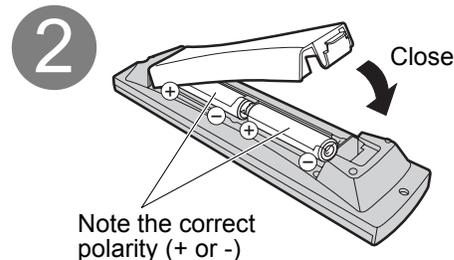
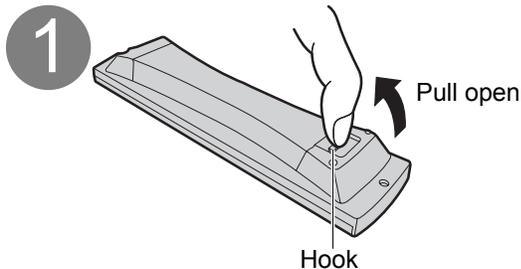


- Operating Instructions with Warranty statement

- Cleaning cloth



## Installing remote's batteries



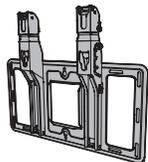
### Caution

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

## Optional accessories

Wall-hanging bracket

- TY-WK32LR2W



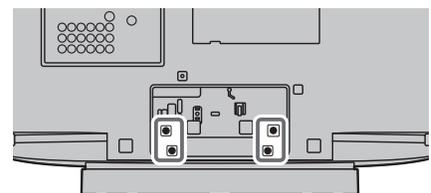
Please contact your nearest Panasonic dealer to purchase the recommended wall-hanging bracket. For additional details, please refer to the wall-hanging bracket installation manual.

### WARNING!

- Failure to use a Panasonic bracket or choosing to mount the unit yourself will be done at the risk of the consumer. Any damage resulting from not having a professional installer mount your unit will void your warranty.
- Always be sure to ask a qualified technician to carry out set-up. Incorrect fitting may cause equipment to fall, resulting in injury and product damage.
- Do not mount the unit directly below ceiling lights (such as spotlights, floodlights or halogen lights) which typically give off high heat. Doing so may warp or damage plastic cabinet parts.

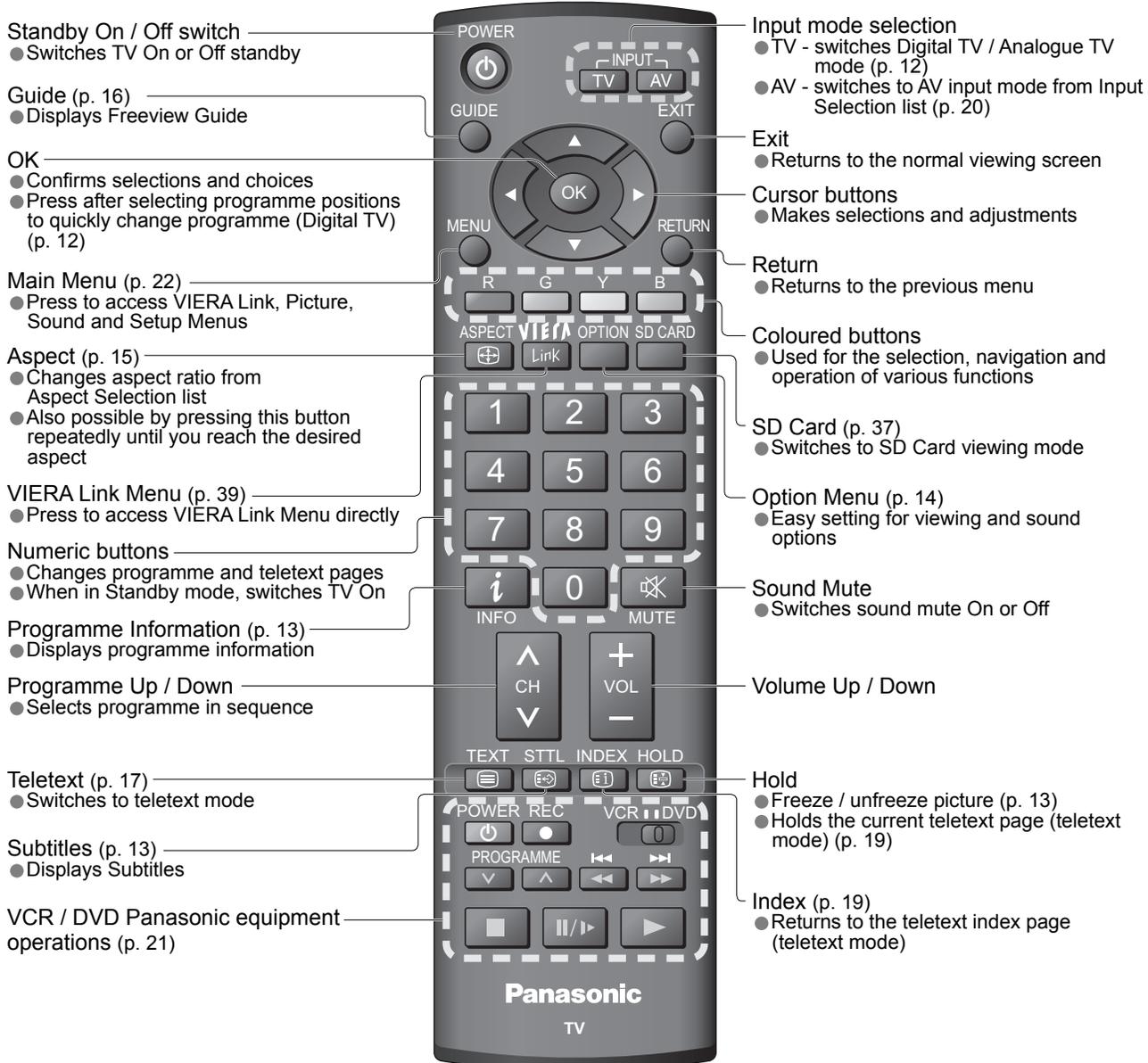
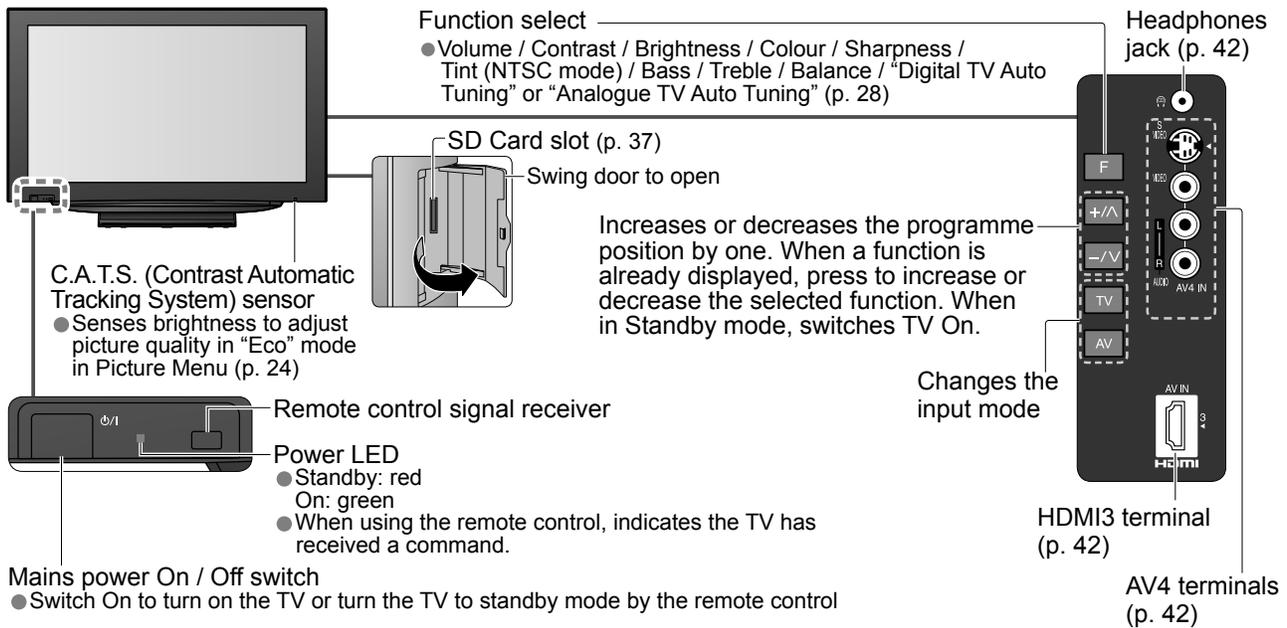
### How to remove the TV Stand

Remove four screws.



Rear of the TV

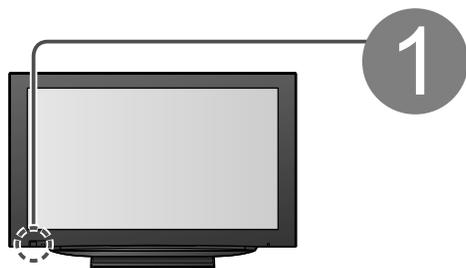
# Identifying Controls



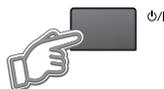
# Auto Tuning

Search and store TV programmes 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**  
(Takes a few seconds to be displayed)



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



**2 Start Auto Tuning**



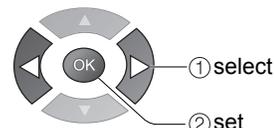
RF Ch	Service Name	Type	Quality
2	I ABC TV Sydney	Digital TV	110
3	I SBS DIGITAL 1	Digital TV	110
4	I FTV guide	Digital TV	110
7	I 7 Digital	Digital TV	110
29		Analogue TV	-
33		Analogue TV	-

Digital TV: 4 Radio: 0 Analogue TV: 2 Searching

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

**3**

**Select the picture setting**



- “Home” is the recommended mode for viewing at home. Select “Home” for optimal picture / power consumption. “Shop” is for in-store display.
- If “Shop” is selected, the word “Shop” appears every time the TV is switched on. (p. 12)  
Home: “Viewing Mode” is set as “Normal”. (p. 24)  
Shop: “Viewing Mode” is set as “Dynamic”. (p. 24)

**Auto Tuning is now complete and your TV is ready for viewing.**



- To edit programmes  
➔ Editing Programmes (p. 26)

Using the  
On Screen  
Displays

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

### ■ How to use remote control



Open the main menu



Move the cursor / select the menu



Move the cursor / adjust levels / select from a range of options



Access the menu / store settings after adjustments have been made or options have been set



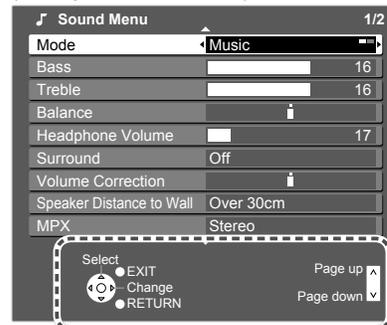
Return to the previous menu



Exit the menu system and return to the normal viewing screen

### ■ ON SCREEN HELP Instructions box

(example: Sound Menu)

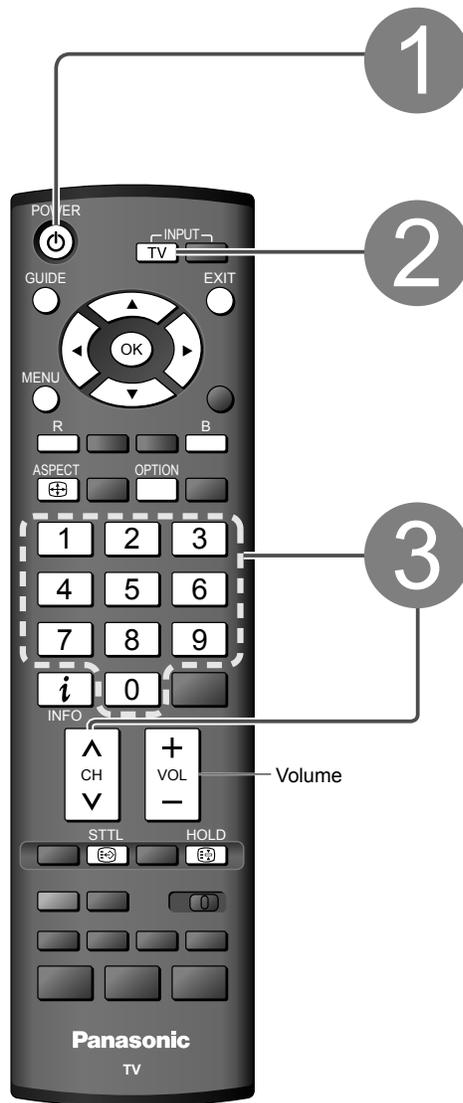


On-screen operation guide will help you.

#### Note

- If tuning has failed → “Digital TV Auto Tuning” or “Analogue TV Auto Tuning” (p. 29)
- To initialize all settings → “Shipping Condition” (p. 32)
- If you turned the TV Off during Standby mode last time, the TV will be in Standby mode when you turn the TV On with Mains power On / Off switch.

# Watching TV



## 1 Turn power on



- Mains power On / Off switch should be On. (p. 9)
- If “Shop” is displayed on the top right of the screen, reset settings in “Shipping Condition” (p. 32), and select “Home” in “Auto Tuning” (p. 10).

## 2 Select Digital TV or Analogue TV mode

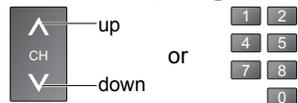


- Also possible to select the mode using the TV button on the front panel of the TV. (p. 9)



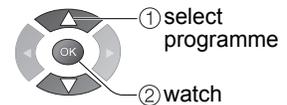
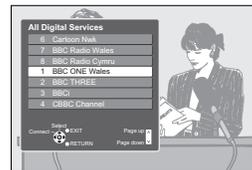
Information banner appears whenever you select a programme  
 ● For details → p. 13

## 3 Select a programme



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

- To select from the Programme List



### Note

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

### ■ Select a programme using Information banner (p. 13)

Possible to confirm the programme name before selecting programmes.  
 Display Information banner if it is not displayed

While the banner is displayed, select the programme



- Possible to set display timeout in “Banner Display Timeout” (p. 25).

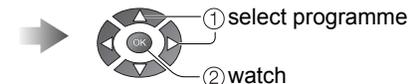
### ■ Select a programme using Freeview Guide (p. 16)

Possible to confirm the Freeview Guide (EPG) before selecting programmes.

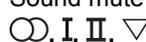
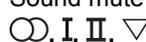
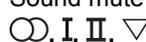
Display Freeview Guide



Select the programme



■ Other useful functions

<p><b>Hold</b></p>	<p><b>Freeze / unfreeze picture</b> </p>		
<p><b>Display subtitles</b></p>	<p><b>Display / hide subtitles</b> (if available)           ● To change the language for Digital TV (if available)          ➔ "Preferred Subtitles" (p. 25)</p>		
<p><b>Display Information banner</b></p>	<p><b>Display Information banner</b> </p> <p>● Also appears when changing a programme</p> <div data-bbox="462 682 1396 850">  </div> <p>Event: Example: 1 TEN Digital          Programme: Coronation Street          Current time: 10:30 am          Category: All Digital Services</p> <p>Digital TV: Event Start / Finish time          Analogue TV: Programme status</p> <p>Features available / Message meanings</p> <div data-bbox="422 955 1396 1333"> <table border="1"> <tr> <td> <p> Sound mute On</p> <p> Audio mode (Analogue TV mode) (p. 45)</p> <p><b>Dolby D +, Dolby D</b>                  Dolby Digital Plus or Dolby Digital audio track (Digital TV mode)</p> <p><b>Rating:</b>                  Rating information (Digital TV mode) (p. 44)</p> <p><b>Bad signal</b>                  Poor TV signal quality (Digital TV mode)</p> </td> <td> <p><b>Encrypted</b>                  Scrambled programme (Digital TV mode)</p> <p> Subtitle service available (Digital TV mode)</p> <p> Teletext service available</p> <p> Multiple audio available (Digital TV mode)</p> <p><b>1 - 90</b>                  Off Timer remaining time                  ● For settings ➔ see below</p> </td> </tr> </table> </div> <p>● To confirm another tuned programme name ➔ </p> <p>● To change the category (To select a Profile List if you have defined) ➔ </p> <p>● Information on the next event (Digital TV mode) ➔ </p> <p>● To watch the programme listed in the banner ➔ </p> <p>● To download new software to TV ➔  "System Update Search Now" (p. 30)</p> <p>● To hide ➔ </p> <p>● To set display timeout ➔ "Banner Display Timeout" (p. 25)</p> <p>● Extra information ➔  (press again to hide the banner) (Digital TV mode)</p>	<p> Sound mute On</p> <p> Audio mode (Analogue TV mode) (p. 45)</p> <p><b>Dolby D +, Dolby D</b>                  Dolby Digital Plus or Dolby Digital audio track (Digital TV mode)</p> <p><b>Rating:</b>                  Rating information (Digital TV mode) (p. 44)</p> <p><b>Bad signal</b>                  Poor TV signal quality (Digital TV mode)</p>	<p><b>Encrypted</b>                  Scrambled programme (Digital TV mode)</p> <p> Subtitle service available (Digital TV mode)</p> <p> Teletext service available</p> <p> Multiple audio available (Digital TV mode)</p> <p><b>1 - 90</b>                  Off Timer remaining time                  ● For settings ➔ see below</p>
<p> Sound mute On</p> <p> Audio mode (Analogue TV mode) (p. 45)</p> <p><b>Dolby D +, Dolby D</b>                  Dolby Digital Plus or Dolby Digital audio track (Digital TV mode)</p> <p><b>Rating:</b>                  Rating information (Digital TV mode) (p. 44)</p> <p><b>Bad signal</b>                  Poor TV signal quality (Digital TV mode)</p>	<p><b>Encrypted</b>                  Scrambled programme (Digital TV mode)</p> <p> Subtitle service available (Digital TV mode)</p> <p> Teletext service available</p> <p> Multiple audio available (Digital TV mode)</p> <p><b>1 - 90</b>                  Off Timer remaining time                  ● For settings ➔ see below</p>		

Viewing

● Watching TV

# Watching TV

## Other useful functions

### Display the selectable settings for the current programme

#### Check or change the current programme status instantly

OPTION



- To change → ② change  
① select

#### Audio selection (Digital TV mode)

- ➔ Sound Menu (p. 24)  
Allows you to select between alternative language for sound tracks (if available)

#### Video Selection (Digital TV mode)

- Allows you to select the image (if available)

#### Subtitle Language (Digital TV mode)

- Allows you to select the language in which subtitles should appear (if available)

#### Volume Correction

- Adjusts volume of individual programme or input mode

#### MPX (Analogue TV mode)

- ➔ Sound Menu (p. 24)

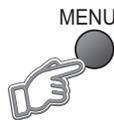
#### Note

- Also possible to change the settings in Menu list (p. 24 and p. 25).

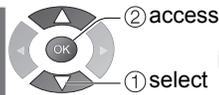
### Off Timer

#### Turn the TV off automatically after a fixed period

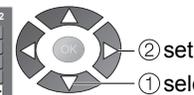
Display the menu



Select "Setup"



Select "Off Timer" and set the time



- To cancel ➔ Set to "Off" or turn the TV off.
- To display the remaining time ➔ Information banner (above)
- When the remaining time is within 3 minutes, the remaining time will flash on screen.

## Other useful functions

### Change the aspect ratio

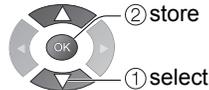


Enjoy viewing the picture at its optimum size and aspect.

Display Aspect Selection list



While the list is displayed, select the mode



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.



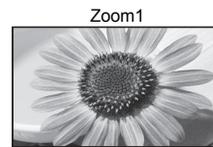
4:3

Displays the image at the standard "4:3" without distortion.



4:3 Full

Displays a "4:3" image enlarged horizontally to fit the screen.  
● Only available when HD signals are received



Zoom1

Displays a "16:9" letterbox or "4:3" image 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" is available in Digital TV mode.
- Only "16:9" and "4:3" are available in PC mode.
- Not available in teletext mode.
- Aspect mode can be memorized separately for SD (Standard definition) and HD (High definition) signals. (except Digital TV mode)

Change aspect ratio

Viewing

● Watching TV

# Using Freeview Guide

Using Freeview Guide enables you to select programme easily, view event informations, etc. Freeview Guide—Electronic Programme Guide (EPG) provides an on-screen listing of the programmes currently broadcast and the future broadcasts over the next seven days (depending on the broadcasters).



## View Freeview Guide



- Each time pressed, the screen will be switched between the Freeview Guide Listing and What's on Now / Next.

### Example: Freeview Guide Listing

Current day & date

Programme currently viewed

Current channel's programme listing

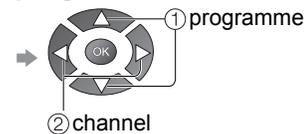
Description

Parental rating & captioning information

- To the previous day → Y

- To the next day → B

- To scroll through programme or channel



### Example: What's on Now / Next

Current time & date

Channel listing

- To scroll through channels



- To watch the highlighted programme



- To return to the Freeview Guide Listings



- To return to TV

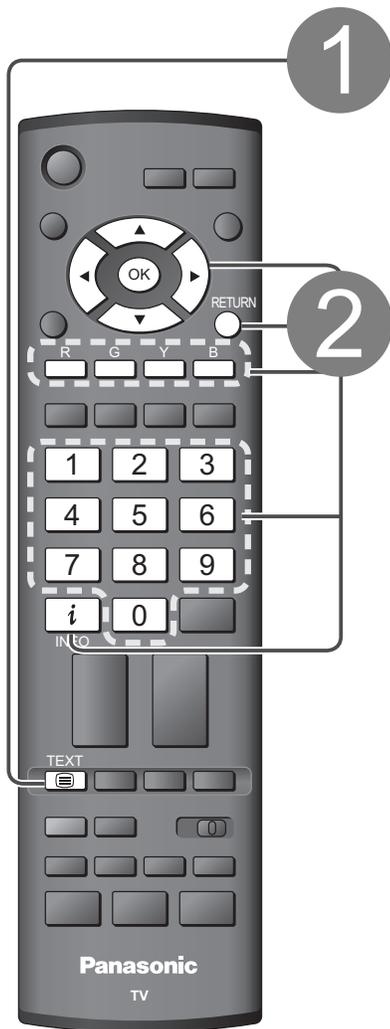


### Note

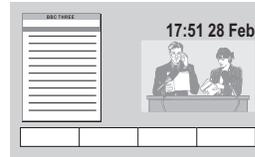
- When this TV is turned on for the first time, or the TV is switched off for more than a week, it may take some time before the Freeview Guide is completely shown.

# Viewing Teletext

Some teletext services may be provided in MHEG. Below is the instruction for MHEG teletext.



## 1 Switch to Teletext



## How to use

In all cases, it is possible to navigate the pages using buttons on the remote control, but because the commands available must apply to all manufacturers of digital equipment, some on screen commands may not correspond exactly to the remote control buttons.

For example:

- When “select” or “go” is displayed →
- When “◀”, “▶”, “▲”, “▼” symbol is displayed →
- When “back key” is displayed →
- When the key words are displayed on colour bar →
- When options with numbers are displayed →
- When “i” is displayed → (information)

### Note

- As soon as you switch to a digital programme with links to a teletext service, software is downloaded in the background to enable the teletext function. This means that when switching to a digital programme, you should wait for approximately 5 seconds before pressing the TEXT button - this will allow the software to download. If you press the TEXT button before download is complete, there will be a short delay before the text screen is displayed.
- While navigating digital teletext, you will find there is a short delay when moving between pages while the page downloads. There is often a prompt shown somewhere on the page (for example “Loading”) to let you know that this is happening.

### ■ To return to TV



# Viewing Teletext

You can enjoy teletext broadcasting, including news, weather forecasts and subtitles, if this service is provided by 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.) → 

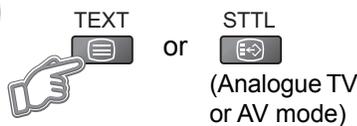
## What is List mode?

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. 19)

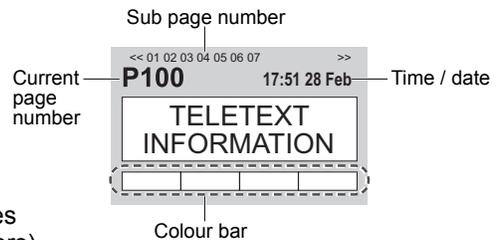
■ To change mode → "Teletext" in Setup Menu (p. 25)



## 1 Switch to Teletext



- Displays Index (content varies depending on the broadcasters)



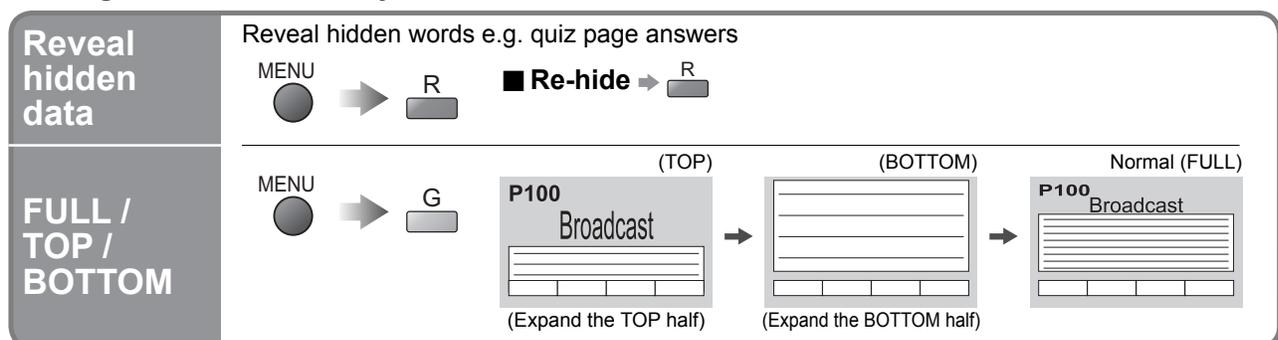
## 2 Select the page (up to page 899)

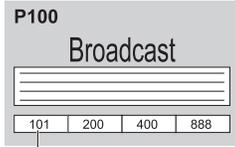
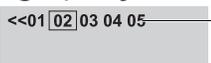
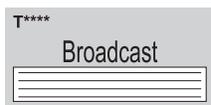
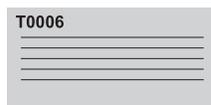


■ To adjust contrast → MENU →  (Press three times) →  As the blue bar is displayed

■ To return to TV → TEXT or EXIT

## Using teletext conveniently



<p><b>HOLD</b></p>	<p><b>Stop automatic updating</b> (If you wish to hold the current page without updating)</p> <p>HOLD  ■ <b>To resume</b> → HOLD </p>												
<p><b>INDEX</b></p>	<p><b>Return to the main index page</b></p> <p>INDEX </p>												
<p><b>Call up a favourite page</b></p>	<p><b>View a favourite page stored</b> (Analogue TV or AV mode)</p> <p>STTL  ● Call up the page stored in "blue". ● Factory setting is: "P801" for Analogue Teletext "P103" for Digital Teletext</p>												
<p><b>View in multi window</b></p>	<p><b>Watch TV and Teletext in two windows at once</b></p> <p>MENU  (Press twice) →  ● Select Picture and text On or Off</p> <p>● Operations can be made only in Teletext screen.</p> 												
<p><b>Store frequently viewed pages</b></p>	<p><b>Store frequently viewed pages in the colour bar</b> (List mode only)</p> <p>As page is displayed  Corresponding colour button → OK  press and hold</p> <p>● <b>To change stored pages</b></p> <p>→  Colour button you want to change → Enter new page number</p> <table border="1" data-bbox="747 1165 868 1281"> <tr><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td><td>9</td></tr> <tr><td>0</td><td></td><td></td></tr> </table> <p>→ OK  press and hold</p> <p> The number changes to white.</p>	1	2	3	4	5	6	7	8	9	0		
1	2	3											
4	5	6											
7	8	9											
0													
<p><b>View sub page</b></p>	<p><b>View sub page (Only when teletext is more than one page)</b></p> <p>  Appears at top of the screen</p> <p>● <b>To view specific sub page</b></p> <p>MENU  → B  → Enter the 4-digit number example: P6</p> <table border="1" data-bbox="860 1564 1015 1596"> <tr><td>0</td><td>0</td><td>0</td><td>6</td></tr> </table> <p> → </p> <p>● Sub pages: The number of sub pages varies depending on the broadcasters (up to 79 pages). It may take some time for searching, during which time you can watch TV.</p>	0	0	0	6								
0	0	0	6										
<p><b>Watch TV while waiting for update</b></p>	<p><b>View the TV picture while searching for a teletext page</b> Teletext automatically updates itself when new information becomes available. Changes to TV screen temporarily</p> <p>MENU  → Y  →  Appears when updating is completed → Y  → View the updated page</p> <p>(You cannot change the programme.)</p> <p>● The news page provides a function that indicates arrival of latest news ("News Flash").</p>												

# Watching Videos and DVDs

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

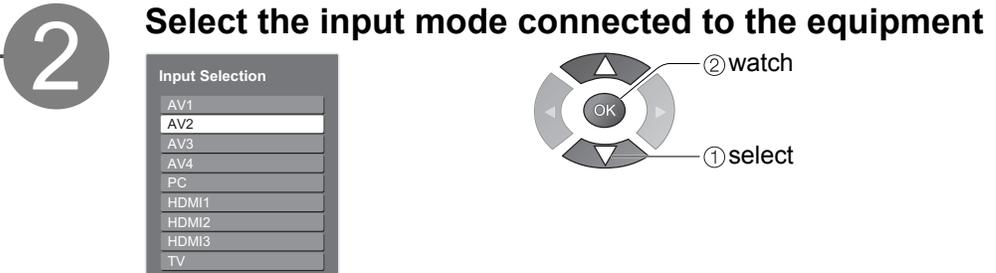
● To connect the equipment → p. 42-43

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

**1 Display the Input select menu**



**2 Select the input mode connected to the equipment**

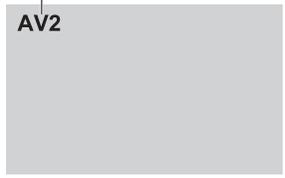


Input Selection
AV1
AV2
AV3
AV4
PC
HDMI1
HDMI2
HDMI3
TV

● You can also select the input using the AV button on the remote control or the side panel of the TV.  
Press the button repeatedly until the desired input is selected.

● You can label or skip each input modes → "Input Labels" (p. 33)

**3 View**  
Displays the selected mode



■ To return to TV  
→ TV

## Note

- If the external equipment has an aspect adjustment function, set to "16:9".
- For details, see the manual of the equipment or ask your local dealer.

Panasonic equipment connected to the TV can be directly operated with the remote control.

	<p><b>VCR / DVD switch*</b>            Select VCR to operate Panasonic VCR or DVD equipment            Select DVD to operate Panasonic DVD equipment or Player home theatre</p>
	<p><b>Standby</b>            Set to Standby mode / Turn on</p>
	<p><b>Play</b>            Playback videocassette / DVD</p>
	<p><b>Stop</b>            Stop the operations</p>
	<p><b>Rewind / Skip / Search</b>            VCR: Rewind, view the picture rapidly in reverse            DVD: Skip to the previous track or title            Press and hold to search backward</p>
	<p><b>Fast-forward / Skip / Search</b>            VCR: Fast-forward, view the picture rapidly forward            DVD: Skip to the next track or title            Press and hold to search forward</p>
	<p><b>Pause</b>            Pause / Resume            DVD: Press and hold to play at slow speed</p>
	<p><b>Programme Up / Down</b>            Select programme</p>
	<p><b>Record</b>            Start recording</p>

**\*Setting your remote control to operate Panasonic VCR, DVD, etc.**

① Set the VCR / DVD switch to the appropriate position → 

② Press and hold  during the following operations

Enter the appropriate code for the equipment to be controlled, see table below



“VCR” position

Equipment	Code
VCR	10 (default)
DVD	11

“DVD” position

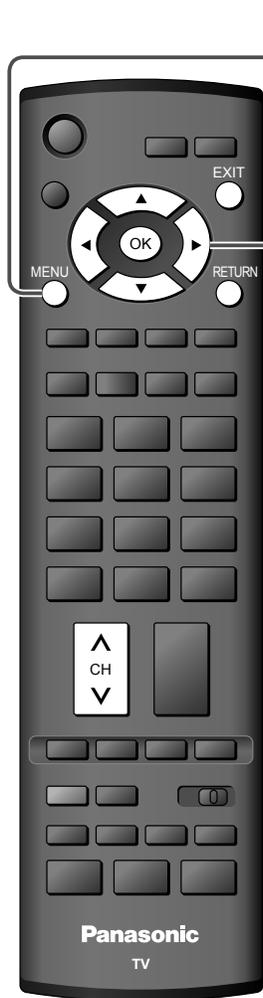
Equipment	Code
DVD	70 (default)
Player home theatre	71

**Note**

- Confirm if the remote control works correctly after changing the code.
- The codes will be reset to default values if batteries are replaced.
- “DVD” means DVD player, DVD recorders and Recorder home theatre.
- Some operations may not be possible on some equipment models.

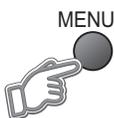
# How to Use Menu Functions

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



1

## Display the menu



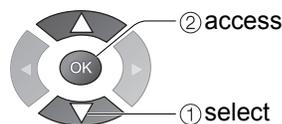
- Displays the functions that can be set (varies according to the input signal)

2

## Select the menu

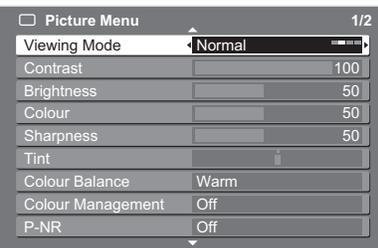


(example: Picture Menu)



3

## Select the item

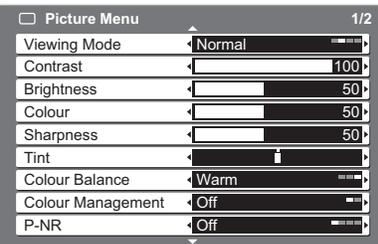


(example: Picture Menu)

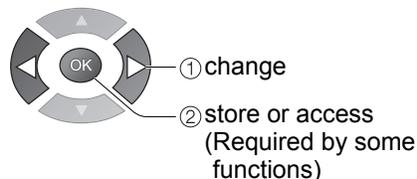


4

## Adjust or select



(example: Picture Menu)



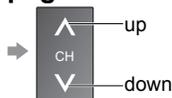
### ■ To return to TV at any time



### ■ To return to the previous screen

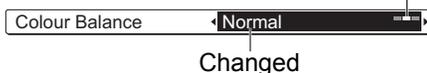


### ■ To change menu pages



### ■ Choose from among alternatives

Number and positions of alternatives



### ■ Adjust using the slide bar



### ■ Go to the next screen

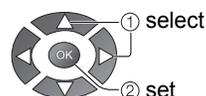


### ■ Enter characters by free input menu

You can enter names or numbers freely for some items.



Set characters



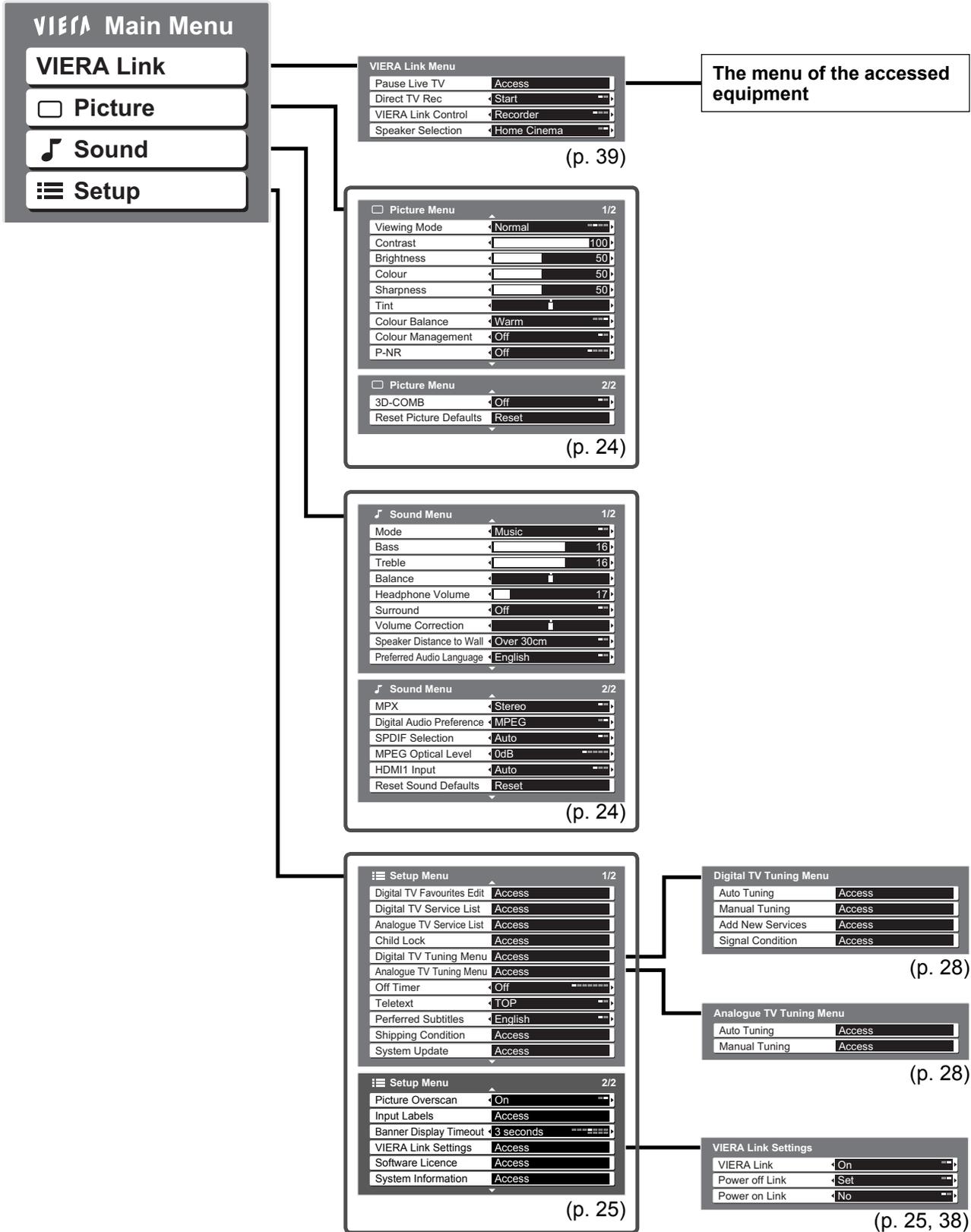
Store



### ■ To reset the settings

- To reset the picture settings only  
→ "Reset Picture Defaults" in Picture Menu (p. 24)
- To reset the sound settings only  
→ "Reset Sound Defaults" in Sound Menu (p. 24)
- To initialize all settings  
→ "Shipping Condition" in Setup Menu (p. 32)

■ Overview



● How to Use Menu Functions (picture, sound quality, etc.)

Advanced

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

# How to Use Menu Functions

## ■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)
VIERA Link	Pause Live TV	Controls the connected equipment with VIERA Link function, and enables various convenient recording, playback, etc. (p. 39 - 41) ● You can also access VIERA Link Menu directly using the VIERA Link button on the remote control.
	Direct TV Rec	
	VIERA Link Control	
	Speaker Selection	
Picture	Viewing Mode	Basic picture mode ( <b>Dynamic / Normal / Cinema / Eco</b> ) 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 producing a cinema-like picture Eco : Adjusts picture settings automatically dependent on ambient lighting conditions ● Set for each input signal
	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 ( <b>Cool / Normal / Warm</b> )
	Colour Management	Automatically adjusts colours to vivid ones ( <b>Off / On</b> ) ● Not valid on PC signal
	P-NR	Picture Noise Reduction Automatically reduces unwanted picture noise and flicker noise in the contoured parts of a picture ( <b>Off / Min / Mid / Max</b> ) ● Not valid on PC signal
	3D-COMB	Occasionally, whilst viewing still or slow moving pictures, colour patterning may be seen Set to "On" to display sharper and more accurate colours ( <b>Off / On</b> ) ● For PAL or NTSC signal reception only ● Not valid on S-Video, Component, PC, HDMI and SD Card
	Reset Picture Defaults	Press the OK button to reset Viewing Mode on all inputs to default settings.
Sound	Mode	Basic sound mode ( <b>Music / Speech</b> )
	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
	Balance	Adjusts volume level of right and left speakers
	Headphone Volume	Adjusts the volume of the headphones
	Surround	Surround sound settings ( <b>Off / On</b> )
	Volume Correction	Adjusts volume of individual programme or input mode
	Speaker Distance to Wall	Adjusts the low frequency sound ( <b>Over 30cm / Up to 30cm</b> ) ● If the back space between the TV and wall is over 30 cm, "Over 30cm" is recommended. ● If the back space between the TV and wall is within 30 cm, "Up to 30cm" is recommended.
	Preferred Audio Language	Selects the preferred language for Digital TV multi audio (depending on the broadcaster) ( <b>English / Maori</b> )
	MPX	Select stereo / monaural ( <b>Mono / Stereo</b> ) (p. 45) ● Normally: Stereo ● Stereo signal cannot be received: Mono ● M1 / M2: Available while mono signal is transmitted ● Analogue TV mode only
	Digital Audio Preference	Selects the initial setting for audio tracks ( <b>Auto / MPEG</b> ) Auto : Automatically selects the audio tracks if programme has more than two tracks. The priority is given in the following order - Dolby Digital Plus, HE-AAC, Dolby Digital, MPEG. MPEG : The priority is given to MPEG as long as the programme contains MPEG audio. ● Dolby Digital Plus and Dolby Digital are the methods of coding digital signals developed by Dolby Laboratories. Apart from stereo (2ch) audio, these signals can be multi-channel audio. ● HE-AAC is a perceptual coding method used to compress digital audio for efficient storage and transmission. ● MPEG is an audio compression method that compresses audio to the smaller size without any considerable loss of audio quality. ● Dolby Digital Plus and HE-AAC are the technologies for HD (High definition) programmes. ● Digital TV mode only
	SPDIF Selection	Selects the initial setting for digital audio output signal from DIGITAL AUDIO OUT terminal ( <b>Auto / PCM</b> ) Auto: Dolby Digital is output as Dolby Digital Bitstream. MPEG is output as PCM. PCM: Dolby Digital is output as PCM. MPEG is output as PCM. ● Digital TV mode only
	MPEG Optical Level	You can adjust the audio level of MPEG output from DIGITAL AUDIO OUT terminal as the initial setting ● 0dB to -12dB in -2dB reductions ● Digital TV mode only
	HDMI1 / 3 Input	Select to fit the input signal ( <b>Auto / Digital / Analogue</b> ) (p. 35) Auto: Automatic detection of digital or analogue sound source Digital: HDMI cable connection Analogue: HDMI-DVI adapter cable connection ● HDMI input mode only ● HDMI2 terminal is for digital signal only ● No setting for HDMI2 available
Reset Sound Defaults	Press the OK button to reset the present Sound Mode to the default settings	

## ■ Menu list

Menu	Item	Adjustments / Configurations (alternatives)	
Setup	Digital TV Favourites Edit	Creates list of favourite programmes (p. 27)	
	Digital TV Service List	Skips the unwanted Digital TV programmes (p. 27)	
	Analogue TV Service List	Skips the unwanted Analogue TV programmes or edits Analogue TV programmes (p. 27)	
	Child Lock	Locks a programme / AV input to prevent access to it (p. 31)	
	Digital TV Tuning Menu	Auto Tuning	Automatically sets the programmes received in the area (p. 29)
		Manual Tuning	Sets the Digital TV programmes manually (p. 29)
		Add New Services	Adds new Digital TV services (p. 29)
		Signal Condition	Checks the Digital TV signal condition (p. 29)
	Analogue TV Tuning Menu	Auto Tuning	Automatically sets the programmes received in the area (p. 29)
		Manual Tuning	Sets the Analogue TV programmes manually (p. 29)
	Off Timer	Sets the time the TV automatically turns Off ( <b>Off / 15 / 30 / 45 / 60 / 75 / 90 minutes</b> )	
	Teletext	Teletext display mode ( <b>TOP (FASTEXT) / List</b> ) (p. 18)	
	Preferred Subtitles	Selects the preferred language for Digital TV subtitles (depending on the broadcaster) ( <b>English / Maori</b> )	
	Shipping Condition	Resets all settings, for example, when moving house (p. 32)	
	System Update	Downloads new software to TV (p. 30)	
	Picture Overscan	Selects the screen area displaying the image ( <b>Off / On</b> ) On : Enlarged the image to hide the edge of the image. Off : Displayed the image in the original size. ● Set to "On" if noise is generated on the edge 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.	
	Input Labels	Labels or skips each input terminals (p. 33)	
	Banner Display Timeout	Sets how long the information banner (p. 13) stays on screen ● 0 (No display) to 10 sec. in 1-sec. increments	
	VIERA Link Settings	VIERA Link	Sets to use VIERA Link functions ( <b>Off / On</b> ) (p. 38)
		Power off Link	Sets to use Power off Link function ( <b>No / Set</b> ) (p. 38)
Power on Link		Sets to use Power on Link function ( <b>No / Set</b> ) (p. 38)	
Software Licence	Displays the software licence information		
System Information	Displays the system information of this TV		

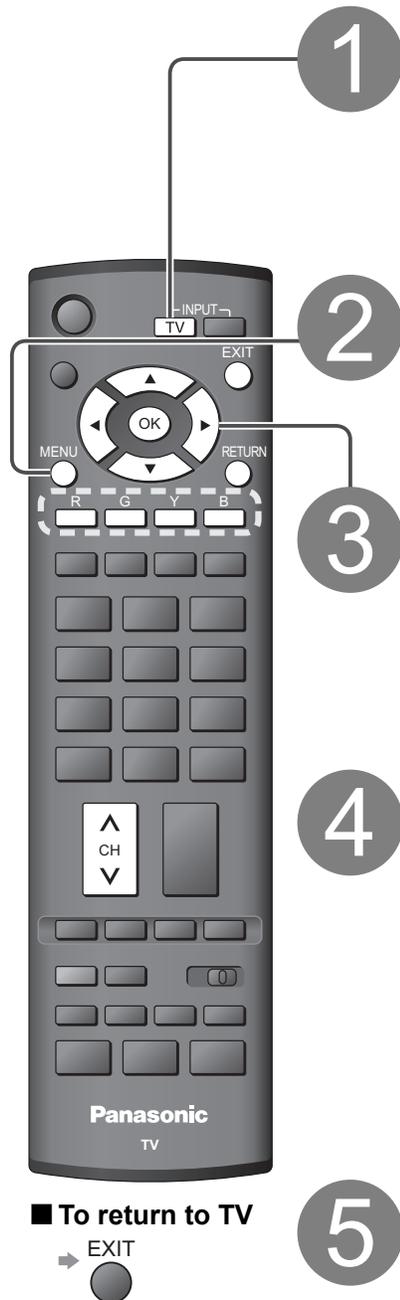
- A different menu will be displayed while PC, DVI to HDMI adapter cable or SD Card is used. (p. 34-35 and p. 37)
- Only available items can be selected.

● How to Use Menu Functions (picture, sound quality, etc.)

Advanced

# Editing Programmes

You can make your favourite programme lists and skip unwanted programmes, etc.

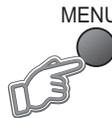


## 1 Select Digital TV or Analogue TV

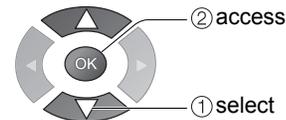


- “Digital TV Favourites Edit” and “Digital TV Service List” are available in Digital TV mode only.
- “Analogue TV Service List” is available in Analogue TV mode only.

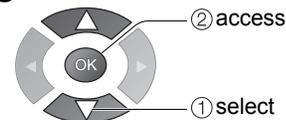
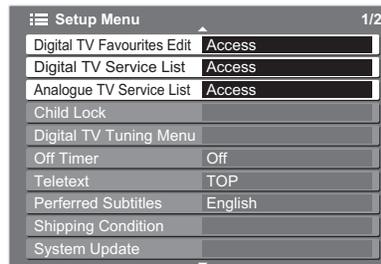
## 2 Display the menu



## 3 Select “Setup”



## 4 Select “Digital TV Favourites Edit”, “Digital TV Service List” or “Analogue TV Service List”



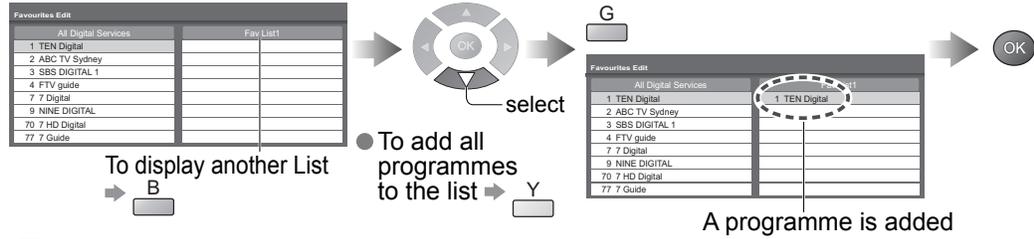
## 5 Set

■ To return to TV



Create your favourite programme list (Profile) from various broadcasters (up to 4: Fav List1 / Fav List2 / Fav List3 / Fav List4). The list is added to "Favourites" list in the information banner (p. 13) and then easily accessed.

**Select a programme and add it to the list**



**To edit List**



Select the field of List to edit and:

- To name the List → R → Select the character → OK → RETURN
- To move the programme → G → Select the new position → Confirm → G → OK
- To delete the programme → Y → OK
- To delete all programmes → B → OK

**Note**

- Programme numbers (known as logical channel numbers) are defined by the broadcaster and cannot be changed.
- Hidden services (see below) can be selected but not viewed.

List favourite programmes

Digital TV Favourites Edit

(Digital TV mode)

Skip unwanted programmes

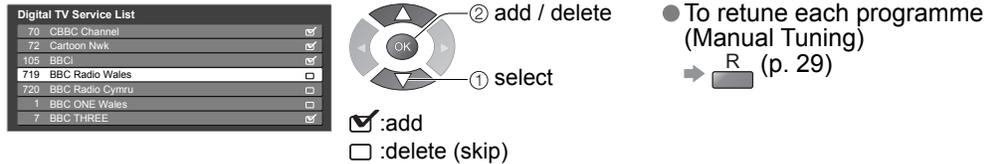
Digital TV Service List

Analogue TV Service List

You can hide unwanted services. The deleted services cannot be displayed except in this function. Use this function to skip unwanted programmes.

- "Digital TV Service List" is listed all tuned Digital TV programmes in Digital TV mode.
- "Analogue TV Service List" is listed all tuned Analogue TV programmes in Analogue TV mode.

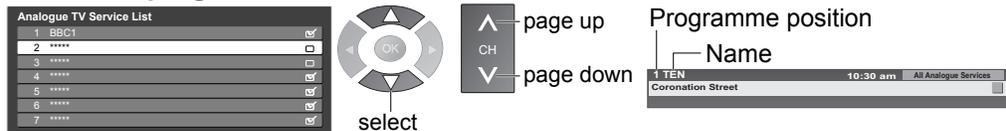
**Select a service and add / delete**



You can change the programme name and programme position for Analogue TV programmes.

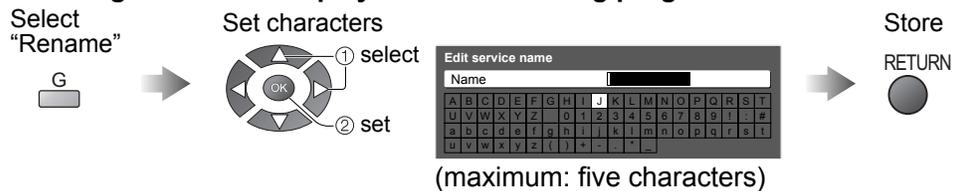
- This function is available in Analogue TV mode.
- If a VCR is connected only with the RF cable, edit "VCR".

**1 Select the programme to edit**



**2 Edit**

**To change the name displayed when selecting programmes**



**To move the programme position**

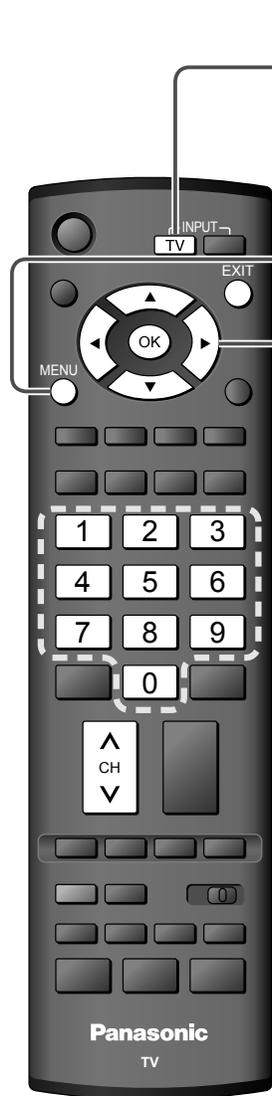


Edit Analogue TV programmes (Change name, Move)

Analogue TV Service List

# Tuning Programmes

You can retune all the TV programmes when moving house or search for new services which may have recently started broadcasting.



■ To return to TV  
EXIT

1

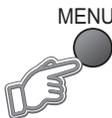
## Select Digital TV or Analogue TV



- “Digital TV Auto Tuning”, “Digital TV Manual Tuning”, “Add New Digital TV Services” and “Digital TV Signal Condition” are available in Digital TV mode only.
- “Analogue TV Auto Tuning” and “Analogue TV Manual Tuning” are available in Analogue TV mode only.

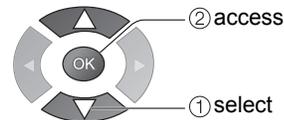
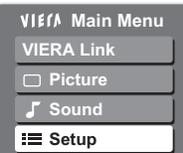
2

## Display the menu



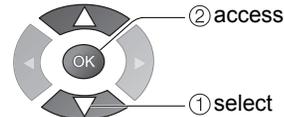
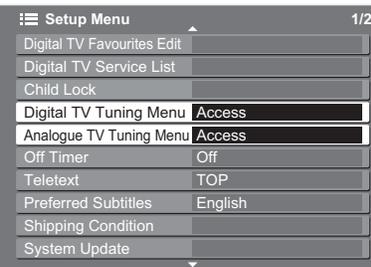
3

## Select “Setup”



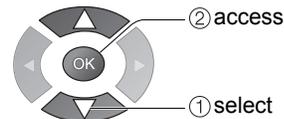
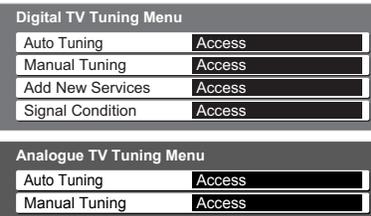
4

## Select “Digital TV Tuning Menu” or “Analogue TV Tuning Menu”



5

## Select a function



6

## Set

### ■ For Auto Tuning, using the buttons on the side of the TV (p. 9)

- ① Press repeatedly until “Digital TV Auto Tuning” or “Analogue TV Auto Tuning” appears



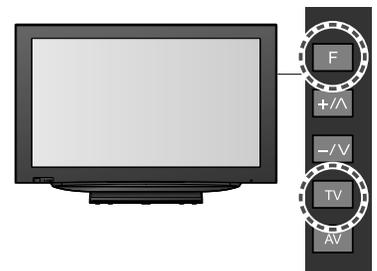
- ② Access “Digital TV Auto Tuning” or “Analogue TV Auto Tuning”



- ③ Start “Digital TV Auto Tuning” or “Analogue TV Auto Tuning”



● To return to TV → F



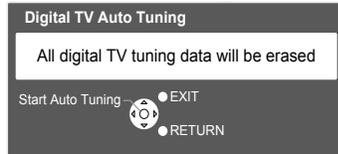
Set all Digital TV or Analogue TV programmes automatically

**Digital TV Auto Tuning or Analogue TV Auto Tuning**

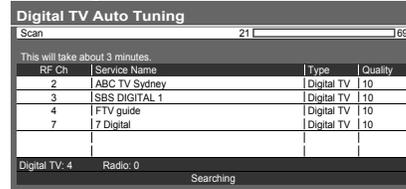
Automatically retune all Digital TV or Analogue TV programmes received in the area.

- Only Digital TV programmes are retuned in Digital TV mode.
- Only Analogue TV programmes are retuned in Analogue TV mode.

**Start Auto Tuning**



**Settings are made automatically**

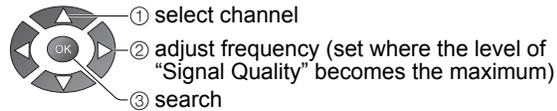
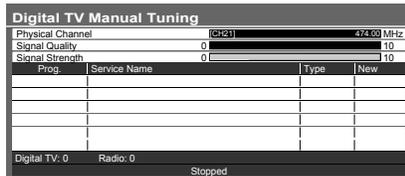


- All the previous tuning settings are erased.
- When the operation is completed, the programme at programme position "1" will be displayed.
- If tuning has not been done completely → "Digital TV Manual Tuning", "Analogue TV Manual Tuning"

Set Digital TV programme manually

**Digital TV Manual Tuning**

Normally use "Digital TV Auto Tuning" or "Add New Digital TV Services" to add Digital TV programmes to your service list. If tuning has not been done completely or for adjusting the direction of the aerial, use this function.



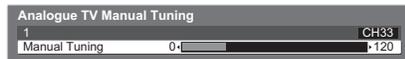
- All services found will be added to the Digital TV Service List.

Set Analogue TV programme manually

**Analogue TV Manual Tuning**

Set Analogue TV programme manually after Analogue TV Auto Tuning.

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



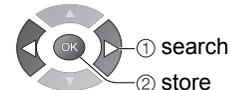
Select the programme position



Select the programme



Search and store

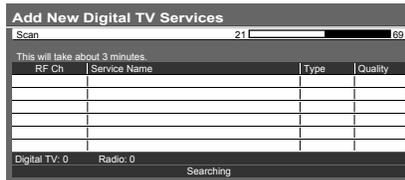


Add Digital TV programme automatically

**Add New Digital TV Services**

Any new services found will be added to the Digital TV Service List.

- The new service is added with the current settings saved as they are.

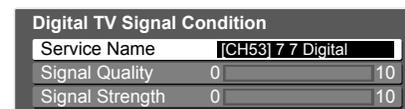


Check Digital TV signal

**Digital TV Signal Condition**

Selects a programme and checks the Digital TV signal condition.

- To change the programme

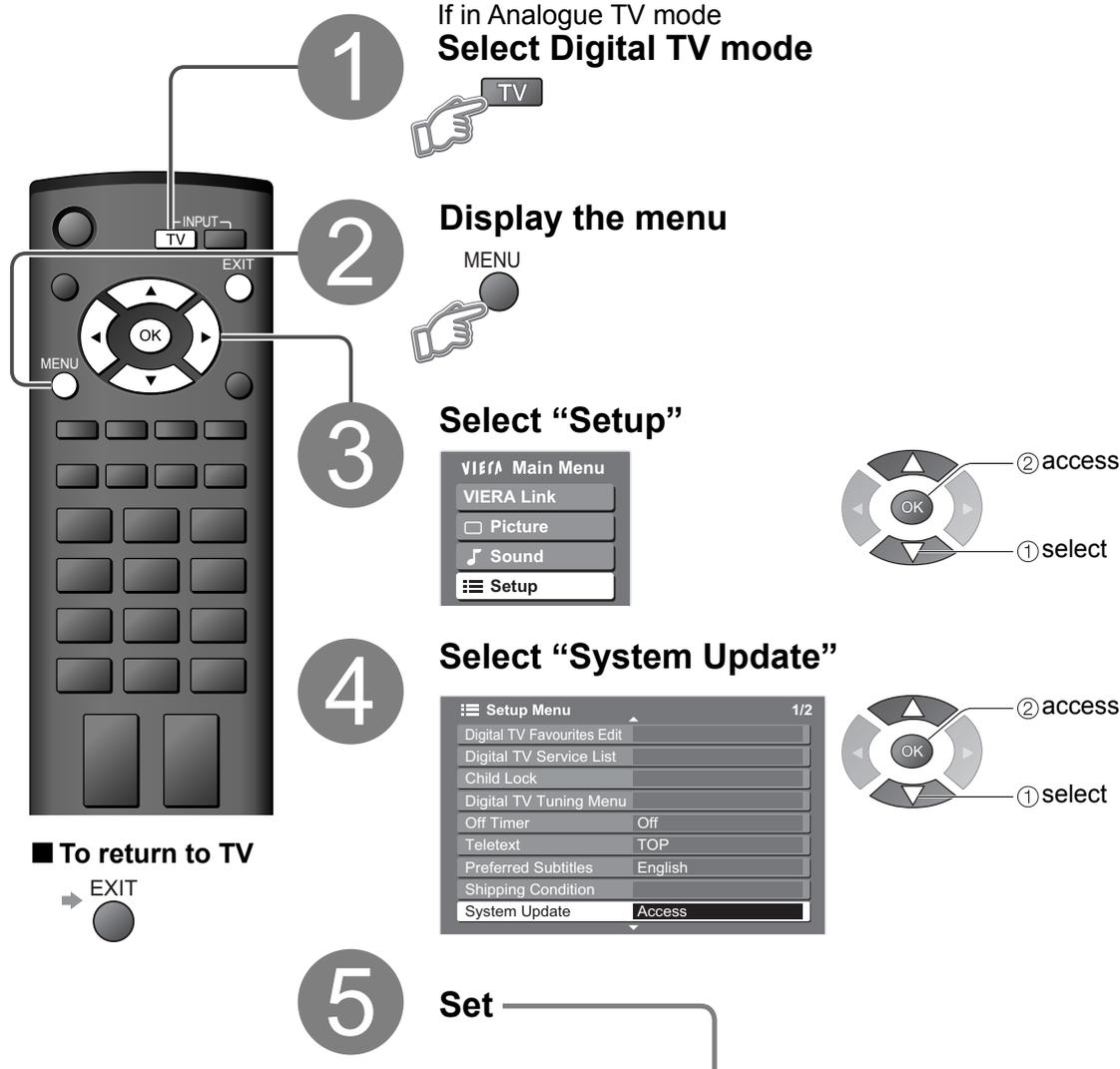


A good Signal Strength is not an indication of suitable signal for Digital TV reception. Please use the Signal Quality indicator as follows:

- Signal Quality:**
- Green bar → Good
  - Yellow bar → Poor
  - Red bar → Bad (Check the aerial)

# Digital TV Settings (Digital TV mode)

Digital TV Settings provide access to various advanced features.



■ To return to TV



## Update TV's software system

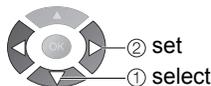
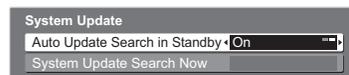
### System Update

Download new software to TV.

- For details → p. 44

**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.**

Select "Auto Update Search in Standby" and then set "On" or "Off"



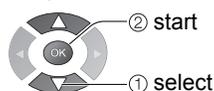
- On: Automatically performs a search in standby and downloads an update, if any software updates are available

#### Note

- When the TV is switched to standby, there will be a clicking sound after a short delay. Similar clicking sounds will also occur at 3:00 AM and 5:00 AM (p. 44) when "Auto update Search in Standby" is set to "On". These sounds are normal.

■ To update immediately

Select "System Update Search Now"



Searches for an update (for several mins.) and displays a corresponding message if any

Download

- Download may take for about 20 mins.

#### Note

- During downloading, the TV will display a blank screen for 40 to 50 seconds. Do not interrupt the TV during this procedure.

# Control Programme Audience

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

**1 Display the menu**  
MENU

**2 Select "Setup"**  
Main Menu  
VIERA Link  
Picture  
Sound  
Setup

**3 Select "Child Lock"**  
Setup Menu 1/2  
Digital TV Favourites Edit  
Digital TV Service List  
Child Lock Access  
Digital TV Tuning Menu  
Off Timer Off  
Teletext  
Preferred Subtitles  
Shipping Condition  
System Update

**4 Set**

EXIT

Control Programme Audience  
Digital TV Settings (Digital TV mode)

Advanced

**Control programme audience**

**Child Lock**

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

Child Lock-PIN Entry  
Please enter new PIN  
PIN

1 2 3  
4 5 6  
7 8 9  
0

- Enter the PIN number twice at first setting.
- Make a note of the PIN number in case you forget it.

**2 Select "Child Lock List"**

Child Lock  
Change PIN  
Child Lock List Access

2 access  
1 select

**3 Select the programme / input to be locked**

Child Lock List - Services and AV

Name	Type	Lock
1 BBC	Digital TV	
7 THREE	Digital TV	
14 E4	Digital TV	
70 CBBC	Digital TV	
72 Mink	Digital TV	
80 BBC1	Digital TV	
AV1	AV	
AV2	AV	

2 set  
1 select

Appears when the programme / input is locked

- To cancel  
Select the locked programme / input  
OK
- To lock all → Y
- To cancel all locks → B

**To change the PIN number**  
Select "Change PIN" in 2 and enter a new PIN number twice.

**Note**

- Setting "Shipping Condition" (p. 32) erases the PIN number and all settings.

# Restore Settings

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

**1 Display the menu**

MENU

**2 Select "Setup"**

VIERA Main Menu
VIERA Link
Picture
Sound
Setup

② access  
① select

**3 Select "Shipping Condition"**

Setup Menu	1/2
Digital TV Favourites Edit	
Digital TV Service List	
Child Lock	
Digital TV Tuning Menu	
Off Timer	Off
Teletext	TOP
Preferred Subtitles	English
Shipping Condition	Access
System Update	

② access  
① select

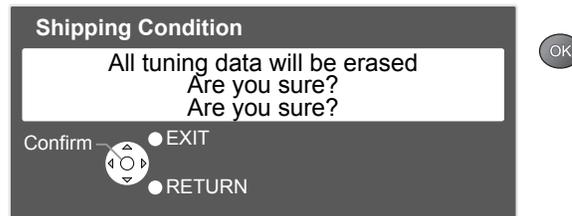
**4 Set**

■ To return to TV  
EXIT

## Restore Settings

### Shipping Condition

① Check the message and initialize



② Follow the on-screen instructions

- "Auto Tuning" will automatically start when Mains power On / Off switch is next turned On. (p. 10)

■ To retune TV programmes only, e.g. after moving house

- ➔ "Digital TV Auto Tuning" or "Analogue TV Auto Tuning" (p. 29)

# 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. 20

**1 Display the menu**  
 MENU

**2 Select "Setup"**  
 VIERA Main Menu  
 VIERA Link  
 Picture  
 Sound  
 Setup

**3 Select "Input Labels"**  
 Setup Menu 2/2  
 Picture Overscan On  
 Input Labels Access  
 Banner Display Timeout 3 seconds  
 VIERA Link Settings  
 Software Licence  
 System Information

**4 Select a input terminal and set**  
 Input Labels  
 AV1 DVD  
 AV2 AV2  
 AV3 AV3  
 AV4 AV4  
 PC PC  
 HDMI1 HDMI1  
 HDMI2 HDMI2  
 HDMI3 HDMI3

● To return to TV  
 EXIT

The labels you set will be displayed in "Input Selection" menu (p. 20) or banner.  
 ● If "Skip" is selected, you cannot select the mode.

**■ User input**  
 You can name each input terminals freely.

Select "User input" → Set characters → Store

① select ② access → ① select ② set → RETURN

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

(maximum: ten characters)

● Input Labels  
 ● Restore Settings

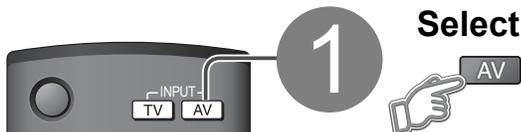
Advanced

# Displaying PC Screen on TV

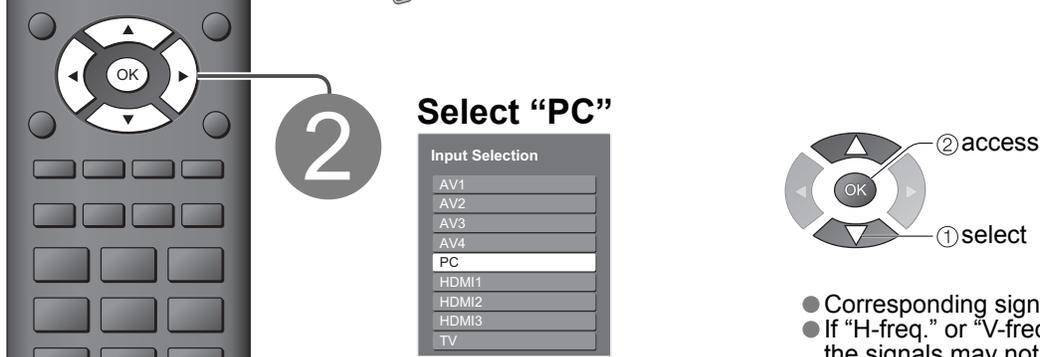
The screen of the PC connected to the TV can be displayed on the TV. You can also listen to PC sound with the audio cable connected.

- To connect PC → p. 42

**1 Select the external input**



**2 Select "PC"**



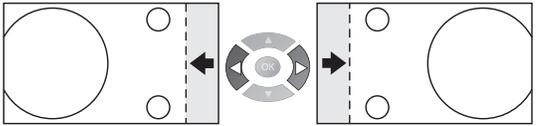
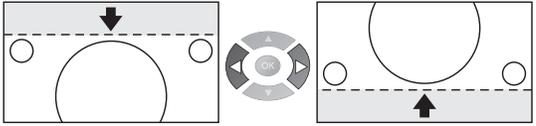
● Corresponding signals (p. 46)  
 ● If "H-freq." or "V-freq." is shown in red, the signals may not be supported.  
 ● PC Audio input is via AV2 Audio connection. (p. 42)

■ **To return to TV**



■ **PC menu setting** (changed as desired)

- To make settings → "How to Use Menu Functions" ① to ④ (p. 22)

Menu	Item	Adjustments / Configurations (options)	
Picture	Advanced PC Settings	R-Gain	Adjusts the white balance for red areas
		G-Gain	Adjusts the white balance for green areas
		B-Gain	Adjusts the white balance for blue areas
		Gamma	(2.0 / 2.2 / 2.5)
		Reset PC Settings	Press the OK button to reset to the default Picture settings
Setup	PC Setup	Input Resolution	Switches to a wide view ● VGA (640 × 480 pixels), WVGA (852 × 480 pixels), XGA (1,024 × 768 pixels), WXGA (1,366 × 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 ( <b>H &amp; V / SOG</b> ) ● H & V : Horizontal and Vertical sync from your PC (Most common sync format) SOG : Sync on Green sync from your PC
		Reset PC Settings	Press the OK button to reset to the default Setup settings

- Other items → p. 24 and p. 25

# HDMI Functions

HDMI (high-definition multimedia interface) 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 set top box, a DVD player or a game equipment, can be connected to the HDMI terminal using an HDMI compliant (fully wired) cable. About connections, see “External Equipment” (p. 42).

## Note

- HDMI is the world’s first complete digital consumer AV interface complying with a non-compression standard.
- Audio settings can be made on the “HDMI1 / 3 Input” menu screen. (p. 24)
- Applicable audio signal sampling frequencies (2ch L.PCM): 48 kHz, 44.1 kHz, 32 kHz
- HDMI2 terminal is for digital audio signal only.
- Use with a PC is not guaranteed. Only HDMI video formats in page 46 HDMI table are applicable.
- 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”, “S-VIDEO”, or “VIDEO” to receive analogue signals.
- The HDMI input terminal can be used with only the following image signals:  
480i, 480p, 576i, 576p, 720p, 1080i and 1080p. Match the output setting of the digital equipment.
- For details of the applicable HDMI signals, see p. 46.

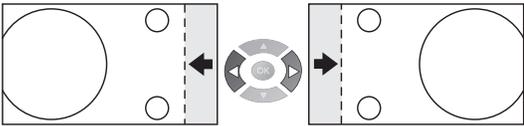
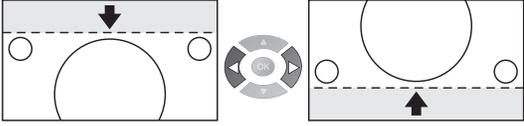
## DVI connection

- If the external equipment has only a DVI output, connect to the HDMI1 / 3 terminal via a DVI to HDMI adapter cable (\*2).
- When the DVI to HDMI adapter cable is used, connect the audio cable to the audio input terminal (HDMI1: use AV2 IN AUDIO terminals / HDMI3: use AV4 IN AUDIO terminals).

## DVI Position Settings

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

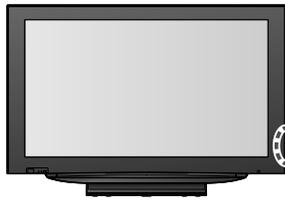
- To make settings → “How to Use Menu Functions” ① to ④ (p. 22)

Menu	Item	Adjustments
Setup	DVI Position Settings	H-pos Adjusts horizontal position 
		V-pos Adjusts vertical position 
	Reset DVI Position Settings Press the OK button to reset to the default Setup settings	

- (\*1): The HDMI logo is displayed on HDMI-compliant equipment.
- (\*2): Enquire at your local digital equipment retailer shop.

# Viewing from SD Card

Still images recorded by digital cameras will be displayed.



1

## Insert the SD Card



2

## Enter SD mode (Photo View Mode)



- All photos in SD Card are displayed by thumbnail.

3

## Select the photo to be viewed

Selected photo

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

Photo View Mode  
All pictures  
1/175

Filename p1010001  
Date 23/10/2007  
Pixel 1600 x 1200

Reading  
Select EXIT  
Select RETURN  
View

Slide show Sort by Month Sort by Date

(Thumbnail)

● Slide show  
➔ p. 37

① select  
② view

Selected photo information is displayed

- The maximum number of characters for Filename is 8.
- The photo without record of the date is shown "\*\*\*\*/\*\*\*\*".

### ■ To sort by date or month recorded

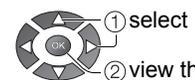
(Sort by Month / Sort by Date)

Display the thumbnail grouped by the same date or the same month

Y (Sort by Month)

B (Sort by Date)

Select the group to be viewed



① select  
② view the thumbnail of the selected group

#### Note

- The group of the photos without record of the date is shown as "Unknown".

### ■ To return to TV



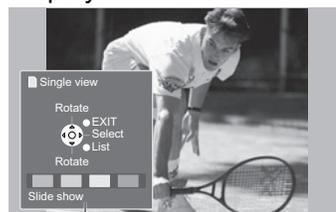
4

## View

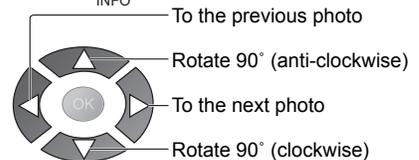
### ■ To display the operation guide



Displayed one at a time



Operation guide



### ● To return to thumbnail



#### Caution

- During the operation, no signals are output from the monitor output terminals.

# (Photos)

● For details on SD Cards → p. 45

**■ To insert**

**■ To remove**

**SD Card**

Label surface      Push until a click is heard      Press the centre of the card

## Slide show

**■ Start Slide show** (operate in step ③ or ④)

- ① Select the photo for the first view      ② Start Slide show

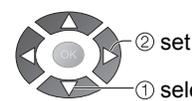
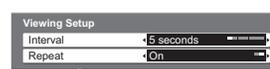
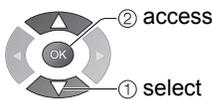


**Note**

- Slide show is done within the same group if started from the view of the group.

**■ Slide show settings** (operate in step ③ or ④)

- ① Display the menu      ② Select "Viewing Setup"      ③ Select the items and set



● "Picture Menu" (p. 24)

Menu	Item	Adjustments / Configurations (alternatives)
Viewing Setup	Interval	Select slide show interval (5 / 10 / 15 / 30 / 60 / 90 / 120 seconds)
	Repeat	Slide show repeat (Off / On)

## 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.)

## On screen messages

Message	Meaning / Action
Cannot read file	<ul style="list-style-type: none"> <li>● The file is broken or unreadable.</li> <li>● The TV does not support the format. (For the applicable formats and data, see p. 45.)</li> </ul>
Is SD Card in?	<ul style="list-style-type: none"> <li>● Insert a SD Card.</li> </ul>
No valid file to play	<ul style="list-style-type: none"> <li>● The card has no data.</li> </ul>
Over 9999 pictures found	<ul style="list-style-type: none"> <li>● Maximum valid number of photos is 9,999.</li> </ul>

# VIERA Link “HDAVI Control™”\*

\*Enjoy additional HDMI Inter-Operability with Panasonic products which have “HDAVI Control” function. This TV supports “HDAVI Control 3” function.

Connections to the equipment (DIGA Recorder, HD Video Camera, Player theatre, Amplifier, etc.) with HDMI cable 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.

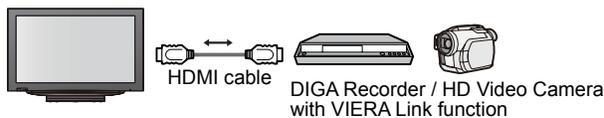
Please refer to individual manuals for other manufacturers’ equipment supporting VIERA Link function. About applicable Panasonic equipment, consult your local Panasonic dealer.

## ■ Summary of VIERA Link functions

● Easy playback	● Power on link	● Power off link	● Speaker control
● Control the menu of the connected equipment by VIERA remote control (Available with the equipment which has “HDAVI Control 2” or “HDAVI Control 3” function.)			
● Pause Live TV programme (Available with the equipment which has “HDAVI Control 3” function.)		● Direct TV Recording	

## ■ Connections

Read the manual of the equipment, too.

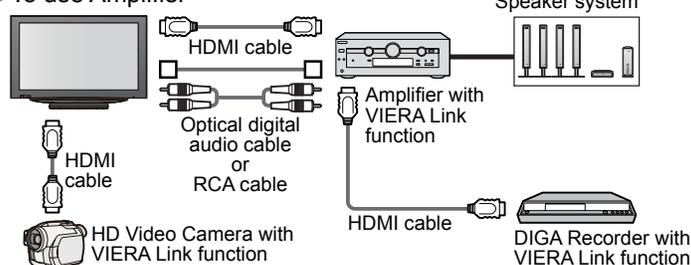


- HDMI cable  
Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized. Recommended Panasonic’s HDMI cable part number:  
  - RP-CDHG10 (1.0 m)
  - RP-CDHG30 (3.0 m)
  - RP-CDHG15 (1.5 m)
  - RP-CDHG50 (5.0 m)
  - RP-CDHG20 (2.0 m)

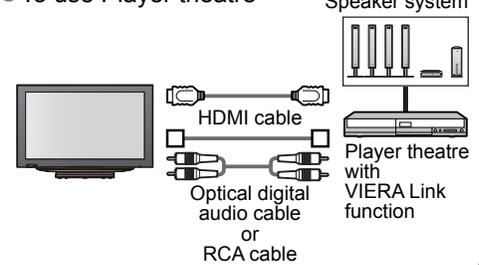
- Connect the equipment supporting VIERA Link to the TV’s HDMI1, HDMI2 or HDMI3 terminals via fully wired HDMI cables.

### For Speaker control (Home Cinema)

- To use Amplifier



- To use Player theatre



## ■ 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. 22-23, 25)
- Set up the TV → **After connection, turn the equipment on and then switch the TV on. Select the input mode to HDMI1, HDMI2 or HDMI3 (p. 20), 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

### Easy playback

Automatic Input switching - When the connected equipment is operated, input mode is switched automatically. When it is stopped operating, input mode is not returned.

### Power on link

#### Set Power on Link “Set” in Setup Menu to use this function

→ “Power on Link” (p. 22-23, 25)

When the connected equipment starts playback or direct navigator / function menu for the equipment are activated, the TV is automatically turned on. (Only when TV is in Standby mode.)

### Power off link

#### Set Power off Link “Set” in Setup Menu to use this function

→ “Power off Link” (p. 22-23, 25)

When 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.

■ Features available (Using VIERA Link Menu)

You can pause the live TV programme and resume later.

- This function is available with DIGA Recorder which has HDD and “HDAVI Control 3” function.
- If you cannot operate, check the settings and the equipment → “Preparations” (p. 38)
- Available conditions:
  - when watching TV programme
  - when watching the input from DIGA Recorder

**Access and pause the live TV programme**

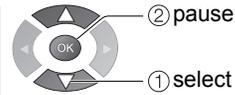
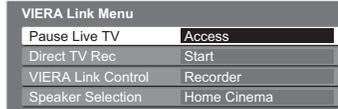
Pause Live TV programme  
(HDAVI Control 3 and Recorder with HDD)  
**Pause Live TV**



① Display “VIERA Link Menu”



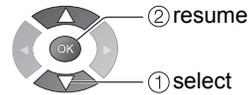
② Select “Pause Live TV” and pause



- Live TV programme is recorded on HDD from where it was paused.

■ **To resume (stop pause)**  
Select “Pause Live TV” and access

- About the operations after resuming, read the manual of the equipment.



■ **To return to Live TV**  
(cancel pause or resumed playback)  
→ TV (change the input mode)

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

Recording the current programme in DIGA Recorder immediately.

- This function is available with DIGA Recorder which has “HDAVI Control 3” function.
- If you cannot operate, check the settings and the equipment → “Preparations” (p. 38)
- Available conditions:
  - when watching TV programme
- The recording is performed by using the tuner of DIGA Recorder.  
Changing programme, input mode or turning off the TV is available during the recording.

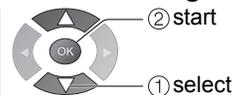
Direct TV Recording -  
What you see is What you record  
(HDAVI Control 3)  
**Direct TV Rec**



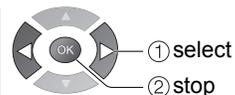
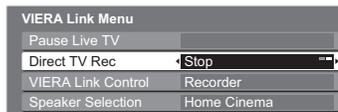
① Display “VIERA Link Menu”



② Select “Direct TV Rec” and start recording



■ **To stop recording**  
Select “Stop” in “Direct TV Rec” and access



# VIERA Link "HDAVI Control™"

## ■ Features available (Using VIERA Link Menu)

You can control some functions of the connected equipment with this TV remote control (point the remote control at the TV's signal receiver).

- This function is available with the equipment which has "HDAVI Control 2" or "HDAVI Control 3" function.
- If you cannot operate, check the settings and the equipment → "Preparations" (p. 38)

### Access and operate the menu of the equipment

Control the menu of the connected equipment by VIERA remote control

(HDAVI Control 2)  
(HDAVI Control 3)

**VIERA Link Control**



① Display "VIERA Link Menu"

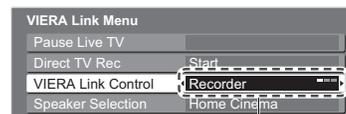


② Select "VIERA Link Control"



③ Select the equipment you want to access

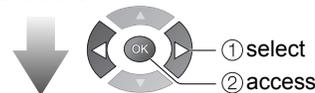
- "Home Cinema" means Player theatre, Recorder theatre and Amplifier.



**Recorder / Player / Home Cinema / Video Camera**

The type of the connected equipment is displayed.

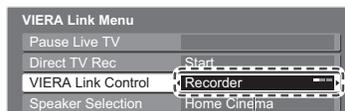
Select the type of the equipment and access.



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

### ■ If you access the invalid equipment

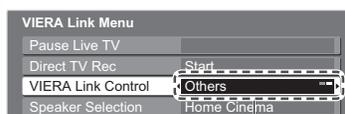
**When the equipment with "HDAVI Control" function is connected**



**Recorder / Player / Home Cinema / Video Camera**

The type of the connected equipment is displayed. But you cannot access it. Use its own remote control to operate the equipment.

**When the equipment of other types or manufacturers is connected**



**Others**

"Others" is displayed. You cannot access it. Use its own remote control to operate the equipment.

④ Operate the menu of the equipment

- Available VIERA remote control buttons (depending on the connected equipment):

	Move the cursor / select the menu
	Move the cursor / access / adjust
	Store / set / access
	Return to the previous menu
	Exit the menu
	Display the operation guide for the equipment / The same functions with the OPTION button of the equipment
	Access when the key words are displayed on colour bar

- About the operations for the equipment, read the manual of the equipment.

## ■ Features available (Using VIERA Link Menu)

You can control the theatre speaker with this TV remote control (point the remote control at the TV's signal receiver).

- This function is available with the Amplifier or Player theatre which has "HDAVI Control" function.
- If you cannot operate, check the settings and the equipment → "Preparations" (p. 38)

### Access and control the speaker volume

## Speaker control

### Speaker Selection



#### ① Display "VIERA Link Menu"



#### ② Select "Speaker Selection"



select

#### ③ Set to "Home Cinema" or "TV"



set

#### ■ Home Cinema

Amplifier or Player theatre 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 →  MUTE
- The sound of TV speakers is mute.
- When the equipment is turned off, TV speakers will be active.

#### ■ TV

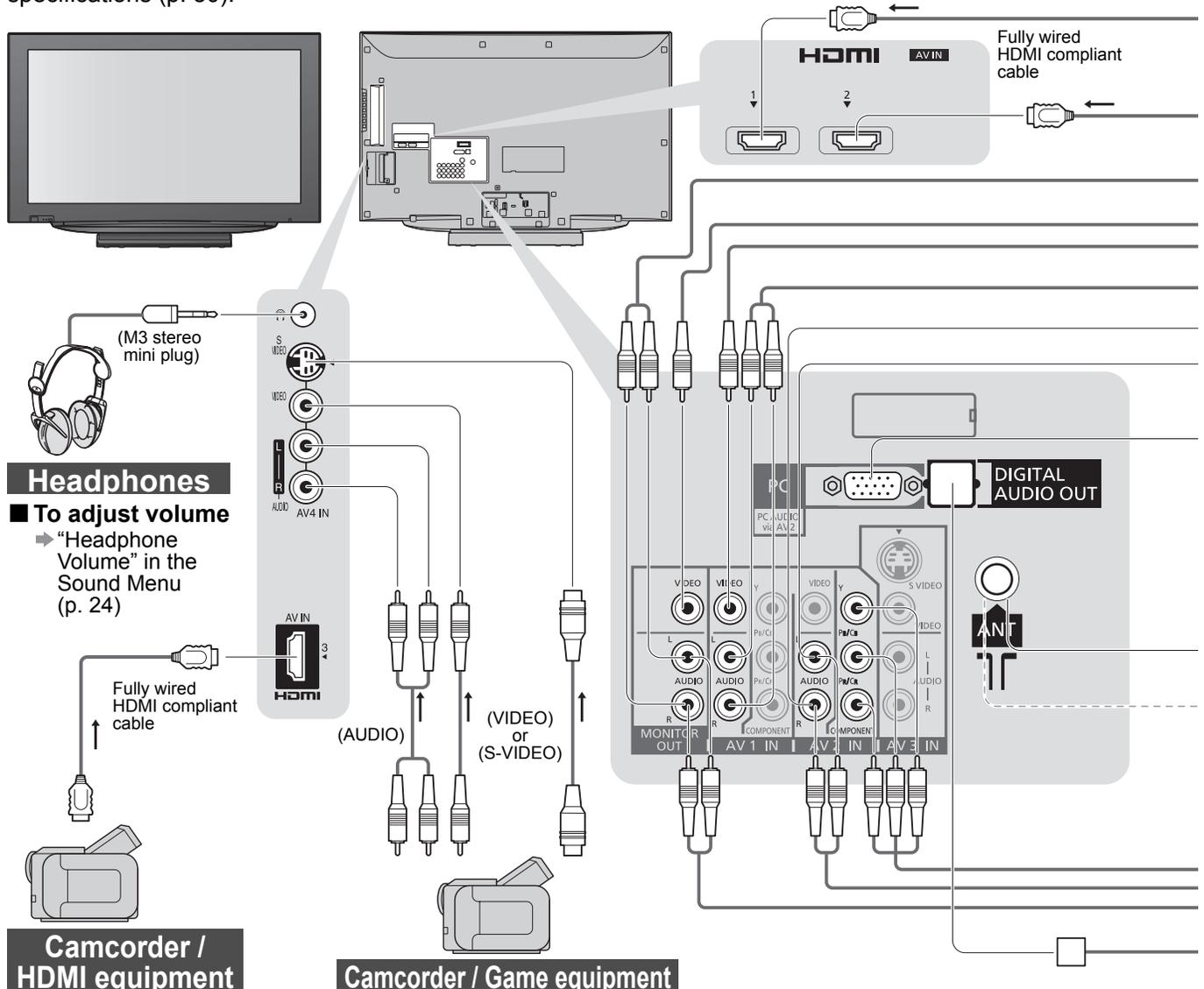
TV speakers are active.

### Note

- This function may not work properly depending on the connected equipment.
- Image or sound may not be available for the first few seconds when the playback starts.
- Image or sound may not be available for the first few seconds when Input mode is switched.
- Volume function will be displayed when adjusting the volume of the equipment.
- Easy playback is also available by using the remote control for Amplifier or Player theatre. Read the manual of the equipment.
- About HDMI cable for connecting Panasonic HD Video Camera, read the manual of the equipment.
- If more than one equipment of the same type are connected to the TV by HDMI cables, for example two DIGA Recorders to HDMI1 and HDMI2, VIERA Link will only be available for the lower terminal number, in this case HDMI1.
- "HDAVI Control 3" is the newest standard (current as of December, 2007) 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. 25)

# 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. 50).



**Headphones**  
 ■ To adjust volume  
 ➔ "Headphone Volume" in the Sound Menu (p. 24)

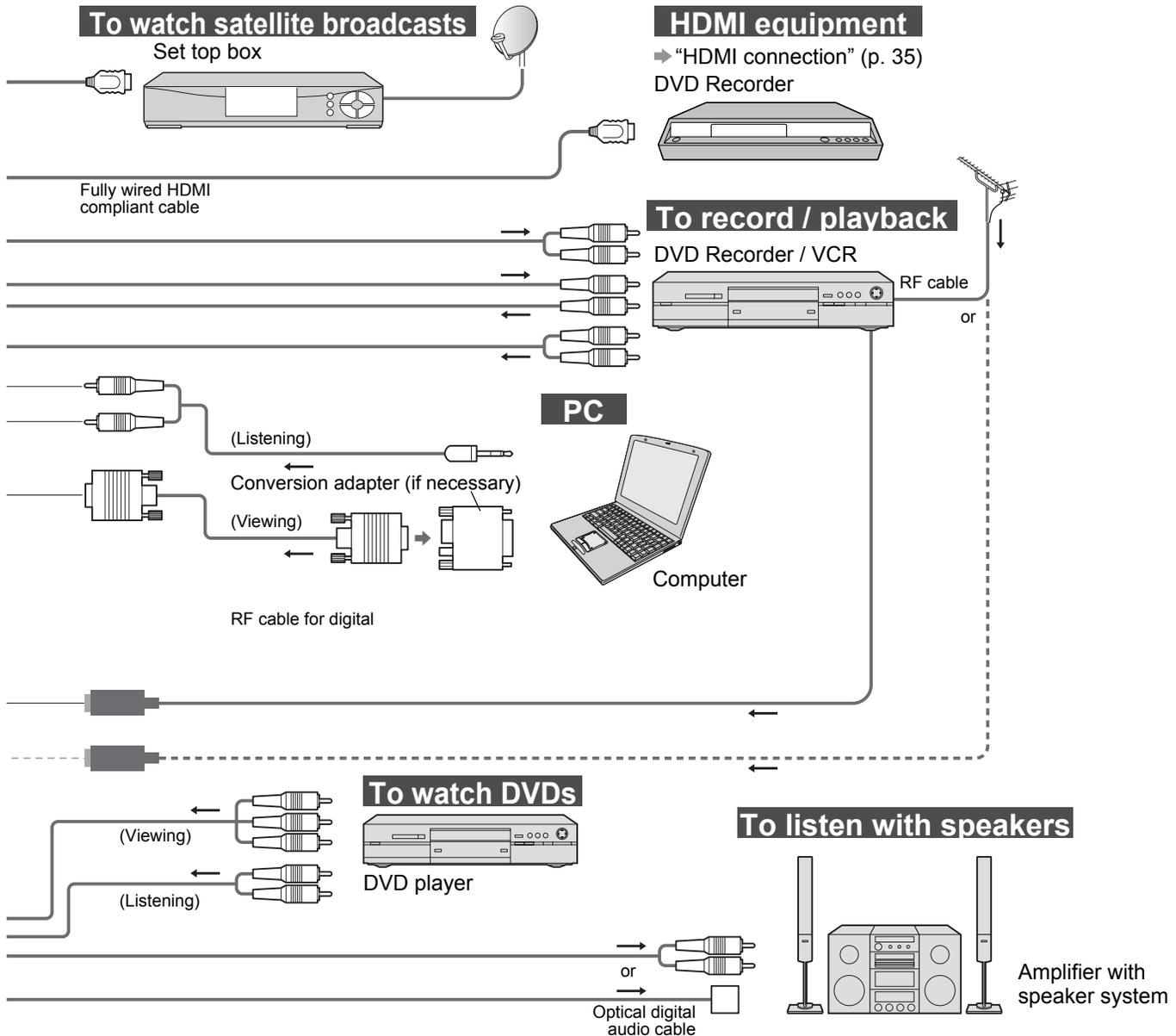
**Camcorder / HDMI equipment**

**Camcorder / Game equipment**

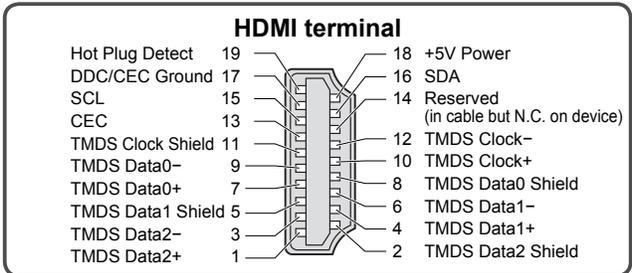
## Types of connectable equipment to each terminal

Terminal	AV1 IN	AV2 IN	AV3 IN	AV4 IN (Side of TV)
Recording / Playback (equipment)				
To record / playback videocassettes / DVDs (VCR / DVD recorder)	○	○	○	○
To watch DVDs (DVD player)	○	○	○	○
To watch camcorder images (Video camera)	○	○	○	○
To watch satellite broadcasts (Set top box)	○	○	○	○
To play games (Game equipment)	○	○	○	○
To use amplifier with speaker system				
VIERA Link				

○: Recommended Connection



MONITOR OUT 	DIGITAL AUDIO OUT 	HDMI 		
		1	2	3
<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



- Connect the S VIDEO or VIDEO terminal when using AV3 / AV4 IN terminals.
- Connect the COMPONENT or VIDEO terminal when using AV1 / AV2 IN terminals.

# Technical Information

## Programme Allocation (Analogue TV mode)

CH Display / Receive Programme	CH Display / Receive Programme
CH 1 ~ CH 11	CH 74 ~ CH 78
CH 21 ~ CH 70	CH 80 ~ CH 120

## Rating (Digital TV mode)

Rating	Meaning
-	Not classified
G	General Programmes
PGR	Parental Guidance Recommended
AO	Adults Only

## Updating the software system (Digital TV mode)

Update system software to ensure that you have latest version software.

If there is an update available, a notification banner is displayed when the service has the update information.

- To download new software, press "OK" → Downloading (approx. 20 mins.)  
If you choose not to download, press "EXIT".

### ■ To update automatically

Set "Auto Update Search in Standby" to "On" (p. 30)

If there is a new version software being broadcast, the TV will download this automatically.

- The automatic updating sequence is carried out at 3:00 AM and 5:00 AM every morning under the following condition.  
Standby (TV turned Off with the remote control)  
Recording is not in progress.

### ■ To update manually

Perform "System Update Search Now" (p. 30)

If there is an update available, a notification banner is displayed.

- To download new software, press "OK" → Downloading (approx. 20 mins.)  
If you choose not to download, press "EXIT".

### Note

- During downloading, do not turn Off the TV or touch any buttons.  
(The TV is automatically activated after downloading is completed.)
- When the TV is switched to standby, there will be a clicking sound after a short delay. Similar clicking sounds will also occur at 3:00 AM and 5:00 AM when "Auto update Search in Standby" (p. 30) is set to "On". These sounds are normal.

## Data format for Card 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)

Max. number of files : 9,999

Image resolution : 160 × 120 to 10,000,000

● Compliant card type (maximum capacity): SDHC Card (32 GB), SD Card (2 GB), Multi Media Card (128 MB), miniSD Card (2 GB) (requiring miniSD adapter)

● If miniSD Card is used, insert / remove it together with the adapter.

● Check the latest information on the card type at the following website. (English only)

<http://panasonic.co.jp/pavc/global/cs/>

\*DCF (Design rule for camera file system): Unified standard established by Japan Electronics and Information Technology Industries Association (JEITA).

### Note

- A JPEG image 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.
- Only “.JPG” extension can be read by this TV.
- The folder and file names may be different depending on the digital camera used.
- Do not use two-byte characters or other special codes.
- The card may become unusable with this TV if the file or folder names are changed.

## Stereo / Bilingual Sound Selection (Analogue TV mode)

When you receive the stereo / bilingual sound system, sound output modes can be selected by “MPX” in the Sound Menu (p. 24).

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

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

Type of broadcast	Regular broadcast (Standard Audio)	Regular + NICAM MONO I (MAIN I)	NICAM STEREO	NICAM DUAL MONO (MAIN I / SUB II)
Mode Indicator	No Indicator ↔ ▽	I ↔ ▽	⊙ ↔ ▽	I → II └─ ▽ ─┘

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

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

### Note

- 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.
- DUAL, also known as DUAL MONO or as BILINGUAL is not currently transmitted in some countries.

# Technical Information

## PC connection

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

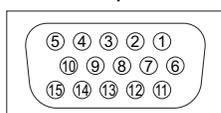
- PC signals that can be inputted: Horizontal scanning frequency 31 to 69 kHz; vertical scanning frequency 59 to 86 Hz (more than 1,024 signal lines could result in incorrect display of the image).
- A PC adapter is not necessary for the DOS/V-compliant D-sub 15-pin connector.

### 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 below.
- Max. display resolution

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

- D-sub 15-pin connector signal



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

## Input signal that can be displayed

### COMPONENT (Y, P<sub>B</sub>/C<sub>B</sub>, P<sub>R</sub>/C<sub>R</sub>), HDMI

\* Mark: Applicable input signal

Signal name	COMPONENT	HDMI
480i (60 Hz)	*	*
480p (60 Hz)	*	*
576i (50 Hz)	*	*
576p (50 Hz)	*	*
720p (60 Hz)	*	*
720p (50 Hz)	*	*
1,080i (60 Hz)	*	*
1,080i (50 Hz)	*	*
1,080p (60 Hz)	*	*
1,080p (50 Hz)	*	*
1,080p (24 Hz)	*	*

### PC (D-sub 15P)

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

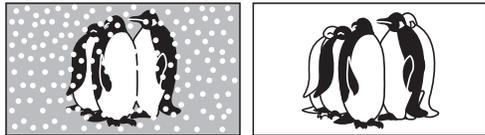
### Note

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

# 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)



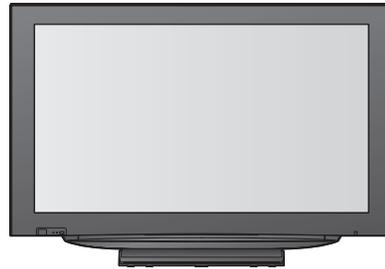
- Check the position, direction, and connection of the aerial.

## 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.

## An error message appears

- Follow the message's instructions.
- If the problem persists, contact the authorized Service Centre.



## The LCD panel moves slightly when it is pushed with a finger Clattered sound might be heard

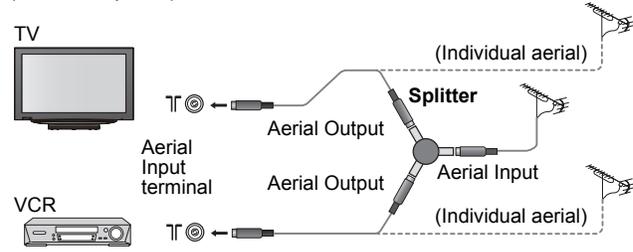
- There are some looseness around the panel to prevent the damage to the panel. The panel might move slightly when it is pushed with a finger, and clattered sound might be heard. This is not a malfunction.

## There may be red spots, blue spots, green spots and black spots on the screen

- This is a characteristic of liquid crystal panels and is not a problem. The liquid crystal panel is built with very high precision technology giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of red, green, blue or black. Please note this does not affect the performance of your LCD.

	Problem	Actions
Screen	Chaotic image, noisy	<ul style="list-style-type: none"> <li>● Set "P-NR" in the Picture Menu (to remove noise). (p. 24)</li> <li>● Check nearby electrical products (car, motorcycle, fluorescent lamp).</li> </ul>
	No image can be displayed	<ul style="list-style-type: none"> <li>● Is "Colour" or "Contrast" in the Picture Menu set to the minimum? (p. 24)</li> </ul>
	Blurry or distorted image (no sound or low volume)	<ul style="list-style-type: none"> <li>● Reset programme. (p. 29)</li> </ul>
	Unusual image is displayed	<ul style="list-style-type: none"> <li>● Turn off the TV with Mains power On / Off switch, then turn it on again.</li> </ul>
	"Shop" appears on screen at switch on	<ul style="list-style-type: none"> <li>● "Shop" was selected in "Auto Tuning" (p. 10). Reset settings in "Shipping Condition" (p. 32), then select "Home" in "Auto Tuning" (p. 10).</li> </ul>
Sound	No sound is produced	<ul style="list-style-type: none"> <li>● Is "Sound mute" active? (p. 9)</li> <li>● Is the volume set to the minimum?</li> </ul>
	Sound level is low or sound is distorted	<ul style="list-style-type: none"> <li>● Sound signal reception may be deteriorated.</li> <li>● Set "MPX" (p. 24) in the Sound Menu to "Mono".</li> </ul>

# FAQs

	Problem	Actions
HDMI	Sound is unusual	<ul style="list-style-type: none"> <li>● Set the sound setting of the connected equipment to "2ch L.PCM".</li> <li>● Check the "HDMI1 / 3 Input" setting in the Sound Menu. (p. 24)</li> <li>● If digital sound connection has a problem, select analogue sound connection. (p. 35)</li> </ul>
	Pictures from external equipment are unusual when the equipment is connected via HDMI	<ul style="list-style-type: none"> <li>● Is the HDMI cable connected properly? (p. 42)</li> <li>● Turn Off the TV and equipment, then turn them On again.</li> <li>● Check an input signal from the equipment. (p. 46)</li> <li>● Use an equipment compliant with EIA/CEA-861/861B.</li> </ul>
Digital TV	<ul style="list-style-type: none"> <li>● Due to the digital reception technologies involved, quality of the Digital TV signals may be relatively low in some cases, despite good reception of Analogue TV programmes.</li> </ul>	
	Unable to receive signals with a high-performance aerial	<ul style="list-style-type: none"> <li>● Install an aerial individually for the TV and VCR (or use a splitter).</li> </ul> 
Other	Interference or frozen / disappearing image in Digital TV	<ul style="list-style-type: none"> <li>● Check "Digital TV Signal Condition". (p. 29)</li> <li>● If "Signal Quality" or "Signal Strength" are displayed in red, check aerial.</li> <li>● If problem persists, consult your local Panasonic dealer.</li> <li>● Turn the TV off with the Mains power On / Off switch, then turn it On again.</li> </ul>
	TV goes into "Standby mode"	<ul style="list-style-type: none"> <li>● Off Timer function is activated.</li> <li>● The TV enters "Standby mode" about 30 mins. after analogue broadcasting ends.</li> </ul>
	The remote control does not work	<ul style="list-style-type: none"> <li>● Are the batteries installed correctly? (p. 8)</li> <li>● Has the TV been switched On?</li> </ul>

# Maintenance

First, remove the mains plug from the socket outlet.

## Display panel

Regular care: Gently wipe the surface clean of dirt by using a soft cloth.

Major contamination: Wipe the surface clean using a soft cloth dampened with clean water or diluted neutral detergent by 100 times of water. Then, using a soft dry cloth, evenly wipe the surface clean until it is dry.

### Caution

- The surface of the display panel has been specially treated and may be easily damaged. Do not tap or scratch the surface with your fingernail or other hard object.
- Use care not to subject the surface to bug repellent, solvent, thinner, or other volatile substances (this may degrade surface quality).

## Cabinet

Regular care: Wipe the surface clean using a soft dry cloth.

Major contamination: Dampen a soft cloth with clean water or water containing a small amount of neutral detergent. Then, wring the cloth and wipe the surface clean with it. Finally, wipe the surface clean with a dry cloth.

### Caution

- Use care not to subject the TV's surfaces to detergent. (A liquid inside the TV could lead to product failure.)
- Use care not to subject surfaces to bug repellent, solvent, thinner, or other volatile substances (this may deteriorate the surface by peeling the paint).
- Do not allow the cabinet to make contact with a rubber or PVC substance for a long time.

## Mains plug

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

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- Macintosh is a registered trademark of Apple Inc., USA.
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- HDAVI Control™ is a trademark of Panasonic Corporation.
- Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

# Specifications

<b>Power Source</b>		AC 220 V, 50 / 60 Hz	
<b>Power Consumption</b>	<b>Average use</b>	180 W	
	<b>Standby condition</b>	0.3 W	
<b>Display panel</b>	<b>Aspect Ratio</b>	16:9	
	<b>Visible screen size</b>	94 cm (diagonal) 819 mm (W) × 460 mm (H)	
	<b>Number of pixels</b>	2,073,600 (1,920 (W) × 1,080 (H))	
<b>Sound</b>	<b>Speaker</b>	120 mm × 60 mm × 2 pcs	
	<b>Audio Output</b>	20 W (10 W + 10 W), 10 % THD	
	<b>Headphones</b>	M3 (3.5 mm) stereo mini Jack × 1	
<b>PC signals</b>		VGA, SVGA, XGA, SXGA Horizontal scanning frequency 31 - 69 kHz Vertical scanning frequency 59 - 86 Hz	
<b>Receiving Systems / Band name</b>		<b>PAL B/G</b> Reception of Off air broadcasts <b>Digital TV</b> 8MHz UHF (New Zealand) free-to-air TV broadcast reception <b>PAL 60 Hz</b> Playback of NTSC tape from some PAL Video recorders (VCR) <b>M.NTSC</b> Playback from M. NTSC Video recorders (VCR) <b>NTSC</b> Playback from NTSC Video recorders (VCR)	
<b>Aerial - Rear</b>		VHF / UHF	
<b>Operating Conditions</b>		<b>Temperature</b> : 0 °C - 40 °C <b>Humidity</b> : 20 % - 80 % RH (non-condensing)	
<b>Connection Terminals</b>	<b>AV1 Input</b>	<b>AUDIO L - R</b>	RCA PIN Type × 2 0.5 V[rms]
		<b>VIDEO</b>	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)
		<b>COMPONENT</b>	Y P <sub>B</sub> /C <sub>B</sub> , P <sub>R</sub> /C <sub>R</sub> 1.0 V[p-p] (including synchronization) ±0.35 V[p-p]
	<b>AV2 Input</b>	<b>AUDIO L - R</b>	RCA PIN Type × 2 0.5 V[rms]
		<b>VIDEO</b>	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)
		<b>COMPONENT</b>	Y P <sub>B</sub> /C <sub>B</sub> , P <sub>R</sub> /C <sub>R</sub> 1.0 V[p-p] (including synchronization) ±0.35 V[p-p]
	<b>AV3 Input</b>	<b>AUDIO L - R</b>	RCA PIN Type × 2 0.5 V[rms]
		<b>VIDEO</b>	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)
		<b>S VIDEO</b>	Mini DIN 4-pin Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)
		<b>S VIDEO</b>	Mini DIN 4-pin Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)
	<b>AV4 Input</b>	<b>AUDIO L - R</b>	RCA PIN Type × 2 0.5 V[rms]
		<b>VIDEO</b>	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)
		<b>S VIDEO</b>	Mini DIN 4-pin Y:1.0 V[p-p] (75 Ω) C:0.286 V[p-p] (75 Ω)
	<b>Monitor Output</b>	<b>AUDIO L - R</b>	RCA PIN Type × 2 0.5 V[rms] (high impedance)
		<b>VIDEO</b>	RCA PIN Type × 1 1.0 V[p-p] (75 Ω)
<b>Others</b>	<b>HDMI 1 / 2 / 3 Input</b>	TYPE A Connectors	● This TV supports "HDAVI Control 3" function.
	<b>PC Input</b>	HIGH-DENSITY D-SUB 15PIN	R, G, B/0.7 V[p-p] (75 Ω) HD, VD/TTL Level 2.0 - 5.0 V[p-p] (high impedance)
	<b>DIGITAL AUDIO OUT</b>	PCM / Dolby Digital, Fiber optic	
	<b>Card slot</b>	SD CARD slot × 1	
<b>Dimensions ( W × H × D )</b>		943 mm × 648 mm × 295 mm (With TV Stand) 943 mm × 606 mm × 108 mm (TV only)	
<b>Mass</b>		22.5 kg Net	

## Note

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

## **WARRANTY - New Zealand only**

WE WARRANT that the Panasonic Television that you have purchased is free from defects in material and workmanship under normal home use and service.

Accordingly, we undertake to repair, or at our option, replace without cost to the owner, either for material or labour, any part which within 12 months from the date of delivery is found to be defective, provided that the appliance has been used for domestic purposes only and in accordance with the instructions given in the Instruction Book and not been subjected to misuse, neglect or installed, dismantled, repaired or serviced by any other than an authorised Panasonic New Zealand Dealer or Panasonic New Zealand Authorised Service Centre.

### NOTE

- Before reporting a fault, please ensure that you read the item "Troubleshooting" in the information section of your Panasonic Instruction Book.
- It is important to retain your proof of purchase as this will be required by the serviceman or retailer as proof of purchase date, should service be required.
- In the event of service being required, contact your Panasonic New Zealand retailer or Panasonic New Zealand Authorised Service Centre.

### IMPORTANT

Any request for warranty service must be through an Authorised Panasonic New Zealand Service Centre who during the period of the warranty, undertakes to make any necessary adjustment and fit any replacement part supplied by the manufacturer, during normal working hours, or alternatively will arrange for such service to be provided by some other Panasonic New Zealand Authorised Service Centre.

## **NEW ZEALAND**

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Customer Care Center

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[www.panasonic.co.nz](http://www.panasonic.co.nz)

### **Customer's Record**

The model number and serial number of this product may be found on its rear panel. You should note this 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 \_\_\_\_\_

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**Panasonic Corporation**

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